

ПРИМЉЕНО: 18.10.2023.		
Орг. Јед.	Број	Прилог
02	2049/1	

**НАУЧНОМ ВЕЋУ  
УНИВЕРЗИТЕТА У БЕОГРАДУ – ИНСТИТУТА  
ЗА МУЛТИДИСЦИПЛИНАРНА ИСТРАЖИВАЊА**

На основу одлуке Научног већа Универзитета у Београду – Института за мултидисциплинарна истраживања, од 21.09.2023. године, одређени смо за чланове Комисије за оцену испуњености услова кандидаткиње **др Јелене Павловић**, научног сарадника, за њен избор у научно звање **виши научни сарадник**. На основу увида у достављену нам документацију, као и директног увида у истраживања кандидаткиње, обавили смо анализу њеног досадашњег научног остварења, те Научном већу подносимо следећи

**ИЗВЕШТАЈ**

**1. БИОГРАФИЈА**

Јелена Павловић рођена је у Београду 09.06.1983. године. Основну школу “Милош Црњански” и гимназију “Свети Сава” завршила је у Београду. Биолошки факултет Универзитета у Београду уписала је 2002. године, а дипломирала је 2010. године на студијској групи Екологија и заштита животне средине, са општим успехом 9,40, чиме је стекла стручни назив дипломирани биолог заштите животне средине. Докторске студије на студијском програму Биологија, модул Физиологија и молекуларна биологија биљака, на Биолошком факултету Универзитета у Београду уписала је 2010. године, а докторску дисертацију под насловом “Физиолошка улога силицијума у превазилажењу недостатка гвожђа код краставца (*Cucumis sativus* L.)“ одбранила је 09.06.2017. године под менторством Мирослава Николића.

У време студија, у току школске 2007/2008. године, учествовала је у експерименталном раду у оквиру групе за екологију животиња у Институту за биолошка истраживања “Синиша Станковић”. У звање истраживач-приправник изабрана је у децембру 2010. године, а од почетка 2011. године запослена је у Институту за мултидисциплинарна истраживања као истраживач-приправник, у оквиру пројекта “Минерални стрес и адаптације биљака на маргиналним пољопривредним земљиштима (ОИ-173028)”, који је финансирало Министарство просвете, науке и технолошког развоја (2011-2019). У звање истраживач-сарадник изабрана је 2013. године, док је у исто звање

реизабрана 2016. године. У звање научни сарадник изабрана је у априлу 2018. године и реизабрана у фебруару 2023. године. Од 2022. године је руководилац радног пакета у оквиру пројекта “*Si4Crop*” програма “Идеје” Фонда за науку Републике Србије.

Јелена Павловић је 2022. године именована за ментора за израду докторске дисертације Тијане Дубљанин на Пољопривредном факултету Универзитета у Београду, а била је члан комисије за оцену и одбрану докторске дисертације Драгане Боснић на Биолошком факултету Универзитета у Београду 2020. године.

Јелена Павловић је члан Уређивачког одбора секције *Plant Nutrition* међународних часописа *Frontiers in Plant Science* и *Frontiers in Nutrition* и рецензент за међународне научне часописе *Plant and Soil*, *Biologia-Springer* и *Food Chemistry*. За потребе Министарства науке, технолошког развоја и иновација, рецензирала је један пројекат билатералне научне и технолошке сарадње између Републике Србије и Републике Словеније. Од 2017. године члан је Међународног друштва за силицијум у пољопривреди (*ISSAG*).

Јелена Павловић поседује напредно знање енглеског језика, а служи се и шпанским (средњи ниво) и француским језиком (основни ниво).

## 2. БИБЛИОГРАФИЈА

### 2.1. Пре избора у звање научни сарадник

*Радови у међународним часописима изузетних вредности (M21a)*

2.1.1. **Pavlovic J**, Samardzic J, Kostic L, Laursen KH, Natic M, Timotijevic G, Schjoerring JK, Nikolic M (2016): Silicon enhances leaf remobilization of iron in cucumber under limited iron conditions. *Annals of Botany* 118: 271-280.

<https://doi.org/10.1093/aob/mcw105>

КоБСОН: 2015, *Plant Sciences* 20/209, ИФ = 3,983

SCOPUS: 41 хетероцитата

2.1.2 Nikolic M, Nikolic N, Kostic L, **Pavlovic J**, Bosnic P, Stevic N, Savic J, Hristov N (2016): The assessment of soil availability and wheat grain status of zinc and iron in Serbia: implications for human nutrition. *Science of the Total Environment* 553: 141-148.

<https://doi.org/10.1016/j.scitotenv.2016.02.102>

КоБСОН: 2016, *Environmental Sciences* 22/229, ИФ = 4,900

SCOPUS: 32 хетероцитата

2.1.3. **Pavlovic J**, Samardzic J, Masimović V, Timotijevic G, Stevic N, Laursen KH, Hansen TH, Husted S, Schjoerring JK, Liang Y, Nikolic M (2013): Silicon alleviates iron deficiency in cucumber by promoting mobilization of iron in the root apoplast. *New Phytologist* 198: 196-1107

<https://doi.org/10.1111/nph.12213>

КоБСОН: 2012, *Plant Sciences* 6/197, ИФ = 6,736

SCOPUS: 148 хетероцитата

*Радови у врхунским међународним часописима (M21)*

2.1.4. Bityutskii N, **Pavlovic J\***, Yakkonen K, Maksimovic V, Nikolic M (2014): Contrasting effect of silicon on iron, zinc and manganese status and accumulation of metal-mobilizing compounds in micronutrient-deficient cucumber. *Plant Physiology and Biochemistry* 74: 205-211. (\*изједначен допринос са првим аутором)

<https://doi.org/10.1016/j.plaphy.2013.11.015>

КоБСОИ: 2015, *Plant Sciences* 41/209, ИФ = 2,928

SCOPUS: 78 хетероцитата

*Радови у истакнутим међународним часописима (M22)*

2.1.5. Stevic N, Korac J, **Pavlovic J**, Nikolic M. (2016): Binding of transition metals to monosilicic acid in aqueous and xylem (*Cucumis sativus* L.) solutions: A low-T electron paramagnetic resonance study. *BioMetals*, 29(5): 945-51.

<https://doi.org/10.1007/s10534-016-9966-9>

КоБСОИ: 2014, *Biochemistry & Molecular Biology* 162/290, ИФ = 2,503

SCOPUS: 9 хетероцитата

*Саопштења на скуповима међународног значаја штампана у изводу (M34)*

2.1.6. **Pavlovic J**, Nikolic M (2016): Silicon enhances nicotianamine-mediated iron transport in cucumber leaves. 18<sup>th</sup> International Symposium on Iron Nutrition and Interaction in Plants, May 30-June 3, 2016, Madrid, Spain, Abstracts, S4-PO-01. (постер)

2.1.7. **Pavlovic J**, Samardzic J, Nikolic M (2014): Interactions between iron and silicon in cucumber. 17th International Symposium on Iron Nutrition and Interaction in Plants, July 6-10, 2014 Gatersleben, Germany, p. 38. (одабрана усмена презентација)

2.1.8. Samardzic J, Pavlovic S, Timotijevic G, **Pavlovic J**, Nikolic M (2014): Effects of Si on the expression of miRNA398 and miRNA408 and its target gene, superoxide dismutase (CuSOD) in Fe deficient cucumber plants. 17th International Symposium on Iron Nutrition and Interaction in Plants, July 6-10, 2014 Gatersleben, Germany, p. 108. (постер)

2.1.9. **Pavlović J**, Samardžić J, Maksimović V, Nikolić M (2013): Silicon mediates iron acquisition by Strategy 1 plants. 1st International Conference on Plant Biology, June 4-7, 2013, Subotica, Serbia, p. 42. (постер)

2.1.10. Nikolić DS, Nikolić DB, Timotijević G, **Pavlović J**, Samardžić J, Nikolić M (2013): Silicon mitigates oxidative stress in cucumber at copper excess. 1st International Conference on Plant Biology, June 4-7, 2013, Subotica, Serbia, p. 130. (постер)

2.1.11. Stević N, **Pavlović J**, Nikolić M (2013): The theoretical prediction of interactions between soluble silicon, iron (III) and carboxylate anions in plant fluids. 1st International Conference on Plant Biology, June 4-7, 2013, Subotica, Serbia, p. 45. (постер)

2.1.12. Bosnić P, Savić J, Kostić Kravljanac Lj, Stević N, **Pavlović J**, Lazić M, Marjanović-Jeromela A, Hristov N, Nikolić N, Nikolić M (2013): Zn concentrations in wheat grains along the gradient of native Zn soil availability in Serbia. 1st International Conference on Plant Biology, June 4-7, 2013, Subotica, Serbia, p. 47. (постер)

2.1.13. **Pavlovic J**, Samardzic J, Ilic P, Maksimovic V, Kostic L, Stevic N, Nikolic N, Liang YC, Nikolic M (2011): Silicon ameliorates iron deficiency chlorosis in strategy I plants: first evidence

and possible mechanism(s). Proceedings of the 5<sup>th</sup> International Conference on Silicon in Agriculture, September 13-18, 2011 Beijing, China, pp. 137-138. (предавање по позиву за М. Николића)

*Одбрањена докторска дисертација (M71)*

2.1.14. **Pavlović J** (2017): Uloga silicijuma u prevazilaženju nedostatka gvožđa kod krastavca (*Cucumis sativus* L.). Doktorska disertacija, Univerzitet u Beogradu - Biološki fakultet.

## **2.2. После избора у звање научни сарадник**

*Поглавље у истакнутој монографији међународног значаја (M13)*

2.2.1. Nikolic M, **Pavlovic J** (2018): Plant responses to iron deficiency and toxicity and iron use efficiency in plants. In: Plant Micronutrient Use Efficiency: Molecular and Genomic Perspectives in Crop Plants, 1st Edition, A.M. Hossain et al. (Eds.), pp. 55-69. Academic Press, Elsevier, London. ISBN: 9780128121047.

<https://doi.org/10.1016/B978-0-12-812104-7.00004-6>

На основу одлуке МНО за биологију (у прилогу)

SCOPUS: 33 хетероцитата

*Радови у међународним часописима изузетне вредности (M21a)*

2.2.2. Kostic I, Nikolic N, Milanović S, Milenkovic I., **Pavlovic J.**, Paravinja A., Nikolic M. 2023. Silicon modifies leaf nutriome and improves growth of oak seedlings exposed to phosphorus deficiency and *Phytophthora plurivora* infection. *Frontiers in Plant Science* 14: 1265782.

<https://doi.org/10.3389/fpls.2023.1265782>

КоБСОН: 2021, Plant Sciences 20/240, ИФ = 6,627

SCOPUS: 0 хетероцитата

2.2.3. **Pavlovic J**, Kostic L, Bosnic P, Kirkby EA, Nikolic M (2021): Interactions of silicon with essential and beneficial elements in plants. *Frontiers in Plant Science* 12: 1224

<https://doi.org/10.3389/fpls.2021.697592>

КоБСОН: 2021, Plant Sciences 20/240, ИФ = 6,627

SCOPUS: 98 хетероцитата

2.2.4. Bosnic D, Nikolic D, Timotijevic G, Pavlovic J, Vaculik M, Samardzic J, Nikolic M. (2019): Silicon alleviates copper (Cu) toxicity in cucumber by increased Cu-binding capacity. *Plant and Soil* 441: 629–641

<https://doi.org/10.1007/s11104-019-04151-5>

КоБСОН: 2017, Agronomy 7/87, ИФ = 3,306

SCOPUS: 20 хетероцитата

*Радови у врхунским међународним часописима (M21)*

2.2.5. Savic J, **Pavlovic J**, Stanojevic M, Bosnic P, Kostic Kravljanac L, Nikolic N, Nikolic M. 2023. Silicon differently affects apoplastic binding of excess boron in wheat and sunflower leaves. *Plants* 12: 1660.

<https://doi.org/10.3390/plants12081660>

КоБСОН: 2022, Plant Sciences 43/238, ИФ = 4,5

SCOPUS: 2 хетероцитата

2.2.6. Hajiboland R, Moradi A, Kahneh E, Poschenrieder C, Nazari F, **Pavlovic J**, Tolra R, Salehi-Lisar S-Y, Nikolic M. 2023. Weed species from tea gardens as a source of novel aluminum hyperaccumulators. *Plants* 12: 2129.

<https://doi.org/10.3390/plants12112129>

Нормирано на 9 аутора: 5,71

КоБСОН: 2022, *Plant Sciences* 43/238, ИФ = 4,5

SCOPUS: 1 хетероцитат

*Саопштења на скуповима међународног значаја штампана у изводу (МЗ4)*

2.2.7. **Pavlovic J**, Hernandez-Apaolaza L, Dubljanin T, Nikolic M (2022): Silicon Enhances the Biosynthesis of Organic Acids in Zinc-deficient Rice. 8<sup>th</sup> International Conference on Silicon in Agriculture, May 23-26, 2022, New Orleans, Louisiana, USA, p. 22. (постер)

2.2.8. Kostic Kravljanac Lj, Trailovic M, **Pavlovic J**, Nikolic M (2022): Effect of N-forms on Silicon Mobilization in the Rhizosphere of White Lupin; 8<sup>th</sup> International Conference on Silicon in Agriculture, May 23-26, 2022, New Orleans, Louisiana, USA, p. 33. (постер)

2.2.9. Trailovic M, Kostic Kravljanac LJ, Stanojevic M, **Pavlovic J**, Nikolic M (2022): Phosphorus Deficiency Induced Silicon Mobilization in Grapevine Rhizosphere: A Field Study; 8<sup>th</sup> International Conference on Silicon in Agriculture, May 23-26, 2022, New Orleans, Louisiana, USA, p. 47. (постер)

2.2.10. **Pavlović J**, Nikolić M (2018): Silicon increases iron use efficiency in cucumber – a strategy 1 model plant. 3rd International Conference on Plant Biology (22<sup>nd</sup> SPPS Meeting), June 9-12, 2018, Belgrade, Serbia, p. 17 (одабрана усмена презентација)

2.2.11. Nikolic M, Kostic L, **Pavlovic J**, Bosnic P (2017): Silicon influence on plant ionome and mineral element transporters. 7<sup>th</sup> International Conference on Silicon in Agriculture, October 24-28, 2017, Bangaluru, India. Abstracts, p. 53. (предавање по позиву за М. Николића)

2.2.12. Nikolic M, Kostic L, **Pavlovic J**, Bosnic P (2017): Silicon mediates ion uptake, transport and homeostasis in plants under mineral stress. In: *Proceedings Book of the XVIII International Plant Nutrition Colloquium with Boron and Manganese Satellite Meetings*, August 19-24, 2017, Copenhagen, Denmark. University of Copenhagen, A Carstensen, KH Laursen and JK Schjoerring, Eds., pp 75-76. ISBN 978-87-996274-0-0. (предавање по позиву за М. Николића)

### 3. АНАЛИЗА НАУЧНИХ ОСТВАРЕЊА

Целокупан научни рад Јелене Павловић јесте у области физиологије минералне исхране биљака и претежно је фокусиран на проучавање физиолошких интеракција микроелемената (гвожђа, цинка, бабра и бора) и силицијума код биљака. Њена истраживања, по први пут у литератури су јасно показала да исхрана биљака силицијумом ефикасно отклања симптоме изазване недостатком гвожђа (лисна хлороза) и разјаснила је да у основи механизма деловања силицијума лежи повећање депонованог гвожђа у апопласту корена, а затим и његова боља мобилизација у ризосфери и апопласту корена, због повећане синтезе једињења која хелирају гвожђе, као што су карбоксилати и феноли (2.1.3). Најновија истраживања кандидаткиње указују да силицијум појачава и премештање цинка ксилемом

у комплексу са карбоксилатима (2.2.7). Кандидаткиња своја искуства у проучавању ризосфере и аполаста користи у тимском раду на изучавању деловања ђубрења амонијачним и нитратним обликом азота на мобилност силицијума у ризосфери беле лупине (2.2.7), као и на повећану мобилизацију силициума у ризосфери винове лозе индукованом недостатком фосфора (2.2.9).

Своја истраживања на проблему улоге силицијума у усвајању и транспорту микроелемената у условима њиховог дефицита, кандидаткиња проширује на сувишак (токсичност) микроелемената, као што су бакар и бор. Додатак силицијума утицао је на повећање капацитета везивања бакра у ћелијском зиду корена краставца, као и његово секвестирање у листу уграђивањем у протеин пластоцијанин (2.2.4). Додак силициума у условима вишка бора деловао је различито на повећано везивање овог микроелемента у апопласту листа код сунцокрета и пшенице, које се разликују по свом ретенционом капацитету за бор у ћелијским зидовима (2.2.5).

Јелена Павловић је такође учествовала и у тимским истраживањима спроведеним на моделу земљише-биљка-патоген, која по први пут показују комплексност деловања три стресна фактора (напад патогена, недостатак фосфора и њихова комбинација) на морфолошке промене корена, акумулацију силицијума и промену јона листа (2.2.2). Из дугогодишње међународне сарадње групе за исхрану биљака проистекао је и коауторски рад у коме је проучаван потенцијал коровских биљака у баштама чаја да акумулирају алуминијум, са циљем да се издвоје акумулаторске и ексклудерске врсте (2.2.6).

Имајући у виду да је кандидаткиња дуго времена проучавала исхрану биљака гвожђем, уследио је позив уредника међународне монографије о ефикасности искоришћавања микроелементима, за писање поглавља о недостатку и токсичности гвожђа и његовом искоришћавању (2.2.1). Пионирски рад групе за исхрану биљака, који је по први пут показао да силицијум поспешује усвајање и искоришћавање хранива код биљака, имао је велики одјек у међународној научној заједници, те је на позив међународног часописа изузетних вредности *Frotiers in Plant Science* објављен прегледни рад о интеракцијама силицијума са есенцијалним и корисним елементима код биљака, у коме је кандидаткиња први аутор (2.2.3).

#### **4. ПЕТ НАЈЗНАЧАЈНИЈИХ НАУЧНИХ ОСТВАРЕЊА У ПЕРИОДУ ОД ИЗБОРА У ЗВАЊЕ НАУЧНИ САРАДНИК**

Поглавље у истакнутој монографији међународног значаја (2.2.1; остварење 1) резултат је дугогодишњих истраживања кандидаткиње и њеног ментора на упознавању механизма транспорта гвожђа и његовог укључивања у метаболизам биљака. Кандидаткиња је написала прву верзију рукописа и израдила илустрације. У поглављу је дат преглед досадашњих сазнања о 1) стратегијама којима биљке усвајају гвожђе из земљишта у условима његове слабе обезбеђености, 2) способности биљака да везује гвожђе и тако спречи његово токсично дејство при вишку, 3) транспорту гвожђа на велика растојања

ксилемом и флоемом и 4) молекуларној регулацији ефикасности искоришћавања гвожђа. До сада је ово поглавље цитирано 35 пута без самоцитата.

У првоауторском ревијалном раду (2.2.3; остварење 2) о интеракцијама силицијума са есенцијалним и корисним елементима код биљака, кандидаткиња је имала важну улогу у проучавању литературе, мета анализама и писању рукописа. Посебно се истакла у обради делова о интеракцији силицијума са гвожђем и осталим микроелементима, где је приказан већи број оригиналних радова у којима је она била први аутор или коаутор. Важно је поменути да је тај рад, публикован у јуну 2021. године, до сада цитиран 101 пут без самоцитата.

Коауторски рад (2.2.4; остварење 3) о деловању силицијума на ублажавању токсичности бакра код краставца посредством повећаног капацитета за везивање јона бакра у ћелијском зиду и за протеине у сипласту, проистекао је из докторске дисертације Драгане Боснић, у којој је кандидаткиња била члан комисије за оцену и одбрану. Своје коауторско место кандидаткиња је завредила као међународно признати експерт за интеракције силицијума и микроелемената, а кроз помоћ коју је несебично пружила у планирању и извођењу експеримената у хидропонима, припреми узорака и анализи бакра и силицијума, и обрадом и тумачењем резултата анализа, а што је назначено и у самом раду. До сада је рад цитиран 27 пута без аутоцитата.

У другом коауторском раду (2.2.5; остварење 4) о различитом утицају силицијума на везивање бора код сунцокрета и пшенице, а који је такође у домену експертизе Јелене Павловић, кандидаткиња је била одговорна за анализе изотопа бора и обраду резултата анализа, што представља централни део ове студије. Научни значај овог рада огледа се у томе што је показан различити механизам делеовања силицијума на везивање бора у ћелијском зиду монокотиледоних и дикотиледоних биљака, које показују различиту и обрнуто пропорционалну акумулацију силицијума и бора у ћелијским зидовима. Код пшенице (модел за монокотиле), чији је капацитет ретенције бора у ћелијском зиду листа мањи него код сунцокрета (модел за дикотиле), силицијум је неопходан за повећану толеранцију на вишак бора. Са друге стране, додавање силицијума није значајно утицало на проширивање места за везивања бора у ћелијским зидовима листа.

У коауторском раду (2.2.6; остварење 5) који је резултат шире међународне сарадње са колегама из Ирана (Универзитет у Тарбризу) и Шпаније (Универзитет у Барселони), кандидаткиња је имала кључну улогу у припреми великог броја узорака биљног материјала за елементарну анализу, као анализи минералних елемената, затим обради резултата анализа и писању рукописа. Научни значај рада огледа се у комбиновању хемисјких и филогенетских анализа у циљу идентификације коровске флоре у засадима чаја, који толерише кисела земљишта у којима је велика концентрација мобилног амлуминијума.

Следи списак најзначајнијих остварења кандидаткиње од предходног избора:

1. Nikolic M, **Pavlovic J** (2018): Plant responses to iron deficiency and toxicity and iron use efficiency in plants. In: Plant Micronutrient Use Efficiency: Molecular and Genomic Perspectives in Crop Plants, 1st Edition, A.M. Hossain et al. (Eds.), pp. 55-69. Academic Press, Elsevier, London. ISBN: 9780128121047.

2. **Pavlovic J**, Kostic L, Bosnic P, Kirkby EA, Nikolic M (2021): Interactions of silicon with essential and beneficial elements in plants. *Frontiers in Plant Science* 12: 1224 <https://doi.org/10.3389/fpls.2021.697592>
3. Bosnic D, Nikolic D, Timotijevic G, **Pavlovic J**, Vaculik M, Samardzic J, Nikolic M. (2019): Silicon alleviates copper (Cu) toxicity in cucumber by increased Cu-binding capacity. *Plant and Soil* 441: 629–641 <https://doi.org/10.1007/s11104-019-04151-5>
4. Savic J, **Pavlovic J**, Stanojevic M, Bosnic P, Kostic Kravljanac L, Nikolic N, Nikolic M. 2023. Silicon differently affects apoplastic binding of excess boron in wheat and sunflower leaves. *Plants* 12: 1660. <https://doi.org/10.3390/plants12081660>
5. Hajiboland R, Moradi A, Kahneh E, Poschenrieder C, Nazari F, **Pavlovic J**, Tolra R, Salehi-Lisar S-Y, Nikolic M. 2023. Weed species from tea gardens as a source of novel aluminum hyperaccumulators. *Plants* 12: 2129. <https://doi.org/10.3390/plants12112129>

## 5. ПРЕГЛЕД ЦИТИРАНОСТИ

Следи списак цитата без самоцитата, преузетих из базе *SCOPUS* (приступ 15.10.2023):

**Pavlovic J**, Samardzic J, Masimović V, Timotijevic G, Stevic N, Laursen KH, Hansen TH, Husted S, Schjoerring JK, Liang Y, Nikolic M (2013): Silicon alleviates iron deficiency in cucumber by promoting mobilization of iron in the root apoplast. *New Phytologist* 198: 196-1107, цитиран **164** пута (без самоцитата) у:

Mierzaali, T., Abdolzadeh, A., Sadeghipour, H.R.

Silicon ameliorates iron deficiency in sour orange seedlings grown under different pHs

(2024) *Scientia Horticulturae*, 323, art. no. 112489.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85171969693&doi=10.1016%2fj.scienta.2023.112489&partnerID=40&md5=c60ddd3a3b0025f5b56b14b7615b0bb3)

[85171969693&doi=10.1016%2fj.scienta.2023.112489&partnerID=40&md5=c60ddd3a3b0025f5b56b14b7615b0bb3](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85171969693&doi=10.1016%2fj.scienta.2023.112489&partnerID=40&md5=c60ddd3a3b0025f5b56b14b7615b0bb3)

Liu, X., Tang, X., Compson, Z.G., Huang, D., Zou, G., Luan, F., Song, Q., Fang, X., Yang, Q., Liu, J. 00;35735605800;56763651500;

Silicon supply promotes differences in growth and C:N:P stoichiometry between bamboo and tree saplings

(2023) *BMC Plant Biology*, 23 (1), art. no. 443.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85171812208&doi=10.1186%2fs12870-023-04443-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85171812208&doi=10.1186%2fs12870-023-04443-0&partnerID=40&md5=84d6b904f99fd0920d20f24961d344f3)

Alves, D.M.R., de Oliveira, J.N., de Mello Prado, R., Ferreira, P.M.

Silicon in the form of nanosilica mitigates P toxicity in scarlet eggplant

(2023) *Scientific Reports*, 13 (1), art. no. 9190.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85161023897&doi=10.1038%2fs41598-023-36412-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85161023897&doi=10.1038%2fs41598-023-36412-w&partnerID=40&md5=1069f9282f8e65bcd98564bf93fb6571)

da Silva, F.L., da Silva, F.B.V., Araújo, P.R.M., da Silva, R.L., da Silva Paraizo, T., do Nascimento, C.W.A.

Amorphous Silica-Based Fertilizer Reduces Cd Uptake and Translocation and Human Health Risk in Polluted Soil Grown with Cowpea (*Vigna unguiculata* (L.) Walp)

(2023) *Journal of Soil Science and Plant Nutrition*, 23 (3), pp. 3174-3185.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162643525&doi=10.1007%2fs42729-023-01333-0&partnerID=40&md5=dfeeaf063fe3bfc29f1e5a7ce2afc084>

Rehman, I.U., Sheergojri, I.A., War, A.F., Nazir, A., Rasool, N., Rashid, I.  
Silicon Supplementation as an Ameliorant of Stresses in Sorghum  
(2023) *Silicon*, 15 (14), pp. 5877-5889.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159699826&doi=10.1007%2fs12633-023-02500-9&partnerID=40&md5=5aeb538a2894921ac4a4a36843e4477>

Liu, X., Tang, X., Ran, H., Deng, M., Song, Q., Yang, Q., Huang, D., Liu, J.  
Si Supply Could Alter N Uptake and Assimilation of Saplings—A <sup>15</sup>N Tracer Study of Four Subtropical Species  
(2023) *Forests*, 14 (7), art. no. 1353.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166271565&doi=10.3390%2ff14071353&partnerID=40&md5=14018bcd53cce373c11b3270597b03cc>

Réthoré, E., Ali, N., Pluchon, S., Hosseini, S.A.  
Silicon Enhances Brassica napus Tolerance to Boron Deficiency by the Remobilisation of Boron and by Changing the Expression of Boron Transporters  
(2023) *Plants*, 12 (13), art. no. 2574.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165168775&doi=10.3390%2fplants12132574&partnerID=40&md5=1fc4331b21b2e944f594f450d0bb4015>

Bilal, S., Khan, T., Asaf, S., Khan, N.A., Saad Jan, S., Imran, M., Al-Rawahi, A., Khan, A.L., Lee, I.-J., Al-Harrasi, A.  
Silicon-Induced Morphological, Biochemical and Molecular Regulation in Phoenix dactylifera L. under Low-Temperature Stress

(2023) *International Journal of Molecular Sciences*, 24 (7), art. no. 6036.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152323901&doi=10.3390%2fijms24076036&partnerID=40&md5=4db0483802d7ded9cfac2f41f8c58605>

Hatami, A., Jahromi, A.A., Ejraei, A., Jahromi, S.A.M., Khankahdani, H.H.  
Study of Biochemical Traits and Mineral Elements in Date Palm Fruits under Preharvest Foliar Application of Organic Fertilizers and Micronutrients

(2023) *International Journal of Horticultural Science and Technology*, 10 (2), pp. 125-140.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85147747088&doi=10.22059%2fjihst.2022.334068.517&partnerID=40&md5=8c9c8c6ee3b18fa0aac7e934be1085c9>

Mumivand, H., Izadi, Z., Amirizadeh, F., Maggi, F., Morshedloo, M.R.  
41262180300;57218265541;57667842800;56962788200;55382508100;

Biochar amendment improves growth and the essential oil quality and quantity of peppermint (*Mentha × piperita* L.) grown under waste water and reduces environmental contamination from waste water disposal  
(2023) *Journal of Hazardous Materials*, 446, art. no. 130674.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85145747012&doi=10.1016%2fj.jhazmat.2022.130674&partnerID=40&md5=7f0969432db49a3a61ff71954505b87b>

Nikolić, D., Bosnić, D., Samardžić, J.

57212702367;57195251103;6507611927;  
Silicon in action: Between iron scarcity and excess copper  
(2023) *Frontiers in Plant Science*, 14, art. no. 1039053.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85148335805&doi=10.3389%2ffpls.2023.1039053&partnerID=40&md5=506514826fb11bdba2c51f9dbab65c1c>

Karimi, N., Mortezaadeh, A., Souri, Z., Farooq, M.  
36155399000;57211395859;56290613200;57201828264;  
Silicon Application Alleviates Arsenic Toxicity in *Isatis* (*Isatis cappadocica* Desv.) by Modulating Key Biochemical Attributes and Antioxidant Defense Systems  
(2023) *Journal of Plant Growth Regulation*,  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165569934&doi=10.1007%2fs00344-023-11079-9&partnerID=40&md5=4593d71b9c0fbfe2ad8d42b95639d075>

Etesami, H., Jeong, B.R.  
How does silicon help alleviate biotic and abiotic stresses in plants? Mechanisms and future prospects  
(2023) *Plant Stress Mitigators: Types, Techniques and Functions*, pp. 359-402.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152341700&doi=10.1016%2fb978-0-323-89871-3.00031-8&partnerID=40&md5=3a12deb039a6d7b60f2cd677c7bce6b8>

Weinmann, M., Bradáčová, K., Nikolic, M.  
Relationship between mineral nutrition, plant diseases, and pests  
(2023) *Marschner's Mineral Nutrition of Plants*, pp. 445-476.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85150130749&doi=10.1016%2fb978-0-12-819773-8.00009-5&partnerID=40&md5=3421450773922c4e626d1b8059b2d356>

Cakmak, I., Brown, P., Colmenero-Flores, J.M., Husted, S., Kutman, B.Y., Nikolic, M., Rengel, Z., Schmidt, S.B., Zhao, F.-J.  
Micronutrients  
(2023) *Marschner's Mineral Nutrition of Plants*, pp. 283-385. Cited 9 times.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85147569000&doi=10.1016%2fb978-0-12-819773-8.00017-4&partnerID=40&md5=3807ffd54d5d6d9d4686202d213efbcb>

Singh, A., Gracheva, M., Kovács Kis, V., Keresztes, Á., Sági-Kazár, M., Müller, B., Pankaczi, F., Ahmad, W., Kovács, K., May, Z., Tolnai, G., Homonnay, Z., Fodor, F., Klencsár, Z., Solti, Á.  
Apoplast utilisation of nanohaematite initiates parallel suppression of RIBA1 and FRO1&3 in *Cucumis sativus*  
(2023) *NanoImpact*, 29, art. no. 100444.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85143867982&doi=10.1016%2fj.impact.2022.100444&partnerID=40&md5=a8750f187d70844cb6167882b56a48f3>

Ahmad, M., Rafique, M.I., Akanji, M.A., Al-Wabel, M.I., Al-Swadi, H.A., Al-Farraj, A.S.F.  
Silica modified biochar mitigates the adverse effects of salt and drought stress and improves safflower (*Carthamus tinctorius* L.) growth  
(2023) *Journal of Soils and Sediments*, 23 (1), pp. 172-192.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85137070145&doi=10.1007%2fs11368-022-03323-8&partnerID=40&md5=f425e2d667e5e8311bf09f7e3c3164f7>

Shi, Y., Guo, S., Zhao, X., Xu, M., Xu, J., Xing, G., Zhang, Y., Ahammed, G.J.  
Comparative physiological and transcriptomics analysis revealed crucial mechanisms of silicon-mediated tolerance to iron deficiency in tomato  
(2022) *Frontiers in Plant Science*, 13, art. no. 1094451.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85145499898&doi=10.3389%2ffpls.2022.1094451&partnerID=40&md5=c9c0b198a64f1a0132057c319896183e>

Basile, F., Mauro, R.P., Buturi, C.V., Distefano, M., Cannata, C., Adorna, F., Giuffrida, F., Leonardi, C.  
Quality traits and mineral profile of carrot 'Dordogne' as affected by foliar applications of silicon  
(2022) *Acta Horticulturae*, 1353, pp. 219-226.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85146125986&doi=10.17660%2fActaHortic.2022.1353.27&partnerID=40&md5=dbcb0c19bcee4bee2bf19f4742af47d1>

Marmioli, M., Mussi, F., Gallo, V., Gianoncelli, A., Hartley, W., Marmioli, N.  
Combination of Biochemical, Molecular, and Synchrotron-Radiation-Based Techniques to Study the Effects of Silicon in Tomato (*Solanum Lycopersicum* L.)  
(2022) *International Journal of Molecular Sciences*, 23 (24), art. no. 15837  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85144482659&doi=10.3390%2fijms232415837&partnerID=40&md5=58c22f0af01e833124b9bca0e8fda3da>

Oliveira, K.S., de Mello Prado, R., Checchio, M.V., Gratão, P.L.  
Interaction of silicon and manganese in nutritional and physiological aspects of energy cane with high fiber content  
(2022) *BMC Plant Biology*, 22 (1), art. no. 374, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135175163&doi=10.1186%2fs12870-022-03766-8&partnerID=40&md5=29f1b5d5cc241095c9dfe4ac43c254ad>

Chunyan, L., Xiangchi, Z., Chao, L., Cheng, L.  
Ionic and metabolic responses of wheat seedlings to PEG-6000-simulated drought stress under two phosphorus levels  
(2022) *PLoS ONE*, 17 (9 September), art. no. e0274915, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138186587&doi=10.1371%2fjournal.pone.0274915&partnerID=40&md5=0a9b866b1a0cac48baf458e64cb71d7a>

Etesami, H., Li, Z., Maathuis, F.J.M., Cooke, J.  
The combined use of silicon and arbuscular mycorrhizas to mitigate salinity and drought stress in rice  
(2022) *Environmental and Experimental Botany*, 201, art. no. 104955, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85131834477&doi=10.1016%2fj.envexpbot.2022.104955&partnerID=40&md5=f80840694587f7.6648df6cd93fee5f1f>

Karimi, E., Ghasemnezhad, A., Ghorbanpour, M.  
Selenium- and Silicon-Mediated Recovery of *Satureja* (*Satureja mutica* Fisch. & C. A. Mey.) Chemotypes Subjected to Drought Stress Followed by Rewatering [Selen- und siliziumvermittelte Regeneration von

Satureja-Chemotypen (*Satureja mutica* Fisch. & C. A. Mey.) bei Trockenstress und anschließender Bewässerung]

(2022) *Gesunde Pflanzen*, 74 (3), pp. 737-757.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85128305450&doi=10.1007%2fs10343-022-00654-x&partnerID=40&md5=317d127150479adbaaf8fba98f9fe1b>

Lyu, J., Jin, N., Meng, X., Jin, L., Wang, S., Xiao, X., Liu, Z., Tang, Z., Yu, J.

Exogenous silicon alleviates the adverse effects of cinnamic acid-induced autotoxicity stress on cucumber seedling growth

(2022) *Frontiers in Plant Science*, 13, art. no. 968514, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85136570158&doi=10.3389%2ffpls.2022.968514&partnerID=40&md5=b1c24d12a66324267e38cfd2302143e)

[85136570158&doi=10.3389%2ffpls.2022.968514&partnerID=40&md5=b1c24d12a66324267e38cfd2302143e](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85136570158&doi=10.3389%2ffpls.2022.968514&partnerID=40&md5=b1c24d12a66324267e38cfd2302143e)

Ksiaa, M., Farhat, N., Rabhi, M., Elkhouni, A., Smaoui, A., Debez, A., Cabassa-Hourton, C., Savouré, A., Abdelly, C., Zorrig, W.

Silicon (Si) Alleviates Iron Deficiency Effects in Sea Barley (*Hordeum marinum*) by Enhancing Iron Accumulation and Photosystem Activities

(2022) *Silicon*, 14 (12), pp. 6697-6712.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116723139&doi=10.1007%2fs12633-021-01376-x&partnerID=40&md5=1a572e0a212aaf518468fbfb15bb8199>

Chew, J., Joseph, S., Chen, G., Zhang, Y., Zhu, L., Liu, M., Taherymoosavi, S., Munroe, P., Mitchell, D.R.G., Pan, G., Li, L., Bian, R., Fan, X.

Biochar-based fertiliser enhances nutrient uptake and transport in rice seedlings

(2022) *Science of the Total Environment*, 826, art. no. 154174, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85125660772&doi=10.1016%2fj.scitotenv.2022.154174&partnerID=40&md5=b4d294f3915b3cd94bf8edd3cbe5b9fa)

[85125660772&doi=10.1016%2fj.scitotenv.2022.154174&partnerID=40&md5=b4d294f3915b3cd94bf8edd3cbe5b9fa](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85125660772&doi=10.1016%2fj.scitotenv.2022.154174&partnerID=40&md5=b4d294f3915b3cd94bf8edd3cbe5b9fa)

Benslima, W., Ellouzi, H., Zorrig, W., Abdelly, C., Hafsi, C.

Beneficial effects of silicon on growth, nutrient dynamics, and antioxidative response in barley (*Hordeum vulgare* L.) plants under potassium deficiency

(2022) *Journal of Soil Science and Plant Nutrition*, 22 (2), pp. 2633-2646.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127324440&doi=10.1007%2fs42729-022-00832-w&partnerID=40&md5=93d5c5e1802231393898d014616252fb>

Beier, S., Marella, N.C., Yvin, J.-C., Hosseini, S.A., von Wirén, N.

Silicon mitigates potassium deficiency by enhanced remobilization and modulated potassium transporter regulation

(2022) *Environmental and Experimental Botany*, 198, art. no. 104849, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85126907744&doi=10.1016%2fj.envexpbot.2022.104849&partnerID=40&md5=83edb50ec3dcc977be6af72e8e7e419)

[85126907744&doi=10.1016%2fj.envexpbot.2022.104849&partnerID=40&md5=83edb50ec3dcc977be6af72e8e7e419](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85126907744&doi=10.1016%2fj.envexpbot.2022.104849&partnerID=40&md5=83edb50ec3dcc977be6af72e8e7e419)

Chaiwong, N., Prom-u-thai, C.

Significant Roles of Silicon for Improving Crop Productivity and Factors Affecting Silicon Uptake and Accumulation in Rice: a Review

(2022) *Journal of Soil Science and Plant Nutrition*, 22 (2), pp. 1970-1982.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85124034545&doi=10.1007%2fs42729-022-00787-y&partnerID=40&md5=8d7214e575c63cbf5386a679d04dc325>

Jinger, D., Dhar, S., Dass, A., Sharma, V.K., Paramesh, V., Parihar, M., Joshi, E., Singhal, V., Gupta, G., Prasad, D., Vijayakumar, S.

Co-fertilization of Silicon and Phosphorus Influences the Dry Matter Accumulation, Grain Yield, Nutrient Uptake, and Nutrient-Use Efficiencies of Aerobic Rice  
(2022) *Silicon*, 14 (9), pp. 4683-4697.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111777119&doi=10.1007%2fs12633-021-01239-5&partnerID=40&md5=284daac278629a3c1f3e0bf6467be47f>

Hao, Q., Song, Z., Zhang, X., Li, Q., Yang, W., Yang, S., Tan, Q.

Effects of Si on N and P stoichiometry in degraded grassland of northern China  
(2022) *Land Degradation and Development*, 33 (6), pp. 960-973.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85125541478&doi=10.1002%2fldr.4178&partnerID=40&md5=d94da0a21c92bcfe014d0193e6e21087>

Riaz, S., Hussain, I., Parveen, A., Arshraf, M.A., Rasheed, R., Zulfiqar, S., Thind, S., Rehman, S.

Silicon and nano-silicon in plant nutrition and crop quality

(2022) *Silicon and Nano-silicon in Environmental Stress Management and Crop Quality Improvement: Progress and Prospects*, pp. 277-295.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138410738&doi=10.1016%2fb978-0-323-91225-9.00021-2&partnerID=40&md5=5a23aa558da14073941017845f63a604>

Verma, K.K., Song, X.-P., Chen, Z.-L., Tian, D.-D., Rajput, V.D., Singh, M., Minkina, T., Li, Y.-R.

Silicon and nanosilicon mitigate nutrient deficiency under stress for sustainable crop improvement

(2022) *Silicon and Nano-silicon in Environmental Stress Management and Crop Quality Improvement: Progress and Prospects*, pp. 207-218.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138379825&doi=10.1016%2fb978-0-323-91225-9.00007-8&partnerID=40&md5=8a853a819611ebcbe59665825421d39b>

Ahmad, M., Rafique, M.I., Akanji, M.A., Al-Wabel, M.I., Al-Swadi, H.A., Al-Farraj, A.S.F.

Silica modified biochar mitigates the adverse effects of salt and drought stress and improves safflower (*Carthamus tinctorius* L.) growth

(2022) *Journal of Soils and Sediments*, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85137070145&doi=10.1007%2fs11368-022-03323-8&partnerID=40&md5=f425e2d667e5e8311bf09f7e3c3164f7>

Etesami, H., Shokri, E., Jeong, B.R.

The combined use of silicon/nanosilicon and arbuscular mycorrhiza for effective management of stressed agriculture: Action mechanisms and future prospects

(2022) *Silicon and Nano-silicon in Environmental Stress Management and Crop Quality Improvement: Progress and Prospects*, pp. 241-264.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85131818808&doi=10.1016%2fb978-0-323-91225-9.00008-X&partnerID=40&md5=4af184f5921cd056db1bbf789333b17c>

Cheng, S.R., Li, S.S., Liang, Z.W., Huang, F.C., Wu, X.Q., Han, Z.Y., Huang, X.B., Huang, X.M., Ren, Y.

Effect of application of iron (Fe) and  $\alpha$ -ketoglutaric acid on growth photosynthesis, and Fe content in fragrant rice seedlings

- (2022) *Photosynthetica*, 60 (2), pp. 293-303.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85130016114&doi=10.32615%2fps.2022.020&partnerID=40&md5=5479600a11d81c66fc1b2b73f5d9695b>
- Soares, J.C., Pintado, M., Vasconcelos, M.W.  
 Short-term exposure to elevated CO<sub>2</sub> stimulates growth and metabolic responses that alleviate early-stage iron deficiency symptoms in soybean  
 (2022) *Journal of Plant Interactions*, 17 (1), pp. 50-59.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85122087558&doi=10.1080%2f17429145.2021.2011445&partnerID=40&md5=1f4f68f536087a9895abdc4dcf16f65a>
- Carballo-Méndez, F.D.J., Olivares-Sáenz, E., Vázquez-Alvarado, R.E., Zavala-García, F., Benavides-Mendoza, A., Bolivar-Duarte, M.  
 Silicon improves seedling production of moringa oleifera lam. Under saline stress  
 (2022) *Pakistan Journal of Botany*, 54 (3), .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120942338&doi=10.30848%2fPJB2022-3%2837%29&partnerID=40&md5=8a4317f4fc266da6a77a228b158859d5>
- Wang, M., Wang, R., Mur, L.A.J., Ruan, J., Shen, Q., Guo, S.  
 Functions of silicon in plant drought stress responses  
 (2021) *Horticulture Research*, 8 (1), art. no. 254, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120164465&doi=10.1038%2fs41438-021-00681-1&partnerID=40&md5=5400247979e80beaa01c9813948833a7>
- Lozano-González, J.M., Valverde, C., Hernández, C.D., Martín-Esquinas, A., Hernández-Apaolaza, L.  
 Beneficial effect of root or foliar silicon applied to cucumber plants under different zinc nutritional statuses  
 (2021) *Plants*, 10 (12), art. no. 2602, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119960873&doi=10.3390%2fplants10122602&partnerID=40&md5=17ae6854e7e0e4334fbe3f055a60912f>
- Ahire, M.L., Mundada, P.S., Nikam, T.D., Bapat, V.A., Penna, S.  
 Multifaceted roles of silicon in mitigating environmental stresses in plants  
 (2021) *Plant Physiology and Biochemistry*, 169, pp. 291-310.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119616408&doi=10.1016%2fj.plaphy.2021.11.010&partnerID=40&md5=37fab6b6415b210bf414b0374e5f584f>
- Ulloa, M., Nunes-Nesi, A., da Fonseca-Pereira, P., Poblete-Grant, P., Reyes-Díaz, M., Cartes, P.  
 The effect of silicon supply on photosynthesis and carbohydrate metabolism in two wheat (*Triticum aestivum* L.) cultivars contrasting in response to phosphorus nutrition  
 (2021) *Plant Physiology and Biochemistry*, 169, pp. 236-248.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119382839&doi=10.1016%2fj.plaphy.2021.11.022&partnerID=40&md5=d1752d232eb411965925e785902a266e>
- Laifa, I., Hajji, M., Farhat, N., Elkhouni, A., Smaoui, A., M'nif, A., Hamzaoui, A.H., Savouré, A., Abdelly, C., Zorrig, W.  
 Beneficial Effects of Silicon (Si) on Sea Barley (*Hordeum marinum* Huds.) under Salt Stress

- (2021) *Silicon*, 13 (12), pp. 4501-4517.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85092897864&doi=10.1007%2fs12633-020-00770-1&partnerID=40&md5=35fa2553b817c2aa10eddbd204dc2d78>
- Fan, X., Zhou, X., Chen, H., Tang, M., Xie, X.  
 Cross-Talks Between Macro- and Micronutrient Uptake and Signaling in Plants  
 (2021) *Frontiers in Plant Science*, 12, art. no. 663477, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85118333414&doi=10.3389%2ffpls.2021.663477&partnerID=40&md5=091575fb1af0422eb21aaf49d30bd32d>
- Peng, J.-S., Zhang, B.-C., Chen, H., Wang, M.-Q., Wang, Y.-T., Li, H.-M., Cao, S.-X., Yi, H.-Y., Wang, H., Zhou, Y.-H., Gong, J.-M.  
 Galactosylation of rhamnogalacturonan-II for cell wall pectin biosynthesis is critical for root apoplastic iron reallocation in *Arabidopsis*  
 (2021) *Molecular Plant*, 14 (10), pp. 1640-1651.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112000503&doi=10.1016%2fj.molp.2021.06.016&partnerID=40&md5=3c7053a0075036f7c4cd282c27e19ddb>
- Ertani, A., Nicola, S., Petrini, A., Bulgari, R.  
 Biostimulants and their role in improving the nutrition of plants in hydroponic conditions  
 (2021) *Acta Horticulturae*, 1321, pp. 185-190.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85114769453&doi=10.17660%2fActaHortic.2021.1321.24&partnerID=40&md5=0219debe1a811fe809eaf7ac6f77ff1e>
- Oliva, K.M.E., da Silva, F.B.V., Araújo, P.R.M., de Oliveira, E.C.A., do Nascimento, C.W.A.  
 Amorphous Silica-Based Fertilizer Increases Stalks and Sugar Yield and Resistance to Stalk Borer in Sugarcane Grown Under Field Conditions  
 (2021) *Journal of Soil Science and Plant Nutrition*, 21 (3), pp. 2518-2529.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109714380&doi=10.1007%2fs42729-021-00543-8&partnerID=40&md5=4dd4d06026b8e1ceb1ac3cc26933745b>
- Zhang, Y., Chen, H., Liang, Y., Lu, T., Liu, Z., Jin, X., Hou, L., Xu, J., Zhao, H., Shi, Y., Ahammed, G.J.  
 Comparative transcriptomic and metabolomic analyses reveal the protective effects of silicon against low phosphorus stress in tomato plants  
 (2021) *Plant Physiology and Biochemistry*, 166, pp. 78-87.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107277509&doi=10.1016%2fj.plaphy.2021.05.043&partnerID=40&md5=89ed21cd9ecd93c882a10439dff6f2da>
- Verma, K.K., Song, X.-P., Tian, D.-D., Singh, M., Verma, C.L., Rajput, V.D., Singh, R.K., Sharma, A., Singh, P., Malviya, M.K., Li, Y.-R.  
 Investigation of Defensive Role of Silicon during Drought Stress Induced by Irrigation Capacity in Sugarcane: Physiological and Biochemical Characteristics  
 (2021) *ACS Omega*, 6 (30), pp. 19811-19821.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111476246&doi=10.1021%2facomega.1c02519&partnerID=40&md5=a71a3a91c8667cd79faaa0772b40da61>

Castiglione, A.M., Mannino, G., Contartese, V., Bertea, C.M., Ertani, A.  
Microbial biostimulants as response to modern agriculture needs: Composition, role and application of these innovative products  
(2021) *Plants*, 10 (8), art. no. 1533, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111086691&doi=10.3390%2fplants10081533&partnerID=40&md5=f5026ae3701a1d5d20a4b985ac24d1d0>

Zellner, W., Tubaña, B., Rodrigues, F.A., Datnoff, L.E.  
Silicon's Role in Plant Stress Reduction and Why This Element Is Not Used Routinely for Managing Plant Health  
(2021) *Plant Disease*, 105 (8), .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109305740&doi=10.1094%2fPDIS-08-20-1797-FE&partnerID=40&md5=118f1b35c68d3c9ecca740c756a89466>

Ahammed, G.J., Yang, Y.  
Mechanisms of silicon-induced fungal disease resistance in plants  
(2021) *Plant Physiology and Biochemistry*, 165, pp. 200-206.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106868577&doi=10.1016%2fj.plaphy.2021.05.031&partnerID=40&md5=63d99b84976b518ae11383283ac48063>

Etesami, H., Jeong, B.R., Glick, B.R.  
Contribution of Arbuscular Mycorrhizal Fungi, Phosphate-Solubilizing Bacteria, and Silicon to P Uptake by Plant  
(2021) *Frontiers in Plant Science*, 12, art. no. 699618, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85110213878&doi=10.3389%2ffpls.2021.699618&partnerID=40&md5=f1f0e9c155c7a5cfb5ac61e88de94cd8>

Pontigo, S., Larama, G., Parra-Almuna, L., Nunes-Nesi, A., Mora, M.D.L.L., Cartes, P.  
Physiological and molecular insights involved in silicon uptake and transport in ryegrass  
(2021) *Plant Physiology and Biochemistry*, 163, pp. 308-316.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85104804881&doi=10.1016%2fj.plaphy.2021.04.013&partnerID=40&md5=45d7b18cdb64e2700042cc741470e92e>

Martín-Esquinas, A., Hernández-Apaolaza, L.  
Rice responses to silicon addition at different Fe status and growth pH. Evaluation of ploidy changes  
(2021) *Plant Physiology and Biochemistry*, 163, pp. 296-307.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85104415522&doi=10.1016%2fj.plaphy.2021.04.012&partnerID=40&md5=1f8812a34fd14c1ff6906d668aa2c4ff>

Souri, Z., Khanna, K., Karimi, N., Ahmad, P.  
Silicon and Plants: Current Knowledge and Future Prospects  
(2021) *Journal of Plant Growth Regulation*, 40 (3), pp. 906-925.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85086410926&doi=10.1007%2fs00344-020-10172-7&partnerID=40&md5=24f3434e815212183dea75ee2b93b34a>

- Bityutskii, N.P., Yakkonen, K.L., Lukina, K.A., Semenov, K.N., Panova, G.G.  
Fullerenol can Ameliorate Iron Deficiency in Cucumber Growth Hydroponically  
(2021) *Journal of Plant Growth Regulation*, 40 (3), pp. 1017-1031.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85086126511&doi=10.1007%2fs00344-020-10160-x&partnerID=40&md5=18e4ede299cd9919acb1356fcb70d169>
- Bityutskii, N.P., Yakkonen, K.L., Puzanskiy, R., Lukina, K.A., Shavardai, A.L., Semenov, K.N.  
Fullerenol changes metabolite responses differently depending on the iron status of cucumber plants  
(2021) *PLoS ONE*, 16 (5 May 2021), art. no. e0251396, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106236145&doi=10.1371%2fjournal.pone.0251396&partnerID=40&md5=d274411b9b50a25b6e9aafae8c423bfb>
- Liedtke, I., Diehn, S., Heiner, Z., Seifert, S., Obenaus, S., Büttner, C., Kneipp, J.  
Multivariate Raman mapping for phenotypic characterization in plant tissue sections  
(2021) *Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy*, 251, art. no. 119418, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85099471401&doi=10.1016%2fj.saa.2020.119418&partnerID=40&md5=0c536cd4d9036c5bbeccf17d94ab2e4e>
- Ramírez-Olvera, S.M., Trejo-Téllez, L.I., Gómez-Merino, F.C., Ruiz-Posadas, L.M., Alcántar-González, E.G., Saucedo-Veloz, C.  
Silicon stimulates plant growth and metabolism in rice plants under conventional and osmotic stress conditions  
(2021) *Plants*, 10 (4), art. no. 777, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85104115257&doi=10.3390%2fplants10040777&partnerID=40&md5=b4b1c56e9ca77cd6f00b5a09d426a58a>
- Zhai, S., Qiu, S., Gao, H., Hou, G.  
Dynamics and characteristics of biogenic silica and macro- And microelements in decomposing litter in the Min River estuary, southeast China  
(2021) *Elementa*, 9 (1), art. no. 084, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85104892611&doi=10.1525%2felementa.2021.084&partnerID=40&md5=b578ceb3716a93fbb8a408bdb76b3f82>
- Hussain, S., Shuxian, L., Mumtaz, M., Shafiq, I., Iqbal, N., Brestic, M., Shoaib, M., Sisi, Q., Li, W., Mei, X., Bing, C., Zivcak, M., Rastogi, A., Skalicky, M., Hejnak, V., Weiguo, L., Wenyu, Y.  
Foliar application of silicon improves stem strength under low light stress by regulating lignin biosynthesis genes in soybean (*Glycine max* (L.) Merr.)  
(2021) *Journal of Hazardous Materials*, 401, art. no. 123256, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85087315944&doi=10.1016%2fj.jhazmat.2020.123256&partnerID=40&md5=e558a98c1ca8bf4fbc73367b36b60cf3>
- Nakib, D., Slatni, T., Di Foggia, M., Rombolà, A.D., Abdelly, C.  
Changes in organic compounds secreted by roots in two Poaceae species (*Hordeum vulgare* and *Polypogon monspeliensis*) subjected to iron deficiency  
(2021) *Journal of Plant Research*, 134 (1), pp. 151-163.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85098847510&doi=10.1007%2fs10265-020-01237-5&partnerID=40&md5=dc15abf3f45131434916529092bc974c>

Ali, M., Afzal, S., Parveen, A., Kamran, M., Javed, M.R., Abbasi, G.H., Malik, Z., Riaz, M., Ahmad, S., Chattha, M.S., Ali, M., Ali, Q., Uddin, M.Z., Rizwan, M., Ali, S.

Silicon mediated improvement in the growth and ion homeostasis by decreasing Na<sup>+</sup> uptake in maize (*Zea mays* L.) cultivars exposed to salinity stress

(2021) *Plant Physiology and Biochemistry*, 158, pp. 208-218.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85097068992&doi=10.1016%2fj.plaphy.2020.10.040&partnerID=40&md5=6ea11984530fd2720d7621470f03b26b>

Sadeghzadeh, N., Hajiboland, R., Moradtalab, N., Poschenrieder, C.

Growth enhancement of *Brassica napus* under both deficient and adequate iron supply by intercropping with *Hordeum vulgare*: a hydroponic study

(2021) *Plant Biosystems*, 155 (3), pp. 632-646.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85086018483&doi=10.1080%2f11263504.2020.1769215&partnerID=40&md5=f78b01cc04a559ab54468a003cfa59e5>

Hernández-Apaolaza, L., Escribano, L., Zamarreño, Á.M., García-Mina, J.M., Cano, C., Carrasco-Gil, S.

Root Silicon Addition Induces Fe Deficiency in Cucumber Plants, but Facilitates Their Recovery After Fe Resupply. A Comparison With Si Foliar Sprays

(2020) *Frontiers in Plant Science*, 11, art. no. 580552, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85098123005&doi=10.3389%2ffpls.2020.580552&partnerID=40&md5=b1ca0b9f0eb60632e72e11b8a0d96e58>

Ali, N., Réthoré, E., Yvin, J.-C., Hosseini, S.A.

The regulatory role of silicon in mitigating plant nutritional stresses

(2020) *Plants*, 9 (12), art. no. 1779, pp. 1-18.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85097942033&doi=10.3390%2fplants9121779&partnerID=40&md5=b3c0071ec9b99ebf1163efaf94d38ad4>

Majumdar, S., Prakash, N.B.

An Overview on the Potential of Silicon in Promoting Defence Against Biotic and Abiotic Stresses in Sugarcane

(2020) *Journal of Soil Science and Plant Nutrition*, 20 (4), pp. 1969-1998.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85087374218&doi=10.1007%2fs42729-020-00269-z&partnerID=40&md5=a516a066dc192e1b591968f71dd039e9>

Wang, N., Dong, X., Chen, Y., Ma, B., Yao, C., Ma, F., Liu, Z.

Direct and bicarbonate-induced iron deficiency differently affect iron translocation in Kiwifruit roots

(2020) *Plants*, 9 (11), art. no. 1578, pp. 1-15.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85096046352&doi=10.3390%2fplants9111578&partnerID=40&md5=e82f3d0ab761d44617b7c2e9c041de3d>

Foggia, M.D., Yunta-Mezquita, F., Tugnoli, V., Rombolà, A.D., Lucena, J.J.

Testing a bovine blood-derived compound as iron supply on *cucumis sativus* L.

(2020) *Agronomy*, 10 (10), art. no. 1480, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85092524372&doi=10.3390%2fagronomy10101480&partnerID=40&md5=a075ed0bee885f2f85ee653bb9386383>

Verma, K.K., Li, D.-M., Singh, M., Rajput, V.D., Malviya, M.K., Minkina, T., Singh, R.K., Singh, P., Song, X.-P., Li, Y.-R.

Interactive role of silicon and plant–rhizobacteria mitigating abiotic stresses: A new approach for sustainable agriculture and climate change

(2020) *Plants*, 9 (9), art. no. 1055, pp. 1-19.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85089683565&doi=10.3390%2fplants9091055&partnerID=40&md5=0836bf095cedb0e175f74b15eb0366fc>

Arriola, Á.A., Figueiredo, M.A., Boaneres, D., França, M.G.C., Isaias, R.M.D.S.

Apoplast-symplast compartmentalization and functional traits of iron and aluminum in promeristematic tissues of nematode induced galls on *Miconia* spp.

(2020) *Plant Physiology and Biochemistry*, 154, pp. 360-368.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85086941409&doi=10.1016%2fj.plaphy.2020.06.031&partnerID=40&md5=3db471776b37842f9f9b810dff34bdf2>

Teixeira, G.C.M., de Mello Prado, R., Oliveira, K.S., D'Amico-Damião, V., da Silveira Sousa Junior, G. Silicon Increases Leaf Chlorophyll Content and Iron Nutritional Efficiency and Reduces Iron Deficiency in Sorghum Plants

(2020) *Journal of Soil Science and Plant Nutrition*, 20 (3), pp. 1311-1320.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85081678458&doi=10.1007%2fs42729-020-00214-0&partnerID=40&md5=f6a169ecc36fac605f673b55b26d9247>

Chen, J., Zhang, N.-N., Pan, Q., Lin, X.-Y., Shangguan, Z., Zhang, J.-H., Wei, G.-H.

Hydrogen sulphide alleviates iron deficiency by promoting iron availability and plant hormone levels in Glycine max seedlings

(2020) *BMC Plant Biology*, 20 (1), art. no. 383, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85089769556&doi=10.1186%2fs12870-020-02601-2&partnerID=40&md5=1f061fd5dfc077195dc9f1268e8035ac>

Vega, I., Rumpel, C., Ruíz, A., De La Luz Mora, M., Calderini, D.F., Cartes, P.

Silicon modulates the production and composition of phenols in barley under aluminum stress

(2020) *Agronomy*, 10 (8), art. no. 1138, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85090528210&doi=10.3390%2fagronomy10081138&partnerID=40&md5=251c1fb697f0a31666f03e23f3b8bed9>

Chaiwong, N., Bouain, N., Prom-u-thai, C., Rouached, H.

Interplay Between Silicon and Iron Signaling Pathways to Regulate Silicon Transporter *Lsi1* Expression in Rice

(2020) *Frontiers in Plant Science*, 11, art. no. 1065, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85089109735&doi=10.3389%2ffpls.2020.01065&partnerID=40&md5=16dd0007152d1ef4e22c137f585ec9b2>

Hajiboland, R., Sadeghzadeh, N., Bosnic, D., Bosnic, P., Tolrà, R., Poschenrieder, C., Nikolic, M.

Selenium activates components of iron acquisition machinery in oilseed rape roots

- (2020) *Plant and Soil*, 452 (1-2), pp. 569-586.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85086565851&doi=10.1007%2fs11104-020-04599-w&partnerID=40&md5=4528f187073aa73b3da070b5097681a1>
- Gou, T., Yang, L., Hu, W., Chen, X., Zhu, Y., Guo, J., Gong, H.  
Silicon improves the growth of cucumber under excess nitrate stress by enhancing nitrogen assimilation and chlorophyll synthesis  
(2020) *Plant Physiology and Biochemistry*, 152, pp. 53-61.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85084226658&doi=10.1016%2fj.plaphy.2020.04.031&partnerID=40&md5=d749d9fc225dd0f7913e90501f6cd9fa>
- Liao, M., Fang, Z.-P., Liang, Y.-Q., Huang, X.-H., Yang, X., Chen, S.-S., Xie, X.-M., Xu, C.-X., Guo, J.-W.  
Effects of supplying silicon nutrient on utilization rate of nitrogen and phosphorus nutrients by rice and its soil ecological mechanism in a hybrid rice double-cropping system [硅养分补充对双季杂交稻系统水稻氮磷养分利用率的影响及其土壤生态机制]  
(2020) *Journal of Zhejiang University: Science B*, 21 (6), pp. 474-484.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85085854070&doi=10.1631%2fjzus.B1900516&partnerID=40&md5=4ef9816402c9a4826738754b03d40350>
- Bitvutskii, N.P., Yakkonen, K.L., Lukina, K.A., Semenov, K.N.  
Fullerenol increases effectiveness of foliar iron fertilization in iron-deficient cucumber  
(2020) *PLoS ONE*, 15 (5), art. no. e0232765, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85084277078&doi=10.1371%2fjournal.pone.0232765&partnerID=40&md5=e6fe4ac5b70b389b740e0f72d4b03a5d>
- Ahamed, G.J., Wu, M., Wang, Y., Yan, Y., Mao, Q., Ren, J., Ma, R., Liu, A., Chen, S.  
Melatonin alleviates iron stress by improving iron homeostasis, antioxidant defense and secondary metabolism in cucumber  
(2020) *Scientia Horticulturae*, 265, art. no. 109205, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85078827154&doi=10.1016%2fj.scienta.2020.109205&partnerID=40&md5=852c5d062ed26fa71c5fcb61a3f5419d>
- Guo, Z., Du, N., Li, Y., Zheng, S., Shen, S., Piao, F.  
Gamma-aminobutyric acid enhances tolerance to iron deficiency by stimulating auxin signaling in cucumber (*Cucumis sativus*L.)  
(2020) *Ecotoxicology and Environmental Safety*, 192, art. no. 110285, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85078855316&doi=10.1016%2fj.ecoenv.2020.110285&partnerID=40&md5=8646ce19468961e2849cba8c317cc8f4>
- Sun, H., Duan, Y., Mitani-Ueno, N., Che, J., Jia, J., Liu, J., Guo, J., Ma, J.F., Gong, H.  
Tomato roots have a functional silicon influx transporter but not a functional silicon efflux transporter  
(2020) *Plant Cell and Environment*, 43 (3), pp. 732-744.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85076772894&doi=10.1111%2fpce.13679&partnerID=40&md5=8f21e2cc378dbfc8fc3077e998a260cd>

Teixeira, G.C.M., Rocha, A.M.S., Oliveira, K.S., Dos Santos Sarah, M.M., De Oliveira Filho, A.S.B., De Mello Prado, R., Palaretti, L.F.

Silicon to mitigate stress due to manganese deficiency and water deficit in pre-sprouted sugarcane seedlings (Bibliographic Review)

(2020) *Cientifica*, 48 (2), pp. 170-187.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85088978716&doi=10.15361%2f1984-5529.2020v48n2p170-187&partnerID=40&md5=37c0a31012f0b95fe8b6a8493379daac>

Aras, S.

Silicon nutrition in alleviating salt stress in apple plant

(2020) *Acta Scientiarum Polonorum, Hortorum Cultus*, 19 (1), pp. 3-10.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85087031563&doi=10.24326%2fasphc.2020.1.1&partnerID=40&md5=7a102f77093b1155414367591c27b31e>

Izadi, Z., Rezaei Nejad, A., Abadía, J.

Physio-morphological and biochemical responses of pot marigold (*Calendula officinalis* L.) to split iron nutrition

(2020) *Acta Physiologiae Plantarum*, 42 (1), art. no. 6. .

<https://www.scopus.com/inward/record.uri?cid=2-s2.0-85077438605&doi=10.1007%2fs11738-020-3011-x&partnerID=40&md5=f13509fac1029df24cc056468e82e498>

Bosnić, D., Bosnić, P., Nikolić, D., Nikolić, M., Samardžić, J.

Silicon and iron differently alleviate copper toxicity in cucumber leaves

(2019) *Plants*, 8 (12), art. no. 554, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85076053545&doi=10.3390%2fplants8120554&partnerID=40&md5=6335820b7ab436fc5a83cafb5b00f1d6>

Etesami, H., Jeong, B.R.

Importance of silicon in fruit nutrition: Agronomic and physiological implications

(2019) *Fruit Crops: Diagnosis and Management of Nutrient Constraints*, pp. 255-277.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85087978962&doi=10.1016%2fb978-0-12-818732-6.00019-8&partnerID=40&md5=24cec7848c0e4594cf21b2e108852ee8>

Carballn-Mendez, F.J., Olivares-Sacnz, E., Bolivar-Duarte, M., Antonio-Bautista, A., Vazquez Badillo, M.E., Ninn-Medina, G.

Effect of silicon on germination of moringa oleifera lam. In different types of salts

(2019) *Fresenius Environmental Bulletin*, 28 (11), pp. 8823-8830.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85092727309&partnerID=40&md5=2b9bd10184faf5b8ddcad4b5820f656c>

Bityutskii, N.P., Yakkonen, K.L., Petrova, A.I., Lukina, K.A., Shavarda, A.L.

Calcium Carbonate Reduces the Effectiveness of Soil-Added Monosilicic Acid in Cucumber Plants

(2019) *Journal of Soil Science and Plant Nutrition*, 19 (3), pp. 660-670.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069714697&doi=10.1007%2fs42729-019-00066-3&partnerID=40&md5=430cb49d101e3bde7b23add5f54e1836>

de Oliveira, R.L.L., de Mello Prado, R., Felisberto, G., Checchio, M.V., Gratão, P.L.

Silicon Mitigates Manganese Deficiency Stress by Regulating the Physiology and Activity of Antioxidant Enzymes in Sorghum Plants

(2019) *Journal of Soil Science and Plant Nutrition*, 19 (3), pp. 524-534.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069635249&doi=10.1007%2fs42729-019-00051-w&partnerID=40&md5=b8e4831cf254db3e0fd35257630ee98f>

Sambo, P., Nicoletto, C., Giro, A., Pii, Y., Valentinuzzi, F., Mimmo, T., Lugli, P., Orzes, G., Mazzetto, F., Astolfi, S., Terzano, R., Cesco, S.

Hydroponic Solutions for Soilless Production Systems: Issues and Opportunities in a Smart Agriculture Perspective

(2019) *Frontiers in Plant Science*, 10, art. no. 923, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072551642&doi=10.3389%2ffpls.2019.00923&partnerID=40&md5=7927d071532085c832879ee73c2bb0b0>

Vega, I., Nikolic, M., Pontigo, S., Godoy, K., de La Luz Mora, M., Cartes, P.

Silicon improves the production of high antioxidant or structural phenolic compounds in barley cultivars under aluminum stress

(2019) *Agronomy*, 9 (7), art. no. 388, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070230881&doi=10.3390%2fagronomy9070388&partnerID=40&md5=113dc5822a47ec3f9dd3b41721f258b7>

Ye, Y.Q., Luo, H.Y., Li, M., Zhang, J.J., Cao, G.Q., Lin, K.M., Lin, S.Z., Xu, S.S.

Potassium ameliorates iron deficiency by facilitating the remobilization of iron from root cell walls and promoting its translocation from roots to shoots

(2019) *Plant and Soil*, 440 (1-2), pp. 507-521.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065654035&doi=10.1007%2fs11104-019-04111-z&partnerID=40&md5=b9f307cb2c352aa96c5543b0e03404dd>

Malhotra, C., Kapoor, R.T.

Silicon: A sustainable tool in abiotic stress tolerance in plants

(2019) *Plant Abiotic Stress Tolerance: Agronomic, Molecular and Biotechnological Approaches*, pp. 333-356.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068860485&doi=10.1007%2f978-3-030-06118-0\\_14&partnerID=40&md5=315a2cc80494cbde01686e1355f9a907](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068860485&doi=10.1007%2f978-3-030-06118-0_14&partnerID=40&md5=315a2cc80494cbde01686e1355f9a907)

Bosnic, P., Pavlicevic, M., Nikolic, N., Nikolic, M.

High monosilicic acid supply rapidly increases Na accumulation in maize roots by decreasing external Ca<sup>2+</sup> activity

(2019) *Journal of Plant Nutrition and Soil Science*, 182 (2), pp. 210-216.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85058685327&doi=10.1002%2fjpln.201800153&partnerID=40&md5=94baf5cdcab195a344d78a9bea43262c>

Lebedev, S.V., Gavrish, I.A., Galaktionova, L.V., Korotkova, A.M., Sizova, E.A.

Assessment of the toxicity of silicon nanoxide in relation to various components of the agroecosystem under the conditions of the model experiment

(2019) *Environmental Geochemistry and Health*, 41 (2), pp. 769-782.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85052095246&doi=10.1007%2fs10653-018-0171-3&partnerID=40&md5=772dedeada9d0cac34965d379e06a44f>

Nikolic, D.B., Nesic, S., Bosnic, D., Kostic, L., Nikolic, M., Samardzic, J.T.  
Silicon alleviates iron deficiency in barley by enhancing expression of strategy ii genes and metal redistribution  
(2019) *Frontiers in Plant Science*, 10, art. no. 416, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064227790&doi=10.3389%2ffpls.2019.00416&partnerID=40&md5=227a8a7ed74e96675f29b03c41b76dd4>

Cumplido-Nájera, C.F., González-Morales, S., Ortega-Ortíz, H., Cadenas-Pliego, G., Benavides-Mendoza, A., Juárez-Maldonado, A.  
The application of copper nanoparticles and potassium silicate stimulate the tolerance to *Clavibacter michiganensis* in tomato plants  
(2019) *Scientia Horticulturae*, 245, pp. 82-89.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85054590228&doi=10.1016%2fj.scienta.2018.10.007&partnerID=40&md5=13aad5d4610929990d2025d35cdc2743>

Moradtalab, N., Hajiboland, R., Aliasgharzad, N., Hartmann, T.E., Neumann, G.  
Silicon and the Association with an Arbuscular-Mycorrhizal Fungus (*Rhizophagus clarus*) Mitigate the Adverse Effects of Drought Stress on Strawberry  
(2019) *Agronomy*, 9 (1), .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85060307848&doi=10.3390%2fagronomy9010041&partnerID=40&md5=61a563032184af4c0d81d21286b3ef54>

Lambers, H., Oliveira, R.S.  
Plant physiological ecology  
(2019) *Plant Physiological Ecology*, pp. 1-699.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85088725144&doi=10.1007%2f978-3-030-29639-1&partnerID=40&md5=e002339904544bb840a4e020cbb7631>

Zhang, Y., Liang, Y., Zhao, X., Jin, X., Hou, L., Shi, Y., Ahammed, G.J.  
Silicon compensates phosphorus deficit-induced growth inhibition by improving photosynthetic capacity, antioxidant potential, and nutrient homeostasis in tomato  
(2019) *Agronomy*, 9 (11), art. no. 733, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85075039853&doi=10.3390%2fagronomy9110733&partnerID=40&md5=4a52f176fa554c0b88254adedf9872d0>

Ye, Y., Luo, H., Liu, X., Li, M., Cao, G., Yang, H., Xu, S.  
Involvement of ethylene in the regulation of potassium for iron deficiency-induced responses in *Arabidopsis thaliana*  
(2019) *Chinese Journal of Applied and Environmental Biology*, 25 (2), pp. 405-413.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065654812&doi=10.19675%2fj.cnki.1006-687x.2018.05021&partnerID=40&md5=2712aa4a20d46413e965d4d446b0294d>

Dorneles, A.O.S., Pereira, A.S., Sasso, V.M., Posseboim, G., Tarouco, C.P., Schorr, M.R.W., Rossato, L., Ferreira, P.A.A., Tabaldi, L.A.  
Aluminum stress tolerance in potato genotypes grown with silicon  
(2019) *Bragantia*, 78 (1), pp. 12-25.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065299235&doi=10.1590%2f1678-4499.2018007&partnerID=40&md5=f01948b0c64fea26e174740177822131>

Coskun, D., Deshmukh, R., Sonah, H., Menzies, J.G., Reynolds, O., Ma, J.F., Kronzucker, H.J., Bélanger, R.R.  
The controversies of silicon's role in plant biology  
(2019) *New Phytologist*, 221 (1), pp. 67-85.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85050755908&doi=10.1111%2fjph.15343&partnerID=40&md5=7943cf79f282f0733af5927f32a5053b>

Bityutskii, N.P., Yakkonen, K.L., Petrova, A.I., Lukina, K.A., Shavarda, A.L.  
Silicon ameliorates iron deficiency of cucumber in a pH-dependent manner

(2018) *Journal of Plant Physiology*, 231, pp. 364-373.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85055645381&doi=10.1016%2fj.jplph.2018.10.017&partnerID=40&md5=c5590e0d319bdc4cd3aabe4511915a1>

Maillard, A., Ali, N., Schwarzenberg, A., Jamois, F., Yvin, J.-C., Hosseini, S.A.

Silicon transcriptionally regulates sulfur and ABA metabolism and delays leaf senescence in barley under combined sulfur deficiency and osmotic stress

(2018) *Environmental and Experimental Botany*, 155, pp. 394-410.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85051014640&doi=10.1016%2fj.envexpbot.2018.07.026&partnerID=40&md5=6674f13fa6246f16dccb5e5f70500716>

Ali, N., Schwarzenberg, A., Yvin, J.-C., Hosseini, S.A.

Regulatory role of silicon in mediating differential stress tolerance responses in two contrasting tomato genotypes under osmotic stress

(2018) *Frontiers in Plant Science*, 9, art. no. 1475, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85055049653&doi=10.3389%2ffpls.2018.01475&partnerID=40&md5=c8348cb127f5d46fac0b32d2dfad1310>

LI, Z.-C., SONG, Z.-L., YANG, X.-M., SONG, A.-L., YU, C.-X., WANG, T., XIA, S., LIANG, Y.-C.

Impacts of silicon on biogeochemical cycles of carbon and nutrients in croplands

(2018) *Journal of Integrative Agriculture*, 17 (10), pp. 2182-2195.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85054287388&doi=10.1016%2fS2095-3119%2818%2962018-0&partnerID=40&md5=94a92624e8f8725ce9d4a5050ab50cd0>

Pati, S., Saha, S., Saha, S., Pal, B., Saha, B., Hazra, G.C.

Soil application of silicon: Effects on economic yield and nutrition of phosphorus, zinc and iron in rice (*Oryza sativa* L.)

(2018) *Journal of the Indian Society of Soil Science*, 66 (3), pp. 329-335.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065233615&doi=10.5958%2f0974-0228.2018.00041.5&partnerID=40&md5=ec15159c4e477fa536faefdb7b8b4578>

Kolašinac, S.M., Lekić, S.S., Golijan, J., Petrović, T., Todorovic, G., Kostić, A.Ž.

Bioaccumulation process and health risk assessment of toxic elements in tomato fruit grown under Zn nutrition treatment

(2018) *Environmental Monitoring and Assessment*, 190 (9), art. no. 508, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85051487344&doi=10.1007%2fs10661-018-6886-x&partnerID=40&md5=4cac7738bb6d938d4ded92a1059ef324>

Greger, M., Landberg, T., Vaculik, M.

Silicon influences soil availability and accumulation of mineral nutrients in various plant species

(2018) *Plants*, 7 (2), art. no. 41, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85047455304&doi=10.3390%2fplants7020041&partnerID=40&md5=23c6b94a904f45ab39e5a2d5dfe414fd)

[85047455304&doi=10.3390%2fplants7020041&partnerID=40&md5=23c6b94a904f45ab39e5a2d5dfe414fd](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85047455304&doi=10.3390%2fplants7020041&partnerID=40&md5=23c6b94a904f45ab39e5a2d5dfe414fd)

Li, Z., Song, Z., Yan, Z., Hao, Q., Song, A., Liu, L., Yang, X., Xia, S., Liang, Y.

Silicon enhancement of estimated plant biomass carbon accumulation under abiotic and biotic stresses. A meta-analysis

(2018) *Agronomy for Sustainable Development*, 38 (3), art. no. 26, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85046416292&doi=10.1007%2fs13593-018-0496-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85046416292&doi=10.1007%2fs13593-018-0496-4&partnerID=40&md5=8ac2b598622943ed05d86b53b314808e)

[4&partnerID=40&md5=8ac2b598622943ed05d86b53b314808e](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85046416292&doi=10.1007%2fs13593-018-0496-4&partnerID=40&md5=8ac2b598622943ed05d86b53b314808e)

Głazowska, S., Murozuka, E., Persson, D.P., Castro, P.H., Schjoerring, J.K.

Silicon affects seed development and leaf macrohair formation in *Brachypodium distachyon*

(2018) *Physiologia Plantarum*, 163 (2), pp. 231-246.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85044518035&doi=10.1111%2fpl.12675&partnerID=40&md5=84d441ffd69a84002ec4b028945a5391)

[85044518035&doi=10.1111%2fpl.12675&partnerID=40&md5=84d441ffd69a84002ec4b028945a5391](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85044518035&doi=10.1111%2fpl.12675&partnerID=40&md5=84d441ffd69a84002ec4b028945a5391)

Asgari, F., Majd, A., Jonoubi, P., Najafi, F.

Effects of silicon nanoparticles on molecular, chemical, structural and ultrastructural characteristics of oat (*Avena sativa* L.)

(2018) *Plant Physiology and Biochemistry*, 127, pp. 152-160.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85044444242&doi=10.1016%2fj.plaphy.2018.03.021&partnerID=40&md5=f8f1894bca2f21175abe0236ef158f62)

[85044444242&doi=10.1016%2fj.plaphy.2018.03.021&partnerID=40&md5=f8f1894bca2f21175abe0236ef158f62](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85044444242&doi=10.1016%2fj.plaphy.2018.03.021&partnerID=40&md5=f8f1894bca2f21175abe0236ef158f62)

Roosta, H.R., Estaji, A., Niknam, F.

Effect of iron, zinc and manganese shortage-induced change on photosynthetic pigments, some osmoregulators and chlorophyll fluorescence parameters in lettuce

(2018) *Photosynthetica*, 56 (2), pp. 606-615.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85011797312&doi=10.1007%2fs11099-017-0696-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85011797312&doi=10.1007%2fs11099-017-0696-1&partnerID=40&md5=a29f81902241ee341fb01625671b659e)

[1&partnerID=40&md5=a29f81902241ee341fb01625671b659e](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85011797312&doi=10.1007%2fs11099-017-0696-1&partnerID=40&md5=a29f81902241ee341fb01625671b659e)

Moradtalab, N., Weinmann, M., Walker, F., Höglinger, B., Ludewig, U., Neumann, G.

Silicon improves chilling tolerance during early growth of maize by effects on micronutrient homeostasis and hormonal balances

(2018) *Frontiers in Plant Science*, 9, art. no. 420, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85046906046&doi=10.3389%2ffpls.2018.00420&partnerID=40&md5=50e5ac97b13c00af9989cb5393f71560)

[85046906046&doi=10.3389%2ffpls.2018.00420&partnerID=40&md5=50e5ac97b13c00af9989cb5393f71560](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85046906046&doi=10.3389%2ffpls.2018.00420&partnerID=40&md5=50e5ac97b13c00af9989cb5393f71560)

Hajiboland, R., Moradtalab, N., Eshaghi, Z., Feizy, J.

Effect of silicon supplementation on growth and metabolism of strawberry plants at three developmental stages

(2018) *New Zealand Journal of Crop and Horticultural Science*, 46 (2), pp. 144-161.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85029581920&doi=10.1080%2f01140671.2017.1373680&partnerID=40&md5=feb692c19a6e6f24fb0e4b2c3580b21b>

Carrasco-Gil, S., Rodríguez-Menéndez, S., Fernández, B., Pereiro, R., de la Fuente, V., Hernandez-Apaolaza, L. Silicon induced Fe deficiency affects Fe, Mn, Cu and Zn distribution in rice (*Oryza sativa* L.) growth in calcareous conditions

(2018) *Plant Physiology and Biochemistry*, 125, pp. 153-163.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85041905200&doi=10.1016%2fj.plaphy.2018.01.033&partnerID=40&md5=d8a73719456262efc7d69cfabf6f569d>

Chaiwong, N., Prom-U-thai, C., Bouain, N., Lacombe, B., Rouached, H.

Individual versus combinatorial effects of silicon, phosphate, and iron deficiency on the growth of lowland and upland rice varieties

(2018) *International Journal of Molecular Sciences*, 19 (3), art. no. 899, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85044218601&doi=10.3390%2fijms19030899&partnerID=40&md5=5fa857d112b06c52695725151e8a92e8>

Savic, J., Stevic, N., Maksimovic, V., Samardzic, J., Nikolic, D.B., Nikolic, M.

Root malate efflux and expression of TaALMT1 in Serbian winter wheat cultivars differing in Al tolerance

(2018) *Journal of Soil Science and Plant Nutrition*, 18 (1), pp. 90-99.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85047016582&doi=10.4067%2fS0718-95162018005000402&partnerID=40&md5=334b6e2058bdcf25517bca4e3e982fac>

Etesami, H.

Can interaction between silicon and plant growth promoting rhizobacteria benefit in alleviating abiotic and biotic stresses in crop plants?

(2018) *Agriculture, Ecosystems and Environment*, 253, pp. 98-112.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85033600845&doi=10.1016%2fj.agee.2017.11.007&partnerID=40&md5=fd8ec5007e4409712c0e267006f952aa>

Ribera-Fonseca, A., Rumpel, C., Mora, M.D.L.L., Nikolic, M., Cartes, P.

Sodium silicate and calcium silicate differentially affect silicon and aluminium uptake, antioxidant performance and phenolics metabolism of ryegrass in an acid Andisol

(2018) *Crop and Pasture Science*, 69 (2), pp. 205-215.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85041929773&doi=10.1071%2fCP17202&partnerID=40&md5=582322073c06f7ef4746a96c43704f24>

Etesami, H., Jeong, B.R.

Silicon (Si): Review and future prospects on the action mechanisms in alleviating biotic and abiotic stresses in plants

(2018) *Ecotoxicology and Environmental Safety*, 147, pp. 881-896.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85030129845&doi=10.1016%2fj.ecoenv.2017.09.063&partnerID=40&md5=15f619248f806650775df7cb1a09db3b>

Sreenivasan, S.T., Prakash, N.B.

Evaluation of calcium silicate, rice hull and rice hull ash as silicon sources in wetland rice in acidic and alkaline soils

(2017) *Journal of the Indian Society of Soil Science*, 65 (4), pp. 428-434.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068794432&doi=10.5958%2f0974-0228.2017.00050.0&partnerID=40&md5=c8b162ce39cb55d5fd7eabb6542ebd4b>

Morina, F., Vidović, M., Srećković, T., Radović, V., Veljović-Jovanović, S.

Biomonitoring of Urban Pollution Using Silicon-Accumulating Species, *Phyllostachys aureosulcata* 'Aureocaulis'

(2017) *Bulletin of Environmental Contamination and Toxicology*, 99 (6), pp. 706-712.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85031426654&doi=10.1007%2fs00128-017-2189-0&partnerID=40&md5=1e08ad433617a7cba12e40766e8acab5>

Bityutskii, N.P., Yakkonen, K.L., Petrova, A.I., Shavarda, A.L.

Interactions between aluminium, iron and silicon in *Cucumis sativus* L. grown under acidic conditions

(2017) *Journal of Plant Physiology*, 218, pp. 100-108.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85031771820&doi=10.1016%2fj.jplph.2017.08.003&partnerID=40&md5=ea1d7f86341a79aa7a1a9db0908ccca>  
a

Kostic, L., Nikolic, N., Bosnic, D., Samardzic, J., Nikolic, M.

Silicon increases phosphorus (P) uptake by wheat under low P acid soil conditions

(2017) *Plant and Soil*, 419 (1-2), pp. 447-455.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85026552203&doi=10.1007%2fs11104-017-3364-0&partnerID=40&md5=a89e0870af8c7dcee434a97f4fc0637b>

Debona, D., Rodrigues, F.A., Datnoff, L.E.

Silicon's Role in Abiotic and Biotic Plant Stresses

(2017) *Annual Review of Phytopathology*, 55, pp. 85-107.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85027065820&doi=10.1146%2fannurev-phyto-080516-035312&partnerID=40&md5=13d42a4752ac14e902e2d8c204c4e340>

Song, A., Fan, F., Yin, C., Wen, S., Zhang, Y., Fan, X., Liang, Y.

The effects of silicon fertilizer on denitrification potential and associated genes abundance in paddy soil

(2017) *Biology and Fertility of Soils*, 53 (6), pp. 627-638.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85019199190&doi=10.1007%2fs00374-017-1206-0&partnerID=40&md5=21f0b375862d7f56f65621ced3d1e696>

de Jesus, L.R., Batista, B.L., da Silva Lobato, A.K.

Silicon reduces aluminum accumulation and mitigates toxic effects in cowpea plants

(2017) *Acta Physiologiae Plantarum*, 39 (6), art. no. 138, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85019691278&doi=10.1007%2fs11738-017-2435-4&partnerID=40&md5=276636dd8e0ad767b099314688134268>

Pontigo, S., Godoy, K., Jiménez, H., Gutiérrez-Moraga, A., Mora, M.D.L.L., Cartes, P.

Silicon-mediated alleviation of aluminum toxicity by modulation of al/si uptake and antioxidant performance in ryegrass plants

(2017) *Frontiers in Plant Science*, 8, art. no. 642,

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85019235575&doi=10.3389%2ffpls.2017.00642&partnerID=40&md5=1a8980f1ecadcb45db63ef6dfe99abde>

Haynes, R.J.

Significance and Role of Si in Crop Production

(2017) *Advances in Agronomy*, 146, pp. 83-166.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85026627559&doi=10.1016%2ffbs.agron.2017.06.001&partnerID=40&md5=ac4074350ce1c2d6f80e8119ae58b738>

738

Rahman, M.F., Ghosal, A., Alam, M.F., Kabir, A.H.

Remediation of cadmium toxicity in field peas (*Pisum sativum* L.) through exogenous silicon

(2017) *Ecotoxicology and Environmental Safety*, 135, pp. 165-172.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84991266914&doi=10.1016%2fj.ecoenv.2016.09.019&partnerID=40&md5=38d62b2173a47445472b35c6d0e8fa13>

fa13

Zerari, L., Djebar, M.R., Besnaci, S., Berrebah, H., Boudouda, L.

Effect of metal dust in *Phaseolus vulgaris*: Physiological, enzymatic and respiration parameter

(2016) *International Journal of Pharmaceutical Sciences Review and Research*, 41 (1), art. no. 31, pp. 159-166.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85002252567&partnerID=40&md5=ec57650c18bf40eb4dbb199f8987a6d7>

85002252567&partnerID=40&md5=ec57650c18bf40eb4dbb199f8987a6d7

Pascual, M.B., Echevarria, V., Gonzalo, M.J., Hernández-Apaolaza, L.

Silicon addition to soybean (*Glycine max* L.) plants alleviate zinc deficiency

(2016) *Plant Physiology and Biochemistry*, 108, pp. 132-138.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84978191182&doi=10.1016%2fj.plaphy.2016.07.008&partnerID=40&md5=adffd7f4725f945f9c411d529a2dc474>

84978191182&doi=10.1016%2fj.plaphy.2016.07.008&partnerID=40&md5=adffd7f4725f945f9c411d529a2dc474

Cooke, J., Leishman, M.R.

Consistent alleviation of abiotic stress with silicon addition: a meta-analysis

(2016) *Functional Ecology*, 30 (8), pp. 1340-1357.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84981156817&doi=10.1111%2f1365-2435.12713&partnerID=40&md5=a2526922fb71d4fd7f3e43b3863909a6>

84981156817&doi=10.1111%2f1365-2435.12713&partnerID=40&md5=a2526922fb71d4fd7f3e43b3863909a6

Bityutskii, N., Kaidun, P., Yakkonen, K.

Earthworms can increase mobility and bioavailability of silicon in soil

(2016) *Soil Biology and Biochemistry*, 99, pp. 47-53.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84964933169&doi=10.1016%2fj.soilbio.2016.04.022&partnerID=40&md5=e14046cf626d1c8d640dee5592caf5b>

84964933169&doi=10.1016%2fj.soilbio.2016.04.022&partnerID=40&md5=e14046cf626d1c8d640dee5592caf5b

Chen, J., Shangguan, Z.-P., Zheng, H.-L.

The function of hydrogen sulphide in iron availability: Sulfur nutrient or signaling molecule?

(2016) *Plant Signaling and Behavior*, 11 (6), art. no. e1132967, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84976521399&doi=10.1080%2f15392324.2015.1132967&partnerID=40&md5=e393ae1ef4b0fb8c24147d096add4bc5>

84976521399&doi=10.1080%2f15392324.2015.1132967&partnerID=40&md5=e393ae1ef4b0fb8c24147d096add4bc5

- Guo, B., Liu, C., Ding, N., Fu, Q., Lin, Y., Li, H., Li, N.  
Silicon Alleviates Cadmium Toxicity in Two Cypress Varieties by Strengthening the Exodermis Tissues and Stimulating Phenolic Exudation of Roots  
(2016) *Journal of Plant Growth Regulation*, 35 (2), pp. 420-429.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84944626954&doi=10.1007%2fs00344-015-9549-y&partnerID=40&md5=7ba447b9621692b55425cac87eb97dc2>
- Farooq, M.A., Detterbeck, A., Clemens, S., Dietz, K.-J.  
Silicon-induced reversibility of cadmium toxicity in rice  
(2016) *Journal of Experimental Botany*, 67 (11), pp. 3573-3585.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84973572630&doi=10.1093%2fjxb%2ferw175&partnerID=40&md5=453ee2b72e62da7d0f2761bee2ce9e93>
- Chen, D., Cao, B., Wang, S., Liu, P., Deng, X., Yin, L., Zhang, S.  
Silicon moderated the K deficiency by improving the plant-water status in sorghum  
(2016) *Scientific Reports*, 6, art. no. 22882,  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84960858685&doi=10.1038%2fsrep22882&partnerID=40&md5=6e3177052d4496f9cac79954bd94f0fa>
- Dorneles, A.O.S., Pereira, A.S., Rossato, L.V., Possebom, G., Sasso, V.M., Bernardy, K., Sandri, R.Q., Nicoloso, F.T., Ferreira, P.A.A., Tabaldi, L.A.  
Silicon reduces aluminum content in tissues and ameliorates its toxic effects on potato plant growth [Silício reduz o conteúdo de alumínio em tecidos e ameniza seus efeitos tóxicos sobre o crescimento de plantas de batata]  
(2016) *Ciencia Rural*, 46 (3), pp. 506-512.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84954055956&doi=10.1590%2f0103-8478cr20150585&partnerID=40&md5=ddd557ad10f0d8dfd2383e827bb9d45>
- Tomasi, N., Pinton, R., Dalla Costa, L., Cortella, G., Terzano, R., Mimmo, T., Scampicchio, M., Cesco, S.  
New 'solutions' for floating cultivation system of ready-to-eat salad: A review  
(2015) *Trends in Food Science and Technology*, 46 (Part B), pp. 267-276.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84945532515&doi=10.1016%2fj.tifs.2015.08.004&partnerID=40&md5=250fe853c50e7f8687d6308e11d440fd>
- Savvas, D., Ntatsi, G.  
Biostimulant activity of silicon in horticulture  
(2015) *Scientia Horticulturae*, 196, pp. 66-81.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84946599845&doi=10.1016%2fj.scienta.2015.09.010&partnerID=40&md5=aed237820cc80a721690fa96f0241df1>
- Farooq, M.A., Dietz, K.-J.  
Silicon as versatile player in plant and human biology: Overlooked and poorly understood  
(2015) *Frontiers in Plant Science*, 6 (NOVEMBER), art. no. 994, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84947567550&doi=10.3389%2ffpls.2015.00994&partnerID=40&md5=a5dfd945d0549aa5e4906280757cfda8>
- Vaculík, M., Pavlovič, A., Lux, A.

Silicon alleviates cadmium toxicity by enhanced photosynthetic rate and modified bundle sheath's cell chloroplasts ultrastructure in maize

(2015) *Ecotoxicology and Environmental Safety*, 120, pp. 66-73.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84930679382&doi=10.1016%2fj.ecoenv.2015.05.026&partnerID=40&md5=9afaf33632752c59457d57b4b0503d0d)

[84930679382&doi=10.1016%2fj.ecoenv.2015.05.026&partnerID=40&md5=9afaf33632752c59457d57b4b0503d0d](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84930679382&doi=10.1016%2fj.ecoenv.2015.05.026&partnerID=40&md5=9afaf33632752c59457d57b4b0503d0d)

Klug, B., Kirchner, T.W., Horst, W.J.

Differences in aluminium accumulation and resistance between genotypes of the genus *Fagopyrum*

(2015) *Agronomy*, 5 (3), pp. 418-434.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84958956383&doi=10.3390%2fagronomy5030418&partnerID=40&md5=33f2d7a720b1586862a071fee34da183)

[84958956383&doi=10.3390%2fagronomy5030418&partnerID=40&md5=33f2d7a720b1586862a071fee34da183](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84958956383&doi=10.3390%2fagronomy5030418&partnerID=40&md5=33f2d7a720b1586862a071fee34da183)

Bin, Z., Zhang, R., Zhang, W., Xu, D.

Effects of nitrogen, phosphorus and silicon addition on leaf carbon, nitrogen, and phosphorus concentration of *Elymus Nutans* of alpine meadow on Qinghai-Tibetan Plateau, China

(2015) *Shengtai Xuebao*, 35 (14), pp. 4699-4706.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84938816952&doi=10.5846%2fstxb201311142729&partnerID=40&md5=f21df73c52c82ef9abd42b4ec834c781)

[84938816952&doi=10.5846%2fstxb201311142729&partnerID=40&md5=f21df73c52c82ef9abd42b4ec834c781](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84938816952&doi=10.5846%2fstxb201311142729&partnerID=40&md5=f21df73c52c82ef9abd42b4ec834c781)

Wu, J., Guo, J., Hu, Y., Gong, H.

Distinct physiological responses of tomato and cucumber plants in silicon-mediated alleviation of cadmium stress

(2015) *Frontiers in Plant Science*, 6 (June), art. no. 453, 14 p.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84935889138&doi=10.3389%2ffpls.2015.00453&partnerID=40&md5=cb22603dc076492a9d67d9081458d152)

[84935889138&doi=10.3389%2ffpls.2015.00453&partnerID=40&md5=cb22603dc076492a9d67d9081458d152](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84935889138&doi=10.3389%2ffpls.2015.00453&partnerID=40&md5=cb22603dc076492a9d67d9081458d152)

Ye, Y.Q., Jin, C.W., Fan, S.K., Mao, Q.Q., Sun, C.L., Yu, Y., Lin, X.Y.

Elevation of NO production increases Fe immobilization in the Fe-deficiency roots apoplast by decreasing pectin methylation of cell wall

(2015) *Scientific Reports*, 5, art. no. 10746, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84931260521&doi=10.1038%2fsrep10746&partnerID=40&md5=b00234f8ec09750ec550be4ba528fe23)

[84931260521&doi=10.1038%2fsrep10746&partnerID=40&md5=b00234f8ec09750ec550be4ba528fe23](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84931260521&doi=10.1038%2fsrep10746&partnerID=40&md5=b00234f8ec09750ec550be4ba528fe23)

Milislavljivic, M., Zivkovic, S., Pekmezovic, M., Stankovic, N., Vojnovic, S., Vasiljevic, B., Senerovic, L.

Control of human and plant fungal pathogens using pentaene macrolide 32, 33-didehydroroflamycin

(2015) *Journal of Applied Microbiology*, 118 (6), pp. 1426-1434.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84929509136&doi=10.1111%2fjam.12811&partnerID=40&md5=1a7cac70d91c9203b961c39aa8656431)

[84929509136&doi=10.1111%2fjam.12811&partnerID=40&md5=1a7cac70d91c9203b961c39aa8656431](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84929509136&doi=10.1111%2fjam.12811&partnerID=40&md5=1a7cac70d91c9203b961c39aa8656431)

Liang, Y., Nikolic, M., Bélanger, R., Gong, H., Song, A.

Silicon in agriculture: From theory to practice

(2015) *Silicon in Agriculture: From Theory to Practice*, pp. 1-235.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-84943239224&doi=10.1007%2f978-94-017-9978-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84943239224&doi=10.1007%2f978-94-017-9978-2&partnerID=40&md5=3d1fa0cdb5cf2f4ab388fa5d004b29db)

[2&partnerID=40&md5=3d1fa0cdb5cf2f4ab388fa5d004b29db](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84943239224&doi=10.1007%2f978-94-017-9978-2&partnerID=40&md5=3d1fa0cdb5cf2f4ab388fa5d004b29db)

Schmidt, H., Günther, C., Weber, M., Spörlein, C., Loscher, S., Böttcher, C., Schobert, R., Clemens, S.

Metabolome analysis of Arabidopsis thaliana roots identifies a key metabolic pathway for iron acquisition (2014) PLoS ONE, 9 (7), art. no. e102444, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84904803077&doi=10.1371%2fjournal.pone.0102444&partnerID=40&md5=096c4bd4a8d83ff301ebd1540eeff651>

Ahmed, M., Asif, M., Hassan, F.-U.  
Augmenting drought tolerance in sorghum by silicon nutrition (2014) Acta Physiologiae Plantarum, 36 (2), pp. 473-483.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84893976211&doi=10.1007%2fs11738-013-1427-2&partnerID=40&md5=510a0806ca8b40bee0cab036f52219cf>

Hernandez-Apaolaza, L.  
Can silicon partially alleviate micronutrient deficiency in plants? a review (2014) Planta, 240 (3), pp. 447-458.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84907597937&doi=10.1007%2fs00425-014-2119-x&partnerID=40&md5=2785590d34e3d1e5fe6772af83e11d09>

Shi, Y., Zhang, Y., Yao, H., Wu, J., Sun, H., Gong, H.  
Silicon improves seed germination and alleviates oxidative stress of bud seedlings in tomato under water deficit stress (2014) Plant Physiology and Biochemistry, 78, pp. 27-36.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84895728109&doi=10.1016%2fj.plaphy.2014.02.009&partnerID=40&md5=ac8251313aa04575ecea1ac73c58196c4>

Corrigendum to Silicon alleviates iron deficiency in cucumber by promoting mobilization of iron in the root apoplast [New Phytologist 198 (2013) 1096-1107] (2013) New Phytologist, 199 (3), pp. 866-866.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84890690944&doi=10.1111%2fnph.12384&partnerID=40&md5=391087cf1b0990507e97b0efd627eebf>

Bityutskii N, **Pavlovic J**, Yakkonen K, Maksimovic V, Nikolic M (2014): Contrasting effect of silicon on iron, zinc and manganese status and accumulation of metal-mobilizing compounds in micronutrient-deficient cucumber. Plant Physiology and Biochemistry 74: 205-211., цитиран 87 пута (без самоцитата) у:

da Silva, F.I., da Silva, F.B.V., Arajio, P.R.M., da Silva, R.I., da Silva Paraizo, T., do Nascimento, C.W.A.  
Amorphous Silica-Based Fertilizer Reduces Cd Uptake and Translocation and Human Health Risk in Polluted Soil Grown with Cowpea (Vigna unguiculata (L.) Walp) (2023) Journal of Soil Science and Plant Nutrition, 23 (3), pp. 3174-3185.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162643525&doi=10.1007%2fs42729-023-01333-0&partnerID=40&md5=dfeef063fe3bfc29f1e5a7ce2afc084>  
SOURCE: Scopus

Rehman, I.U., Sheergojri, I.A., War, A.F., Nazir, A., Rasool, N., Rashid, I.  
Silicon Supplementation as an Ameliorant of Stresses in Sorghum (2023) Silicon, 15 (14), pp. 5877-5889.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159699826&doi=10.1007%2fs12633-023-02500-9&partnerID=40&md5=5aeb538a2894921ac4a4a36843e4477>

Pereira-Matos, Y.C., Lima, E.J.D.F., Ribeiro, A.T., Lange, C.N., Batista, B.L., El-Beltagi, H.S., Bajguz, A., Lobato, A.K.D.S.

Exogenous 24-epibrassinolide reverses disturbances in zinc-stressed tomato by synergistically stimulating leaf structures, photosynthesis and growth

(2023) *South African Journal of Botany*, 159, pp. 447-460.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85163194798&doi=10.1016%2fj.sajb.2023.06.034&partnerID=40&md5=fa6edc99f32ff48caf6aed5a9f1e777e)

[85163194798&doi=10.1016%2fj.sajb.2023.06.034&partnerID=40&md5=fa6edc99f32ff48caf6aed5a9f1e777e](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85163194798&doi=10.1016%2fj.sajb.2023.06.034&partnerID=40&md5=fa6edc99f32ff48caf6aed5a9f1e777e)

Khan, I., Awan, S.A., Rizwan, M., brestic, M., Xie, W.

Silicon: an essential element for plant nutrition and phytohormones signaling mechanism under stressful conditions

(2023) *Plant Growth Regulation*, 100 (2), pp. 301-319.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138005801&doi=10.1007%2fs10725-022-00872-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138005801&doi=10.1007%2fs10725-022-00872-3&partnerID=40&md5=bbed696f7cea5a91d99288d9b23c760a)

[3&partnerID=40&md5=bbed696f7cea5a91d99288d9b23c760a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138005801&doi=10.1007%2fs10725-022-00872-3&partnerID=40&md5=bbed696f7cea5a91d99288d9b23c760a)

do Nascimento, C.W.A., de Barros, M.K.D., da Silva, F.B.V., Lima, L.H.V., da Silva, F.L., de Lima Veloso, V., Silva, J.R., da Silva Lins, S.A.

NDVI, Nutrient Accumulation and Yield of Onion Fertilized with Amorphous Silica in a Semiarid Setting in Brazil

(2023) *Silicon*, 15 (7), pp. 3011-3020.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85142200450&doi=10.1007%2fs12633-022-02222-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85142200450&doi=10.1007%2fs12633-022-02222-4&partnerID=40&md5=9c8739f379beeacef9ba1a497d0b2373)

[4&partnerID=40&md5=9c8739f379beeacef9ba1a497d0b2373](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85142200450&doi=10.1007%2fs12633-022-02222-4&partnerID=40&md5=9c8739f379beeacef9ba1a497d0b2373)

Singh, P., Kumar, V., Sharma, A.

Interaction of silicon with cell wall components in plants: A review

(2023) *Journal of Applied and Natural Science*, 15 (2), pp. 480-497.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85163683380&doi=10.31018%2fjans.v15i2.4352&partnerID=40&md5=c75c9be7e7c652735fabcc8b18938385)

[85163683380&doi=10.31018%2fjans.v15i2.4352&partnerID=40&md5=c75c9be7e7c652735fabcc8b18938385](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85163683380&doi=10.31018%2fjans.v15i2.4352&partnerID=40&md5=c75c9be7e7c652735fabcc8b18938385)

Teixeira, G.C.M., Prado, R.D.M., Rocha, A.M.S., Princi, M.B., Andrade, C.S.D.

Silicon mitigates iron deficiency in two energy cane cultivars by modulating physiological and nutritional mechanisms

(2023) *Frontiers in Plant Science*, 14, art. no. 1204836, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162016732&doi=10.3389%2ffpls.2023.1204836&partnerID=40&md5=020d37ef1002b764f6e8ceb1679e0004)

[85162016732&doi=10.3389%2ffpls.2023.1204836&partnerID=40&md5=020d37ef1002b764f6e8ceb1679e0004](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162016732&doi=10.3389%2ffpls.2023.1204836&partnerID=40&md5=020d37ef1002b764f6e8ceb1679e0004)

Etesami, H., Jeong, B.R.

How does silicon help alleviate biotic and abiotic stresses in plants? Mechanisms and future prospects

(2023) *Plant Stress Mitigators: Types, Techniques and Functions*, pp. 359-402.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152341700&doi=10.1016%2fb978-0-323-89871-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152341700&doi=10.1016%2fb978-0-323-89871-3.00031-8&partnerID=40&md5=3a12deb039a6d7b60f2cd677c7bce6b8)

[3.00031-8&partnerID=40&md5=3a12deb039a6d7b60f2cd677c7bce6b8](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152341700&doi=10.1016%2fb978-0-323-89871-3.00031-8&partnerID=40&md5=3a12deb039a6d7b60f2cd677c7bce6b8)

Shi, Y., Guo, S., Zhao, X., Xu, M., Xu, J., Xing, G., Zhang, Y., Ahammed, G.J.

Comparative physiological and transcriptomics analysis revealed crucial mechanisms of silicon-mediated tolerance to iron deficiency in tomato

(2022) *Frontiers in Plant Science*, 13, art. no. 1094451.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85145499898&doi=10.3389%2ffpls.2022.1094451&partnerID=40&md5=c9c0b198a64f1a0132057c319896183e>

Oliveira, K.S., de Mello Prado, R., Checchio, M.V., Gratão, P.L.  
Interaction of silicon and manganese in nutritional and physiological aspects of energy cane with high fiber content

(2022) *BMC Plant Biology*, 22 (1), art. no. 374, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135175163&doi=10.1186%2fs12870-022-03766-8&partnerID=40&md5=29f1b5d5cc241095c9dfe4ac43c254ad>

Etesami, H., Li, Z., Maathuis, F.J.M., Cooke, J.

The combined use of silicon and arbuscular mycorrhizas to mitigate salinity and drought stress in rice

(2022) *Environmental and Experimental Botany*, 201, art. no. 104955, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85131834477&doi=10.1016%2fj.envexpbot.2022.104955&partnerID=40&md5=f80840694587f26648df6cd93fee5f1f>

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85131834477&doi=10.1016%2fj.envexpbot.2022.104955&partnerID=40&md5=f80840694587f26648df6cd93fee5f1f>

Ksiaa, M., Farhat, N., Rabhi, M., Elkhouni, A., Smaoui, A., Debez, A., Cabassa-Hourton, C., Savouré, A., Abdelly, C., Zorrig, W.

Silicon (Si) Alleviates Iron Deficiency Effects in Sea Barley (*Hordeum marinum*) by Enhancing Iron Accumulation and Photosystem Activities

(2022) *Silicon*, 14 (12), pp. 6697-6712.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116723139&doi=10.1007%2fs12633-021-01376-x&partnerID=40&md5=1a572e0a212aaf518468fbf15bb8199>

Basirat, M., Mousavi, S.M.

Effect of Foliar Application of Silicon and Salicylic Acid on Regulation of Yield and Nutritional Responses of Greenhouse Cucumber Under High Temperature

(2022) *Journal of Plant Growth Regulation*, 41 (5), pp. 1978-1988.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85123469021&doi=10.1007%2fs00344-021-10562-5&partnerID=40&md5=eaf1ceb471e3eb90a0ad74863974b3ff>

Benslima, W., Ellouzi, H., Zorrig, W., Abdelly, C., Hafsi, C.

Beneficial effects of silicon on growth, nutrient dynamics, and antioxidative response in barley (*Hordeum vulgare* L.) plants under potassium deficiency

(2022) *Journal of Soil Science and Plant Nutrition*, 22 (2), pp. 2633-2646.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127324440&doi=10.1007%2fs42729-022-00832-w&partnerID=40&md5=93d5c5e1802231393898d014616252fb>

Paradisone, V., Navarro-León, E., Albacete, A., Ruiz, J.M., Esposito, S., Blasco, B.

Improvement of the physiological response of barley plants to both Zinc deficiency and toxicity by the application of calcium silicate

(2022) *Plant Science*, 319, art. no. 111259, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85126582440&doi=10.1016%2fj.plantsci.2022.111259&partnerID=40&md5=f4091de2661b44fb7e7ed1964066b38c>

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85126582440&doi=10.1016%2fj.plantsci.2022.111259&partnerID=40&md5=f4091de2661b44fb7e7ed1964066b38c>

Chaiwong, N., Prom-u-thai, C.

Significant Roles of Silicon for Improving Crop Productivity and Factors Affecting Silicon Uptake and Accumulation in Rice: a Review

(2022) *Journal of Soil Science and Plant Nutrition*, 22 (2), pp. 1970-1982.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85124034545&doi=10.1007%2fs42729-022-00787-y&partnerID=40&md5=8d7214e575c63cbf5386a679d04dc325>

Jinger, D., Dhar, S., Dass, A., Sharma, V.K., Paramesh, V., Parihar, M., Joshi, E., Singhal, V., Gupta, G., Prasad, D., Vijayakumar, S.

Co-fertilization of Silicon and Phosphorus Influences the Dry Matter Accumulation, Grain Yield, Nutrient Uptake, and Nutrient-Use Efficiencies of Aerobic Rice

(2022) *Silicon*, 14 (9), pp. 4683-4697.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111777119&doi=10.1007%2fs12633-021-01239-5&partnerID=40&md5=284daac278629a3c1f3e0bf6467be47f>

Chaiwong, N., Pusadee, T., Jamjod, S., Prom-U-thai, C.

Silicon Application Promotes Productivity, Silicon Accumulation and Upregulates Silicon Transporter Gene Expression in Rice

(2022) *Plants*, 11 (7), art. no. 989, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127545653&doi=10.3390%2fplants11070989&partnerID=40&md5=c589ee15d250e253c3c94ffbf0938587)

[85127545653&doi=10.3390%2fplants11070989&partnerID=40&md5=c589ee15d250e253c3c94ffbf0938587](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127545653&doi=10.3390%2fplants11070989&partnerID=40&md5=c589ee15d250e253c3c94ffbf0938587)

Ma, L., Chen, N., Feng, C., Yao, Y., Wang, S., Wang, G., Su, Y., Zhang, Y.

Enhanced Cr(VI) reduction in biocathode microbial electrolysis cell using Fenton-derived ferric sludge

(2022) *Water Research*, 212, art. no. 118144, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85123884572&doi=10.1016%2fj.watres.2022.118144&partnerID=40&md5=57cc52f40f35845b36d38df901847cfe)

[85123884572&doi=10.1016%2fj.watres.2022.118144&partnerID=40&md5=57cc52f40f35845b36d38df901847cfe](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85123884572&doi=10.1016%2fj.watres.2022.118144&partnerID=40&md5=57cc52f40f35845b36d38df901847cfe)

Hernandez-Apaolaza, L.

Priming With Silicon: A Review of a Promising Tool to Improve Micronutrient Deficiency Symptoms

(2022) *Frontiers in Plant Science*, 13, art. no. 840770, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127136580&doi=10.3389%2ffpls.2022.840770&partnerID=40&md5=706ea66425f222c93f8962738ee47b99)

[85127136580&doi=10.3389%2ffpls.2022.840770&partnerID=40&md5=706ea66425f222c93f8962738ee47b99](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127136580&doi=10.3389%2ffpls.2022.840770&partnerID=40&md5=706ea66425f222c93f8962738ee47b99)

Riaz, S., Hussain, I., Parveen, A., Arshraf, M.A., Rasheed, R., Zulfiqar, S., Thind, S., Rehman, S.

Silicon and nano-silicon in plant nutrition and crop quality

(2022) *Silicon and Nano-silicon in Environmental Stress Management and Crop Quality Improvement: Progress and Prospects*, pp. 277-295.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138410738&doi=10.1016%2fb978-0-323-91225-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138410738&doi=10.1016%2fb978-0-323-91225-9.00021-2&partnerID=40&md5=5a23aa558da14073941017845f63a604)

[9.00021-2&partnerID=40&md5=5a23aa558da14073941017845f63a604](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138410738&doi=10.1016%2fb978-0-323-91225-9.00021-2&partnerID=40&md5=5a23aa558da14073941017845f63a604)

Verma, K.K., Song, X.-P., Chen, Z.-L., Tian, D.-D., Rajput, V.D., Singh, M., Minkina, T., Li, Y.-R.

Silicon and nanosilicon mitigate nutrient deficiency under stress for sustainable crop improvement

(2022) *Silicon and Nano-silicon in Environmental Stress Management and Crop Quality Improvement: Progress and Prospects*, pp. 207-218.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138379825&doi=10.1016%2fb978-0-323-91225-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138379825&doi=10.1016%2fb978-0-323-91225-9.00007-8&partnerID=40&md5=8a853a819611ebcbe59665825421d39b)

[9.00007-8&partnerID=40&md5=8a853a819611ebcbe59665825421d39b](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138379825&doi=10.1016%2fb978-0-323-91225-9.00007-8&partnerID=40&md5=8a853a819611ebcbe59665825421d39b)

Khan, I., Awan, S.A., Rizwan, M., brestic, M., Xie, W.

Silicon: an essential element for plant nutrition and phytohormones signaling mechanism under stressful conditions

(2022) *Plant Growth Regulation*, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138005801&doi=10.1007%2fs10725-022-00872-3&partnerID=40&md5=bbed696f7cea5a91d99288d9b23c760a>

de Farias Guedes, V.H., de Mello Prado, R., Frazão, J.J., Oliveira, K.S., Cazetta, J.O.

Foliar-Applied Silicon in Sorghum (*Sorghum bicolor* L.) Alleviate Zinc Deficiency

(2022) *Silicon*, 14 (1), pp. 281-287.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85095781178&doi=10.1007%2fs12633-020-00825-3&partnerID=40&md5=e3f2c6b64b13f0818a01bac36d8118ca>

Lozano-González, J.M., Valverde, C., Hernández, C.D., Martín-Esquinas, A., Hernández-Apaolaza, L.

Beneficial effect of root or foliar silicon applied to cucumber plants under different zinc nutritional statuses

(2021) *Plants*, 10 (12), art. no. 2602, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119960873&doi=10.3390%2fplants10122602&partnerID=40&md5=17ae6854e7e0e4334fbc3f055a60912f)

[85119960873&doi=10.3390%2fplants10122602&partnerID=40&md5=17ae6854e7e0e4334fbc3f055a60912f](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119960873&doi=10.3390%2fplants10122602&partnerID=40&md5=17ae6854e7e0e4334fbc3f055a60912f)

Oliveira, K.S., de Mello Prado, R., Checchio, M.V., Gratão, P.L.

Silicon via nutrient solution modulates deficient and sufficient manganese sugar and energy cane antioxidant systems

(2021) *Scientific Reports*, 11 (1), art. no. 16900, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85113197899&doi=10.1038%2fs41598-021-96427-z&partnerID=40&md5=1d557162e79fb67da61ab8d2091e35d1>

Oliva, K.M.E., da Silva, F.B.V., Araújo, P.R.M., de Oliveira, E.C.A., do Nascimento, C.W.A.

Amorphous Silica-Based Fertilizer Increases Stalks and Sugar Yield and Resistance to Stalk Borer in Sugarcane Grown Under Field Conditions

(2021) *Journal of Soil Science and Plant Nutrition*, 21 (3), pp. 2518-2529.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109714380&doi=10.1007%2fs42729-021-00543-8&partnerID=40&md5=4dd4d06026b8e1ceb1ac3cc26933745b>

da Silva, J.L.F., Prado, R.M., de Souza Junior, J.P., Tenesaca, L.F.L., da Silva, D.L., Pinsetta Junior, J.S.

Feasibility of Silicon Addition to Boron Foliar Spraying in Cauliflowers

(2021) *Journal of Soil Science and Plant Nutrition*, 21 (3), pp. 2448-2455.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85108819017&doi=10.1007%2fs42729-021-00536-7&partnerID=40&md5=9ab201841a8d08da2f959cdc022d5533>

Cristofano, F., El-Nakhel, C., Roupael, Y.

Biostimulant substances for sustainable agriculture: Origin, operating mechanisms and effects on cucurbits, leafy greens, and nightshade vegetables species

(2021) *Biomolecules*, 11 (8), art. no. 1103, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111143852&doi=10.3390%2fbiom11081103&partnerID=40&md5=a37ddc8185c08c55edc83c99183752c8)

[85111143852&doi=10.3390%2fbiom11081103&partnerID=40&md5=a37ddc8185c08c55edc83c99183752c8](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111143852&doi=10.3390%2fbiom11081103&partnerID=40&md5=a37ddc8185c08c55edc83c99183752c8)

Martín-Esquinas, A., Hernández-Apaolaza, L.

Rice responses to silicon addition at different Fe status and growth pH. Evaluation of ploidy changes

(2021) *Plant Physiology and Biochemistry*, 163, pp. 296-307.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85104415522&doi=10.1016%2fj.plaphy.2021.04.012&partnerID=40&md5=1f8812a34fd14c1ff6906d668aa2c4ff>

Souri, Z., Khanna, K., Karimi, N., Ahmad, P.

Silicon and Plants: Current Knowledge and Future Prospects

(2021) *Journal of Plant Growth Regulation*, 40 (3), pp. 906-925.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85086410926&doi=10.1007%2fs00344-020-10172-7&partnerID=40&md5=24f3434e815212183dea75ee2b93b34a>

Bityutskii, N.P., Yakkonen, K.L., Lukina, K.A., Semenov, K.N., Panova, G.G.

Fullerenol can Ameliorate Iron Deficiency in Cucumber Grown Hydroponically

(2021) *Journal of Plant Growth Regulation*, 40 (3), pp. 1017-1031.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85086126511&doi=10.1007%2fs00344-020-10160-x&partnerID=40&md5=18e4ede299cd9919acb1356fcb70d169>

Panasyuk, A.L., Kuzmina, E.I., Kharlamova, L.N., Babaeva, M.V., Romanova, I.P.

Influence of Organochlorine Pesticides on Biochemical Transformations in the Process of Obtaining Apple Wine Materials

(2021) *IOP Conference Series: Earth and Environmental Science*, 666 (5), art. no. 052004, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85102769864&doi=10.1088%2f1755-1315%2f666%2f5%2f052004&partnerID=40&md5=e20f7b11782afa742ce67290fad478bb>

Chopra, V., Sharma, J.G.

SEM-EDAX analysis of the Soil Samples of River Yamuna in Delhi Region

(2021) *Nature Environment and Pollution Technology*, 20 (1), pp. 93-103.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85103246242&doi=10.46488%2fNEPT.2021.V20I01.010&partnerID=40&md5=898d69093ded604debaee546e235b7f>

Olarewaju, O.O., Arthur, G.D., Fajinmi, O.O., Cooposamy, R.M., Naidoo, K.K.

Biostimulants: Potential benefits of enhancing nutrition efficiency in agronomic and horticultural crops

(2021) *Biostimulants for Crops from Seed Germination to Plant Development: A Practical Approach*, pp. 427-443.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85122956046&doi=10.1016%2fB978-0-12-823048-0.00006-X&partnerID=40&md5=e2a315fc28f418614be387c0a78ce136>

Hernández-Apaolaza, L., Escribano, L., Zamarreño, Á.M., García-Mina, J.M., Cano, C., Carrasco-Gil, S.

Root Silicon Addition Induces Fe Deficiency in Cucumber Plants, but Facilitates Their Recovery After Fe Resupply. A Comparison With Si Foliar Sprays

(2020) *Frontiers in Plant Science*, 11, art. no. 580552, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85098123005&doi=10.3389%2ffpls.2020.580552&partnerID=40&md5=b1ca0b9f0eb60632e72e11b8a0d96e58>

Ali, N., Réthoré, E., Yvin, J.-C., Hosseini, S.A.

The regulatory role of silicon in mitigating plant nutritional stresses

(2020) *Plants*, 9 (12), art. no. 1779, pp. 1-18.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85097942033&doi=10.3390%2fplants9121779&partnerID=40&md5=b3c0071ec9b99ebf1163efaf94d38ad4>

Huang, S., Ma, J.F.

Silicon suppresses zinc uptake through down-regulating zinc transporter gene in rice

(2020) *Physiologia Plantarum*, 170 (4), pp. 580-591.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85091166036&doi=10.1111%2fppl.13196&partnerID=40&md5=4c8ebe976fab874a16dbc4c72ba13e5d>

Majumdar, S., Prakash, N.B.

An Overview on the Potential of Silicon in Promoting Defence Against Biotic and Abiotic Stresses in Sugarcane

(2020) *Journal of Soil Science and Plant Nutrition*, 20 (4), pp. 1969-1998.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85087374218&doi=10.1007%2fs42729-020-00269-z&partnerID=40&md5=a516a066dc192e1b591968f71dd039e9>

Foggia, M.D., Yunta-Mezquita, F., Tugnoli, V., Rombolà, A.D., Lucena, J.J.

Testing a bovine blood-derived compound as iron supply on *cucumis sativus* L.

(2020) *Agronomy*, 10 (10), art. no. 1480, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85092524372&doi=10.3390%2fagronomy10101480&partnerID=40&md5=a075ed0bee885f2f85ee653bb9386383>

83

Sheng, H., Chen, S.

Plant silicon-cell wall complexes: Identification, model of covalent bond formation and biofunction

(2020) *Plant Physiology and Biochemistry*, 155, pp. 13-19.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85088641263&doi=10.1016%2fj.plaphy.2020.07.020&partnerID=40&md5=aea5dc1f6c71978acb1d5b0c59fab02e>

02e

Verma, K.K., Singh, P., Song, X.-P., Malviya, M.K., Singh, R.K., Chen, G.-L., Solomon, S., Li, Y.-R.

Mitigating Climate Change for Sugarcane Improvement: Role of Silicon in Alleviating Abiotic Stresses

(2020) *Sugar Tech*, 22 (5), pp. 741-749.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85085115826&doi=10.1007%2fs12355-020-00831-0&partnerID=40&md5=ae2e83c81f20c8968a816381cfe249b>

Verma, K.K., Li, D.-M., Singh, M., Rajput, V.D., Malviya, M.K., Minkina, T., Singh, R.K., Singh, P., Song, X.-P., Li, Y.-R.

Interactive role of silicon and plant-rhizobacteria mitigating abiotic stresses: A new approach for sustainable agriculture and climate change

(2020) *Plants*, 9 (9), art. no. 1055, pp. 1-19.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85089683565&doi=10.3390%2fplants9091055&partnerID=40&md5=0836bf095cedb0e175f74b15eb0366fc>

85089683565&doi=10.3390%2fplants9091055&partnerID=40&md5=0836bf095cedb0e175f74b15eb0366fc

Teixeira, G.C.M., de Mello Prado, R., Oliveira, K.S., D'Amico-Damião, V., da Silveira Sousa Junior, G.

Silicon Increases Leaf Chlorophyll Content and Iron Nutritional Efficiency and Reduces Iron Deficiency in Sorghum Plants

(2020) *Journal of Soil Science and Plant Nutrition*, 20 (3), pp. 1311-1320.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85081678458&doi=10.1007%2fs42729-020-00214-0&partnerID=40&md5=f6a169ecc36fac605f673b55b26d9247>

Shafeeq-ur-Rahman, Xuebin, Q., Yatao, X., Ahmad, M.I., Shehzad, M., Zain, M.  
Silicon and Its Application Methods Improve Physiological Traits and Antioxidants in *Triticum aestivum* (L.) Under Cadmium Stress

(2020) *Journal of Soil Science and Plant Nutrition*, 20 (3), pp. 1110-1121.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85081197241&doi=10.1007%2fs42729-020-00197-y&partnerID=40&md5=010d6525d80e82e8e367a6cf9182a835>

Oliveira, K.S., de Mello Prado, R., de Farias Guedes, V.H.

Leaf Spraying of Manganese with Silicon Addition Is Agronomically Viable for Corn and Sorghum Plants  
(2020) *Journal of Soil Science and Plant Nutrition*, 20 (3), pp. 872-880.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85077977298&doi=10.1007%2fs42729-020-00173-6&partnerID=40&md5=7a329fa7d7e810121322da36fc85ca42>

Bianchini, H.C., Marques, D.J.

Gas exchange and putrescine content as drought stress indicators in corn cultivars fertilized with silicon

(2020) *Australian Journal of Crop Science*, 14 (8), pp. 1252-1258.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85090569609&doi=10.21475%2fajcs.20.14.08.p2339&partnerID=40&md5=ed7cf11a1bc72071473cb2c3723c4192>

Chaiwong, N., Bouain, N., Prom-u-thai, C., Rouached, H.

Interplay Between Silicon and Iron Signaling Pathways to Regulate Silicon Transporter *Lsi1* Expression in Rice  
(2020) *Frontiers in Plant Science*, 11, art. no. 1065, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85089109735&doi=10.3389%2ffpls.2020.01065&partnerID=40&md5=16dd0007152d1ef4e22c137f585ec9b2>

Ribeiro, A.T., de Oliveira, V.P., de Oliveira Barros Junior, U., da Silva, B.R.S., Batista, B.L., da Silva Lobato, A.K.

24-Epibrassinolide mitigates nickel toxicity in young *Eucalyptus urophylla* S.T. Blake plants: nutritional, physiological, biochemical, anatomical and morphological responses

(2020) *Annals of Forest Science*, 77 (1), art. no. 5, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85077704124&doi=10.1007%2fs13595-019-0909-9&partnerID=40&md5=02b2bd6f5006f3dc22f14e23460698fb>

Teixeira, G.C.M., Rocha, A.M.S., Oliveira, K.S., Dos Santos Sarah, M.M., De Oliveira Filho, A.S.B., De Mello Prado, R., Palaretti, L.F.

Silicon to mitigate stress due to manganese deficiency and water deficit in pre-sprouted sugarcane seedlings  
(Bibliographic Review)

(2020) *Cientifica*, 48 (2), pp. 170-187.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85088978716&doi=10.15361%2f1984-5529.2020v48n2p170-187&partnerID=40&md5=37c0a31012f0b95fe8b6a8493379daac>

Bosnić, D., Bosnić, P., Nikolić, D., Nikolić, M., Samardžić, J.

Silicon and iron differently alleviate copper toxicity in cucumber leaves

(2019) *Plants*, 8 (12), art. no. 554, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85076053545&doi=10.3390%2fplants8120554&partnerID=40&md5=6335820b7ab436fc5a83cafb5b00f1d6>

Etesami, H., Jeong, B.R.

Importance of silicon in fruit nutrition: Agronomic and physiological implications

(2019) *Fruit Crops: Diagnosis and Management of Nutrient Constraints*, pp. 255-277.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85087978962&doi=10.1016%2fB978-0-12-818732-6.00019-8&partnerID=40&md5=24cec7848c0e4594cf21b2e108852ee8>

Panasyuk, A.L., Kuzmina, E.I., Kharlamova, L.N., Babaeva, M.V., Romanova, I.P.

Influence of Bio-organic Additives on the Ability of Yeast to Provide Biotransformation of Pesticides in Apple Must

(2019) *IOP Conference Series: Materials Science and Engineering*, 582 (1), art. no. 012011, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85076370437&doi=10.1088%2f1757-899X%2f582%2f1%2f012011&partnerID=40&md5=a1c76836377c0f25b22bbb6e3b9efcdd>

Bityutskii, N.P., Yakkonen, K.L., Petrova, A.I., Lukina, K.A., Shavarda, A.L.

Calcium Carbonate Reduces the Effectiveness of Soil-Added Monosilicic Acid in Cucumber Plants

(2019) *Journal of Soil Science and Plant Nutrition*, 19 (3), pp. 660-670.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069714697&doi=10.1007%2fs42729-019-00066-3&partnerID=40&md5=430cb49d101e3bde7b23add5f54e1836>

de Oliveira, R.L.L., de Mello Prado, R., Felisberto, G., Checchio, M.V., Gratão, P.L.

Silicon Mitigates Manganese Deficiency Stress by Regulating the Physiology and Activity of Antioxidant Enzymes in Sorghum Plants

(2019) *Journal of Soil Science and Plant Nutrition*, 19 (3), pp. 524-534.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069635249&doi=10.1007%2fs42729-019-00051-w&partnerID=40&md5=b8e4831cf254db3e0fd35257630ee98f>

Malhotra, C., Kapoor, R.T.

Silicon: A sustainable tool in abiotic stress tolerance in plants

(2019) *Plant Abiotic Stress Tolerance: Agronomic, Molecular and Biotechnological Approaches*, pp. 333-356.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068860485&doi=10.1007%2f978-3-030-06118-0\\_14&partnerID=40&md5=315a2ee80494cbde01686e1355f9a907](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068860485&doi=10.1007%2f978-3-030-06118-0_14&partnerID=40&md5=315a2ee80494cbde01686e1355f9a907)

Nikolic, D.B., Nesic, S., Bosnic, D., Kostic, L., Nikolic, M., Samardzic, J.T.

Silicon alleviates iron deficiency in barley by enhancing expression of strategy ii genes and metal redistribution

(2019) *Frontiers in Plant Science*, 10, art. no. 416, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064227790&doi=10.3389%2ffpls.2019.00416&partnerID=40&md5=227a8a7ed74e96675f29b03c41b76dd4>

Bityutskii, N.P., Yakkonen, K.L., Petrova, A.I., Lukina, K.A., Shavarda, A.L.

Silicon ameliorates iron deficiency of cucumber in a pH-dependent manner

(2018) *Journal of Plant Physiology*, 231, pp. 364-373.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85055645381&doi=10.1016%2fj.jplph.2018.10.017&partnerID=40&md5=c55900e0d319bdc4cd3aabe4511915al>

Pati, S., Saha, S., Saha, S., Pal, B., Saha, B., Hazra, G.C.

Soil application of silicon: Effects on economic yield and nutrition of phosphorus, zinc and iron in rice (*Oryza sativa* L.)

(2018) *Journal of the Indian Society of Soil Science*, 66 (3), pp. 329-335.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85065233615&doi=10.5958%2f0974-0228.2018.00041.5&partnerID=40&md5=ec15159c4e477fa536faefdb7b8b4578>

Kleiber, T.

The role of silicon in plant tolerance to abiotic stress

(2018) *Plant Nutrients and Abiotic Stress Tolerance*, pp. 253-267.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85053996089&doi=10.1007%2f978-981-10-9044-8\\_11&partnerID=40&md5=3acba1701e65e22af36a40b1b10861b5](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85053996089&doi=10.1007%2f978-981-10-9044-8_11&partnerID=40&md5=3acba1701e65e22af36a40b1b10861b5)

Greger, M., Landberg, T., Vaculik, M.

Silicon influences soil availability and accumulation of mineral nutrients in various plant species

(2018) *Plants*, 7 (2), art. no. 41, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85047455304&doi=10.3390%2fplants7020041&partnerID=40&md5=23c6b94a904f45ab39e5a2d5dfe414fd>

Roosta, H.R., Estaji, A., Niknam, F.

Effect of iron, zinc and manganese shortage-induced change on photosynthetic pigments, some osmoregulators and chlorophyll fluorescence parameters in lettuce

(2018) *Photosynthetica*, 56 (2), pp. 606-615.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85011797312&doi=10.1007%2fs11099-017-0696-1&partnerID=40&md5=a29f81902241ee341fb01625671b659e>

Moradtalab, N., Weinmann, M., Walker, F., Höglinger, B., Ludewig, U., Neumann, G.

Silicon improves chilling tolerance during early growth of maize by effects on micronutrient homeostasis and hormonal balances

(2018) *Frontiers in Plant Science*, 9, art. no. 420, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85046906046&doi=10.3389%2ffpls.2018.00420&partnerID=40&md5=50e5ac97b13c00af9989cb5393f71560>

Carrasco-Gil, S., Rodríguez-Menéndez, S., Fernández, B., Pereiro, R., de la Fuente, V., Hernandez-Apaolaza, L. Silicon induced Fe deficiency affects Fe, Mn, Cu and Zn distribution in rice (*Oryza sativa* L.) growth in calcareous conditions

(2018) *Plant Physiology and Biochemistry*, 125, pp. 153-163.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85041905200&doi=10.1016%2fj.plaphy.2018.01.033&partnerID=40&md5=d8a73719456262efc7d69cfabf6f569d>

Chaiwong, N., Prom-U-thai, C., Bouain, N., Lacombe, B., Rouached, H.

Individual versus combinatorial effects of silicon, phosphate, and iron deficiency on the growth of lowland and upland rice varieties

(2018) *International Journal of Molecular Sciences*, 19 (3), art. no. 899, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85044218601&doi=10.3390%2fijms19030899&partnerID=40&md5=5fa857d112b06c52695725151e8a92e8>

Etesami, H.

Can interaction between silicon and plant growth promoting rhizobacteria benefit in alleviating abiotic and biotic stresses in crop plants?

(2018) *Agriculture, Ecosystems and Environment*, 253, pp. 98-112.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85033600845&doi=10.1016%2fj.agee.2017.11.007&partnerID=40&md5=fd8ec5007e4409712c0e267006f952a)

[85033600845&doi=10.1016%2fj.agee.2017.11.007&partnerID=40&md5=fd8ec5007e4409712c0e267006f952a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85033600845&doi=10.1016%2fj.agee.2017.11.007&partnerID=40&md5=fd8ec5007e4409712c0e267006f952a)  
a

Etesami, H., Jeong, B.R.

Silicon (Si): Review and future prospects on the action mechanisms in alleviating biotic and abiotic stresses in plants

(2018) *Ecotoxicology and Environmental Safety*, 147, pp. 881-896.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85030129845&doi=10.1016%2fj.ecoenv.2017.09.063&partnerID=40&md5=15f619248f806650775df7cb1a09db3b)

[85030129845&doi=10.1016%2fj.ecoenv.2017.09.063&partnerID=40&md5=15f619248f806650775df7cb1a09db3b](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85030129845&doi=10.1016%2fj.ecoenv.2017.09.063&partnerID=40&md5=15f619248f806650775df7cb1a09db3b)  
b3b

Bityutskii, N.P., Yakkonen, K.L., Petrova, A.I., Shavarda, A.L.

Interactions between aluminium, iron and silicon in *Cucumis sativus* L. grown under acidic conditions

(2017) *Journal of Plant Physiology*, 218, pp. 100-108.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85031771820&doi=10.1016%2fj.jplph.2017.08.003&partnerID=40&md5=ea1d7f86341a79aa7a1a9db0908ccca)

[85031771820&doi=10.1016%2fj.jplph.2017.08.003&partnerID=40&md5=ea1d7f86341a79aa7a1a9db0908ccca](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85031771820&doi=10.1016%2fj.jplph.2017.08.003&partnerID=40&md5=ea1d7f86341a79aa7a1a9db0908ccca)  
a

Debona, D., Rodrigues, F.A., Datnoff, L.E.

Silicon's Role in Abiotic and Biotic Plant Stresses

(2017) *Annual Review of Phytopathology*, 55, pp. 85-107.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85027065820&doi=10.1146%2fannurev-phyto-080516-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85027065820&doi=10.1146%2fannurev-phyto-080516-035312&partnerID=40&md5=13d42a4752ac14e902e2d8c204c4e340)  
[035312&partnerID=40&md5=13d42a4752ac14e902e2d8c204c4e340](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85027065820&doi=10.1146%2fannurev-phyto-080516-035312&partnerID=40&md5=13d42a4752ac14e902e2d8c204c4e340)

Bokor, B., Ondoš, S., Vaculík, M., Bokorová, S., Weidinger, M., Lichtscheidl, I., Turňa, J., Lux, A.

Expression of genes for si uptake, accumulation, and correlation of si with other elements in ionome of maize kernel

(2017) *Frontiers in Plant Science*, 8, art. no. 1063, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85021129750&doi=10.3389%2ffpls.2017.01063&partnerID=40&md5=3c7c8530d18ced876442ab44d286934c)

[85021129750&doi=10.3389%2ffpls.2017.01063&partnerID=40&md5=3c7c8530d18ced876442ab44d286934c](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85021129750&doi=10.3389%2ffpls.2017.01063&partnerID=40&md5=3c7c8530d18ced876442ab44d286934c)

Bityutskii, N., Yakkonen, K., Petrova, A., Nadporozhskaya, M.

Xylem sap mineral analyses as a rapid method for estimation plant-availability of Fe, Zn and Mn in carbonate soils: A case study in cucumber

(2017) *Journal of Soil Science and Plant Nutrition*, 17 (2), pp. 279-290.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85028773889&doi=10.4067%2fS0718-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85028773889&doi=10.4067%2fS0718-95162017005000022&partnerID=40&md5=b9b0429e801b51fec490f7da2122d30c)

[95162017005000022&partnerID=40&md5=b9b0429e801b51fec490f7da2122d30c](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85028773889&doi=10.4067%2fS0718-95162017005000022&partnerID=40&md5=b9b0429e801b51fec490f7da2122d30c)

Baron, D., Amaro, A.C.E., Macedo, A.C., Boaro, C.S.F., Ferreira, G.

Is *Annona emarginata* capable of accumulate essential heavy metals without damages in the metabolism? [A *Annona emarginata* é capaz de acumular metais pesados essenciais sem causar danos ao seu metabolismo?]

(2017) *Revista Brasileira de Fruticultura*, 39 (4), 9 p.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85030118842&doi=10.1590%2f0100-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85030118842&doi=10.1590%2f0100-29452017646&partnerID=40&md5=d0316b4a8c5df2092aba3c643536ccaf)

[29452017646&partnerID=40&md5=d0316b4a8c5df2092aba3c643536ccaf](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85030118842&doi=10.1590%2f0100-29452017646&partnerID=40&md5=d0316b4a8c5df2092aba3c643536ccaf)

Haynes, R.J.

Significance and Role of Si in Crop Production

(2017) *Advances in Agronomy*, 146, pp. 83-166.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85026627559&doi=10.1016%2fbs.agron.2017.06.001&partnerID=40&md5=ac4074350ce1c2d6f80e8119ae58b738)

[85026627559&doi=10.1016%2fbs.agron.2017.06.001&partnerID=40&md5=ac4074350ce1c2d6f80e8119ae58b738](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85026627559&doi=10.1016%2fbs.agron.2017.06.001&partnerID=40&md5=ac4074350ce1c2d6f80e8119ae58b738)

Pascual, M.B., Echevarria, V., Gonzalo, M.J., Hernández-Apaolaza, L.

Silicon addition to soybean (*Glycine max* L.) plants alleviate zinc deficiency

(2016) *Plant Physiology and Biochemistry*, 108, pp. 132-138.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84978191182&doi=10.1016%2fj.plaphy.2016.07.008&partnerID=40&md5=adffd7f4725f945f9c411d529a2dc474)

[84978191182&doi=10.1016%2fj.plaphy.2016.07.008&partnerID=40&md5=adffd7f4725f945f9c411d529a2dc474](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84978191182&doi=10.1016%2fj.plaphy.2016.07.008&partnerID=40&md5=adffd7f4725f945f9c411d529a2dc474)

Bitvitskii, N., Kaidun, P., Yakkonen, K.

Earthworms can increase mobility and bioavailability of silicon in soil

(2016) *Soil Biology and Biochemistry*, 99, pp. 47-53.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84964933169&doi=10.1016%2fj.soilbio.2016.04.022&partnerID=40&md5=e14046cf626d1c8d640dee5592caf5b)

[84964933169&doi=10.1016%2fj.soilbio.2016.04.022&partnerID=40&md5=e14046cf626d1c8d640dee5592caf5b](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84964933169&doi=10.1016%2fj.soilbio.2016.04.022&partnerID=40&md5=e14046cf626d1c8d640dee5592caf5b)

Guo, B., Liu, C., Ding, N., Fu, Q., Lin, Y., Li, H., Li, N.

Silicon Alleviates Cadmium Toxicity in Two Cypress Varieties by Strengthening the Exodermis Tissues and Stimulating Phenolic Exudation of Roots

(2016) *Journal of Plant Growth Regulation*, 35 (2), pp. 420-429.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-84944626954&doi=10.1007%2fs00344-015-9549-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84944626954&doi=10.1007%2fs00344-015-9549-y&partnerID=40&md5=7ba447b9621692b55425cac87eb97dc2)

[y&partnerID=40&md5=7ba447b9621692b55425cac87eb97dc2](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84944626954&doi=10.1007%2fs00344-015-9549-y&partnerID=40&md5=7ba447b9621692b55425cac87eb97dc2)

Farooq, M.A., Dietz, K.-J.

Silicon as versatile player in plant and human biology: Overlooked and poorly understood

(2015) *Frontiers in Plant Science*, 6 (NOVEMBER), art. no. 994, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84947567550&doi=10.3389%2ffpls.2015.00994&partnerID=40&md5=a5dfd945d0549aa5e4906280757cfda8)

[84947567550&doi=10.3389%2ffpls.2015.00994&partnerID=40&md5=a5dfd945d0549aa5e4906280757cfda8](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84947567550&doi=10.3389%2ffpls.2015.00994&partnerID=40&md5=a5dfd945d0549aa5e4906280757cfda8)

Kleiber, T., Calomme, M., Borowiak, K.

The effect of choline-stabilized orthosilicic acid on microelements and silicon concentration, photosynthesis activity and yield of tomato grown under Mn stress

(2015) *Plant Physiology and Biochemistry*, 96, pp. 180-188.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84939546452&doi=10.1016%2fj.plaphy.2015.07.033&partnerID=40&md5=3cc531693cd8be5951e92811c689b924)

[84939546452&doi=10.1016%2fj.plaphy.2015.07.033&partnerID=40&md5=3cc531693cd8be5951e92811c689b924](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84939546452&doi=10.1016%2fj.plaphy.2015.07.033&partnerID=40&md5=3cc531693cd8be5951e92811c689b924)

Wu, J., Guo, J., Hu, Y., Gong, H.

Distinct physiological responses of tomato and cucumber plants in silicon-mediated alleviation of cadmium stress

(2015) *Frontiers in Plant Science*, 6 (June), art. no. 453, 14 p.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84935889138&doi=10.3389%2ffpls.2015.00453&partnerID=40&md5=cb22603dc076492a9d67d9081458d152)

[84935889138&doi=10.3389%2ffpls.2015.00453&partnerID=40&md5=cb22603dc076492a9d67d9081458d152](https://www.scopus.com/inward/record.uri?eid=2-s2.0-84935889138&doi=10.3389%2ffpls.2015.00453&partnerID=40&md5=cb22603dc076492a9d67d9081458d152)

Liang, Y., Nikolic, M., Bélanger, R., Gong, H., Song, A.  
Silicon in agriculture: From theory to practice  
(2015) Silicon in Agriculture: From Theory to Practice, pp. 1-235.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84943239224&doi=10.1007%2f978-94-017-9978-2&partnerID=40&md5=3d1fa0cbb5cf2f4ab388fa5d004b29db>

Hernandez-Apaolaza, L.  
Can silicon partially alleviate micronutrient deficiency in plants? a review  
(2014) Planta, 240 (3), pp. 447-458.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-84907597937&doi=10.1007%2fs00425-014-2119-x&partnerID=40&md5=2785590d34e3d1e5fe6772af83e11d09>

Nikolic M, Nikolic N, Kostic L, **Pavlovic J**, Bosnic P, Stevic N, Savic J, Hristov N (2016): The assessment of soil availability and wheat grain status of zinc and iron in Serbia: implications for human nutrition. Science of the Total Environment 553: 141-148., цитиран 34 пута (без самоцитата) у:

Baruah, N., Gogoi, N.  
Contrasting impact of soil amendments on bioavailability, mobility and speciation of zinc in an acidic sandy loam soil  
(2023) South African Journal of Botany, 154, pp. 309-318.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85147576968&doi=10.1016%2fj.sajb.2023.01.043&partnerID=40&md5=3c4352b7b93396c6363e6e7d1b3d3837>

Liang, Y., Wang, Z., Shi, Q., Li, F., Zhao, Z., Han, Y., Wang, Y.  
The varying promotion effects of fulvic acid with different molecular weights on the enhancement of grain yield and quality of winter wheat  
(2023) Plant, Soil and Environment, 69 (4), pp. 141-151.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159185714&doi=10.17221%2f391%2f2022-PSE&partnerID=40&md5=1a2b3b52cd8090adc5326fb6fd0523ec>

Huang, T., Wang, Z., Huang, Q., Hou, S.  
Causes and Regulation of Variation of Zinc Concentration in Wheat Grains Produced in Huanghuai Wheat Production Region of China [黄淮海区小麦籽粒锌含量差异原因与调控]  
(2022) Acta Pedologica Sinica, 58 (6), pp. 1496-1506.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85132695933&doi=10.11766%2ftrxb202003150119&partnerID=40&md5=6592846f4b3ea8e475569bb4e8c1012c>

Wang, M., Yin, Z., Zeng, M.  
Microalgae as a promising structure ingredient in food: Obtained by simple thermal and high-speed shearing homogenization  
(2022) Food Hydrocolloids, 131, art. no. 107743, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85128624668&doi=10.1016%2fj.foodhyd.2022.107743&partnerID=40&md5=9b74eb03a7a8e49a203fb81b1da9e4>

Guo, Z., Wang, X., Zhang, X., Wang, L., Wang, R., Hui, X., Wang, S., Chen, Y., White, P.J., Shi, M., Wang, Z.

Synchrotron X-ray Fluorescence Technique Identifies Contribution of Node Iron and Zinc Accumulations to the Grain of Wheat

(2022) *Journal of Agricultural and Food Chemistry*, 70 (30), pp. 9346-9355.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135597578&doi=10.1021%2fac.2c02561&partnerID=40&md5=28a395ad05d822b6ac88d64a764dd18e)

[85135597578&doi=10.1021%2fac.2c02561&partnerID=40&md5=28a395ad05d822b6ac88d64a764dd18e](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135597578&doi=10.1021%2fac.2c02561&partnerID=40&md5=28a395ad05d822b6ac88d64a764dd18e)

Han, Y., Yang, M., Liu, L., Lei, X., Wang, Z., Liu, J., Sun, B., Yang, X., Zhang, S.

Grain mineral concentration of Chinese winter wheat varieties released between 1970 and 2005 under diverse nutrient inputs

(2022) *Field Crops Research*, 284, art. no. 108576, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85130794239&doi=10.1016%2fj.fcr.2022.108576&partnerID=40&md5=94035ae73d6159e017cb3b80327e73d3)

[85130794239&doi=10.1016%2fj.fcr.2022.108576&partnerID=40&md5=94035ae73d6159e017cb3b80327e73d3](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85130794239&doi=10.1016%2fj.fcr.2022.108576&partnerID=40&md5=94035ae73d6159e017cb3b80327e73d3)

Stojsavljević, A., Ristić-Medić, D., Krstić, Đ., Rovčanin, B., Radjen, S., Terzić, B., Manojlović, D.

Circulatory Imbalance of Essential and Toxic Trace Elements in Pre-dialysis and Hemodialysis Patients

(2022) *Biological Trace Element Research*, 200 (7), pp. 3117-3125.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116057806&doi=10.1007%2fs12011-021-02940-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116057806&doi=10.1007%2fs12011-021-02940-7&partnerID=40&md5=108617220abe83513d14dcfc060d5d56)

[7&partnerID=40&md5=108617220abe83513d14dcfc060d5d56](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116057806&doi=10.1007%2fs12011-021-02940-7&partnerID=40&md5=108617220abe83513d14dcfc060d5d56)

Sher, A., Sarwar, B., Sattar, A., Ijaz, M., Ul-Allah, S., Hayat, M.T., Manaf, A., Qayyum, A., Zaheer, A., Iqbal, J., El Askary, A., Gharib, A.F., Ismail, K.A., Elesawy, B.H.

Exogenous Application of Zinc Sulphate at Heading Stage of Wheat Improves the Yield and Grain Zinc Biofortification

(2022) *Agronomy*, 12 (3), art. no. 734, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127396387&doi=10.3390%2fagronomy12030734&partnerID=40&md5=249ae034c4e7425d947c7c9e43b20eed)

[85127396387&doi=10.3390%2fagronomy12030734&partnerID=40&md5=249ae034c4e7425d947c7c9e43b20eed](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127396387&doi=10.3390%2fagronomy12030734&partnerID=40&md5=249ae034c4e7425d947c7c9e43b20eed)

Riaz, S., Hussain, I., Parveen, A., Arshraf, M.A., Rasheed, R., Zulfiqar, S., Thind, S., Rehman, S.

Silicon and nano-silicon in plant nutrition and crop quality

(2022) *Silicon and Nano-silicon in Environmental Stress Management and Crop Quality Improvement: Progress and Prospects*, pp. 277-295.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138410738&doi=10.1016%2fB978-0-323-91225-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138410738&doi=10.1016%2fB978-0-323-91225-9.00021-2&partnerID=40&md5=5a23aa558da14073941017845f63a604)

[9.00021-2&partnerID=40&md5=5a23aa558da14073941017845f63a604](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138410738&doi=10.1016%2fB978-0-323-91225-9.00021-2&partnerID=40&md5=5a23aa558da14073941017845f63a604)

Ivanović, D., Dodig, D., Đurić, N., Kandić, V., Tamindžić, G., Nikolić, N., Savić, J.

Zinc biofortification of bread winter wheat grain by single zinc foliar application

(2021) *Cereal Research Communications*, 49 (4), pp. 673-679.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85118819492&doi=10.1007%2fs42976-021-00144-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85118819492&doi=10.1007%2fs42976-021-00144-2&partnerID=40&md5=8c8ff846c3bc2c247a3510809b70562c)

[2&partnerID=40&md5=8c8ff846c3bc2c247a3510809b70562c](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85118819492&doi=10.1007%2fs42976-021-00144-2&partnerID=40&md5=8c8ff846c3bc2c247a3510809b70562c)

Stojsavljević, A., Rovčanin, M., Rovčanin, B., Miković, Ž., Jeremić, A., Perović, M., Manojlović, D.

Human biomonitoring of essential, nonessential, rare earth, and noble elements in placental tissues

(2021) *Chemosphere*, 285, art. no. 131518, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109876630&doi=10.1016%2fj.chemosphere.2021.131518&partnerID=40&md5=b0f93aa365440f906abcd951f1be3f64)

[85109876630&doi=10.1016%2fj.chemosphere.2021.131518&partnerID=40&md5=b0f93aa365440f906abcd951f1be3f64](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109876630&doi=10.1016%2fj.chemosphere.2021.131518&partnerID=40&md5=b0f93aa365440f906abcd951f1be3f64)

- Guo, Z., Zhang, X., Wang, L., Wang, X., Wang, R., Hui, X., Wang, S., Wang, Z., Shi, M.  
 Selecting High Zinc Wheat Cultivars Increases Grain Zinc Bioavailability  
 (2021) *Journal of Agricultural and Food Chemistry*, 69 (38), pp. 11196-11203.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85115929428&doi=10.1021%2facf.jafc.1c03166&partnerID=40&md5=4e2d1c36dc0790584be11c1757e3eea1>
- Jagodić, J., Rovčanin, B., Borković-Mitić, S., Vujotić, L., Avdin, V., Manojlović, D., Stojsavljević, A.  
 Possible zinc deficiency in the Serbian population: examination of body fluids, whole blood and solid tissues  
 (2021) *Environmental Science and Pollution Research*, 28 (34), pp. 47439-47446.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105169048&doi=10.1007%2fs11356-021-14013-2&partnerID=40&md5=24331e5d1426490fd276dcd0025a0602>
- Szakál, T., Szüle, B., Kalocsai, R., Korim, T., Szalka, É., Tóth, E., Szakál, P.  
 Ion exchange with copper-tetraamine on naa (Lta) type synthesised zeolite  
 (2021) *Nova Biotechnologica et Chimica*, 20 (1), art. no. e886, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85110013264&doi=10.36547%2fmbc.886&partnerID=40&md5=18027b78be90a1d6c138422280738265>
- Tamindžić, G., Ignjatov, M., Milošević, D., Nikolić, Z., Kravljanac, L.K., Jovičić, D., Dolijanović, Ž., Savić, J.  
 Seed priming with zinc improves field performance of maize hybrids grown on calcareous chernozem  
 (2021) *Italian Journal of Agronomy*, 16 (3), art. no. 1795, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85114234242&doi=10.4081%2fija.2021.1795&partnerID=40&md5=710370c4987430e16e6a89058b52be6e>
- Rashid, N.F.A., Azalan, Q.F.  
 Improvement in paddy management: An assessment of copper and zinc concentration in paddy cultivated area  
 (2021) *International Journal of Postharvest Technology and Innovation*, 8 (1), pp. 89-102.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109633902&doi=10.1504%2fIJPTI.2021.116078&partnerID=40&md5=74ec1acb4bf4e9a4c4b828bfce28e5ef>
- Manzeke-Kangara, M.G., Mtambanengwe, F., Watts, M.J., Broadley, M.R., Lark, R.M., Mapfumo, P.  
 Can nitrogen fertilizer management improve grain iron concentration of agro-biofortified crops in Zimbabwe?  
 (2021) *Agronomy*, 11 (1), art. no. 124, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85109030177&doi=10.3390%2fagronomy11010124&partnerID=40&md5=4e5d4c322abdd318717c3620ce825fc3>
- Zhao, D., Li, X., Zhao, L., Li, L., Zhang, Y., Zhang, Z., Liu, L., Xu, H., Zhao, W., Wu, T., Siddique, K.H.M.  
 Comparison of zinc and iron uptake among diverse wheat germplasm at two phosphorus levels  
 (2020) *Cereal Research Communications*, 48 (4), pp. 441-448.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85091000873&doi=10.1007%2fs42976-020-00081-6&partnerID=40&md5=7585d6b781386bc175d1549c05b0be7e>
- Zhao, Q.-Y., Xu, S.-J., Zhang, W.-S., Zhang, Z., Yao, Z., Chen, X.-P., Zou, C.-Q.  
 Identifying key drivers for geospatial variation of grain micronutrient concentrations in major maize production regions of China  
 (2020) *Environmental Pollution*, 266, art. no. 115114, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85087358772&doi=10.1016%2fj.envpol.2020.115114&partnerID=40&md5=495d908b2a18547f863c8d43074662a6>

Hui, X., Luo, L., Wang, S., Cao, H., Huang, M., Shi, M., Malhi, S.S., Wang, Z.  
Critical concentration of available soil phosphorus for grain yield and zinc nutrition of winter wheat in a zinc-deficient calcareous soil

(2019) *Plant and Soil*, 444 (1-2), pp. 315-330.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072030278&doi=10.1007%2fs11104-019-04273-w&partnerID=40&md5=efd20f71f91fa6428d09b8e13463cda9>

Huang, T., Huang, Q., She, X., Ma, X., Huang, M., Cao, H., He, G., Liu, J., Liang, D., Malhi, S.S., Wang, Z.  
Grain zinc concentration and its relation to soil nutrient availability in different wheat cropping regions of China

(2019) *Soil and Tillage Research*, 191, pp. 57-65.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85063577097&doi=10.1016%2fj.still.2019.03.019&partnerID=40&md5=2ca25846780e31055664a5e20b859637>

7

Sacristán, D., González-Guzmán, A., Barrón, V., Torrent, J., Del Campillo, M.C.

Phosphorus-induced zinc deficiency in wheat pot-grown on noncalcareous and calcareous soils of different properties

(2019) *Archives of Agronomy and Soil Science*, 65 (2), pp. 208-223.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85049632659&doi=10.1080%2f03650340.2018.1492714&partnerID=40&md5=8ec05435fc1a56f0264d5f5530cf86de>

cf86de

Petković, K., Manojlović, M., Čabilovski, R., Krstić, Đ., Lončarić, Z., Lombnæs, P.

Foliar application of selenium, zinc and copper in alfalfa (*Medicago sativa* L.) biofortification

(2019) *Turkish Journal of Field Crops*, 24 (1), pp. 81-90.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069208418&doi=10.17557%2ftjfc.569363&partnerID=40&md5=f050142b79cb9492ded676640d6b7d55>

85069208418&doi=10.17557%2ftjfc.569363&partnerID=40&md5=f050142b79cb9492ded676640d6b7d55

Jing, F., Yang, Z., Chen, X., Liu, W., Guo, B., Lin, G., Huang, R., Liu, W.

Potentially hazardous element accumulation in rice tissues and their availability in soil systems after biochar amendments

(2019) *Journal of Soils and Sediments*, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85062707840&doi=10.1007%2fs11368-019-02296-5&partnerID=40&md5=e8a09725096a417cbfd5b5d7a80e80ea>

5&partnerID=40&md5=e8a09725096a417cbfd5b5d7a80e80ea

Wu, P., Cui, P.-X., Fang, G.-D., Wang, Y., Wang, S.-Q., Zhou, D.-M., Zhang, W., Wang, Y.-J.

Biochar decreased the bioavailability of Zn to rice and wheat grains: Insights from microscopic to macroscopic scales

(2018) *Science of the Total Environment*, 621, pp. 160-167.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85034815250&doi=10.1016%2fj.scitotenv.2017.11.236&partnerID=40&md5=17200ec346a696cdbf8d183c93ea813e>

85034815250&doi=10.1016%2fj.scitotenv.2017.11.236&partnerID=40&md5=17200ec346a696cdbf8d183c93ea813e

Li, S.-S., Wang, Z.-H., Diao, C.-P., Wang, S., Liu, L., Huang, N.

Grain zinc concentration, yield components, and zinc uptake and utilization of different high-yielding wheat cultivars in dryland fields

(2018) *Journal of Plant Nutrition and Fertilizers*, 24 (4), pp. 849-856.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074683517&doi=10.11674%2fzwyf.17341&partnerID=40&md5=0d48535b37afb39b4e9cb5faf778d516)

[85074683517&doi=10.11674%2fzwyf.17341&partnerID=40&md5=0d48535b37afb39b4e9cb5faf778d516](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85074683517&doi=10.11674%2fzwyf.17341&partnerID=40&md5=0d48535b37afb39b4e9cb5faf778d516)

Vázquez, J.F., Chacón, E.A., Carrillo, J.M., Benavente, E.

Grain mineral density of bread and durum wheat landraces from geochemically diverse native soils

(2018) *Crop and Pasture Science*, 69 (4), pp. 335-346.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85045562835&doi=10.1071%2fCP17306&partnerID=40&md5=13cf3bdba3e6911a1fdb980fe1a17f3e)

[85045562835&doi=10.1071%2fCP17306&partnerID=40&md5=13cf3bdba3e6911a1fdb980fe1a17f3e](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85045562835&doi=10.1071%2fCP17306&partnerID=40&md5=13cf3bdba3e6911a1fdb980fe1a17f3e)

Sedlář, O., Balík, J., Kulhánek, M., Černý, J., Kos, M.

Mehlich 3 extractant used for the evaluation of wheat-available phosphorus and zinc in calcareous soils

(2018) *Plant, Soil and Environment*, 64 (2), pp. 53-57.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85041711839&doi=10.17221%2f691%2f2017-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85041711839&doi=10.17221%2f691%2f2017-PSE&partnerID=40&md5=664a676c59c884b0bc7d9051ec8a4b17)

[PSE&partnerID=40&md5=664a676c59c884b0bc7d9051ec8a4b17](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85041711839&doi=10.17221%2f691%2f2017-PSE&partnerID=40&md5=664a676c59c884b0bc7d9051ec8a4b17)

Gabaza, M., Shumoy, H., Muchuweti, M., Vandamme, P., Raes, K.

Iron and zinc bioaccessibility of fermented maize, sorghum and millets from five locations in Zimbabwe

(2018) *Food Research International*, 103, pp. 361-370.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85032743377&doi=10.1016%2fj.foodres.2017.10.047&partnerID=40&md5=71128b8024f14777361021334b7c8d58)

[85032743377&doi=10.1016%2fj.foodres.2017.10.047&partnerID=40&md5=71128b8024f14777361021334b7c8d58](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85032743377&doi=10.1016%2fj.foodres.2017.10.047&partnerID=40&md5=71128b8024f14777361021334b7c8d58)

She, X., Wang, Z., Ma, X., Cao, H., He, H., Wang, S.

Variation of winter wheat grain zinc concentration and its relation to major soil characteristics in drylands of the loess plateau

(2017) *Scientia Agricultura Sinica*, 50 (22), pp. 4338-4349.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85035038267&doi=10.3864%2fj.issn.0578-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85035038267&doi=10.3864%2fj.issn.0578-1752.2017.22.010&partnerID=40&md5=b7341a77eaa7557c2eac9d40d2657710)

[1752.2017.22.010&partnerID=40&md5=b7341a77eaa7557c2eac9d40d2657710](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85035038267&doi=10.3864%2fj.issn.0578-1752.2017.22.010&partnerID=40&md5=b7341a77eaa7557c2eac9d40d2657710)

Marijanušić, K., Manojlović, M., Bogdanović, D., Čabilovski, R., Lombnaes, P.

Mineral composition of forage crops in respect to dairy cow nutrition

(2017) *Bulgarian Journal of Agricultural Science*, 23 (2), pp. 204-212.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85018369122&partnerID=40&md5=db55791222794168bfa72287da2e6b82)

[85018369122&partnerID=40&md5=db55791222794168bfa72287da2e6b82](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85018369122&partnerID=40&md5=db55791222794168bfa72287da2e6b82)

Sattar, A., Asghar, H.N., Zahir, Z.A., Asghar, M.

Bioactivation of indigenous and exogenously applied micronutrients through acidified organic amendment for improving yield and biofortification of maize in calcareous soil

(2017) *International Journal of Agriculture and Biology*, 19 (5), pp. 1039-1046.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85029717882&doi=10.17957%2fIJAB%2f15.0382&partnerID=40&md5=d90d8573960c0215c9491a63d3a461a8)

[85029717882&doi=10.17957%2fIJAB%2f15.0382&partnerID=40&md5=d90d8573960c0215c9491a63d3a461a8](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85029717882&doi=10.17957%2fIJAB%2f15.0382&partnerID=40&md5=d90d8573960c0215c9491a63d3a461a8)

**Pavlovic J, Samardzic J, Kostic L, Laursen KH, Natic M, Timotijevic G, Schjoerring JK, Nikolic M (2016): Silicon enhances leaf remobilization of iron in cucumber under limited iron conditions. *Annals of Botany* 118: 271-280., цитиран 44 пута (без самоцитата) у:**

Mierzaali, T., Abdolzadeh, A., Sadeghipour, H.R.  
Silicon ameliorates iron deficiency in sour orange seedlings grown under different pHs  
(2024) *Scientia Horticulturae*, 323, art. no. 112489, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85171969693&doi=10.1016%2fj.scienta.2023.112489&partnerID=40&md5=c60ddd3a3b0025f5b56b14b7615b0bb3>

Alves, D.M.R., de Oliveira, J.N., de Mello Prado, R., Ferreira, P.M.  
Silicon in the form of nanosilica mitigates P toxicity in scarlet eggplant  
(2023) *Scientific Reports*, 13 (1), art. no. 9190, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85161023897&doi=10.1038%2fs41598-023-36412-w&partnerID=40&md5=1069f9282f8e65bcd98564bf93fb6571>

Réthoré, E., Ali, N., Pluchon, S., Hosseini, S.A.  
57208582717;57195396425;57218305848;56542512600;  
Silicon Enhances Brassica napus Tolerance to Boron Deficiency by the Remobilisation of Boron and by Changing the Expression of Boron Transporters  
(2023) *Plants*, 12 (13), art. no. 2574, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165168775&doi=10.3390%2fplants12132574&partnerID=40&md5=1fc4331b21b2e944f594f450d0bb4015>

Khan, I., Awan, S.A., Rizwan, M., brestic, M., Xie, W.  
Silicon: an essential element for plant nutrition and phytohormones signaling mechanism under stressful conditions  
(2023) *Plant Growth Regulation*, 100 (2), pp. 301-319.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138005801&doi=10.1007%2fs10725-022-00872-3&partnerID=40&md5=bbed696f7cea5a91d99288d9b23c760a>

Nikolić, D., Bosnić, D., Samardžić, J.  
Silicon in action: Between iron scarcity and excess copper  
(2023) *Frontiers in Plant Science*, 14, art. no. 1039053, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85148335805&doi=10.3389%2ffpls.2023.1039053&partnerID=40&md5=506514826fb11bdba2c51f9dbab65c1c>

Labancová, E., Vivodová, Z., Šípošová, K., Kollárová, K.  
Silicon Actuates Poplar Calli Tolerance after Longer Exposure to Antimony  
(2023) *Plants*, 12 (3), art. no. 689, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85147806466&doi=10.3390%2fplants12030689&partnerID=40&md5=d59601181a7e7480b422fab7507dab73>

Ashraf, M.S., Ahmad, A.  
Current understanding of genomics, transcriptomics, proteomics, and metabolomics of crop plants under low nutrient stress  
(2023) *Genomics, Transcriptomics, Proteomics and Metabolomics of Crop Plants*, pp. 89-130.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169358426&doi=10.1016%2fb978-0-323-95989-6.00008-5&partnerID=40&md5=0b3464818a6fefce1657e256e12b4895>

Shi, Y., Guo, S., Zhao, X., Xu, M., Xu, J., Xing, G., Zhang, Y., Ahammed, G.J.  
Comparative physiological and transcriptomics analysis revealed crucial mechanisms of silicon-mediated tolerance to iron deficiency in tomato  
(2022) *Frontiers in Plant Science*, 13, art. no. 1094451.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85145499898&doi=10.3389%2ffpls.2022.1094451&partnerID=40&md5=c9c0b198a64f1a0132057c319896183e>

Oliveira, K.S., de Mello Prado, R., Checchio, M.V., Gratão, P.L.  
Interaction of silicon and manganese in nutritional and physiological aspects of energy cane with high fiber content  
(2022) *BMC Plant Biology*, 22 (1), art. no. 374, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135175163&doi=10.1186%2fs12870-022-03766-8&partnerID=40&md5=29f1b5d5cc241095c9dfe4ac43c254ad>

Naik, B.S.S.S., Sharma, S.K., Pramanick, B., Chaudhary, R., Yadav, S.K., Tirunagari, R., Gaber, A., Hossain, A.  
Silicon in Combination with Farmyard Manure Improves the Productivity, Quality and Nitrogen Use Efficiency of Sweet Corn in an Organic Farming System  
(2022) *Silicon*, 14 (10), pp. 5733-5743.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127584392&doi=10.1007%2fs12633-022-01818-0&partnerID=40&md5=2460fec6a21bf4086125b8b53f88497c>

Basirat, M., Mousavi, S.M.  
Effect of Foliar Application of Silicon and Salicylic Acid on Regulation of Yield and Nutritional Responses of Greenhouse Cucumber Under High Temperature  
(2022) *Journal of Plant Growth Regulation*, 41 (5), pp. 1978-1988.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85123469021&doi=10.1007%2fs00344-021-10562-5&partnerID=40&md5=eaf1ceb471e3eb90a0ad74863974b3ff>

Kovács, S., Kutasy, E., Csajbók, J.  
The Multiple Role of Silicon Nutrition in Alleviating Environmental Stresses in Sustainable Crop Production  
(2022) *Plants*, 11 (9), art. no. 1223, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85129183808&doi=10.3390%2fplants11091223&partnerID=40&md5=f897c7a4a4e650f972c9729def725e3c>

Yang, Z., Yang, F., Liu, J.-L., Wu, H.-T., Yang, H., Shi, Y., Liu, J., Zhang, Y.-F., Luo, Y.-R., Chen, K.-M.  
Heavy metal transporters: Functional mechanisms, regulation, and application in phytoremediation  
(2022) *Science of the Total Environment*, 809, art. no. 151099, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85117955494&doi=10.1016%2fj.scitotenv.2021.151099&partnerID=40&md5=4b3ec2c31bd91b2cedeb00ed5a69ce4b>

Verma, K.K., Song, X.-P., Chen, Z.-L., Tian, D.-D., Rajput, V.D., Singh, M., Minkina, T., Li, Y.-R.  
Silicon and nanosilicon mitigate nutrient deficiency under stress for sustainable crop improvement  
(2022) *Silicon and Nano-silicon in Environmental Stress Management and Crop Quality Improvement: Progress and Prospects*, pp. 207-218.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138379825&doi=10.1016%2fb978-0-323-91225-9.00007-8&partnerID=40&md5=8a853a819611ebcbe59665825421d39b>

- Khan, I., Awan, S.A., Rizwan, M., brestic, M., Xie, W.  
Silicon: an essential element for plant nutrition and phytohormones signaling mechanism under stressful conditions  
(2022) *Plant Growth Regulation*, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138005801&doi=10.1007%2fs10725-022-00872-3&partnerID=40&md5=bbed696f7cea5a91d99288d9b23c760a>
- Chowdhury, R., Nallusamy, S., Shanmugam, V., Loganathan, A., Muthurajan, R., Sivathapandian, S.K., Paramasivam, J., Duraialagaraja, S.  
Genome-wide understanding of evolutionary and functional relationships of rice Yellow Stripe-Like (YSL) transporter family in comparison with other plant species  
(2022) *Biologia*, 77 (1), pp. 39-53.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119201782&doi=10.1007%2fs11756-021-00924-5&partnerID=40&md5=3e49e88ba21d3d141ac06b7f9716669c>
- Lozano-González, J.M., Valverde, C., Hernández, C.D., Martín-Esquinas, A., Hernández-Apaolaza, L.  
Beneficial effect of root or foliar silicon applied to cucumber plants under different zinc nutritional statuses  
(2021) *Plants*, 10 (12), art. no. 2602, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119960873&doi=10.3390%2fplants10122602&partnerID=40&md5=17ae6854e7e0e4334f3e3f055a60912f>
- Sales, A.C., Campos, C.N.S., de Souza Junior, J.P., da Silva, D.L., Oliveira, K.S., de Mello Prado, R., Teodoro, L.P.R., Teodoro, P.E.  
Silicon mitigates nutritional stress in quinoa (*Chenopodium quinoa* Willd.)  
(2021) *Scientific Reports*, 11 (1), art. no. 14665, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85110819339&doi=10.1038%2fs41598-021-94287-1&partnerID=40&md5=9f150377e6a9104deea0451578438992>
- Bitvutskii, N.P., Yakkonen, K.L., Lukina, K.A., Semenov, K.N., Panova, G.G.  
Fullerenol can Ameliorate Iron Deficiency in Cucumber Grown Hydroponically  
(2021) *Journal of Plant Growth Regulation*, 40 (3), pp. 1017-1031.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85086126511&doi=10.1007%2fs00344-020-10160-x&partnerID=40&md5=18e4ede299cd9919acb1356fcb70d169>
- Minden, V., Schaller, J., Olde Venterink, H.  
Plants increase silicon content as a response to nitrogen or phosphorus limitation: a case study with *Holcus lanatus*  
(2021) *Plant and Soil*, 462 (1-2), pp. 95-108.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85089544750&doi=10.1007%2fs11104-020-04667-1&partnerID=40&md5=41001c7fa02b490562551c243dd2e2e5>
- Olarewaju, O.O., Arthur, G.D., Fajinmi, O.O., Coopoosamy, R.M., Naidoo, K.K.  
Biostimulants: Potential benefits of enhancing nutrition efficiency in agronomic and horticultural crops  
(2021) *Biostimulants for Crops from Seed Germination to Plant Development: A Practical Approach*, pp. 427-443.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85122956046&doi=10.1016%2fb978-0-12-823048-0.00006-X&partnerID=40&md5=e2a315fc28f418614be387c0a78ce136>

Ali, M., Afzal, S., Parveen, A., Kamran, M., Javed, M.R., Abbasi, G.H., Malik, Z., Riaz, M., Ahmad, S., Chattha, M.S., Ali, M., Ali, Q., Uddin, M.Z., Rizwan, M., Ali, S.  
Silicon mediated improvement in the growth and ion homeostasis by decreasing Na<sup>+</sup> uptake in maize (*Zea mays* L.) cultivars exposed to salinity stress  
(2021) *Plant Physiology and Biochemistry*, 158, pp. 208-218.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85097068992&doi=10.1016%2fj.plaphy.2020.10.040&partnerID=40&md5=6ea11984530fd2720d7621470f03b26b>

Hernández-Apaolaza, L., Escribano, L., Zamarreño, Á.M., García-Mina, J.M., Cano, C., Carrasco-Gil, S.  
Root Silicon Addition Induces Fe Deficiency in Cucumber Plants, but Facilitates Their Recovery After Fe Resupply. A Comparison With Si Foliar Sprays  
(2020) *Frontiers in Plant Science*, 11, art. no. 580552, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85098123005&doi=10.3389%2ffpls.2020.580552&partnerID=40&md5=b1ca0b9f0eb60632e72e11b8a0d96e58>

Ali, N., Réthoré, E., Yvin, J.-C., Hosseini, S.A.  
The regulatory role of silicon in mitigating plant nutritional stresses  
(2020) *Plants*, 9 (12), art. no. 1779, pp. 1-18.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85097942033&doi=10.3390%2fplants9121779&partnerID=40&md5=b3c0071ec9b99ebf1163efaf94d38ad4>

Réthoré, E., Ali, N., Yvin, J.-C., Hosseini, S.A.  
Silicon regulates source to sink metabolic homeostasis and promotes growth of rice plants under sulfur deficiency  
(2020) *International Journal of Molecular Sciences*, 21 (10), art. no. 3677, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85085525578&doi=10.3390%2fijms21103677&partnerID=40&md5=e0eab91416a85a9a544a601ae97e0e07>

Deus, A.C.F., de Mello Prado, R., de Cássia Félix Alvarez, R., de Oliveira, R.L.L., Felisberto, G.  
Role of Silicon and Salicylic Acid in the Mitigation of Nitrogen Deficiency Stress in Rice Plants  
(2020) *Silicon*, 12 (5), pp. 997-1005.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85067002028&doi=10.1007%2fs12633-019-00195-5&partnerID=40&md5=5e2afa5f285088463511e258433218bf>

González-Terán, G.E., Gómez-Merino, F.C., Trejo-Téllez, L.I.  
Effects of silicon and calcium application on growth, yield and fruit quality parameters of cucumber established in a sodic soil  
(2020) *Acta Scientiarum Polonorum, Hortorum Cultus*, 19 (3), pp. 149-158.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85090725780&doi=10.24326%2fasphc.2020.3.13&partnerID=40&md5=e000561d359f806f8b848acf9152e041>

Bosnić, D., Bosnić, P., Nikolić, D., Nikolić, M., Samardžić, J.  
Silicon and iron differently alleviate copper toxicity in cucumber leaves  
(2019) *Plants*, 8 (12), art. no. 554, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85076053545&doi=10.3390%2fplants8120554&partnerID=40&md5=6335820b7ab436fc5a83cafb5b00fd6>

Bityutskii, N.P., Yakkonen, K.L., Petrova, A.I., Lukina, K.A., Shavarda, A.L.

Calcium Carbonate Reduces the Effectiveness of Soil-Added Monosilicic Acid in Cucumber Plants  
(2019) *Journal of Soil Science and Plant Nutrition*, 19 (3), pp. 660-670.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069714697&doi=10.1007%2fs42729-019-00066-3&partnerID=40&md5=430cb49d101e3bde7b23add5f54e1836>

de Oliveira, R.L.L., de Mello Prado, R., Felisberto, G., Checchio, M.V., Gratão, P.L.  
Silicon Mitigates Manganese Deficiency Stress by Regulating the Physiology and Activity of Antioxidant Enzymes in Sorghum Plants  
(2019) *Journal of Soil Science and Plant Nutrition*, 19 (3), pp. 524-534.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069635249&doi=10.1007%2fs42729-019-00051-w&partnerID=40&md5=b8e4831cf254db3e0fd35257630ee98f>

Nikolic, D.B., Nesic, S., Bosnic, D., Kostic, L., Nikolic, M., Samardzic, J.T.  
Silicon alleviates iron deficiency in barley by enhancing expression of strategy ii genes and metal redistribution  
(2019) *Frontiers in Plant Science*, 10, art. no. 416, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064227790&doi=10.3389%2ffpls.2019.00416&partnerID=40&md5=227a8a7ed74e96675f29b03c41b76dd4>

Coskun, D., Deshmukh, R., Sonah, H., Menzies, J.G., Reynolds, O., Ma, J.F., Kronzucker, H.J., Bélanger, R.R.  
The controversies of silicon's role in plant biology  
(2019) *New Phytologist*, 221 (1), pp. 67-85.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85050755908&doi=10.1111%2fnph.15343&partnerID=40&md5=7943cf79f282f0733af5927f32a5053b>

Bityutskii, N.P., Yakkonen, K.L., Petrova, A.I., Lukina, K.A., Shavarda, A.L.  
Silicon ameliorates iron deficiency of cucumber in a pH-dependent manner  
(2018) *Journal of Plant Physiology*, 231, pp. 364-373.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85055645381&doi=10.1016%2fj.jplph.2018.10.017&partnerID=40&md5=c55900e0d319bdc4cd3aabe4511915a1>

Maillard, A., Ali, N., Schwarzenberg, A., Jamois, F., Yvin, J.-C., Hosseini, S.A.  
Silicon transcriptionally regulates sulfur and ABA metabolism and delays leaf senescence in barley under combined sulfur deficiency and osmotic stress  
(2018) *Environmental and Experimental Botany*, 155, pp. 394-410.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85051014640&doi=10.1016%2fj.envexpbot.2018.07.026&partnerID=40&md5=6674f13fa6246f16dccb5e5f70500716>

Ali, N., Schwarzenberg, A., Yvin, J.-C., Hosseini, S.A.  
Regulatory role of silicon in mediating differential stress tolerance responses in two contrasting tomato genotypes under osmotic stress  
(2018) *Frontiers in Plant Science*, 9, art. no. 1475, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85055049653&doi=10.3389%2ffpls.2018.01475&partnerID=40&md5=c8348cb127f5d46fac0b32d2dfad1310>

Frew, A., Weston, L.A., Reynolds, O.L., Gurr, G.M.  
The role of silicon in plant biology: A paradigm shift in research approach

(2018) *Annals of Botany*, 121 (7), pp. 1265-1273.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85047882553&doi=10.1093%2faob%2fmcy009&partnerID=40&md5=3de24e2b3189366d410b1cc4fc772742>

Greger, M., Landberg, T., Vaculik, M.  
Silicon influences soil availability and accumulation of mineral nutrients in various plant species  
(2018) *Plants*, 7 (2), art. no. 41, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85047455304&doi=10.3390%2fplants7020041&partnerID=40&md5=23c6b94a904f45ab39e5a2d5dfe414fd>

Moradtalab, N., Weinmann, M., Walker, F., Höglinger, B., Ludewig, U., Neumann, G.  
Silicon improves chilling tolerance during early growth of maize by effects on micronutrient homeostasis and hormonal balances  
(2018) *Frontiers in Plant Science*, 9, art. no. 420, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85046906046&doi=10.3389%2ffpls.2018.00420&partnerID=40&md5=50e5ac97b13c00af9989cb5393f71560>

Kerry, R.G., Mahapatra, G.P., Patra, S., Sahoo, S.L., Pradhan, C., Padhi, B.K., Rout, J.R.  
Proteomic and genomic responses of plants to nutritional stress  
(2018) *BioMetals*, 31 (2), pp. 161-187.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85042079827&doi=10.1007%2fs10534-018-0083-9&partnerID=40&md5=0958f6ba75e65e0daabcf962908eeab0>

Carrasco-Gil, S., Rodríguez-Menéndez, S., Fernández, B., Pereiro, R., de la Fuente, V., Hernandez-Apaolaza, L.  
Silicon induced Fe deficiency affects Fe, Mn, Cu and Zn distribution in rice (*Oryza sativa* L.) growth in calcareous conditions  
(2018) *Plant Physiology and Biochemistry*, 125, pp. 153-163.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85041905200&doi=10.1016%2fj.plaphy.2018.01.033&partnerID=40&md5=d8a73719456262efc7d69cfabf6f569d>

Chaiwong, N., Prom-U-thai, C., Bouain, N., Lacombe, B., Rouached, H.  
Individual versus combinatorial effects of silicon, phosphate, and iron deficiency on the growth of lowland and upland rice varieties  
(2018) *International Journal of Molecular Sciences*, 19 (3), art. no. 899, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85044218601&doi=10.3390%2fijms19030899&partnerID=40&md5=5fa857d112b06c52695725151e8a92e8>

Dorneles, A.O.S., Pereira, A.S., Possebom, G., Sasso, V.M., Rossato, L.V., Tabaldi, L.A.  
Growth of potato genotypes under different silicon concentrations  
(2018) *Advances in Horticultural Science*, 32 (2), pp. 289-295.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85051459424&doi=10.13128%2fahs-21873&partnerID=40&md5=4e413e3f5a9ef59797040b56a15f48d1>

Stevic N, Korac J, **Pavlovic J**, Nikolic M. (2016): Binding of transition metals to monosilicic acid in aqueous and xylem (*Cucumis sativus* L.) solutions: A low-T electron paramagnetic resonance study. *BioMetals*, 29(5): 945-51., цитиран **10** пута (без самоцитата) у:

Tiwari, A., Goutam, A., Sk, S., Vijayanand, P., Abraham, B.M., Pal, U.

Hierarchically porous TiO<sub>2</sub> supported anisotropic plasmonic Cu<sub>2</sub>-xS photocatalyst for accelerated hydrogen evolution and CO<sub>2</sub> reduction to MeOH  
(2023) *International Journal of Hydrogen Energy*, 48 (75), pp. 29178-29188.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85153962371&doi=10.1016%2fj.ijhydene.2023.04.006&partnerID=40&md5=9dc2e2a677e40304edeeee15590ad462>

Nikolić, D., Bosnić, D., Samardžić, J.  
Silicon in action: Between iron scarcity and excess copper  
(2023) *Frontiers in Plant Science*, 14, art. no. 1039053, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85148335805&doi=10.3389%2ffpls.2023.1039053&partnerID=40&md5=506514826fb11bdba2c51f9dbab65c1c>

Bocharnikova, E., Matichenkov, V.  
Silicon-Induced Mitigation of Low-Temperature Stress in Sugarcane  
(2023) *Agro-industrial Perspectives on Sugarcane Production under Environmental Stress*, pp. 215-229.  
[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85151196120&doi=10.1007%2f978-981-19-3955-6\\_12&partnerID=40&md5=61fe9b3fdbca7f9870c1510f5ff24b5b](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85151196120&doi=10.1007%2f978-981-19-3955-6_12&partnerID=40&md5=61fe9b3fdbca7f9870c1510f5ff24b5b)

Zhang, R., Hu, R., Bocharnikova, E., Matichenkov, V.  
Co-treatment with silicon and quicklime in pig manure application as a promising option of environmental management  
(2022) *Journal of Environmental Management*, 309, art. no. 114684, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85124578978&doi=10.1016%2fj.jenvman.2022.114684&partnerID=40&md5=048eb68787e62db668c8820ddca7034>

Riaz, S., Hussain, I., Parveen, A., Arshraf, M.A., Rasheed, R., Zulfqar, S., Thind, S., Rehman, S.  
Silicon and nano-silicon in plant nutrition and crop quality  
(2022) *Silicon and Nano-silicon in Environmental Stress Management and Crop Quality Improvement: Progress and Prospects*, pp. 277-295.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138410738&doi=10.1016%2fb978-0-323-91225-9.00021-2&partnerID=40&md5=5a23aa558da14073941017845f63a604>

Bityutskii, N.P., Yakkonen, K.L., Petrova, A.I., Lukina, K.A., Shavarda, A.L.  
Calcium Carbonate Reduces the Effectiveness of Soil-Added Monosilicic Acid in Cucumber Plants  
(2019) *Journal of Soil Science and Plant Nutrition*, 19 (3), pp. 660-670.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85069714697&doi=10.1007%2fs42729-019-00066-3&partnerID=40&md5=430cb49d101e3bde7b23add5f54e1836>

Nikolic, D.B., Nestic, S., Bosnic, D., Kostic, L., Nikolic, M., Samardzic, J.T.  
Silicon alleviates iron deficiency in barley by enhancing expression of strategy ii genes and metal redistribution  
(2019) *Frontiers in Plant Science*, 10, art. no. 416, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85064227790&doi=10.3389%2ffpls.2019.00416&partnerID=40&md5=227a8a7ed74e96675f29b03c41b76dd4>

Bityutskii, N.P., Yakkonen, K.L., Petrova, A.I., Lukina, K.A., Shavarda, A.L.  
Silicon ameliorates iron deficiency of cucumber in a pH-dependent manner

(2018) *Journal of Plant Physiology*, 231, pp. 364-373.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85055645381&doi=10.1016%2fj.jplph.2018.10.017&partnerID=40&md5=c55900e0d319bdc4cd3aabe4511915a1>

Moradtalab, N., Weinmann, M., Walker, F., Höglinger, B., Ludewig, U., Neumann, G.  
Silicon improves chilling tolerance during early growth of maize by effects on micronutrient homeostasis and hormonal balances  
(2018) *Frontiers in Plant Science*, 9, art. no. 420, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85046906046&doi=10.3389%2ffpls.2018.00420&partnerID=40&md5=50e5ac97b13c00af9989cb5393f71560>

Hinrichs, M., Fleck, A.T., Biedermann, E., Ngo, N.S., Schreiber, L., Schenk, M.K.  
An ABC transporter is involved in the silicon-induced formation of casparian bands in the exodermis of rice  
(2017) *Frontiers in Plant Science*, 8, art. no. 671, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85019571967&doi=10.3389%2ffpls.2017.00671&partnerID=40&md5=4cd7876441bb36d345e92a6b9894f47b>

Nikolic M, **Pavlovic J** (2018): Plant responses to iron deficiency and toxicity and iron use efficiency in plants. In: *Plant Micronutrient Use Efficiency: Molecular and Genomic Perspectives in Crop Plants*, 1st Edition, A.M. Hossain et al. (Eds.), pp. 55-69. Academic Press, Elsevier, London. ISBN: 9780128121047., цитиран **35** пута (без самоцитата) у:

Francis, B., Aravindakumar, C.T., Brewer, P.B., Simon, S.  
Plant nutrient stress adaptation: A prospect for fertilizer limited agriculture  
(2023) *Environmental and Experimental Botany*, 213, art. no. 105431.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165338679&doi=10.1016%2fj.envexpbot.2023.105431&partnerID=40&md5=0e1ea7a4c7d5c926466d5ca75650878f>

Armatmontree, C., Leksungnoen, P., Nansahwang, A., Aramrak, S., Kongsil, P., Wisawapipat, W.  
Iron toxicity downregulates root-proton efflux and decreases zinc accumulation in cassava  
(2023) *Annals of Agricultural Sciences*, 68 (1), pp. 97-104.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164445238&doi=10.1016%2fj.aoas.2023.06.004&partnerID=40&md5=1a9077b30b19e2d875c57eba88a81c9a>

Krishna, T.P.A., Ceasar, S.A., Maharajan, T.  
Biofortification of Crops to Fight Anemia: Role of Vacuolar Iron Transporters  
(2023) *Journal of Agricultural and Food Chemistry*, 71 (8), pp. 3583-3598.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85148771218&doi=10.1021%2ffacs.jafc.2c07727&partnerID=40&md5=105b19ce1a0b676f611e490ee02afa29>

Petukhov, A.S., Kremleva, T.A., Khritokhin, N.A., Petukhova, G.A.  
Statistical analysis of the relationship between heavy metal accumulation and plants biochemical responses in the urban area [Статистический анализ взаимосвязи накопления тяжёлых металлов и биохимических реакций растений в условиях городской среды]  
(2023) *Theoretical and Applied Ecology*, (1), pp. 83-92.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85158903261&doi=10.25750%2f1995-4301-2023-1-083-092&partnerID=40&md5=cccae0f384dd9e075e35d82e706b6508>

A. Kirkby, E., Nikolic, M., White, P.J., Xu, G.

Mineral nutrition, yield, and source-sink relationships

(2023) *Marschner's Mineral Nutrition of Plants*, pp. 131-200.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85150129594&doi=10.1016%2fB978-0-12-819773-8.00015-0&partnerID=40&md5=e2418c4b74e12c49c388e4bcec449c93>

White, P.J., Ding, G.

Long-distance transport in the xylem and phloem

(2023) *Marschner's Mineral Nutrition of Plants*, pp. 73-104.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85150104869&doi=10.1016%2fB978-0-12-819773-8.00002-2&partnerID=40&md5=2af09a906e5d8fdec4a4a736e24d880a>

Fimbres-Acedo, Y.E., Traversari, S., Cacini, S., Costamagna, G., Ginepro, M., Massa, D.

Testing the Effect of High pH and Low Nutrient Concentration on Four Leafy Vegetables in Hydroponics

(2023) *Agronomy*, 13 (1), art. no. 41.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85146815237&doi=10.3390%2fagronomy13010041&partnerID=40&md5=d88c103b624cb0a19be8556ec0223f95)

[85146815237&doi=10.3390%2fagronomy13010041&partnerID=40&md5=d88c103b624cb0a19be8556ec0223f95](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85146815237&doi=10.3390%2fagronomy13010041&partnerID=40&md5=d88c103b624cb0a19be8556ec0223f95)

da Silva, D.R., Schaefer, C.E.G.R., Kuki, K.N., Santos, M.F.S., Heringer, G., da Silva, L.C.

Why is *Brachiaria decumbens* Stapf. a common species in the mining tailings of the Fundão dam in Minas Gerais, Brazil?

(2022) *Environmental Science and Pollution Research*, 29 (52), pp. 79168-79183.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85132102254&doi=10.1007%2fs11356-022-21345-0&partnerID=40&md5=e30facef4e99e3f61412fa6510ac8a68>

Gavassi, M.A., Alves, F.R.R., Monteiro, C.C., Gaion, L.A., Alves, L.R., Prado, R.D.M., Gratão, P.L., Carvalho, R.F.

Photomorphogenic tomato mutants high-pigment 1 and aurea responses to iron deficiency

(2023) *Scientia Horticulturae*, 307, art. no. 111502.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138807747&doi=10.1016%2fj.scienta.2022.111502&partnerID=40&md5=3096dd7bca11ed87b95dd5f21b13aea5)

[85138807747&doi=10.1016%2fj.scienta.2022.111502&partnerID=40&md5=3096dd7bca11ed87b95dd5f21b13aea5](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138807747&doi=10.1016%2fj.scienta.2022.111502&partnerID=40&md5=3096dd7bca11ed87b95dd5f21b13aea5)

Montemagno, A., Hissler, C., Bense, V., Teuling, A.J., Ziebel, J., Pfister, L.

Dynamics of rare earth elements and associated major and trace elements during Douglas-fir (*Pseudotsuga menziesii*) and European beech (*Fagus sylvatica* L.) litter degradation

(2022) *Biogeosciences*, 19 (13), pp. 3111-3129.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85133696005&doi=10.5194%2fbg-19-3111-2022&partnerID=40&md5=05376676dc197ad62a0586211e7bfe05>

Sohail, M.I., Zia Ur Rehman, M., Aziz, T., Akmal, F., Azhar, M., Nadeem, F., Aslam, M., Siddiqui, A., Khalid, M.A.

Iron bio-fortification and heavy metal/(loid)s contamination in cereals: Successes, issues, and challenges

(2022) *Crop and Pasture Science*, 73 (8), pp. 877-895.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85130703945&doi=10.1071%2fCP21771&partnerID=40&md5=8b5a8813ea63b0cefaab8191c9122a72>

Tighe-Neira, R., Gonzalez-Villagra, J., Nunes-Nesi, A., Inostroza-Blancheteau, C.  
Impact of nanoparticles and their ionic counterparts derived from heavy metals on the physiology of food crops  
(2022) *Plant Physiology and Biochemistry*, 172, pp. 14-23.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85122439123&doi=10.1016%2fj.plaphy.2021.12.036&partnerID=40&md5=56c4c93ded71f2ccd1a65d6b7dd33346>

Filho, J.R., Corte, V.B., Perin, I.T.A.L., DE FREITAS, J.F.N., Waichert, R.H., Dos Santos, C.R.

Effects of Iron on oxidative stress of *Cecropia hololeuca* and *Carica papaya* plants  
(2022) *Anais da Academia Brasileira de Ciencias*, 94, art. no. e20211098, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85139308537&doi=10.1590%2f0001-3765202220211098&partnerID=40&md5=01c6aebaf9e6bf4564cba02cbdfad51c>

da Silva, D.R., Schaefer, C.E.G.R., Kuki, K.N., Santos, M.F.S., Heringer, G., da Silva, L.C.

Why is *Brachiaria decumbens* Stapf. a common species in the mining tailings of the Fundão dam in Minas Gerais, Brazil?

(2022) *Environmental Science and Pollution Research*, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85132102254&doi=10.1007%2fs11356-022-21345-0&partnerID=40&md5=e30facef4e99e3f61412fa6510ac8a68>

Khoshru, B., Sarikhani, M.R., Reyhanitabar, A., Oustan, S., Malboobi, M.A.

Evaluation of the Ability of Rhizobacterial Isolates to Solubilize Sparingly Soluble Iron Under In-vitro Conditions

(2022) *Geomicrobiology Journal*, 39 (9), pp. 804-815.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85131647769&doi=10.1080%2f01490451.2022.2078447&partnerID=40&md5=b9f0bef2d08b49cd9a36a20cd1cdbc6e>

El-Gioushy, S.F., Ding, Z., Bahloul, A.M.E., Gawish, M.S., Abou El Ghit, H.M., Abdelaziz, A.M.R.A., El-Desouky, H.S., Sami, R., Khojah, E., Hashim, T.A., Kheir, A.M.S., Zewail, R.M.Y.

Foliar application of nano, chelated, and conventional iron forms enhanced growth, nutritional status, fruiting aspects, and fruit quality of washington navel orange trees (*Citrus sinensis* l. osbeck)

(2021) *Plants*, 10 (12), art. no. 2577, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119654322&doi=10.3390%2fplants10122577&partnerID=40&md5=7aed4888b8fa5a4896f9ca1f41703c15>

Kautmanová, I., Brachtýr, O., Gbúrová Štubňová, E., Szabóová, D., Šottník, P., Lalinská-Voleková, B.

Potentially toxic elements in macromycetes and plants from areas affected by antimony mining

(2021) *Biologia*, 76 (7), pp. 2133-2159.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107934428&doi=10.1007%2fs11756-021-00788-9&partnerID=40&md5=95d209053bf8fe681fe700bf4b43f1d6>

Sági-Kazár, M., Zelenyánszki, H., Müller, B., Cseh, B., Gyuris, B., Farkas, S.Z., Fodor, F., Tóth, B., Kovács, B., Koncz, A., Visnovitz, T., Buzás, E.I., Bánkúti, B., Bánáti, F., Szenthe, K., Solti, Á.

Supraoptimal Iron Nutrition of *Brassica napus* Plants Suppresses the Iron Uptake of Chloroplasts by Down-Regulating Chloroplast Ferric Chelate Reductase

(2021) *Frontiers in Plant Science*, 12, art. no. 658987, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107280651&doi=10.3389%2ffpls.2021.658987&partnerID=40&md5=fbe688da365edcf25c3e67e30d669a7b>

Shrestha, R.K., Lei, P., Shi, D., Hashimi, M.H., Wang, S., Xie, D., Ni, J., Ni, C.  
Response of maize (*Zea mays* L.) towards vapor pressure deficit  
(2021) *Environmental and Experimental Botany*, 181, art. no. 104293, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85094619193&doi=10.1016%2fj.envexpbot.2020.104293&partnerID=40&md5=2758d62482a94e600a24642a217ace55>

Sadeghzadeh, N., Hajiboland, R., Moradtab, N., Poschenrieder, C.  
Growth enhancement of *Brassica napus* under both deficient and adequate iron supply by intercropping with *Hordeum vulgare*: a hydroponic study  
(2021) *Plant Biosystems*, 155 (3), pp. 632-646.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85086018483&doi=10.1080%2f11263504.2020.1769215&partnerID=40&md5=f78b01cc04a559ab54468a003cfa59e5>

De La Torre-Roche, R., Cantu, J., Tamez, C., Zuverza-Mena, N., Hamdi, H., Adisa, I.O., Elmer, W., Gardea-Torresdey, J., White, J.C.  
Seed Biofortification by Engineered Nanomaterials: A Pathway to Alleviate Malnutrition?  
(2020) *Journal of Agricultural and Food Chemistry*, 68 (44), pp. 12189-12202.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85095672650&doi=10.1021%2ffacs.jafc.0c04881&partnerID=40&md5=3d3193fd3fb9fed3e8b075c9df0ff80>

Wang, N., Dong, X., Chen, Y., Ma, B., Yao, C., Ma, F., Liu, Z.  
Direct and bicarbonate-induced iron deficiency differently affect iron translocation in Kiwifruit roots  
(2020) *Plants*, 9 (11), art. no. 1578, pp. 1-15.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85096046352&doi=10.3390%2fplants9111578&partnerID=40&md5=e82f3d0ab761d44617b7c2e9c041de3d>

Hajiboland, R., Sadeghzadeh, N., Bosnic, D., Bosnic, P., Tolrà, R., Poschenrieder, C., Nikolic, M.  
Selenium activates components of iron acquisition machinery in oilseed rape roots  
(2020) *Plant and Soil*, 452 (1-2), pp. 569-586.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85086565851&doi=10.1007%2fs11104-020-04599-w&partnerID=40&md5=4528f187073aa73b3da070b5097681a1>

Rajabi Islami, H., Assareh, R.  
Enhancement effects of ferric ion concentrations on growth and lipid characteristics of freshwater microalga *Chlorococcum oleofaciens* KF584224.1 for biodiesel production  
(2020) *Renewable Energy*, 149, pp. 264-272.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85076697129&doi=10.1016%2fj.renene.2019.12.067&partnerID=40&md5=c6d16e3dde655d2a6bda6877c2fd2426>

Zhang, X., Liu, H., Zhang, S., Wang, J., Wei, C.  
NH<sub>4</sub><sup>+</sup>-N alleviates iron deficiency in rice seedlings under calcareous conditions  
(2019) *Scientific Reports*, 9 (1), art. no. 12712, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85071737367&doi=10.1038%2fs41598-019-49207-9&partnerID=40&md5=466075ae9d2ae54c41dfa3a9b2cab0f1>

Najafi-Ghiri, M., Razeghizadeh, T., Taghizadeh, M.S., Boostani, H.R.  
Effect of Sheep Manure and Its Produced Vermicompost and Biochar on the Properties of a Calcareous Soil after Barley Harvest  
(2019) *Communications in Soil Science and Plant Analysis*, 50 (20), pp. 2610-2625.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85073594640&doi=10.1080%2f00103624.2019.1671444&partnerID=40&md5=3ea6683e58e9122e534ddc780c61da17>

Kleiber, T., Krzyzaniak, M., Swierk, D., Haenel, A., Galecka, S.  
How does the content of nutrients in soil affect the health status of trees in city parks?  
(2019) *PLoS ONE*, 14 (9), art. no. e0221514, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072146023&doi=10.1371%2fjournal.pone.0221514&partnerID=40&md5=c1e345b02a44982c97c0aea71488a32d>

Yang, D., Li, J., Cheng, Y., Wan, F., Jia, R., Wang, Y.  
Compound repair effect of carbon dots and Fe<sup>2+</sup> on iron deficiency in Cucumis melon L.  
(2019) *Plant Physiology and Biochemistry*, 142, pp. 137-142.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85068258195&doi=10.1016%2fj.plaphy.2019.06.035&partnerID=40&md5=69f110ea82c57565b05516195e321d30>

Buet, A., Galatro, A., Ramos-Artuso, F., Simontacchi, M.  
Nitric oxide and plant mineral nutrition: Current knowledge  
(2019) *Journal of Experimental Botany*, 70 (17), pp. 4461-4476.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072058542&doi=10.1093%2fjxb%2ferz129&partnerID=40&md5=6bd0c6d492cf7da6e231fb1cad95dbc9>

Zhang, X., Hou, J., Wang, X., Zhang, Z., Dai, F., Wang, J., Wei, C.  
High soil redox potential contributes to iron deficiency in drip-irrigated rice grown in calcareous fluvisol  
(2019) *Plant, Soil and Environment*, 65 (7), pp. 337-342.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85070990256&doi=10.17221%2f178%2f2019-PSE&partnerID=40&md5=deb489a9286d5844438ecba56d554fa3>

Gajić, G., Djurdjević, L., Kostić, O., Jarić, S., Mitrović, M., Pavlović, P.  
Ecological potential of plants for phytoremediation and eco restoration of fly ash deposits and mine wastes  
(2018) *Frontiers in Environmental Science*, 6 (NOV), art. no. 124, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85056996684&doi=10.3389%2ffenvs.2018.00124&partnerID=40&md5=a70d28fc7d6afe20b54ef2d572db4678>

Ahmadi, M., Nicula, M., Dumitrescu, G., Stef, L., Pet, I., Ciochina, L.P., Dronca, D.  
Specific proteins in relation with iron overload in experimental study  
(2018) *Revista de Chimie*, 69 (10), pp. 2731-2733.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85056407894&doi=10.37358%2frc.18.10.6613&partnerID=40&md5=bac910419579137c6738faa55507c9aa>

Bosnic D, Nikolic D, Timotijevic G, **Pavlovic J**, Vaculik M, Samardzic J, Nikolic M. (2019): Silicon alleviates copper (Cu) toxicity in cucumber by increased Cu-binding capacity. *Plant and Soil* 441: 629–641., цитиран **23** пута (без самоцитата) у:

Liu, C.-J., Peng, Y.-J., Hu, C.-Y., He, S.-X., Xiao, S.-F., Li, W., Deng, S.-G., Dai, Z.-H., Ma, L.Q. Copper enhanced arsenic-accumulation in As-hyperaccumulator *Pteris vittata* by upregulating its gene expression for As uptake, translocation, and sequestration (2023) *Journal of Hazardous Materials*, 460, art. no. 132484, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85170242447&doi=10.1016%2fj.jhazmat.2023.132484&partnerID=40&md5=a9d1453bba3569014a788af15795910c>

Kaur, S., Joshi, A., Gupta, K., Kumar, A., Kumar, V., Nayyar, H., Kumar, A. Trace elements and their role in abiotic stresses (2023) *Biology and Biotechnology of Environmental Stress Tolerance in Plants: Trace Elements in Environmental Stress Tolerance*, 2, pp. 67-146.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162123735&partnerID=40&md5=f97b32686dae81e937a22fa1839090ad>

Khan, I., Awan, S.A., Rizwan, M., brestic, M., Xie, W. Silicon: an essential element for plant nutrition and phytohormones signaling mechanism under stressful conditions (2023) *Plant Growth Regulation*, 100 (2), pp. 301-319.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138005801&doi=10.1007%2fs10725-022-00872-3&partnerID=40&md5=bbed696f7cea5a91d99288d9b23c760a>

Nikolić, D., Bosnić, D., Samardžić, J. Silicon in action: Between iron scarcity and excess copper (2023) *Frontiers in Plant Science*, 14, art. no. 1039053, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85148335805&doi=10.3389%2ffpls.2023.1039053&partnerID=40&md5=506514826fb11bdba2c51f9dbab65c1c>

Mousavi, S.S., Karami, A., Movahhed Haghghi, T., Tahmasebi, A. Lead, copper, zinc and aluminum tolerance in contrasting ecotypes of *Scrophularia striata* (2023) *Acta Ecologica Sinica*, 43 (1), pp. 125-138.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85124319708&doi=10.1016%2fj.chnaes.2022.01.005&partnerID=40&md5=d2f9768ccb869f77bba8282d767d9fae>

Liu, K., Dai, C., Li, C., Hu, J., Wang, Z., Li, Y., Yu, F., Li, G. Plant growth and heavy metal accumulation characteristics of *Spathiphyllum kochii* cultured in three soil extractions with and without silicate supplementation (2023) *International Journal of Phytoremediation*, 25 (4), pp. 524-537.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85133476211&doi=10.1080%2f15226514.2022.2092059&partnerID=40&md5=d15c8cf89e222952adf414ae5d81743a>

Wang, Z., Jin, S., Su, Y., He, D., Wang, Y., Chen, Y., Lin, C., Liao, X., Zheng, D.

Impact of Silica Addition on Alleviating Cadmium Stress: Case Studies of Three Afforestation Tree Species Seedlings in Southern China

(2022) *Forests*, 13 (10), art. no. 1641.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85140874749&doi=10.3390%2ff13101641&partnerID=40&md5=46d6a82fb80edf38fb6baec72b540078)

[85140874749&doi=10.3390%2ff13101641&partnerID=40&md5=46d6a82fb80edf38fb6baec72b540078](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85140874749&doi=10.3390%2ff13101641&partnerID=40&md5=46d6a82fb80edf38fb6baec72b540078)

da Silva, M.N., Machado, J., Osorio, J., Duarte, R., Santos, C.S.

Non-Essential Elements and Their Role in Sustainable Agriculture

(2022) *Agronomy*, 12 (4), art. no. 888, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85128748132&doi=10.3390%2fagronomy12040888&partnerID=40&md5=7e8783f8a21c3e76be3610678abee5b8)

[85128748132&doi=10.3390%2fagronomy12040888&partnerID=40&md5=7e8783f8a21c3e76be3610678abee5b8](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85128748132&doi=10.3390%2fagronomy12040888&partnerID=40&md5=7e8783f8a21c3e76be3610678abee5b8)

Zhao, K., Yang, Y., Zhang, L., Zhang, J., Zhou, Y., Huang, H., Luo, S., Luo, L.

Silicon-based additive on heavy metal remediation in soils: Toxicological effects, remediation techniques, and perspectives

(2022) *Environmental Research*, 205, art. no. 112244, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85118666289&doi=10.1016%2fj.envres.2021.112244&partnerID=40&md5=d8a78ec67b27e3ff33eb3e680d48ba5b)

[85118666289&doi=10.1016%2fj.envres.2021.112244&partnerID=40&md5=d8a78ec67b27e3ff33eb3e680d48ba5b](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85118666289&doi=10.1016%2fj.envres.2021.112244&partnerID=40&md5=d8a78ec67b27e3ff33eb3e680d48ba5b)

Pinson, S.R.M., Heuschele, D.J., Edwards, J.D., Jackson, A.K., Sharma, S., Barnaby, J.Y.

Relationships Among Arsenic-Related Traits, Including Rice Grain Arsenic Concentration and Straighthead Resistance, as Revealed by Genome-Wide Association

(2022) *Frontiers in Genetics*, 12, art. no. 787767, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127958207&doi=10.3389%2ffgene.2021.787767&partnerID=40&md5=ec9e1d2eeef023d94703553042c160c6)

[85127958207&doi=10.3389%2ffgene.2021.787767&partnerID=40&md5=ec9e1d2eeef023d94703553042c160c6](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127958207&doi=10.3389%2ffgene.2021.787767&partnerID=40&md5=ec9e1d2eeef023d94703553042c160c6)

Khan, I., Awan, S.A., Rizwan, M., brestic, M., Xie, W.

Silicon: an essential element for plant nutrition and phytohormones signaling mechanism under stressful conditions

(2022) *Plant Growth Regulation*, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138005801&doi=10.1007%2fs10725-022-00872-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138005801&doi=10.1007%2fs10725-022-00872-3&partnerID=40&md5=bbed696f7cea5a91d99288d9b23c760a)

[3&partnerID=40&md5=bbed696f7cea5a91d99288d9b23c760a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138005801&doi=10.1007%2fs10725-022-00872-3&partnerID=40&md5=bbed696f7cea5a91d99288d9b23c760a)

Liu, K., Dai, C., Li, C., Hu, J., Wang, Z., Li, Y., Yu, F., Li, G.

Plant growth and heavy metal accumulation characteristics of *Spathiphyllum kochii* cultured in three soil extractions with and without silicate supplementation

(2022) *International Journal of Phytoremediation*, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85133476211&doi=10.1080%2f15226514.2022.2092059&partnerID=40&md5=d15c8cf89e222952adf414ae5d81743a)

[85133476211&doi=10.1080%2f15226514.2022.2092059&partnerID=40&md5=d15c8cf89e222952adf414ae5d81743a](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85133476211&doi=10.1080%2f15226514.2022.2092059&partnerID=40&md5=d15c8cf89e222952adf414ae5d81743a)

Mousavi, S.S., Karami, A., Movahhed Haghghi, T., Tahmasebi, A.

Lead, copper, zinc and aluminum tolerance in contrasting ecotypes of *Scrophularia striata*

(2022) *Acta Ecologica Sinica*, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85124319708&doi=10.1016%2fj.chnaes.2022.01.005&partnerID=40&md5=d2f9768ccb869f77bba8282d767d9fae>

Xin, X., Zhao, F., Judy, J.D., He, Z.

Copper stress alleviation in corn (*Zea mays* L.): Comparative efficiency of carbon nanotubes and carbon nanoparticles

(2022) *NanoImpact*, 25, art. no. 100381, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85122644963&doi=10.1016%2fj.impact.2022.100381&partnerID=40&md5=1ce2a09a131ff5656cd919fa538f38d4>

Lozano-González, J.M., Valverde, C., Hernández, C.D., Martín-Esquinas, A., Hernández-Apaolaza, L.

Beneficial effect of root or foliar silicon applied to cucumber plants under different zinc nutritional statuses

(2021) *Plants*, 10 (12), art. no. 2602, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119960873&doi=10.3390%2fplants10122602&partnerID=40&md5=17ae6854e7e0e4334f3e3f055a60912f>

Bokor, B., Santos, C.S., Kostoláni, D., Machado, J., da Silva, M.N., Carvalho, S.M.P., Vaculík, M., Vasconcelos, M.W.

Mitigation of climate change and environmental hazards in plants: Potential role of the beneficial metalloid silicon

(2021) *Journal of Hazardous Materials*, 416, art. no. 126193, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85107136479&doi=10.1016%2fj.jhazmat.2021.126193&partnerID=40&md5=2527869f8504aab4ad68251bc5962200>

Cristofano, F., El-Nakhel, C., Roupael, Y.

Biostimulant substances for sustainable agriculture: Origin, operating mechanisms and effects on cucurbits, leafy greens, and nightshade vegetables species

(2021) *Biomolecules*, 11 (8), art. no. 1103, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111143852&doi=10.3390%2fbiom11081103&partnerID=40&md5=a37ddc8185c08c55edc83c99183752c8>

Dučić, T., Milenković, I., Mutavdžić, D., Nikolić, M., de Yuso, M.V.M., Vučinić, Algarra, M., Radotić, K.

Estimation of carbon dots amelioration of copper toxicity in maize studied by synchrotron radiation-FTIR

(2021) *Colloids and Surfaces B: Biointerfaces*, 204, art. no. 111828, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85105551850&doi=10.1016%2fj.colsurfb.2021.111828&partnerID=40&md5=add3545d50f8d0e682877cb68dd6c6d8>

Ranjan, A., Sinha, R., Bala, M., Pareek, A., Singla-Pareek, S.L., Singh, A.K.

Silicon-mediated abiotic and biotic stress mitigation in plants: Underlying mechanisms and potential for stress resilient agriculture

(2021) *Plant Physiology and Biochemistry*, 163, pp. 15-25.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85103424637&doi=10.1016%2fj.plaphy.2021.03.044&partnerID=40&md5=b739ba3e458fb73dad2f40e41f4657c5>

Gao, D., Ye, W., Ma, Y., Lu, H.

Impact of silicon application on zinc and copper absorption of rice seedlings [施硅对水稻幼苗吸收锌、铜的影响]

(2021) *Journal of South China Agricultural University*, 42 (3), pp. 26-32.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85106683319&doi=10.7671%2fj.issn.1001-411X.202007001&partnerID=40&md5=42e7a5f70701b217d0dff405445406c9>

Tripathi, D.K., Vishwakarma, K., Singh, V.P., Prakash, V., Sharma, S., Muneer, S., Nikolic, M., Deshmukh, R., Vaculik, M., Corpas, F.J.

Silicon crosstalk with reactive oxygen species, phytohormones and other signaling molecules

(2021) *Journal of Hazardous Materials*, 408, art. no. 124820, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85099819359&doi=10.1016%2fj.jhazmat.2020.124820&partnerID=40&md5=a2b21bb4dab6e4e87b4e1236eee db6ec>

Mostofa, M.G., Rahman, M.M., Ansary, M.M.U., Keya, S.S., Abdelrahman, M., Miah, M.G., Phan Tran, L.-S. Silicon in mitigation of abiotic stress-induced oxidative damage in plants

(2021) *Critical Reviews in Biotechnology*, 41 (6), pp. 918-934.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85103570834&doi=10.1080%2f07388551.2021.1892582&partnerID=40&md5=ec599e2124352cd91306e7e65 9268543>

Mandlik, R., Thakral, V., Raturi, G., Shinde, S., Nikolić, M., Tripathi, D.K., Sonah, H., Deshmukh, R.

Significance of silicon uptake, transport, and deposition in plants

(2020) *Journal of Experimental Botany*, 71 (21), pp. 6703-6718.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85091920799&doi=10.1093%2fjxb%2feraa301&partnerID=40&md5=2d1edd3097e515967aac3b1ac3c0a6fe>

Vaculik, M., Lukačová, Z., Bokor, B., Martinka, M., Tripathi, D.K., Lux, A.

Alleviation mechanisms of metal(loid) stress in plants by silicon: A review

(2020) *Journal of Experimental Botany*, 71 (21), pp. 6744-6757.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85090526954&doi=10.1093%2fjxb%2feraa288&partnerID=40&md5=a084cee7901d77afe210b2dd123bef18>

Huang, S., Ma, J.F.

Silicon suppresses zinc uptake through down-regulating zinc transporter gene in rice

(2020) *Physiologia Plantarum*, 170 (4), pp. 580-591.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85091166036&doi=10.1111%2fjpl.13196&partnerID=40&md5=4c8ebe976fab874a16dbc4c72ba13e5d>

Wang, B., Chu, C., Wei, H., Zhang, L., Ahmad, Z., Wu, S., Xie, B.

Ameliorative effects of silicon fertilizer on soil bacterial community and pakchoi (*Brassica chinensis* L.) grown on soil contaminated with multiple heavy metals

(2020) *Environmental Pollution*, 267, art. no. 115411, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85089911261&doi=10.1016%2fj.envpol.2020.115411&partnerID=40&md5=11a41d38fe796b448ca85c099eef 8ebf>

Xin, X., Zhao, F., Rho, J.Y., Goodrich, S.L., Sumerlin, B.S., He, Z.

Use of polymeric nanoparticles to improve seed germination and plant growth under copper stress  
(2020) *Science of the Total Environment*, 745, art. no. 141055, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85088657368&doi=10.1016%2fj.scitotenv.2020.141055&partnerID=40&md5=1459f5e2d23f3b71ea84cf1df60bb54c>

Schmitt, O.J., Brunetto, G., Chassot, T., Tiecher, T.L., Marchezan, C., Tarouco, C.P., De Conti, L., Lourenzi, C.R., Nicoloso, F.T., Kreutz, M.A., Andriolo, J.L.  
Impact of Cu concentrations in nutrient solution on growth and physiological and biochemical parameters of beet and cabbage and human health risk assessment  
(2020) *Scientia Horticulturae*, 272, art. no. 109558, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85086394123&doi=10.1016%2fj.scienta.2020.109558&partnerID=40&md5=5902dabade590da7c1328966b2b40254>

Raza, A., Habib, M., Charagh, S., Kakavand, S.N.  
Genetic engineering of plants to tolerate toxic metals and metalloids  
(2020) *Handbook of Bioremediation: Physiological, Molecular and Biotechnological Interventions*, pp. 411-436.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85125971931&doi=10.1016%2fb978-0-12-819382-2.00026-0&partnerID=40&md5=5196e212b2683fc78e046e87b83812c8>

Bosnić, D., Bosnić, P., Nikolić, D., Nikolić, M., Samardžić, J.  
Silicon and iron differently alleviate copper toxicity in cucumber leaves  
(2019) *Plants*, 8 (12), art. no. 554, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85076053545&doi=10.3390%2fplants8120554&partnerID=40&md5=6335820b7ab436fc5a83cafb5b00fd6>

**Pavlovic J, Kostic L, Bosnic P, Kirkby EA, Nikolic M (2021): Interactions of silicon with essential and beneficial elements in plants. *Frontiers in Plant Science* 12: 1224., цитиран 101 пут (без самоцитата) у:**

Mierzaali, T., Abdolzadeh, A., Sadeghipour, H.R.  
Silicon ameliorates iron deficiency in sour orange seedlings grown under different pHs  
(2024) *Scientia Horticulturae*, 323, art. no. 112489, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85171969693&doi=10.1016%2fj.scienta.2023.112489&partnerID=40&md5=c60ddd3a3b0025f5b56b14b7615b0bb3>

Yan, G., Jin, H., Yin, C., Hua, Y., Huang, Q., Zhou, G., Xu, Y., He, Y., Liang, Y., Zhu, Z.  
Comparative effects of silicon and silicon nanoparticles on the antioxidant system and cadmium uptake in tomato under cadmium stress  
(2023) *Science of the Total Environment*, 904, art. no. 166819.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85170215376&doi=10.1016%2fj.scitotenv.2023.166819&partnerID=40&md5=a7a513b931adaedb522e5951db51a16d>

de Faria Melo, C.C., Silva Amaral, D., de Mello Prado, R., de Moura Zanine, A., de Jesus Ferreira, D., de Cássia Piccolo, M.

Nanosilica modulates C:N:P stoichiometry attenuating phosphorus toxicity more than deficiency in *Megathyrus maximus* cultivated in an Oxisol and Entisol  
(2023) *Scientific Reports*, 13 (1), art. no. 10284.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162776422&doi=10.1038%2fs41598-023-37504-3&partnerID=40&md5=74f880a098ef3c64eda7b8bde93b6a6a>

Costa, M.G., Prado, R.M., Santos Sarah, M.M., Souza Júnior, J.P., de Souza, A.E.S.  
Silicon, by promoting a homeostatic balance of C:N:P and nutrient use efficiency, attenuates K deficiency, favoring sustainable bean cultivation  
(2023) *BMC Plant Biology*, 23 (1), art. no. 213.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85153687470&doi=10.1186%2fs12870-023-04236-5&partnerID=40&md5=700c0c51fd16b567d2c84827c601a91f>

Costa, M.G., de M. Prado, R., Sarah, M.M.S., Palaretti, L.F., de C. Piccolo, M., Souza Júnior, J.P.  
New approaches to the effects of Si on sugarcane ratoon under irrigation in Quartzipsamments, Eutrophic Red Oxisol, and Dystrophic Red Oxisol  
(2023) *BMC Plant Biology*, 23 (1), art. no. 51.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85146748490&doi=10.1186%2fs12870-023-04077-2&partnerID=40&md5=d569486d122a9e3716636074de44f4d8>

Luis Oliveira Cunha, M., de Mello Prado, R.  
Synergy of Selenium and Silicon to Mitigate Abiotic Stresses: a Review  
(2023) *Gesunde Pflanzen*, 75 (5), pp. 1461-1474.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85146236182&doi=10.1007%2fs10343-022-00826-9&partnerID=40&md5=806e29808658a937c9e824af066a3647>

Etesami, H., Schaller, J.  
36835325600;25923119300;  
Improving phosphorus availability to rice through silicon management in paddy soils: A review of the role of silicate-solubilizing bacteria  
(2023) *Rhizosphere*, 27, art. no. 100749.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164407573&doi=10.1016%2fj.rhisph.2023.100749&partnerID=40&md5=aea0bad7e0e411e10410f1eadb980cd1>

Laifa, I., Ellouzi, H., Idoudi, M., Farhat, N., Rabhi, M., Mahmoudi, H., Smaoui, A., Debez, A., Cabassa-Hourton, C., Savouré, A., Abdelly, C., Zorrig, W.  
Silicon (Si) Treatment has Preferential Beneficial Effects on Photosystem I Photochemistry in Salt-Treated *Hordeum marinum* (Huds.) Plants  
(2023) *Journal of Soil Science and Plant Nutrition*, 23 (3), pp. 3232-3248.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162976090&doi=10.1007%2fs42729-023-01340-1&partnerID=40&md5=65b0542c619c98cb9d420b8d11c71cff>

Mahawar, L., Ramasamy, K.P., Suhel, M., Prasad, S.M., Živčák, M., Brestic, M., Rastogi, A., Skalický, M.  
Silicon nanoparticles: Comprehensive review on biogenic synthesis and applications in agriculture  
(2023) *Environmental Research*, 232, art. no. 116292.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85161639471&doi=10.1016%2fj.envres.2023.116292&partnerID=40&md5=583e1ff861d0785f7c9ad9feeb897303>

- Taskin, M.B., Akca, H., Kan, S., Taskin, H., Deniz, K., Kadioglu, Y.K., Nikolić, M., Cakmak, I., Gunes, A. Silicon-Phosphate Obtained from Rice Husk: a Sustainable Alternative to Phosphate Fertilizer Evaluated for Barley and Maize in Different Soils (2023) *Journal of Soil Science and Plant Nutrition*, 23 (3), pp. 3186-3196. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85158855211&doi=10.1007%2fs42729-023-01281-9&partnerID=40&md5=586f39ca6f7ad642e33ff2fc8a32f14b>
- Bayanati, M., Mohammad Al-Tawaha, A.R., Bayanati, M., Rasouli, M., Asgari Lajayer, B. Conferring Drought and Salinity Stress Tolerance in Horticultural Crops by Si Application (2023) *Silicon*, 15 (14), pp. 5833-5843. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85153712908&doi=10.1007%2fs12633-023-02489-1&partnerID=40&md5=b46dc8ab9dc9e935e012aee0eb4c23ba>
- Cheraghi, M., Motesharezadeh, B., Mousavi, S.M., Ma, Q., Ahmadabadi, Z. Silicon (Si): A Regulator Nutrient for Optimum Growth of Wheat Under Salinity and Drought Stresses- A Review (2023) *Journal of Plant Growth Regulation*, 42 (9), pp. 5354-5378. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85150493990&doi=10.1007%2fs00344-023-10959-4&partnerID=40&md5=35f05993ca50095529316b35e653134b>
- Tenguri, P., Chander, S., Ellur, R.K., Yele, Y., Sundaran, A.P., Nagaraju, M.T., Subramanian, S., Suroshe, S.S. Effect of Silicon Application to the Rice Plants on Feeding Behaviour of the Brown Planthopper, *Nilaparvata lugens* (Stål) Under Elevated CO<sub>2</sub> (2023) *Silicon*, 15 (13), pp. 5811-5820. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85153891172&doi=10.1007%2fs12633-023-02480-w&partnerID=40&md5=e6d566516fc95c87ffeb52ab5a708126>
- Ali, H., Ahmad, M., Alvi, M.H., Ali, M.F., Mahmood, I., Ahmad, S., Sameen, A. Foliar Application of Silicon to Boost Biochemical and Physiological Response in Oat Under Water Stress (2023) *Silicon*, 15 (12), pp. 5317-5329. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85151526930&doi=10.1007%2fs12633-023-02443-1&partnerID=40&md5=6d62c6e7615d53eaf8bf8f83f80e3199>
- Kaur, S., Joshi, A., Gupt, K., Kumar, A., Kumar, V., Nayyar, H., Kumar, A. 57213734445;57189269275;58317700700;56372610200;56125497400;6603047216;57198761492; Trace elements and their role in abiotic stresses (2023) *Biology and Biotechnology of Environmental Stress Tolerance in Plants: Trace Elements in Environmental Stress Tolerance*, 2, pp. 67-146. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162123735&partnerID=40&md5=f97b32686dae81e937a22fa1839090ad>
- Veazie, P., Jeong, K.Y., Ballance, M.S., Whipker, B.E. 57211988201;58588795600;58131398600;6701653337; The Use of Silicon Substrate Amendments to Decrease Micronutrient Concentrations at Varying Micronutrient Fertility Rates with *Cannabis sativa* 'Auto CBG' (2023) *HortScience*, 58 (7), pp. 797-803. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166764491&doi=10.21273%2fHORTSCI17162-23&partnerID=40&md5=c1e475b2f262274ffbaef0d76ae83ab>

Réthoré, E., Ali, N., Pluchon, S., Hosseini, S.A.  
Silicon Enhances Brassica napus Tolerance to Boron Deficiency by the Remobilisation of Boron and by Changing the Expression of Boron Transporters  
(2023) *Plants*, 12 (13), art. no. 2574.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165168775&doi=10.3390%2fplants12132574&partnerID=40&md5=1fc4331b21b2e944f594f450d0bb4015>

Wadas, W., Kondraciuk, T.  
Effect of Silicon on Micronutrient Content in New Potato Tubers  
(2023) *International Journal of Molecular Sciences*, 24 (13), art. no. 10578.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164844156&doi=10.3390%2fijms241310578&partnerID=40&md5=7b3c92eb71a5d6dd7b8a31847567ee7a>

Parhizkar, M., Ghasemzadeh, Z., Shabanpour, M., Mohamadi, S., Shamsi, R., Ramezani, A.  
Effects of silica nanoparticles on root characteristics of Zoysia grass and rill detachment capacity in soils treated with hydromulch  
(2023) *Catena*, 228, art. no. 107185.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85154614852&doi=10.1016%2fj.catena.2023.107185&partnerID=40&md5=d77e9df1ca330663e489faac45f4aa73>

Manokari, M., Cokul Raj, M., Dey, A., Faisal, M., Alatar, A.A., Joshee, N., Shekhawat, M.S.  
Structural alterations of Cymbopogon citratus (DC.) Stapf leaves and roots caused by silicon nanoparticles during in vitro propagation  
(2023) *Industrial Crops and Products*, 197, art. no. 116648.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85151496450&doi=10.1016%2fj.indcrop.2023.116648&partnerID=40&md5=023fac158177bf458141ae7d81d0f1da>

Butnan, S., Vityakon, P.  
Lengths of Time of Rice Husk Biochar Incorporation before Planting Affect Soil Properties and Rice Yield  
(2023) *Agronomy*, 13 (6), art. no. 1445.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164132523&doi=10.3390%2fagronomy13061445&partnerID=40&md5=1e6bbbd60f7d933e9993e345b2a97bfa>

Gartmann, F., Hügly, J., Krähenbühl, N., Brinkmann, N., Schmutz, Z., Smits, T.H.M., Junge, R.  
Bioponics—An Organic Closed-Loop Soilless Cultivation System: Yields and Characteristics Compared to Hydroponics and Soil Cultivation  
(2023) *Agronomy*, 13 (6), art. no. 1436.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164006257&doi=10.3390%2fagronomy13061436&partnerID=40&md5=091ad5bd131cae5df10c48af5aedd52f>

Coquerel, R., Arkoun, M., Dupas, Q., Leroy, F., Lainé, P., Etienne, P.  
Silicon Supply Improves Nodulation and Dinitrogen Fixation and Promotes Growth in Trifolium incarnatum Subjected to a Long-Term Sulfur Deprivation  
(2023) *Plants*, 12 (12), art. no. 2248.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85163884197&doi=10.3390%2fplants12122248&partnerID=40&md5=4f830472a7becae01b69cffda2b24307>

Akhter, M.S., Noreen, S., Mahmood, S., Aqeel, M., Zafar, Z.U., Rashid, M., Arshad, M.N., Owais, M., Ahmad, J., Shah, K.H.

Silicon Supplement Improves Growth and Yield Under Salt Stress by Modulating Ionic Homeostasis and Some Physiological Indices in *Hordeum vulgare* L

(2023) *Journal of Soil Science and Plant Nutrition*, 23 (2), pp. 1694-1712.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85153599538&doi=10.1007%2fs42729-023-01240-4&partnerID=40&md5=13dfale58cabea934942a1b02b66a941>

Saberi Riseh, R., Vatankhah, M., Hassanisaadi, M., Kennedy, J.F.

Chitosan/silica: A hybrid formulation to mitigate phytopathogens

(2023) *International Journal of Biological Macromolecules*, 239, art. no. 124192.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85151258442&doi=10.1016%2fj.ijbiomac.2023.124192&partnerID=40&md5=66e99bcb71988775dfcb9598c59e942f>

Falcioni, R., Moriwaki, T., Rodrigues, M., de Oliveira, K.M., Furlanetto, R.H., dos Reis, A.S., dos Santos, G.L.A.A., Mendonça, W.A., Crusiol, L.G.T., Gonçalves, J.V.F., Chicati, M.L., de Oliveira, R.B., Nanni, M.R., Antunes, W.C.

Nutrient deficiency lowers photochemical and carboxylation efficiency in tobacco

(2023) *Theoretical and Experimental Plant Physiology*, 35 (2), pp. 81-97.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85150949791&doi=10.1007%2fs40626-023-00268-2&partnerID=40&md5=8a4c868f14ecf72c7a35b5bb3e220680>

Whalen, N.S., Hunt, T.C., Erickson, G.M.

Evapotranspiration-linked silica deposition in a basal tracheophyte plant (*Lycopodiaceae*: *Lycopodiella alopecuroides*): implications for the evolutionary origins of phytoliths

(2023) *New Phytologist*, 238 (5), pp. 2224-2235.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85150923856&doi=10.1111%2fnph.18861&partnerID=40&md5=befcfb05dd83944a10e13ff21e619761>

Raza, T., Abbas, M., Amna, Imran, S., Khan, M.Y., Rebi, A., Rafie-Rad, Z., Eash, N.S.

Impact of Silicon on Plant Nutrition and Significance of Silicon Mobilizing Bacteria in Agronomic Practices

(2023) *Silicon*, 15 (9), pp. 3797-3817.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85146772845&doi=10.1007%2fs12633-023-02302-z&partnerID=40&md5=f63bad6aafb117f875abd07522f48fe6>

Bakhat, H.F., Bibi, N., Hammad, H.M., Shah, G.M., Abbas, S., Rafique, H.M., Mohamed, A.K.S.H., Maqbool, M.M.

Effect of Silicon Fertilization on Eggplant Growth and Insect Population Dynamics

(2023) *Silicon*, 15 (8), pp. 3515-3523.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85145574704&doi=10.1007%2fs12633-022-02279-1&partnerID=40&md5=b8f6f11a1fb21101bad32210960a9917>

Singhal, R.K., Fahad, S., Kumar, P., Choyal, P., Javed, T., Jinger, D., Singh, P., Saha, D., Md, P., Bose, B., Akash, H., Gupta, N.K., Sodani, R., Dev, D., Suthar, D.L., Liu, K., Harrison, M.T., Saud, S., Shah, A.N., Nawaz, T.

- Beneficial elements: New Players in improving nutrient use efficiency and abiotic stress tolerance  
(2023) *Plant Growth Regulation*, 100 (2), pp. 237-265.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85131522184&doi=10.1007%2fs10725-022-00843-8&partnerID=40&md5=303fe3b7dfe22e8d9915da556277d6fb>
- Golubkina, N., Antoshkina, M., Bondareva, L., Sekara, A., Campagna, E., Caruso, G.  
Effect of Foliar Application of Sodium Selenate on Mineral Relationships in Brassicaceae Crops  
(2023) *Horticulturae*, 9 (5), art. no. 535.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85160223924&doi=10.3390%2fhorticulturae9050535&partnerID=40&md5=8d77655e3e51cc0c6b56af5b81ee5705>
- Sena, S., Kaur, H., Chahal, S., Jha, P., Goutam, U., Kumar, V.  
The Beneficial Role of Silicon Alleviating Heavy Metal and Disease Resistance Stress in Crops  
(2023) *Silicon*, 15 (7), pp. 2973-2988.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85143414066&doi=10.1007%2fs12633-022-02251-z&partnerID=40&md5=849d1d2e30a927160af4209cdf8a0b1c>
- Martins, J.P.R., Wawrzyniak, M.K., Kalembe, E.M., Ley-López, J.M., Mendes, M.M., Chmielarz, P.  
Calcium silicate mitigates the physiological stress induced by 6-benzylaminopurine during the in vitro multiplication of *Quercus robur*  
(2023) *Industrial Crops and Products*, 194, art. no. 116377.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85147545533&doi=10.1016%2fj.indcrop.2023.116377&partnerID=40&md5=2988e5bbf07b8218dafa5a442ae7c3>
- Khanum, S., Tawaha, A.R.M., Karimirad, R., Al-Tawaha, A.R.  
Beneficial Effects of Supplementation Silicon on the Plant Under Abiotic and Biotic Stress  
(2023) *Silicon*, 15 (6), pp. 2481-2491.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85141595516&doi=10.1007%2fs12633-022-02209-1&partnerID=40&md5=abd7911ceaac55ceeac71609da64350f>
- Bouranis, D.L., Stylianidis, G.P., Manta, V., Karousis, E.N., Tzanaki, A., Dimitriadi, D., Bouzas, E.A., Siyiannis, V.F., Constantinou-Kokotou, V., Chorianopoulou, S.N., Bloem, E.  
Floret Biofortification of Broccoli Using Amino Acids Coupled with Selenium under Different Surfactants: A Case Study of Cultivating Functional Foods  
(2023) *Plants*, 12 (6), art. no. 1272.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85151346123&doi=10.3390%2fplants12061272&partnerID=40&md5=0849134dbe9565a336b833ae46d8e9d2>
- Wenneck, G.S., Saath, R., Rezende, R., Vila, V.V., de Souza Terassi, D., Andrean, A.F.B.A.  
Silicon Application Increases Water Productivity in Cauliflower Under Sub-tropical Condition  
(2023) *Agricultural Research*, 12 (1), pp. 12-19.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85136186720&doi=10.1007%2fs40003-022-00628-5&partnerID=40&md5=d711d2b6514ebc20d63ed2c52e2594eb>
- Nikolić, D., Bosnić, D., Samardžić, J.  
Silicon in action: Between iron scarcity and excess copper  
(2023) *Frontiers in Plant Science*, 14, art. no. 1039053.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85148335805&doi=10.3389%2ffpls.2023.1039053&partnerID=40&md5=506514826fb11bdba2c51f9dbab65c1c>

Kutasy, E., Diósi, G., Buday-Bódi, E., Nagy, P.T., Melash, A.A., Forgács, F.Z., Virág, I.C., Vad, A.M., Bytyqi, B., Buday, T., Csajbók, J.

Changes in Plant and Grain Quality of Winter Oat (*Avena sativa* L.) Varieties in Response to Silicon and Sulphur Foliar Fertilisation under Abiotic Stress Conditions  
(2023) *Plants*, 12 (4), art. no. 969.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85149135175&doi=10.3390%2fplants12040969&partnerID=40&md5=4317f3f07db4964545ecbb23007645ac>

dos Santos, G.L.A.A., Reis, A.S., Besen, M.R., Furlanetto, R.H., Rodrigues, M., Crusiol, L.G.T., de Oliveira, K.M., Falcioni, R., de Oliveira, R.B., Batista, M.A., Nanni, M.R.

Spectral method for macro and micronutrient prediction in soybean leaves using interval partial least squares regression

(2023) *European Journal of Agronomy*, 143, art. no. 126717.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85144855963&doi=10.1016%2fj.eja.2022.126717&partnerID=40&md5=b39434701521abf48d0fe44079d283e8>

Long, L., Huang, N., Liu, X., Gong, L., Xu, M., Zhang, S., Chen, C., Wu, J., Yang, G.

Enhanced silicate remediation in cadmium-contaminated alkaline soil: Amorphous structure improves adsorption performance

(2023) *Journal of Environmental Management*, 326, art. no. 116760.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85142330446&doi=10.1016%2fj.jenvman.2022.116760&partnerID=40&md5=4246125857b94d9e61bb6a7150b170be>

Akca, H., Taskin, M.B., Gunes, A.

Phosphorus Makes Silicon Fertilization Mandatory: Effect of Nano-Silicon on the One-Sided Antagonisms of Phosphorus Fertilization in Wheat–Maize and Maize–Maize Cropping System

(2023) *Journal of Soil Science and Plant Nutrition*,

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85173113261&doi=10.1007%2fs42729-023-01460-8&partnerID=40&md5=aab1af4b6413882a11461eb0d51964d9>

Cruzado-Tafur, E., Orzoł, A., Gołębiowski, A., Pomastowski, P., Cichorek, M., Olszewski, J., Walczak-Skierska, J., Buszewski, B., Szultka-Młyńska, M., Głowacka, K.

Metal tolerance and Cd phytoremoval ability in *Pisum sativum* grown in spiked nutrient solution

(2023) *Journal of Plant Research*,

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85169917835&doi=10.1007%2fs10265-023-01493-1&partnerID=40&md5=d6d4c07d95a4a2a6fef5d6f46e9c53f1>

Tian, Y., Dong, X., Fan, Y., Yang, D., Chen, R.

Hydrothermal alkaline synthesis and release properties of silicon compound fertiliser using high-ash coal slime

(2023) *Environmental Science and Pollution Research*,

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85168623913&doi=10.1007%2fs11356-023-29413-9&partnerID=40&md5=2d67b0d4ef2810be294ebde96a648f88>

Kordrostami, M., Ghasemi-Soloklui, A.A., Hossain, M.A., Mostofa, M.G.  
Breaking Barriers: Selenium and Silicon-Mediated Strategies for Mitigating Abiotic Stress in Plants  
(2023) *Phyton-International Journal of Experimental Botany*, 92 (9), pp. 2713-2736.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85166325302&doi=10.32604%2fphyton.2023.030372&partnerID=40&md5=c4d76c3d2ec8c4d2b23b7b90ecb40710>

Karimi, N., Mortezaazadeh, A., Souri, Z., Farooq, M.  
Silicon Application Alleviates Arsenic Toxicity in *Isatis* (*Isatis cappadocica* Desv.) by Modulating Key Biochemical Attributes and Antioxidant Defense Systems  
(2023) *Journal of Plant Growth Regulation*,  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165569934&doi=10.1007%2fs00344-023-11079-9&partnerID=40&md5=4593d71b9c0fbfe2ad8d42b95639d075>

Machado, J., Fernandes, A.P.G., Bokor, B., Vaculik, M., Heuvelink, E., Carvalho, S.M.P., Vasconcelos, M.W.  
The effect of silicon on the antioxidant system of tomato seedlings exposed to individual and combined nitrogen and water deficit  
(2023) *Annals of Applied Biology*,  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165447946&doi=10.1111%2faab.12849&partnerID=40&md5=8d8d0f1674791db71e26225446c29207>

Nisar, M., Aqeel, M., Sattar, A., Sher, A., Ijaz, M., Ul-Allah, S., Rasheed, U., Al-Qahtani, S.M., Al-Harbi, N.A., Alzuaibr, F.M., Ibrahim, M.F.M.  
Exogenous Application of Silicon and Sulfate Improved Drought Tolerance in Sunflowers Through Modulation of Morpho-physiological and Antioxidant Defense Mechanisms  
(2023) *Journal of Soil Science and Plant Nutrition*,  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165288238&doi=10.1007%2fs42729-023-01396-z&partnerID=40&md5=c46406d80ae83f5f293f383587ff62df>

Reyes-Pérez, J.J., Tipán-Torres, H.C., Llerena-Ramos, L.T., Hernandez-Montiel, L.G., Rivas-Garcia, T.  
Silicon increased the growth, productivity, and nutraceutical quality of tomato (*Solanum lycopersicum* L.)  
(2023) *Notulae Botanicae Horti Agrobotanici Cluj-Napoca*, 51 (2), art. no. 13155.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165124830&doi=10.15835%2fnbha51213155&partnerID=40&md5=6e693fd8f6fc69186437c18a6ad07e8b>

Ghafoor, I., Naz, T., Iqbal, M.M., Anwar-Ul-haq, M., Saqib, M., Qazi, M.A., Sarwar, M.A., Alharbi, S.A., Alfarraj, S., Battaglia, M.L.  
SILICON REGULATES GROWTH, YIELD, PHYSIOLOGICAL RESPONSES AND TISSUE CONCENTRATION OF LEAD IN BRASSICA CAMPESTRIS L. GROWN IN LEAD CONTAMINATED SOIL  
(2023) *Pakistan Journal of Botany*, 55 (S1), pp. 127-134.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164965790&doi=10.30848%2fPJB2023-SI%2815%29&partnerID=40&md5=9678f4c6078e52698f67e301786bae15>

da Silva, A.P.R., da Silva, L.J.R., Deus, A.C.F., Fernandes, D.M., Büll, L.T.  
Silicon Application Methods Influence the Nutrient Uptake of Maize Plants in Tropical Soil  
(2023) *Silicon*, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85164159708&doi=10.1007%2fs12633-023-02592-3&partnerID=40&md5=ebff3cff2c6d00a56c6b6ba6b7ca2fd6>

Singh, P., Kumar, V., Sharma, A.  
55259047000;7404634065;55482814700;  
Interaction of silicon with cell wall components in plants: A review  
(2023) Journal of Applied and Natural Science, 15 (2), pp. 480-497.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85163683380&doi=10.31018%2fjans.v15i2.4352&partnerID=40&md5=c75c9be7e7c652735fabcc8b18938385>

Damayanti, F., Yudha, S.S., Falahudin, A.  
Oil palm leaf ash's effect on the growth and yield of Chinese cabbage (*Brassica rapa* L.)  
(2023) AIMS Agriculture and Food, 8 (2), pp. 553-565.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85162119624&doi=10.3934%2fAGRF00D.2023030&partnerID=40&md5=c67be3633e0faafb55f94c98c78ca517>

Ali, F., Nawaz, M., Anwar, M., Iqbal, N.  
SILICIC ACID AND GLUTATHIONE APPLICATION IMPROVES ELEVATED OZONE TOXICITY TOLERANCE BY MODULATING BIOMASS, SENESCENCE, SEED QUALITY ATTRIBUTES AND OXIDATIVE STRESS INDICATORS IN SESAME (*SESAMUM INDICUM* L.)  
(2023) Pakistan Journal of Botany, 55 (5), pp. 1647-1660.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85160842230&doi=10.30848%2fPJB2023-5%2842%29&partnerID=40&md5=85ff280e49a17762de2157916979f62>

Chen, X., Lu, H., Ren, Z., Zhang, Y., Liu, R., Zhang, Y., Han, X.  
Reproductive height determines the loss of clonal grasses with nitrogen enrichment in a temperate grassland  
(2023) Plant Diversity,  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85160415997&doi=10.1016%2fj.pld.2023.04.003&partnerID=40&md5=87108375ad78730913fec012c811c465>

DOI: 10.1016/j.pld.2023.04.003

DOCUMENT TYPE: Article

PUBLICATION STAGE: Article in Press

OPEN ACCESS: All Open Access, Gold

SOURCE: Scopus

Zhu, Y.X., Zhuang, Y., Sun, X.H., Du, S.T.  
Interactions between cadmium and nutrients and their implications for safe crop production in Cd-contaminated soils  
(2023) Critical Reviews in Environmental Science and Technology,  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85159308533&doi=10.1080%2f10643389.2023.2210985&partnerID=40&md5=1fba9aff201bbdf68a82bb97edcfd0b>

Gerassimova, I., Katsarova, A., Benkova, M., Nenova, L., Petkova, Z.  
Influence of fertilization on uptake of macroelements with sunflower biomass  
(2023) Journal of Central European Agriculture, 24 (1), pp. 236-244.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85152689078&doi=10.5513%2fJCEA01%2f24.1.3788&partnerID=40&md5=70b49361da4a4c943dab0fa10338a8c9>

Kirkby, E.A.

Introduction, definition, and classification of nutrients

(2023) Marschner's Mineral Nutrition of Plants, pp. 3-9.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85150132288&doi=10.1016%2fB978-0-12-819773-8.00016-2&partnerID=40&md5=06a20161bd3c9eb4d24677c2ceb09a22>

Weinmann, M., Bradáčová, K., Nikolic, M.

Relationship between mineral nutrition, plant diseases, and pests

(2023) Marschner's Mineral Nutrition of Plants, pp. 445-476.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85150130749&doi=10.1016%2fB978-0-12-819773-8.00009-5&partnerID=40&md5=3421450773922c4e626d1b8059b2d356>

Borak, B., Gediga, K., Piszcz, U., Sacala, E.

Foliar Fertilization by the Sol-Gel Particles Containing Cu and Zn

(2023) Nanomaterials, 13 (1), art. no. 165.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85145822031&doi=10.3390%2fnano13010165&partnerID=40&md5=63dafd7132d9fb4704b79e71966b5867>

Fallah, N., Pang, Z., Dong, F., Zhou, Y., Lin, W., Fabrice, K.M.A., Hu, C., Yuan, Z.

Niche differentiation modulates metabolites abundance and composition in silicon fertilizer amended soil during sugarcane growth

(2022) BMC Plant Biology, 22 (1), art. no. 497.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85140379602&doi=10.1186%2fs12870-022-03880-7&partnerID=40&md5=61d50ac7d3f8c44612bb4bf1afa70427>

Oliveira, K.S., de Mello Prado, R., Checchio, M.V., Gratão, P.L.

Interaction of silicon and manganese in nutritional and physiological aspects of energy cane with high fiber content

(2022) BMC Plant Biology, 22 (1), art. no. 374, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135175163&doi=10.1186%2fs12870-022-03766-8&partnerID=40&md5=29f1b5d5cc241095c9dfe4ac43c254ad>

Ndabankulu, K., Egbewale, S.O., Tsvuura, Z., Magadlela, A.

Soil microbes and associated extracellular enzymes largely impact nutrient bioavailability in acidic and nutrient poor grassland ecosystem soils

(2022) Scientific Reports, 12 (1), art. no. 12601, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135083078&doi=10.1038%2fs41598-022-16949-y&partnerID=40&md5=1b5aae6cff5a3b02880e1fbed63432d7>

Daulay, A., Andriyani, Marpongahtun, Gea, S.

Synthesis Si nanoparticles from rice husk as material active electrode on secondary cell battery with X-Ray diffraction analysis

(2022) South African Journal of Chemical Engineering, 42, pp. 32-41.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85134702478&doi=10.1016%2fj.sajce.2022.07.004&partnerID=40&md5=d2ec0e61bccb39a36d18a86122a43b5>

Etesami, H., Li, Z., Maathuis, F.J.M., Cooke, J.

The combined use of silicon and arbuscular mycorrhizas to mitigate salinity and drought stress in rice  
(2022) *Environmental and Experimental Botany*, 201, art. no. 104955, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85131834477&doi=10.1016%2fj.envexpbot.2022.104955&partnerID=40&md5=f80840694587f26648df6cd93fee5f1f>

Hodson, M.J., Guppy, C.N.

Editorial: Special issue on silicon at the root-soil interface

(2022) *Plant and Soil*, 477 (1-2), pp. 1-8.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85131071343&doi=10.1007%2fs11104-022-05514-1&partnerID=40&md5=13a6acbda2ba77bd8fc0504511f70844>

Zhu, X., Tang, J., Qin, H., Bai, K., Chen, Z., Zou, R., Liu, S., Yang, Q., Wei, X., Chai, S.

Contrasting Adaptation Mechanisms of Golden Camellia Species to Different Soil Habitats Revealed by Nutrient Characteristics

(2022) *Agronomy*, 12 (7), art. no. 1511, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85137070380&doi=10.3390%2fagronomy12071511&partnerID=40&md5=ec3232a23097db0dea8ec100516d35e3>

Sohail, M.I., Zia Ur Rehman, M., Aziz, T., Akmal, F., Azhar, M., Nadeem, F., Aslam, M., Siddiqui, A., Khalid, M.A.

Iron bio-fortification and heavy metal/(loid)s contamination in cereals: Successes, issues, and challenges

(2022) *Crop and Pasture Science*, 73 (8), pp. 877-895.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85130703945&doi=10.1071%2fCP21771&partnerID=40&md5=8b5a8813ea63b0cefaab8191c9122a72>

Xiao, J., Li, Y., Jeong, B.R.

Foliar Silicon Spray to Strawberry Plants During Summer Cutting Propagation Enhances Resistance of Transplants to High Temperature Stresses

(2022) *Frontiers in Sustainable Food Systems*, 6, art. no. 938128, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85133918175&doi=10.3389%2ffsufs.2022.938128&partnerID=40&md5=dc17c54438196c18d279131c0c1c1b2f>

Lainé, P., Coquerel, R., Arkoun, M., Trouverie, J., Etienne, P.

Assessing the Effect of Silicon Supply on Root Sulfur Uptake in S-Fed and S-Deprived Brassica napus L.

(2022) *Plants*, 11 (12), art. no. 1606, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85132154762&doi=10.3390%2fplants11121606&partnerID=40&md5=b904dfb3950ae3c41b8932a18b9d>

Bilal, S., Khan, A., Imran, M., Khan, A.L., Asaf, S., Al-Rawahi, A., Al-Azri, M.S.A., Al-Harrasi, A., Lee, I.-J. Silicon-and Boron-Induced Physio-Biochemical Alteration and Organic Acid Regulation Mitigates Aluminum Phytotoxicity in Date Palm Seedlings

(2022) *Antioxidants*, 11 (6), art. no. 1063, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85130783632&doi=10.3390%2fantiox11061063&partnerID=40&md5=f7f8a51e252dd5053ac812a850ea2f10>

Čermelj, A.M., Fideršček, E., Golob, A., Maršič, N.K., Mikuš, K.V., Germ, M.

Different Concentrations of Potassium Silicate in Nutrient Solution Affects Selected Growth Characteristics and Mineral Composition of Barley (*Hordeum vulgare* L.)

(2022) *Plants*, 11 (11), art. no. 1405, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85130771462&doi=10.3390%2fplants11111405&partnerID=40&md5=0c187a324cfd774c819d7bb5950a03a6)

[85130771462&doi=10.3390%2fplants11111405&partnerID=40&md5=0c187a324cfd774c819d7bb5950a03a6](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85130771462&doi=10.3390%2fplants11111405&partnerID=40&md5=0c187a324cfd774c819d7bb5950a03a6)

Beier, S., Marella, N.C., Yvin, J.-C., Hosseini, S.A., von Wirén, N.

Silicon mitigates potassium deficiency by enhanced remobilization and modulated potassium transporter regulation

(2022) *Environmental and Experimental Botany*, 198, art. no. 104849, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85126907744&doi=10.1016%2fj.envexpbot.2022.104849&partnerID=40&md5=83edh50ec3dcc977be6af72e8e7e419)

[85126907744&doi=10.1016%2fj.envexpbot.2022.104849&partnerID=40&md5=83edh50ec3dcc977be6af72e8e7e419](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85126907744&doi=10.1016%2fj.envexpbot.2022.104849&partnerID=40&md5=83edh50ec3dcc977be6af72e8e7e419)

Chaiwong, N., Prom-u-thai, C.

Significant Roles of Silicon for Improving Crop Productivity and Factors Affecting Silicon Uptake and Accumulation in Rice: a Review

(2022) *Journal of Soil Science and Plant Nutrition*, 22 (2), pp. 1970-1982.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85124034545&doi=10.1007%2fs42729-022-00787-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85124034545&doi=10.1007%2fs42729-022-00787-y&partnerID=40&md5=8d7214e575c63cbf5386a679d04dc325)  
[y&partnerID=40&md5=8d7214e575c63cbf5386a679d04dc325](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85124034545&doi=10.1007%2fs42729-022-00787-y&partnerID=40&md5=8d7214e575c63cbf5386a679d04dc325)

Cuyas, L., Jing, L., Pluchon, S., Arkoun, M.

Effect of Si on P-Containing Compounds in Pi-Sufficient and Pi-Deprived Wheat

(2022) *Journal of Soil Science and Plant Nutrition*, 22 (2), pp. 1873-1884.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85123221559&doi=10.1007%2fs42729-022-00778-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85123221559&doi=10.1007%2fs42729-022-00778-z&partnerID=40&md5=13b43231910c322e866702e483de302f)  
[z&partnerID=40&md5=13b43231910c322e866702e483de302f](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85123221559&doi=10.1007%2fs42729-022-00778-z&partnerID=40&md5=13b43231910c322e866702e483de302f)

Naz, R., Gul, F., Zahoor, S., Nosheen, A., Yasmin, H., Keyani, R., Shahid, M., Hassan, M.N., Siddiqui, M.H., Batool, S., Anwar, Z., Ali, N., Roberts, T.H.

Interactive effects of hydrogen sulphide and silicon enhance drought and heat tolerance by modulating hormones, antioxidant defence enzymes and redox status in barley (*Hordeum vulgare* L.)

(2022) *Plant Biology*, 24 (4), pp. 684-696.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120832074&doi=10.1111%2fplb.13374&partnerID=40&md5=755586627c8a11fcfad03bd09d6080e8)

[85120832074&doi=10.1111%2fplb.13374&partnerID=40&md5=755586627c8a11fcfad03bd09d6080e8](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120832074&doi=10.1111%2fplb.13374&partnerID=40&md5=755586627c8a11fcfad03bd09d6080e8)

Rea, R.S., Islam, M.R., Rahman, M.M., Nath, B., Mix, K.

Growth, Nutrient Accumulation, and Drought Tolerance in Crop Plants with Silicon Application: A Review

(2022) *Sustainability (Switzerland)*, 14 (8), art. no. 4525, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85128785253&doi=10.3390%2fsu14084525&partnerID=40&md5=06324e5647027478111a61bdbaa321c1)

[85128785253&doi=10.3390%2fsu14084525&partnerID=40&md5=06324e5647027478111a61bdbaa321c1](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85128785253&doi=10.3390%2fsu14084525&partnerID=40&md5=06324e5647027478111a61bdbaa321c1)

da Silva, M.N., Machado, J., Osorio, J., Duarte, R., Santos, C.S.

Non-Essential Elements and Their Role in Sustainable Agriculture

(2022) *Agronomy*, 12 (4), art. no. 888, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85128748132&doi=10.3390%2fagronomy12040888&partnerID=40&md5=7e8783f8a21c3c76bc3610678abce5b8)

[85128748132&doi=10.3390%2fagronomy12040888&partnerID=40&md5=7e8783f8a21c3c76bc3610678abce5b8](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85128748132&doi=10.3390%2fagronomy12040888&partnerID=40&md5=7e8783f8a21c3c76bc3610678abce5b8)

Chaiwong, N., Pusadee, T., Jamjod, S., Prom-U-thai, C.

Silicon Application Promotes Productivity, Silicon Accumulation and Upregulates Silicon Transporter Gene Expression in Rice

(2022) *Plants*, 11 (7), art. no. 989, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127545653&doi=10.3390%2fplants11070989&partnerID=40&md5=c589ee15d250e253c3c94ffb0938587)

[85127545653&doi=10.3390%2fplants11070989&partnerID=40&md5=c589ee15d250e253c3c94ffb0938587](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127545653&doi=10.3390%2fplants11070989&partnerID=40&md5=c589ee15d250e253c3c94ffb0938587)

Mir, R.A., Bhat, B.A., Yousuf, H., Islam, S.T., Raza, A., Rizvi, M.A., Charagh, S., Albaqami, M., Sofi, P.A., Zargar, S.M.

Multidimensional Role of Silicon to Activate Resilient Plant Growth and to Mitigate Abiotic Stress

(2022) *Frontiers in Plant Science*, 13, art. no. 819658, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85128184408&doi=10.3389%2ffpls.2022.819658&partnerID=40&md5=999f04f82d0e94942b38ad3cb4fea2b4)

[85128184408&doi=10.3389%2ffpls.2022.819658&partnerID=40&md5=999f04f82d0e94942b38ad3cb4fea2b4](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85128184408&doi=10.3389%2ffpls.2022.819658&partnerID=40&md5=999f04f82d0e94942b38ad3cb4fea2b4)

Pinson, S.R.M., Heuschele, D.J., Edwards, J.D., Jackson, A.K., Sharma, S., Barnaby, J.Y.

Relationships Among Arsenic-Related Traits, Including Rice Grain Arsenic Concentration and Straighthead Resistance, as Revealed by Genome-Wide Association

(2022) *Frontiers in Genetics*, 12, art. no. 787767, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127958207&doi=10.3389%2ffgene.2021.787767&partnerID=40&md5=ec9e1d2eeef023d94703553042c160c6)

[85127958207&doi=10.3389%2ffgene.2021.787767&partnerID=40&md5=ec9e1d2eeef023d94703553042c160c6](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85127958207&doi=10.3389%2ffgene.2021.787767&partnerID=40&md5=ec9e1d2eeef023d94703553042c160c6)

El Moukhtari, A., Lamsaadi, N., Farssi, O., Oubenali, A., El Bzar, I., Lahlimi Alami, Q., Triqui, Z.E.A., Lazali, M., Farissi, M.

Silicon- and Phosphate-Solubilizing *Pseudomonas alkylphenolica* PF9 Alleviate Low Phosphorus Availability Stress in Alfalfa (*Medicago sativa* L.)

(2022) *Frontiers in Agronomy*, 4, art. no. 823396, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85126740168&doi=10.3389%2ffagro.2022.823396&partnerID=40&md5=cd6f2e3c8c17dad1251c447b77e55f26)

[85126740168&doi=10.3389%2ffagro.2022.823396&partnerID=40&md5=cd6f2e3c8c17dad1251c447b77e55f26](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85126740168&doi=10.3389%2ffagro.2022.823396&partnerID=40&md5=cd6f2e3c8c17dad1251c447b77e55f26)

Ulina, E.S., Manurung, E.D., Hasibuan, M., Nasution, L.Z.

Biosilica Fertilizer Reduces Fall Armyworm Damage

(2022) *IOP Conference Series: Earth and Environmental Science*, 985 (1), art. no. 012049, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85126382258&doi=10.1088%2f1755-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85126382258&doi=10.1088%2f1755-1315%2f985%2f1%2f012049&partnerID=40&md5=b0667f2c191b92f83d48d476f9c3fd2b)

[1315%2f985%2f1%2f012049&partnerID=40&md5=b0667f2c191b92f83d48d476f9c3fd2b](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85126382258&doi=10.1088%2f1755-1315%2f985%2f1%2f012049&partnerID=40&md5=b0667f2c191b92f83d48d476f9c3fd2b)

Duangpan, S., Tongchu, Y., Hussain, T., Eksomtramage, T., Onthong, J.

Beneficial Effects of Silicon Fertilizer on Growth and Physiological Responses in Oil Palm

(2022) *Agronomy*, 12 (2), art. no. 413, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85124541013&doi=10.3390%2fagronomy12020413&partnerID=40&md5=2f17f2215aad59f51305d90522e3afdb)

[85124541013&doi=10.3390%2fagronomy12020413&partnerID=40&md5=2f17f2215aad59f51305d90522e3afdb](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85124541013&doi=10.3390%2fagronomy12020413&partnerID=40&md5=2f17f2215aad59f51305d90522e3afdb)

Riaz, S., Hussain, I., Parveen, A., Arshraf, M.A., Rasheed, R., Zulfiqar, S., Thind, S., Rehman, S.

Silicon and nano-silicon in plant nutrition and crop quality

(2022) *Silicon and Nano-silicon in Environmental Stress Management and Crop Quality Improvement: Progress and Prospects*, pp. 277-295.

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138410738&doi=10.1016%2fB978-0-323-91225-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138410738&doi=10.1016%2fB978-0-323-91225-9.00021-2&partnerID=40&md5=5a23aa558da14073941017845f63a604)

[9.00021-2&partnerID=40&md5=5a23aa558da14073941017845f63a604](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138410738&doi=10.1016%2fB978-0-323-91225-9.00021-2&partnerID=40&md5=5a23aa558da14073941017845f63a604)

Verma, K.K., Song, X.-P., Chen, Z.-L., Tian, D.-D., Rajput, V.D., Singh, M., Minkina, T., Li, Y.-R.  
Silicon and nanosilicon mitigate nutrient deficiency under stress for sustainable crop improvement  
(2022) Silicon and Nano-silicon in Environmental Stress Management and Crop Quality Improvement: Progress  
and Prospects, pp. 207-218.

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85138379825&doi=10.1016%2fB978-0-323-91225-9.00007-8&partnerID=40&md5=8a853a819611ebcbe59665825421d39b>

Wenneck, G.S., Saath, R., Rezende, R., Vila, V.V., de Souza Terassi, D., Andrean, A.F.B.A.  
Silicon Application Increases Water Productivity in Cauliflower Under Sub-tropical Condition  
(2022) Agricultural Research, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85136186720&doi=10.1007%2fs40003-022-00628-5&partnerID=40&md5=d711d2b6514ebc20d63ed2c52e2594eb>

Verma, K.K., Song, X.-P., Li, D.-M., Singh, M., Wu, J.-M., Singh, R.K., Sharma, A., Zhang, B.-Q., Li, Y.-R.  
Silicon and soil microorganisms improve rhizospheric soil health with bacterial community, plant growth,  
performance and yield

(2022) Plant Signaling and Behavior, 17 (1), art. no. 2104004, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135553203&doi=10.1080%2f15592324.2022.2104004&partnerID=40&md5=57d31acb90a410fdecc45b0062fa30a7)

[85135553203&doi=10.1080%2f15592324.2022.2104004&partnerID=40&md5=57d31acb90a410fdecc45b0062fa30a7](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85135553203&doi=10.1080%2f15592324.2022.2104004&partnerID=40&md5=57d31acb90a410fdecc45b0062fa30a7)

Singhal, R.K., Fahad, S., Kumar, P., Choyal, P., Javed, T., Jinger, D., Singh, P., Saha, D., Md, P., Bose, B.,  
Akash, H., Gupta, N.K., Sodani, R., Dev, D., Suthar, D.L., Liu, K., Harrison, M.T., Saud, S., Shah, A.N.,  
Nawaz, T.

Beneficial elements: New Players in improving nutrient use efficiency and abiotic stress tolerance

(2022) Plant Growth Regulation, .

<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85131522184&doi=10.1007%2fs10725-022-00843-8&partnerID=40&md5=303fe3b7dfe22e8d9915da556277d6fb>

Lozano-González, J.M., Valverde, C., Hernández, C.D., Martín-Esquinas, A., Hernández-Apaolaza, L.  
Beneficial effect of root or foliar silicon applied to cucumber plants under different zinc nutritional statuses  
(2021) Plants, 10 (12), art. no. 2602, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119960873&doi=10.3390%2fplants10122602&partnerID=40&md5=17ae6854e7e0e4334f3f055a60912f)

[85119960873&doi=10.3390%2fplants10122602&partnerID=40&md5=17ae6854e7e0e4334f3f055a60912f](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119960873&doi=10.3390%2fplants10122602&partnerID=40&md5=17ae6854e7e0e4334f3f055a60912f)

dos Santos Sarah, M.M., de Mello Prado, R., de Souza Júnior, J.P., Teixeira, G.C.M., dos Santos Duarte, J.C.,  
de Medeiros, R.L.S.

Silicon supplied via foliar application and root to attenuate potassium deficiency in common bean plants

(2021) Scientific Reports, 11 (1), art. no. 19690, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116377802&doi=10.1038%2fs41598-021-99194-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116377802&doi=10.1038%2fs41598-021-99194-z&partnerID=40&md5=aa08e52fc58c9bf5745814ecb359ec41)

[z&partnerID=40&md5=aa08e52fc58c9bf5745814ecb359ec41](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85116377802&doi=10.1038%2fs41598-021-99194-z&partnerID=40&md5=aa08e52fc58c9bf5745814ecb359ec41)

Romera, F.J., Lan, P., Rodríguez-Celma, J., Pérez-Vicente, R.

Editorial: Nutrient Interactions in Plants

(2021) Frontiers in Plant Science, 12, art. no. 782505, .

[https://www.scopus.com/inward/record.uri?eid=2-s2.0-](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120856935&doi=10.3389%2ffpls.2021.782505&partnerID=40&md5=8038fcbefc8172737a92f32dad727bd)

[85120856935&doi=10.3389%2ffpls.2021.782505&partnerID=40&md5=8038fcbefc8172737a92f32dad727bd](https://www.scopus.com/inward/record.uri?eid=2-s2.0-85120856935&doi=10.3389%2ffpls.2021.782505&partnerID=40&md5=8038fcbefc8172737a92f32dad727bd)

Golubkina, N., Moldovan, A., Fedotov, M., Kekina, H., Kharchenko, V., Folmanis, G., Alpatov, A., Caruso, G. Iodine and selenium biofortification of chervil plants treated with silicon nanoparticles (2021) *Plants*, 10 (11), art. no. 2528, .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85119284923&doi=10.3390%2fplants10112528&partnerID=40&md5=2f7e368d7a80468a1561f54e4500689f>

de Tombeur, F., Cornelis, J.-T., Lambers, H. Silicon mobilisation by root-released carboxylates (2021) *Trends in Plant Science*, 26 (11), pp. 1116-1125.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85111501322&doi=10.1016%2fj.tplants.2021.07.003&partnerID=40&md5=1e7eb07665d3e43a8b47e1ad51da7c61>

de Tombeur, F., Roux, P., Cornelis, J.-T. Silicon dynamics through the lens of soil-plant-animal interactions: perspectives for agricultural practices (2021) *Plant and Soil*, 467 (1-2), .  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112587035&doi=10.1007%2fs11104-021-05076-8&partnerID=40&md5=1daaf0a32674e185787a613e4e4b0be5>

Awad-Allah, E.F.A., Shams, A.H.M., Helaly, A.A. Suppression of bacterial leaf spot by green synthesized silica nanoparticles and antagonistic yeast improves growth, productivity and quality of sweet pepper (2021) *Plants*, 10 (8), art. no. 1689.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85112500270&doi=10.3390%2fplants10081689&partnerID=40&md5=266aed9cd7feda0d08ac034fcc4d97f4>

Savic J, **Pavlovic J**, Stanojevic M, Bosnic P, Kostic Kravljanac L, Nikolic N, Nikolic M. 2023. Silicon differently affects apoplastic binding of excess boron in wheat and sunflower leaves. *Plants* 12: 1660, цитиран 2 пута (без самоцитата) у:

Réthoré, E., Ali, N., Pluchon, S., Hosseini, S.A. Silicon Enhances Brassica napus Tolerance to Boron Deficiency by the Remobilisation of Boron and by Changing the Expression of Boron Transporters (2023) *Plants*, 12 (13), art. no. 2574.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85165168775&doi=10.3390%2fplants12132574&partnerID=40&md5=1fc4331b21b2e944f594f450d0bb4015>

Reguera, M., Camacho-Cristóbal, J.J. Molecular, Metabolic and Physiological Responses to Boron Stress in Higher Plants (2023) *Plants*, 12 (11), art. no. 2136.  
<https://www.scopus.com/inward/record.uri?eid=2-s2.0-85161442548&doi=10.3390%2fplants12112136&partnerID=40&md5=c2a19863686f70d8e0020efc31a9ea52>

Hajiboland R, Moradi A, Kahneh E, Poschenrieder C, Nazari F, **Pavlovic J**, Tolra R, Salehi-Lisar S-Y, Nikolic M. 2023. Weed species from tea gardens as a source of novel aluminum hyperaccumulators. *Plants* 12: 2129, цитиран 1 пут у:

Yang, B., Zhang, H., Ke, W., Jiang, J., Xiao, Y., Tian, J., Zhu, X., Zong, L., Fang, W. Effect of Soil Acidification on the Production of Se-Rich Tea

## **6. КВАЛИТАТИВНИ ПОКАЗАТЕЉИ И ОЦЕНА НАУЧНОГ ДОПРИНОСА**

### **6.1 Квалитет научних резултата**

У периоду од избора у звање научни сарадник, др Јелена Павловић је објавила поглавље у истакнутој монографији међународног значаја (M13), три научна рада у међународним часописима изузетних вредности (M21a) и два научна рада у врхунским међународним часописима, чиме је кандидаткиња јасно показала своје опредељење за квалитет научног рада, а који је недвосмислено препознат у међународној научној јавности из области исхране биљака. У прилог томе говори и висок просечан импакт фактор по раду (5,112) који је кандидаткиња остварила од избора у претходно звање.

Радови у којима је др Јелена Павловић први аутор или коаутор су према бази SCOPUS, до сада укупно цитирани 524 пута, од чега је кандидаткиња остварила 505 цитата без самоцитата, односно 462 цитата без цитата свих коаутора на раду (хетероцитати), а њен Хиршов индекс је 8 (без самоцитата и цитата свих коаутора). Радови који су објављени у периоду од избора у звање научни сарадник остварили су укупно 166 цитата без самоцитата, што недвосмислено говори о њиховом позитивном одјеку у међународној научној јавности.

Квалитет научних резултата огледа се у перманентном годишњем прирасту њених хетероцитата (2019: 36 хетероцитата; 2020: 56 хетероцитата; 2021: 71 хетероцитата; 2022: 108 хетероцитата). Кандидаткиња је остварила просечно 46 цитата без самоцитата по публикацији. На пример, прегледни рад, у којем је кандидаткиња први аутор, је од објављивања у јуну 2021. године цитиран чак 101 пут без самоцитата.

### **6.2 Самосталност и оригиналност у научном раду**

Објављени радови у периоду од избора др Јелене Павловић у звање научни сарадник су настали као резултат тимског рада групе за исхрану биљака, односно међународне сарадње са колегама из Шпаније, Ирана и Велике Британије, при чему је у једној публикацији категорије M21a кандидаткиња била први аутор. У осталим радовима кандидаткиња је дала значајан допринос у осмишљавању и извођењу експеримената, анализици и интерпретацији резултата, односно систематизацији и анализи литературе (поглавље у монографији), презентацији резултата и писању рукописа. Број коаутора у свим публикованим радовима је 7 и мање, а само у једном раду је 9; просечан број коаутора по раду је 6,2.

### **6.3. Међународна научна сарадња**

Кандидаткиња је учествовала у пројекту билатералне научне сарадње са Народном Републиком Кином (2012-2013) и демонстрирала је развијену међународну сарадњу кроз коауторства са колегама из Данске, Кине и Русије (пре избора у звање научни сарадник), а од избора у звање научни сарадник кандидаткиња је сарађивала и са колегама из Шпаније,

Велике Британије и Ирана, што је такође верификовано заједничким радовима и саопштењима.

#### 6.4. Ангажованост у образовању и формирању научних кадрова

Кандидатиња је именована за ментора за израду докторске дисертације Тијане Дубљанин, под насловом “Кружење силицијума и биосеквестрације угљеника у систему земљиште-биљка на моделу чернозема под пшеницом” (одлука Пољопривредног факултета Универзитета у Београду, број 32/6-5.1, од 30.03.2022. године; одлука Већа за биотехничке науке Универзитета у Београду, број 61206-1320/2-22, од 12.04.2022. године). Такође је учествовала у комисији за оцену и одбрану докторске дисертације Драгане Боснић (одлука број 50/114, од 19.06.2020. године), одбрањене на Биолошком факултету Универзитета у Београду 28.09.2020. године.

#### 6.5. Уређивање научних часописа и рецензије научних радова

Јелена Павловић је члан уређивачког одбора (*review editor*) секције *Plant Nutrition* међународних часописа *Frontiers in Plant Science* и *Frontiers in Nutrition*. До сада је рецензирала рукописе за следеће међународне часописе: *Plant and Soil* (осам рукописа), *Biologia-Springer* (један рукопис) и *Food Chemistry* (један рукопис).

#### 6.6. Руковођење пројектима, потпројектима и пројектним задацима

Др Јелена Павловић је тренутно руководилац радног пакета “WP2: Si utilization in the tissues and biofortification of Si” пројекта “Silicon for Crops in the 21<sup>st</sup> Century (Si4Crop)” програма “Идеје” Фонда за науку Републике Србије.

#### 6.7. Чланства у научним друштвима

Др Јелена Павловић је члан Међународног друштва за силицијум у пољопривреди (*ISSAG*; <http://www.issag.org>).

### 7. КВАНТИТАТИВНИ ПОКАЗАТЕЉИ УСПЕХА У НАУЧНОМ РАДУ

Квантитативни показатељи резултата научног рада др Јелене Павловић приказани су у табелама које следе.

**Табела 1.** Сумарни преглед резултата научноистраживачког рада кандидаткиње, од избора у звање научни сарадник.

Категорија резултата	Број остварених резултата	Појединачна вредност	Збирно	Збирно нормирано
M13	1	7	7	7
M21a	3	10	30	30
M21	2	8	16	13,71
M34	6	0,5	3	3
УКУПНО СВЕ КАТЕГОРИЈЕ: 56; НОРМИРАНО СВЕ КАТЕГОРИЈЕ: 53,71				

**Табела 2.** Остварени бодови кандидаткиње према категоријама прописаним у Правилнику за област природно-математичких и медицинских наука.

		Неопходно	Остварено	Нормирано
<b>Виши научни сарадник</b>	Укупно	50	<b>56</b>	<b>53,71</b>
Обавезни (1)	M10+M20+M31+M32+M33 +M41+M42	40	<b>53</b>	<b>50,71</b>
Обавезни (2)	M11+M12+M21+M22+M23	30	<b>46</b>	<b>43,71</b>

**Табела 3.** Укупне и просечне вредности фактора утицајности (ИФ).

	Укупан ИФ	Просечан ИФ по раду
Пре избора у звање научни сарадник	21,050	4,210
После избора у звање научни сарадник	25,560	5,112
За цео период	46,610	4,661

## 7. ЗАКЉУЧАК И ПРЕДЛОГ

Од утврђивања предлога за избор у звање научни сарадник, др Јелена Павловић је публиковала три рада из категорије међународних часописа изузетних вредности (M21a), два рада из категорије (M21) и једно поглавље у истакнутој монографији међународног значаја (M13). Укупан збир импакт фактора који је до сада остварила кандидаткиња износи 46,610 (25,560 од избора у претходно звање), а њен просечан импакт фактор по раду је 4,661, односно 5,112 од избора у претходно звање. Кандидаткиња је до сада остварила 505 цитата без самоцитата, односно 462 цитата без цитата свих коаутора (хетероцитати), са Хиршовим индексом 8 (хетероцитати).

Др Јелена Павловић је стекла експертизу у области физиологије минералне исхране биљака, посебно у делу који се односи на усвајање и транспорт микроелемената у биљци и физиолошку улогу силицијума у стресу биљака, као и демонстрирала високу самосталност у планирању експеримената, критичкој интерпретацији научних резултата и синтетичкој анализи литературе. У периоду од избора у звање научни сарадник, кандидаткиња је стекла рутинско лабораторијско искуство у анализи земљишта и биљног материјала, коришћењем савремених метода елементарне анализе (*ICP* и *CHNS*), као и искуство у постављању и извођењу пољских експеримената, затим проширила своја теоретска знања из области физиологије минералне исхране и молекуларне биологије биљака, развила способност за тимски рад и успоставила плодну сарадњу са колегама из иностранства, али и започела свој менторски рад. Кандидаткиња руководи радним пакетом пројекта из програма “Идеје”

Фонда за науку, рецензира радове за међународне часописе и члан је уредништва једног међународног часописа, као и једног међународног научног друштва.

Комисија сматра да на основу критеријума које је прописало Министарство за науку, технолошки развој и иновације Републике Србије **др Јелена Павловић** испуњава услове за избор у научно звање **виши научни сарадник**, те предлаже Научном већу Универзитета у Београду – Института за мултидисциплинарна истраживања да прихвати овај извештај и утврди предлог за њен избор у то звање.

Београд, 16. 10. 2023.

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