



## НАУЧНОМ ВЕЋУ ИНСТИТУТА ЗА МУЛТИДИСЦИПЛИНАРНА ИСТРАЖИВАЊА

Орг. јед.	Број	Прилог
02	1545/1	

На редовној седници Научног већа Института за мултидисциплинарна истраживања одржаној 1. 11. 2017. године, одређени смо као чланови Комисије за избор др **Тања Дучић**, вишег научног сарадника, у звање научни саветник. На основу документације и личног познавања кандидата подносимо Научном већу следећи

## ИЗВЕШТАЈ

### 1. БИОГРАФСКИ ПОДАЦИ

Тања Дучић је рођена у Ужицу, где је матурирала природно математичку гимназију, одсек сарадник у природним наукама 1992. године. Исте године уписује Хемијски факултет, Универзитета у Београду, где је дипломирала на одсеку биохемија 22. маја 1998. са темом "Утицај водоник пероксида на активност Мп, Fe, Cu/ZnSOD, под руководством проф. др Михајла Спасића. Магистраске студије је уписала исте године на Центру за мултидисциплинарне студије Универзитета у Београду. Марта 2002. одбранила је магистарску тезу под називом "Утицај кадмијума, никла и бакра на активност пероксидаза и супероксид дисмутаза у иглицама смрче *Picea abies* L." под руководством др Ксеније Радотић. У том периоду је освојила награду за најбоље постдипломце 2001/2002: Postgraduate Student Grants from World University Service - Austrian Committee Belgrade Office. Докторску тезу је уписала 2003. године на Природно-математичком факултету, одсек Биологија на Универзитету Георг-Аугуст, Гетингену, Немачка. Као успешан постдипломац код проф. др Andrea-e Polle, у оквиру рада на докторској тези " *Manganese uptake, transport, and toxicity in two variety of Douglas fir as effected by mycorrhiza: from the cellular to organismic level*" остварила је 6 публикација у интернационалним часописима. Докторску диплому је стекла 6. јула

2006. године на Природно-математичком факултету, Georg- August- Universität Göttingen <http://webdoc.sub.gwdg.de/diss/2006/ducic/>.

## 2. БИБЛИОГРАФИЈА

***Од датума покретања поступка за избор у претходно научно звање виши научни сарадник (26.06.2012.):***

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### **Рад у међународном часопису изузетних вредности (M21a)**

1. Ortega R., Carmona A., Roudeau S., Perrin L, **Dučić T.**, Carboni E., Bohic S., Cloetens P., Lingor P. (2016)  $\alpha$ -Synuclein Over-Expression Induces Increased Iron Accumulation and Redistribution in Iron-Exposed Neurons. *Molecular Neurobiology*, **53**: 1925-1934. DOI: 10.1007/s12035-015-9146-x Citata 15

**Област: NEUROSCIENCES (25/259, 2016, IF<sub>2016</sub>=6.2);**

**број бодова 10, број бодова према правилнику са више од 7 ко-аутора: 7.1**

2. **Dučić T.**, Carboni E., Lai B., Chen, S., Michalke B., Lázaro D., Outeiro T., Bähr M., Barski E., Lingor P. (2015) Alpha-synuclein regulates neuronal levels of manganese and calcium, *ACS Chemical Neuroscience* **6**: 1769-1779. DOI: 10.1021/acscchemneuro.5b00093 Citata 9

**Област: CHEMISTRY, MEDICINAL (4/59, 2014, IF<sub>2014</sub>=4.362);**

**број бодова 10, број бодова према правилнику са више од 7 ко-аутора: 6.25**

3. Jung C., Kaul M., Bruns O., **Dučić T.**, Freund B, Heine M, Reimer R, Meents A, Salmen S, Weller, H; Nielsen P., Adam G., Heeren H., Ittrich H. (2014) Intraperitoneal Injection Improves the Uptake of Nanoparticle Labeled HDL to Atherosclerotic Plaques Compared to Intravenous Injection: A Multimodal Imaging Study in ApoE<sup>-/-</sup> Mice/. *Circulation: Cardiovascular Imaging* **7**: 303-311. DOI: 10.1161/CIRCIMAGING.113.000607 Citata 16

**Област: RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING (3/122, 2013, IF<sub>2013</sub>=6.752);**

**број бодова 10, број бодова према правилнику са више од 7 ко-аутора: 4.2**

4. **Dučić T.**, Borchert M., Savic A., Kalauzi A., Mitrovic M., Radotic K. (2013) Enhancement in statistical and image analysis for *in situ* studies of elemental distribution and co-

localization, using *Dioscorea balcanica*. *Journal of Synchrotron Radiation* **20**: 339-346. DOI: 10.1107/S0909049512050170 Citata 2

Област: INSTRUMENTS & INSTRUMENTATION (5/57, 2013, IF<sub>2013</sub>=3.022);

број бодова 10

Рад у врхунском међународном часопису (M21)

5. Dučić T., Paunesku T, Chen S., Ninković M., Speling S., Wilke C., Lai B., Woloschak G. (2017) Structural and elemental changes in glioblastoma cells in situ: complementary imaging with high resolution visible light- and X-ray microscopy, *Analyst* **142**: 356-365. . DOI: 10.1039/c6an02532c Citata 0

Област: CHEMISTRY, ANALYTICAL (10/75, 2015, IF<sub>2015</sub>=4.033);

број бодова 8, број бодова према правилнику са више од 7 ко-аутора: 6.7

6. Žižić M.\*, Dučić T.\*, Grolimund D., Bajuk-Bogdanović D., Nikolic M., Stanić M., Križak S., Zakrzewska J. (2015) X-ray absorption near-edge structure micro-spectroscopy study of vanadium speciation in *Phycomyces blakesleeanus* mycelium. *Analytical and Bioanalytical Chemistry* **407**: 7487-7496. DOI: 10.1007/s00216-015-8916-7 Citata 3

Област: CHEMISTRY, ANALYTICAL (11/76, 2013, IF<sub>2013</sub>=3.578);

број бодова 8, број бодова према правилнику са више од 7 ко-аутора: 6.7

7. Jung C., Dučić T., Reimer R., Koziol E., Kording F., Heine M., Adam G., Ittrich H, Kaul MG. (2014) Gadospin F enhanced MRI for Diagnosis and Monitoring of Atherosclerosis: Validation with Transmission Electron Microscopy and X-ray Fluorescence Imaging in the ApoE<sup>-/-</sup> mouse. *Molecular Imaging* **13**: 1-10. DOI: 10.2310/7290.2014.00039 Citata 0

Област: RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING (21/120, 2012, IF<sub>2012</sub>=3.408);

број бодова 8, број бодова према правилнику са више од 7 ко-аутора: 5.7

8. Dučić T., Barski E., Salome M., Koch J.C., Bähr M., Lingor P. (2013) X-ray fluorescence analysis of iron and manganese distribution in primary dopaminergic neurons. *Journal of Neurochemistry*. **124**: 250-261. DOI: 10.1111/jnc.12073 Citata 22

Област: BIOCHEMISTRY & MOLECULAR BIOLOGY (74/291, 2013, IF<sub>2013</sub>=4.244);

број бодова 8

### Рад у истакнутом међународном часопису (M22)

9. Stamenković S., **Dučić T.**, Stamenković V., Kranz A., Andjus P.R. (2017) Imaging of glial cell morphology, SOD1 distribution and elemental composition in the brainstem and hippocampus of the ALS hSOD1<sup>G93A</sup> rat. *Neuroscience*, **357**: 37–55. DOI: **10.1016/j.neuroscience.2017.05.041** Citata 0

Област: NEUROSCIENCES (100/259, 2016, IF<sub>2016</sub>=3,277);

број бодова 5

### Рад у међународном часопису (M23)

10. I. Yousef, L. Ribó, A. Crisol, I. Šics, G. Ellis, **T. Dučić**, M. Kreuzer, N. Benseny-Cases, M. Quispe, P. Dumas, S. Lefrançois, T. Moreno, G. García, S. Ferrer, J. Nicolas & M.A.G. Aranda (2017) MIRAS: The Infrared Synchrotron Radiation Beamline at ALBA. *Synchrotron Radiation News* **30**(4):4-6. DOI: **10.1080/08940886.2017.1338410** Citata 0 (нема импакт фактор)

број бодова 3, број бодова према правилнику са више од 7 ко-аутора: 1.1

### Поглавље у монографији међународног значаја (M13)

11. Salditt T., **Dučić T.** X-ray microscopy: a review on novel imaging opportunities. Book Chapter in: Optical Methods in Neuroscience. Ed. S. Rizzoli. *Springer*. (257-290). **2014**. /Eds/: Fornasiero, E., Rizzoli, S. DOI: **10.1007/978-1-62703-983-3\_11** Citata 6

број бодова 7

### Предавање по позиву са међународног скупа штампано у изводу (M32)

1. Dučić T. Synchrotron light based spectro-microscopies: Illumination of cellular disorders in neuro-degenerative diseases. Invited speaker for the VI International School and Conference on Photonics, 2017, Belgrade *Serbia*. Book of abstracts p. 34 (приложено позивно писмо од организатора конгреса)

број бодова 1.5

2. Dučić T., Lingor P., Stamenković S., Andjus P., Chen S., Lay B. Multimodal synchrotron spectro-microscopy for elucidation cellular disorders in neuro-degenerative diseases. Invited speaker for the XII Conference Biology and Synchrotron Radiation. Section X-ray and Infra-red Imaging/SR-CDI, 2016, SLAC

National Accelerator Laboratory, Stanford, USA. Book of abstracts p. 43 (приложено позивно писмо од организатора конгреса)

број бодова 1.5

3. Dučić T., Lai B., Chen S., Carboni E., Barski E., Lingor P. Synchrotron radiation spectro-microscopy on alpha-synuclein neuronal regulation of cellular manganese and calcium. XVI European Conference on the Spectroscopy of Biological Molecules 2015, Bochum, Germany (selected talk) Book of abstracts p. 71 (приложено позивно писмо од организатора конгреса)

број бодова 1.5

4. E. Pereiro, A. Sorrentino, A. J. Perez, M. Rosanes, R. Valcárcel, T. Dučić MISTRAL - the soft X-ray microscope at the ALBA Synchrotron Light Source. Soft X-ray Full-field Imaging and Scanning Microscopy Workshop at Synchrotron Radiation User Meeting (SRUM) 2015 Diamond Light Source, Oxfordshire, UK (приложено позивно писмо од организатора конгреса)

<http://www.diamond.ac.uk/Home/Events/2015/SR-User-Meeting-2015/Soft-X-ray-Full-field-Imaging-and-Scanning-Microscopy.html>

број бодова 1.5

5. Dučić T., Lai B., Chen S., Ninković N., Paunesku T., Woloschak G. Synchrotron radiation study on distribution of trace elements and structural change in glioma cells in situ. III International Conference on Radiation and Application. 2015. Budva, Montenegro (selected talk) Book of abstracts p. 56 (приложено позивно писмо од организатора конгреса)

број бодова 1.5

6. Dučić T. Thieme J., De Andrade V., Salome M., Polle A. Manganese oxido-redox compartmentalization in cells of two plant lines. Selected talk for the 11<sup>th</sup> International Conference on X-Ray Microscopy. 2012, Shanghai, China (selected talk) Book of abstracts:p.40 (приложено позивно писмо од организатора конгреса)

број бодова 1.5

#### Саопштење са међународног скупа штампано у изводу (M34)

1. S. Stamenković, B. Lai, P. Andjus and, T. Dučić. Synchrotron based X-ray microscopy for the verification of trace metals and SOD1 protein aggregates in intact astrocytes from arat model of amyotrophic lateral sclerosis. School and Conference on Photonics, 2017, Belgrade Serbia. Book of abstracts p. 110

број бодова 0.5

2. S. Stamenković, T. Dučić, V. Stamenković, A. Kranz, P. R. Andjus. Glial cell morphology, intracellular SOD1 distribution and elemental composition in the brainstem and hippocampus of the transgenic rat model of ALS ENCALS

EuropeanNetwork to Cure ALS 18-20 May 2017 Ljubljana Slovenia, Book of abstracts p.21.

**број бодова 0.5**

3. Yousef Y., Kreuzer M., **Dučić T.**, Benseny-Cases N., Falcon C., Aranda M.A. Operation of MIRAS the infrared microspectroscopy beamline at ALBA synchrotron. Selected speaker for the 9<sup>th</sup> International Workshop on Infrared Microscopy and Spectroscopy using Accelerators-based Sources WIRMS, 2017, Oxford, *United Kingdom*, Book of abstracts p. 27.

**број бодова 0.5**

4. Martinez-Rovira I., Seksek O., Kreuzer M., Gomez J., **Dučić T.**, Puxeu J., Perea R., Cinque G., Sule-Suso J., Ferreres M.J., Artigues M., Prezado Y., Yousef Y. Infrared microspectroscopy: a bio-analytical tool for understanding and improving radiotherapy. Selected speaker for the 9<sup>th</sup> International Workshop on Infrared Microscopy and Spectroscopy using Accelerators-based Sources WIRMS, 2017, Oxford, *United Kingdom*, Book of abstracts p. 30.

**број бодова 0.2**

5. Espano M., Zhitong Z., Guillem M.J., **Dučić T.**, Pau G.M. Hydroxyapatite as carrier of therapeutic ions to control cell function. 29th Symposium and Annual Meeting of ISCM, 2017, Tolouse, France (selected talk) ID: 197.

**број бодова 0.5**

6. S. *Stamenković*, **T. Dučić**, P.R. *Andjus*. Intracellular pathophysiological changes of astrocytes from a rat model of amyotrophic lateral sclerosis Regional Biophysics Conference (RBC2016) 25-28. August 2016 Trieste, Italy, Book of abstracts p.40.

**број бодова 0.5**

7. A. *Sachkova*, **T. Ducic**, S. *Sperling*, D. *Grolimund*, V. *Rohde*, M. *Ninkovic*., Element distribution Analysis in glioma tissue and cells using X-ray microscopy. 66<sup>th</sup> Annual Meeting of the German Society of Neurosurgery, DGNC Friendship meeting with the Italian society of Neurosurgery, SINch 07-10.06.2015 Karlsruhe, Germany, Book of abstracts P 031 doi: 10.3205/15dgnc429

**број бодова 0.5**

8. **Dučić T.**, Lai B., Chen S., Barski E., Salome M., Lingor P. X-ray microscopy of primary dopaminergic neurons: Mn distribution and oxidative status in relation to  $\alpha$ -synuclein. The Microscience Microscopy Congress, July, 2014, Manchester, UK MMC2014.

**број бодова 0.5**

9. Jung C, Ittrich H, Kaul MG, Heine M, **Ducic T**, Adam G. Einsatz von Gadospin F zur Diagnose und Monitoring von Atherosklerose mittels MRT in ApoE-/- Mäusen RöFo - Fortschritte auf dem Gebiet der R 185(S 01). 94. Deutscher Röntgenkongress. 2013 Fronleichnam. Germany. (selected talk) Fortschr Röntgenstr 2013; 185: S55–S281 Georg Thieme Verlag KG Stuttgart · New York · ISSN 1433-5972

**број бодова 0.5**

10. Jung C., Ittrich H., Kaul M., **Ducic T.**, Reimer R., Adam G., Freund B., Heeren J., Heine M. Evaluation of SPIO and Quantum Dot Labeled High Density Lipoproteins for Multimodal Imaging of Atherosclerotic Plaques in ApoE-/- Mice. Radiological Society of North America 2012 Scientific Assembly and Annual Meeting, November, 2012, Chicago USA. <http://archive.rsna.org/2012/12031973.html>

**број бодова 0.4**

11. Boretius S., **Ducic T.**, Escher A., Stadelmann Christine, Frahm J. Manganese-enhanced MRI in a mouse model of de- and remyelination. ISMRM 20th Annual Meeting & Exhibition, May 2012, Melbourne, Australia. Book of abstracts: 0732: [//www.ismrm.org/12/Session72.htm](http://www.ismrm.org/12/Session72.htm)

**број бодова 0.5**

**Укупан број бодова  $\Sigma$  81.9**

***Библиографија до датума покретања поступка за избор у претходно научно звање виши научни сарадник (26.06.2012.):***

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**Рад у међународном часопису изузетних вредности (M21a)**

1. **Dučić T.**, Berthold D, Beese F, Polle A. (2009). Mycorrhizal communities in relation to biomass production and nutrition use efficiency in two varieties of Douglas fir (*Pseudotsuga menziesii* var. *menziesii* and var. *glauca*) in different forest soils. *Soil Biology and Biochemistry* **41**:742-753. DOI: 10.1016/j.soilbio.2009.01.013 Citata: 12. (**област: SOIL SCIENCE 1/31, 2009, IF<sub>2006</sub>=2.978; IF<sub>2016</sub>=4.9**);  
10
2. **Dučić T.**, Leinemann L., Finkeldey R. Polle A. (2006). Uptake and translocation of manganese in seedlings of two varieties of Douglas fir (*Pseudotsuga menziesii* var. *viridis* and *glauca*). *New Phytologist* **170**: 11-20. DOI: 10.1111/j.1469-8137.2006.01666.x Citata: 28 (**област: PLANT SCIENCES 8/147, 2006, IF<sub>2006</sub>=4.245**);  
10

**Рад у врхунском међународном часопису (M21)**

3. **Dučić T.**, Quintes S., Nave K.A., Susini J., M. Rak, R. Tucoulou, M. Alevra, P. Guttman, T. Salditt (2011) Structure and composition of myelinated axons: A multimodal synchrotron spectro-microscopy study., *Journal of Structural Biology*. **173**: 202–212. DOI: 10.1016/j.jsb.2010.10.001 Citata: 4. (област: **BIOPHYSICS 19/74, 2009, IF<sub>2009</sub>=3.673**);  
8/K5.7
4. **Dučić T.** and Polle A. (2007). Manganese toxicity in two varieties of Douglas fir (*Pseudotsuga menziesii* var. *viridis* and *glauca*) seedlings is modulated by phosphorus supply. *Functional Plant Biology*. **34**: 31-40. DOI: 10.1071/FP06157 Citata: 22 (област: **PLANT SCIENCES 24/144, 2005, IF<sub>2005</sub>=2.496**);  
8
5. Langenfeld-Heyser R., Gao J., **Dučić T.**, Tachd Ph., Lu C.F., Fritz E., Gafur A., Polle A. (2007) *Paxillus involutus* mycorrhiza attenuate NaCl-stress responses in the salt-sensitive hybrid poplar *Populus x canescens*. *Mycorrhiza*. **17**(2):121-131. DOI: 10.1007/s00572-006-0084-3 Citata: 39 (област: **MYCOLOGY 4/17, 2005, IF<sub>2005</sub>=1.7453**) 9/30);  
8/K 6.7
6. Mitrović A., **Dučić T.**, Lirić-Rajlić I., Radotić K., Živanović B. (2005). Changes in *Chenopodium rubrum* seeds with aging. *Annals of the New York Academy of Sciences* **1048** (1): 505-508. DOI: 10.1196/annals.1342.077 Citata: 121 (област: **MULTIDISCIPLINARY SCIENCES 5/48, 2005, IF<sub>2005</sub>=1.971**);  
8

#### Рад у истакнутом међународном часопису (M22)

7. **Dučić T.**, Parladé X, Polle A. (2008) The influence of the ectomycorrhizal fungus *Rhizopogon subareolatus* on growth, root morphology and nutrient element localisation in two varieties of Douglas fir (*Pseudotsuga menziesii* var. *viridis* and var. *glauca*) in response to manganese stress. *Mycorrhiza* **18**: 227-239. DOI: 10.1007/s00572-008-0174-5 Citata: 14. (област: **MYCOLOGY 7/19, 2008, IF<sub>2008</sub>=2.205**);  
5
8. **Dučić T.**, Lehmann G., Kopka B., Polle A. (2004). Uptake and translocation of <sup>54</sup>Mn in Douglas fir seedlings (*Pseudotsuga menziesii*). *Acta Physiologiae Plantarum* **26(S)**: 117-117. WOS:000205415400304 Citata 0 (област: **PLANT SCIENCES 105/136, 2003, IF<sub>2003</sub>=0.438**);  
5
9. **Dučić T.**, Lirić-Rajlić I., Mitrović A., Radotić K. (2003). Activities of antioxidant systems during germination of *Chenopodium rubrum* seeds. *Biologia Plantarum* **47** (4): 527-533. DOI: 10.1023/B:BIOP.0000041057.11390.58 Citata: 24 (област: **PLANT SCIENCES 67/136, 2003, IF<sub>2003</sub>=0.919**);  
5



10. Radotić K., **Dučić T.**, Mutavdžić D. (2000). Changes in peroxidase activity and isoenzymes in spruce needles after exposure to different concentrations of cadmium. *Environmental and Experimental Botany* **44**, 105-113. DOI: 10.1016/S0098-8472(00)00059-9 Citata 102 (**област: Environmental Sciences 62/127, 2000, IF<sub>2000</sub>=0.873**);

5

#### **Рад у међународном часопису (M23)**

11. **Dučić T.**, Thieme J., Polle A. (2012) Phosphorus compartmentalization on the cellular level of Douglas fir root as affected by Mn toxicity: A synchrotron based FTIR approach. *Spectroscopy: An International Journal*, **27**: 265-2723. DOI: 10.1155/2012/374039 Citata: 4. (**област: SPECTROSCOPY 35/42, 2010, IF<sub>2010</sub>=0.932**);

3

12. Bogdanović J., Milosavić N, Prodanović R., **Dučić T.**, Radotić K. (2007) **Variability of antioxidant enzyme activity and isoenzyme profile in needles of Serbian spruce (Picea omorika (Panc.) Purkinye).** *Biochemical Systematics and Ecology*, 35(5):263-274. DOI: 10.1016/j.bse.2006.12.001 Citata: 16. (**област: BIOCHEMISTRY & MOLECULAR BIOLOGY 228/263, 2007, IF<sub>2007</sub>=1.048**);

3

13. **Dučić T.** and Polle A. (2005). Transport and detoxification of manganese and copper in plants. *Brazilian Journal of Plant Physiology*. **17** (1): 103-112. DOI:10.1590/S1677-04202005000100009 Citata 105 (**област: PLANT SCIENCES, нема IF**)

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#### **Предавање по позиву са међународног скупа штампано у изводу (M32)**

1. **Dučić T.** X-ray spectro-microscopy on the cellular and tissue level. 2012 Workshop on non-lethal methods for measuring contaminant burdens in wildlife, Cambridge, UK. Invited talk. 1.5
2. **Dučić T.** X-ray microscopy on the sub-cellular level. 2012 Regional biophysics conference. Kladovo, *Serbia*. Invited talk. 1.5
3. **Dučić T.** Trace metals in single cells: distribution and redox state. Biological Applications of X-ray Fluorescence Microscopy, A Satellite Meeting of the 2010 XRM Conference Northwestern University, Chicago, Illinois August 13 - 14<sup>th</sup> 2010. Invited talk. 1.5
4. **Dučić T.** X-ray bioimaging at P11 at PETRA III: Mn compartmentalization and oxidative state in Douglas fir rot. 4th Joint New Zealand-German Symposium on Plant Cell Walls DESY, Hamburg, Germany, 2010. Invited talk. 1.5

1.5

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5. **Dučić T.** X-ray microscopy- challenges and limits. 4<sup>th</sup> Göttingen Congress on Molecular and Optical Imaging. Bad Sooden-Allendorf 2009. Invited talk. 1.5
6. **Dučić T.** Synchrotron based X-ray microscopy on the cellular level. IFSC-Minisyposium: Imaging of metal ion distributions in living systems. Bochum 2009. Invited talk. 1.5
7. **Dučić T.** Synchrotron based X-ray and FTIR microscopy on the cellular level. Invited talk in the frame of collaboration with Dr. M Szczerbowska-Boruchowska, AGH University of Science and Technology, Faculty of Physics and Applied Computer Science. Krakow, Poland 2009 1.5

#### **Саопштење са међународног скупа штампано у целини (M33)**

8. Radotić, K., **Dučić, T.**, Bogdanović Pristov, J., Prodanović, R., Milosavić, N., Đikanović, D., Tufegdžić, S., Mitrović, A., Prodanović, O., Mutavdžić, D., Šijačić, M., Knežević, M. (2011) Monitoring of the physiological conditions of forests by using biochemical-physiological parameters, International conference Nature protection in XXI century, Proceedings of the Conference (Book No 2): 667-672.
9. **Dučić T.**, Breunig E., Schild D., Herbst J., Novakova E., Susini J. , Tucoulu R., Salditt T. (2009) X-ray fluorescence microscopy of olfactory receptor neurons. *Journal of Physics*: **186**, 012083. DOI: 10.1088/1742-6596/186/1/012083 Citata: 1. (**M<sub>23</sub>**; **SOIL SCIENCE (2/34)**; **IF<sub>2016</sub>=4.9**).

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#### **Саопштење за штампу са међународног скупа штампано у изводу (M34)**

10. **Dučić T.** Thieme J., Salome M., De Andrade, Polle A. Manganese compartmentalisation and oxidative status at the cellular levele of two different plant lines. XIV European Conference on the Spectroscopy of Biological Molecules 2011, Coimbra, Portugal. Book of abstracts. (Selected oral presentation). [http://www.cognicao.pt/AbstractsECSBM/index\\_arquivos/074\\_Coimbria\\_TD.pdf](http://www.cognicao.pt/AbstractsECSBM/index_arquivos/074_Coimbria_TD.pdf) 0.5
11. **Dučić T.**, Lingor P., Barski L., Salditt T., Salome M., Meents A. X-ray microscopy of primary dopaminergic neurons: trace elements distribution and oxidative state. XRM2010: 10th International Conference on X-Ray Microscopy, Aug. 15-20, 2010, Chicago, Illinois USA, book of abstracts p. 280. 0.5
12. **Dučić T.**, Barski L., Salditt T., Salome M., Meents A., Lingor P. Synchrotron – based determination of trace elements in primary dopaminergic neurons: distribution and oxidative state. **SNI** Deutsche Tagung für Forschung mit Synchrotronstrahlung, Neutronen und Ionenstrahlen an Großgeräten, Freie Universität Berlin, Berlin, Germany 2010, Book of abstracts p. M-P-89 and M-P-261. 0.5

0.5

10

13. Mitrović, A., Živanović, B., **Dučić**, T., Bogdanović Pristov, J., Radotić, K. (2010) *Chenopodium rubrum* L. , a short-day plant, as a model plant for physiological and biochemical investigations of ontogenesis *in vitro*. 10<sup>th</sup> Symposium on the Flora of Southeastern Serbia and Neighboring Regions, 17.-20. June, Vlasina Lake, Serbia, Abstracts p. 77. 0.5
14. **Dučić T.**, Quintes S., Nave K.-A., Susini J., Rak M., Salditt T. Synchrotron based X-ray and FTIR micro-spectroscopy of myelin. XIII European Conference on the Spectroscopy of Biological Molecules 2009, Palermo, Italy. Book of abstracts p. PA 123. (The best poster award). 0.5
15. **Dučić T.**, Salditt T., Breunig E., Schild D., Tucoulu R., Susini J. X-ray microscopy of neural cells: structure and ion distribution. 9<sup>th</sup> International conference on X-Ray Microscopy – XRM 2008, Zürich, Switzerland 2008, Book of abstracts p. 91. 0.5
16. **Dučić T.**, Berthold D, Beese F, Polle A. Towards dissecting the roles of endo- and ectomycorrhizal fungi for P- and N-acquisition in Douglas fir. Global change Ecology - GFOE. Bremen, *Germany* 2006, Book of abstracts p. 201. 0.5
17. **Dučić T**, Riemekasten T., Polle A. Manganese toxicity and tolerance in two races of Douglas fir seedlings (*Pseudotsuga menziesii* ) var. *viridis* and var. *glauca*. Metal fluxes and stresses in terrestrial ecosystems. Monte Verita, *Switzerland* 2005, Book of abstracts p. 23. Selected talk. 0.5
18. **Dučić T.**, Lehmann G., Kopka B., Polle A.: "Uptake and translocation of <sup>54</sup>Mn in Douglas fir seedlings (*Pseudotsuga menziesii*)."<sup>14</sup> <sup>th</sup> Congress of the Federation of European Societies of Plant Physiology (FESPB), Cracow, *Poland* 2004, Book of abstracts p. 117. 0.5
19. Langenfeld-Heyser R, Jian G, **Dučić T**, Tachd P, Lu C, Fritz E, Gafur A, Schützendübel A, Polle A: "*Paxillus involutus* mycorrhizae ameliorate NaCl-stress responses in the salt-sensitive hybrid poplar *P.x canescens*." Botanikertagung, Deutsche Botanische Gesellschaft, Vereinigung für Angewandte Botanik, Braunschweig, *Germany*, September 2004, Book of abstract p.259 0.5
20. **Dučić T.**, Jakovljević M., Prodanović R., Radotić K.: "Response of peroxidase and superoxide dismutase in spruce needles to nickel and copper stress." XV Symposium of Yugoslav Society of Plant Physiology, Vrdnik, *Serbia and Montenegro*, (2003). Book of Abstracts p. 37 0.5
21. Langenfeld-Heyser R., Gao J., Phan C. T., **Dučić T.**, Lu E., Fritz E., Polle A.: "Mycorrhization mediates increased salt tolerance in poplar." VAAM Conference Molecular biology of fungi, Göttingen, *Germany*, 2003, Book of abstracts p 77 0.5

22. Radotić K. and **Dučić T.**: "Effect of different concentration of cadmium and copper on peroxidase and superoxide dismutase activity in spruce needles." 5. Conference on Oxygen, free radicals and oxidative stress in plants, Nice, *France* 2001, Book of abstracts p 113

0.5

23. **Dučić T.**, Šašić S., Radotić K.: "Effect of nickel concentration on peroxidase, superoxide dismutase and phenol content in *Alyssum markgrafii*." 12<sup>th</sup> Congress of the Federation of European Societies of Plant Physiology (FESPB), Budapest, *Hungary* 2000, Book of abstracts p. 198

0.5

24. **Dučić T.**, Radotić K.: "Effect of heavy metals on the antioxidative enzymes in spruce leaves." 6. European Ecological Congress, Halkidiki, *Greece* 1999, Book of abstracts p. 455

0.5

#### Поглавље у истакнутој монографији националног значаја M41 (M44)

1. Radotić K. and **Dučić T.** (2000), book chapter *In: Heavy metals in forest ecosystems of Serbia*, R. Kadović and M. Knežević (eds.), ISBN 86-7299-079-X.

2

#### Рад у врхунском часопису националног значаја (M51)

1. **Dučić T.**, Maksimović V., Radotić K. (2008) Oxalate oxidase and non-enzymatic compounds of the antioxidative system in young Serbian spruce plants exposed to cadmium stress. *Archive of Biological Sciences* **60**, 67-76. DOI: 10.2298/ABS0801067D Citata: 9. (за 2008 нема ИФ) област: **BIOLOGY (79/85); IF<sub>2016</sub>=0.4**).

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2. Bogdanović J., **Dučić T.**, Milosavic N, Vujcic Z., Šijacic M., Isajev V., Radotić K. (2005). Antioxidant enzymes in the needles of different omorika lines. *Archives of Biological Sciences*, **57** (4): 277-282. DOI: 10.2298/ABS0504277B Citata: 7 (област: **BIOLOGY** нема ИФ за 2005) (**79/85**); **IF<sub>2016</sub>=0.4**).

2

3. Radotić K., **Dučić T.**, Knežević M. (2001). Study of peroxidase activity and isoenzyme profiles in leaves of spruce (*Picea abies*), black pine (*Pinus nigra*) and beech (*Fagus moesiaca*) obtained from different localities in Serbia varying in the extent of pollution. *Archive of Biological Sciences* **53**, 23-32.

2

#### Рад у истакнутом националном часопису (M52)

4. Radotić K., **Dučić T.**, Prodanović R., Vujčić Z., Karadžić B., Antić-Jovanović S. (2003). Toxicity of nickel and cadmium in spruce seedlings: effect of separated

12

and combined treatments on POD and SOD activity. *Yugoslav Medical Biochemistry* **22**(1): 41-52.

1.5

5. **Dučić T.**, Radotić K., Mutavdžić D., Jakovljević M. (2001). Correlation between accumulated heavy metals: Cd, Cu and Ni in spruce needles after their assimilation from the soil. *Ekologija* **36**(1): 87-100.

1.5

6. Radotić K. and **Dučić T.** (1999): "Study of peroxidase activity and isoenzyme profiles in leaves of spruce (*Picea abies*) and black pine (*Pinus nigra*) from the mountain region of Zlatibor" *Ekologija* **34**, 63-68.

1.5

#### **Саопштење са скупа националног значаја штампано у изводу (M64)**

7. **Dučić T.**, Radotić K., Mutavdžić D.: "Activity enzymes antioxidative defense-peroxidase and superoxide dismutase in spruce leaves (*Picea abies* L.) after exposure different heavy metals." XL Meeting of Serbian Chemistry Societies, Novi Sad, *Yugoslavia*, 2001, Book of abstracts p. 192

0.2

8. **Dučić T.**, Radotić K., Jakovljević M.: "Correlation between accumulated heavy metals: Cd, Cu and Ni in spruce needles after their assimilation from the soil." XIV Symposium of Yugoslav Societies of Plant Physiology, Goč, *Yugoslavia* 2001, Book of abstracts p 42

0.2

9. **Dučić T.**, Radotić K., Knežević M.: "Study of peroxidase activity and isoenzyme profiles in different tree leaves obtained from different localities in Serbia varying in the extent of pollution", 6. Yugoslav Symposium of Biochemistry, Belgrade, *Yugoslavia* 1999, Book of abstracts p. 46. Selected students talk.

0.2

10. Radotić K., **Dučić T.**, Sužnjević D.: "Peroxidase activity and isoenzymes in spruce leaves after exposure to different concentrations of cadmium". 6. Yugoslav Symposium of Biochemistry, Belgrade, *Yugoslavia* 1999, Book of abstracts p 44

0.2

11. Radotić K. and **Dučić T.**: "Effect of nickel concentration on peroxidase activity in serpentine plant *Alyssum markgrafii* grow in culture." XIII Symposium of Yugoslav Societies of Plant Physiology, Belgrade, *Yugoslavia* 1999, Book of abstracts p. 126

0.2

#### **Одбрањена докторска теза (M71)**

1. **Докторска теза:** *Manganese uptake, transport, and toxicity in two variety of Douglas fir as effected by mycorrhiza: from the cellular to organismic level.*

Природно-математички факултет, Georg- August- Universität Göttingen

<http://webdoc.sub.gwdg.de/diss/2006/ducic/>

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## Одбрањена магистарска теза (M72)

### 2. Магистарска теза:

Универзитет у Београду, Центар за мултидисциплинарне студије, Србија  
(Назив дисертације: Утицај кадмијума, никла и бакра на активност пероксидаза и супероксид дисмутаза у иглицама смрче *Picea abies* L.)

### 3. АНАЛИЗА РАДОВА ПУБЛИКОВАНИХ НАКОН ИЗБОРА У ЗВАЊЕ ВИШИ НАУЧНИ САРАДНИК

(од датума покретања поступка за избор у претходно научно  
звање виши научни сарадник (26.06.2012.))

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Радови у којима је др Тања Дучић учествовала у периоду од избора у звање виши научни сарадник, обухватају научне области неуронаука, примене различитих метода рентгенских зрака, FTIR микроскопије и спектроскопије. Др Дучић се бави мултидисциплинарним истраживањима у области утицаја тешких метала на различите ћелије: канцер ћелије сисара, неуроне који су погођени неуродегенеративним болестима, али и нижих модел организама као што су гљиве и бактерије. У периоду од 2012. године када је бирања у звање виши научни сарадник, бави се микроскопијама које користе Рентгенске зраке различитих енергија, као и инфра-црвене зраке на синхротронским изворима светлости на неколико великих синхротрона: ALBA, Барселона; SLS, Цирих; DESY, Хамбург; APS, Чикаго и ESRF, Гренобл. Због тога радови објављени од 2012. односе се на примену разних врста микроскопије.

У радовима који укључују рендгенско микроскопију, Дучић са коауторима ради на различитим системима, који укључују ћелијске културе и ткива, како биљног, тако и анималног порекла.

Salditt T., **Dučić T.** у поглављу књиге: X-ray microscopy: a review on novel imaging opportunities. Book Chapter in: Optical Methods in Neuroscience. Ed. S. Rizzoli. Springer. (257-290). **2014.** /Eds/: Fornasiero, E., Rizzoli, S. (rad br. **11**) сумирају могућности и принципе нових потенцијално веома моћних микроскопских метода користећи X (Рентгенске) зраке.

У радовима 1,2 и 8:

**1:** Ortega R., Carmona A., Roudeau S., Perrin L, **Dučić T.**, Carboni E., Bohic S., Cloetens P., Lingor P. (2016)  $\alpha$ -Synuclein Over-Expression Induces Increased Iron Accumulation and Redistribution in Iron-Exposed Neurons. *Molecular Neurobiology*, 53: 1925-1934.;

**2:** **Dučić T.**, Carboni E., Lai B., Chen, S., Michalke B., Lázaro D., Outeiro T., Bähr M., Barski E., Lingor P. (2015) Alpha-synuclein regulates neuronal levels of manganese and calcium, *ACS Chemical Neuroscience* 6: 1769-1779. , i

**8:** **Dučić T.**, Barski E., Salome M., Koch J.C., Bähr M., Lingor P. (2013) X-ray fluorescence analysis of iron and manganese distribution in primary dopaminergic neurons. *Journal of Neurochemistry*. 124: 250-261,

Дучић и коаутори се баве утицајем тешких метала који су присутни у траговима у неуронима који су одговорни за настанак Паркинсонове болести. Такође важан фактор акумулације ових метала: Mn, Fe и Cu у ћелијама је присуство  $\alpha$ -синуклеина, протеина који се нагомилава код ове болести. Методе које су применили у овим истраживањима спадају у нове методе које користе синхротронско зрачење и омогућавају прецизну детекцију ових елемената у траговима у ћелијама *in situ*. Mn и Fe су детектовани у перинуклеарном простору ћелија. Такође, доказан је утицај наталоженог протеина  $\alpha$ -синуклеина на акумулацију ових метала. С друге стране, рађене су анализе оксидативног стања ових елемената коришћењем XANES спектроскопије.

У радовима 3 и 7:

**3:** Jung C., Kaul M., Bruns O., **Dučić T.**, Freund B, Heine M, Reimer R, Meents A, Salmen S, Weller, H; Nielsen P., Adam G., Heeren H., Itrich H. (2014) Intraperitoneal Injection Improves the Uptake of Nanoparticle Labeled HDL to Atherosclerotic Plaques Compared to Intravenous Injection: A Multimodal Imaging Study in ApoE<sup>-/-</sup> Mice. *Cardiovascular Imaging* 7: 303-311.

**7:** Jung C., **Dučić T.**, Reimer R., Koziolk E., Kording F., Heine M., Adam G., Itrich H, Kaul MG. (2014) Gadospin F enhanced MRI for Diagnosis and Monitoring of Atherosclerosis: Validation with Transmission Electron Microscopy and X-ray Fluorescence Imaging in the ApoE<sup>-/-</sup> mouse. *Molecular Imaging* 13: 1-10.

Дучић и коаутори се баве детектовањем наночестица које су функционализоване за откривање липидних наслага у артериосклерози. У сарадњи са групом са Универзитета у Хамбургу, аутори су синтетисали нове наночестице које би могле да се истовремено користе за магнетну резонанцу и Рентгенску слику код липидних наслага

у крвним судовима. Метода која је укључила Рентгенске зраке дала је осетљивост на ппм нивоу, што је од изузетне важности с обзиром на врло ниске концентрације агенаса који се користе у овим методама.

У радовима 4 и 6:

**4: Dučić T.**, Borchert M., Savic A., Kalauzi A., Mitrovic M., Radotic K. (2013) Enhancement in statistical and image analysis for *in situ* studies of elemental distribution and co-localization, using *Dioscorea balcanica*. *Journal of Synchrotron Radiation* 20: 339-346.

**6: Žižić M.\***, **Dučić T.\***, Grolimund D., Bajuk-Bogdanović D., Nikolic M., Stanić M., Križak S., Zakrzewska J. (2015) X-ray absorption near-edge structure micro-spectroscopy study of vanadium speciation in *Phycomyces blakesleeanus* mycelium. *Analytical and Bioanalytical Chemistry* 407: 7487-7496.

Дучић и сарадници се баве побољшањем статистичких обрада података приликом одређивања појединих елемената и њиховом ко-локализацијом, као и применом Рентгенске спектроскопије „близу ивице“ (XANES) за детекцију тешких метала у биљкама и гљивама. Коришћене су методе Рентгенске микроскопије и спектроскопије, у комбинацији са PCA и корелативним статистичким методама.

Тема радова 5 и 9:

**5. Dučić T.**, Paunesku T, Chen S., Ninković M., Speling S., Wilke C., Lai B., Woloschak G. (2017) Structural and elemental changes in glioblastoma cells in situ: complementary imaging with high resolution visible light- and X-ray microscopy, *Analyst* 142: 356-365.

**9. Stamenković S.**, **Dučić T.**, Stamenković V., Kranz A., Andjus P.R. (2017) Imaging of glial cell morphology, SOD1 distribution and elemental composition in the brainstem and hippocampus of the ALS hSOD1<sup>G93A</sup> rat. *Neuroscience*, 357: 37–55.

су комплементарне методе високих резолуција за структурне промене, користећи 3Д томографију помоћу меких Рентгенских зрака ниских енергија, у комбинацији са супер-резолуцијом светлосне микроскопије, као и сканирајуће микроскопије помоћу Рентгенских зрака високих енергија. Ове методе, које се могу користити истовремено, дају мноштво различитих информација о структури, праћењем органских и неорганских ћелијских компоненти.



#### 4. ЦИТИРАНОСТ РАДОВА ДР Т. ДУЧИЋ

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Нучни радови др Тање Дучић цитирани су укупно 473 (од чега је 25 аутоцитата) према бази података *Web of Science* и 767 пута према бази података *Google Scholar*.

Према бази података *Web of Science* **h index** износи **13**.

На програму *Web of Science (Web of Knowledge)* показује следеће:

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Ducic Tanja:

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Citing articles 464

Average citations per item 18.7

Without self citations 480

Without self citations 450

Највише цитирани радови су:

“Radotić K., **Dučić T.**, Mutavdžić D. (2000). Changes in peroxidase activity and isoenzymes in spruce needles after exposure to different concentrations of cadmium. *Environmental and Experimental Botany* **44**, 105-113. **са 102 цитата** и

“**Dučić T.** and Polle A. (2005). Transport and detoxification of manganese and copper in plants. *Brazilian Journal of Plant Physiology*. **17** (1): 103-112” **са 105 цитата** закључно са 30.10.2017.

## Преглед цитираности

приказна је цитираност на основу података базе података *Web of Science*.

### Rad broj 1:

Ortega R., Carmona A., Roudeau S., Perrin L., **Dučić** T., Carboni E., Bohic S., Cloetens P., Lingor P. (2016)  $\alpha$ -Synuclein Over-Expression Induces Increased Iron Accumulation and Redistribution in Iron-Exposed Neurons. *Molecular Neurobiology*, 53: 1925-1934 DOI: 10.1007/s12035-015-9146-x Citata 15 (**M<sub>21a</sub>**; **NEUROSCIENCES**, (25/258); **IF<sub>2016</sub>=6.2**)

Heterocitati:

1. West, Margaret; Ellis, Andrew T.; Strelcić, Christina; et al. 2017 atomic spectrometry update - a review of advances in X-ray fluorescence spectrometry and its special applications JOURNAL OF ANALYTICAL ATOMIC SPECTROMETRY Volume: 32 Issue: 9 Pages: 1629-1649 Published: SEP 1 2017
2. Lingor, Paul; Carboni, Eleonora; Koch, Jan Christoph. Alpha-synuclein and iron: two keys unlocking Parkinson's disease JOURNAL OF NEURAL TRANSMISSION Volume: 124 Issue: 8 Special Issue: SI Pages: 973-981 Published: AUG 2017
3. Rasheed, Mohd Sami Ur; Tripathi, Sonam; Mishra, Saumya; et al. Coherent and Contradictory Facts, Feats and Fictions Associated with Metal Accumulation in Parkinson's Disease: Epicenter or Outcome, Yet a Demigod Question MOLECULAR NEUROBIOLOGY Volume: 54 Issue: 6 Pages: 4738-4755 Published: AUG 2017
4. Jiang, Hong; Wang, Jun; Rogers, Jack; et al. Brain Iron Metabolism Dysfunction in Parkinson's Disease MOLECULAR NEUROBIOLOGY Volume: 54 Issue: 4 Pages: 3078-3101 Published: MAY 2017
5. Toni, Mattia; Massimino, Maria L.; De Mario, Agnese; et al. Metal Dyshomeostasis and Their Pathological Role in Prion and Prion-Like Diseases: The Basis for a Nutritional Approach FRONTIERS IN NEUROSCIENCE Volume: 11 Article Number: 3 Published: JAN 19 2017
6. Hare, Dominic J.; Cardoso, Barbara Rita; Raven, Erika P.; et al. Excessive early-life dietary exposure: a potential source of elevated brain iron and a risk factor for Parkinson's disease NPJ PARKINSONS DISEASE Volume: 3 Article Number: UNSP 1 Published: JAN 5 2017
7. Ackerman, Cheri M.; Lee, Sumin; Chang, Christopher J. Analytical Methods for Imaging Metals in Biology: From Transition Metal Metabolism to Transition Metal Signaling ANALYTICAL CHEMISTRY Volume: 89 Issue: 1 Pages: 22-41 Published: JAN 3 2017
8. Vasquez, Velmarini; Mitra, Joy; Hegde, Pavana M.; et al. Chromatin-Bound Oxidized alpha-Synuclein Causes Strand Breaks in Neuronal Genomes in in vitro Models of Parkinson's Disease JOURNAL OF ALZHEIMERS DISEASE Volume: 60 Supplement: 1 Pages: S133-S150 Published: 2017
9. Yang, Mingchun; Yang, Hongkuan; Guan, Hongpeng; et al. MAPPING OF MITOCHONDRIAL FERRITIN IN THE BRAINSTEM OF MACACA FASCICULARIS NEUROSCIENCE Volume: 328 Pages: 92-106 Published: JUL 22 2016
10. Colvin, Robert A.; Jin, Qiaoling; Lai, Barry; et al. Visualizing Metal Content and Intracellular Distribution in Primary Hippocampal Neurons with Synchrotron X-Ray Fluorescence PLOS ONE Volume: 11 Issue: 7 Article Number: e0159582 Published: JUL 19 2016
11. Hare, Dominic J.; Double, Kay L. Iron and dopamine: a toxic couple BRAIN Volume: 139 Pages: 1026-1035 Part: 4 Published: APR 2016
12. Li, Kai; Reichmann, Heinz. Role of iron in neurodegenerative diseases JOURNAL OF NEURAL TRANSMISSION Volume: 123 Issue: 4 Pages: 389-399 Published: APR 2016
13. Billings, Jessica L.; Hare, Dominic J.; Nurjono, Milawaty; et al. Effects of Neonatal Iron Feeding and Chronic Cloquinol Administration on the Parkinsonian Human A53T Transgenic Mouse ACS CHEMICAL NEUROSCIENCE Volume: 7 Issue: 3 Pages: 360-366 Published: MAR 2016
14. Munoz, Yorika; Carrasco, Carlos M.; Campos, Joaquin D.; et al. Parkinson's Disease: The Mitochondria-Iron Link PARKINSONS DISEASE Article Number: 7049108 Published: 2016
15. Angelova, Dafina M.; Brown, David R. Iron, Aging, and Neurodegeneration METALS Volume: 5 Issue: 4 Pages: 2070-2092 Published: DEC 2015

### Rad broj 2:

Jung C., Kaul M., Bruns O., **Dučić T.**, Freund B, Heine M, Reimer R, Meents A, Salmen S, Weller, H; Nielsen P., Adam G., Heeren H., Ittrich H. (2014) Intraperitoneal Injection Improves the Uptake of Nanoparticle Labeled HDL to Atherosclerotic Plaques Compared to Intravenous Injection: A Multimodal Imaging Study in ApoE-/- Mice. *Cardiovascular Imaging* 7: 303-311. DOI: 10.1161/CIRCIMAGING.113.000607 Citata 16 (**M<sub>21a</sub>**; **RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING, (24/126)**; IF<sub>2016</sub>=6.8 IF<sub>2013</sub>=5.75)

Heterocitati:

16. Mohamed, Nura A.; Davies, Robert P.; Lickiss, Paul D.; et al. Chemical and biological assessment of metal organic frameworks (MOFs) in pulmonary cells and in an acute in vivo model: relevance to pulmonary arterial hypertension therapy PULMONARY CIRCULATION Volume: 7 Issue: 3 Pages: 643-653 Published: JUL-SEP 2017
17. Popescu, Roxana Cristina; Andronescu, Ecaterina; Vasile, Bogdan Stefan; et al. Fabrication and Cytotoxicity of Gemcitabine-Functionalized Magnetite Nanoparticles MOLECULES Volume: 22 Issue: 7 Article Number: 1080 Published: JUL 2017
18. Marciello, Marzia; Pellico, Juan; Fernandez-Barahona, Irene; et al. Recent advances in the preparation and application of multifunctional iron oxide and liposome-based nanosystems for multimodal diagnosis and therapy INTERFACE FOCUS Volume: 6 Issue: 6 Article Number: 20160055 Published: DEC 6 2016
19. Thaxton, C. Shad; Rink, Jonathan S.; Naha, Pratap C.; et al. Lipoproteins and lipoprotein mimetics for imaging and drug delivery ADVANCED DRUG DELIVERY REVIEWS Volume: 106 Pages: 116-131 Part: A Published: NOV 15 2016
20. Randolph, Lyndsay M.; LeGuyader, Clare L. M.; Hahn, Michael E.; et al. Polymeric Gd-DOTA amphiphiles form spherical and fibril-shaped nanoparticle MRI contrast agents CHEMICAL SCIENCE Volume: 7 Issue: 7 Pages: 4230-4236 Published: 2016
21. Feliu, Neus; Docter, Dominic; Heine, Markus; et al. In vivo degeneration and the fate of inorganic nanoparticles CHEMICAL SOCIETY REVIEWS Volume: 45 Issue: 9 Pages: 2440-2457 Published: 2016
22. Juenet, Maya; Varna, Mariana; Aid-Launais, Rachida; et al. Nanomedicine for the molecular diagnosis of cardiovascular pathologies BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS Volume: 468 Issue: 3 Special Issue: SI Pages: 476-484 Published: DEC 18 2015
23. Chung, Eun Ji; Tirrell, Matthew Recent Advances in Targeted, Self-Assembling Nanoparticles to Address Vascular Damage Due to Atherosclerosis ADVANCED HEALTHCARE MATERIALS Volume: 4 Issue: 16 Pages: 2408-2422 Published: NOV 18 2015
24. Stendahl, John C.; Sinusas, Albert J. Nanoparticles for Cardiovascular Imaging and Therapeutic Delivery, Part 2: Radiolabeled Probes JOURNAL OF NUCLEAR MEDICINE Volume: 56 Issue: 11 Pages: 1637-1641 Published: NOV 2015
25. Stendahl, John C.; Sinusas, Albert J. Nanoparticles for Cardiovascular Imaging and Therapeutic Delivery, Part 1: Compositions and Features JOURNAL OF NUCLEAR MEDICINE Volume: 56 Issue: 10 Pages: 1469-1475 Published: OCT 2015
26. Almer, Gunter; Mangge, Harald; Zimmer, Andreas; et al. Lipoprotein-Related and Apolipoprotein-Mediated Delivery Systems for Drug Targeting and Imaging CURRENT MEDICINAL CHEMISTRY Volume: 22 Issue: 31 Pages: 3631-3651 Published: 2015
27. Yan, H. -Q.; Yuan, Y.; Zhang, P.; et al. Association of the ApoE gene polymorphism and dietary factors with cerebral infarction and circulating lipid concentrations GENETICS AND MOLECULAR RESEARCH Volume: 14 Issue: 1 Pages: 665-670 Published: 2015
28. El-Ghor, Akmal A.; Noshay, Magda M.; Galal, Ahmad; et al. Normalization of Nano-Sized TiO<sub>2</sub>-Induced Clastogenicity, Genotoxicity and Mutagenicity by Chlorophyllin Administration in Mice Brain, Liver, and Bone Marrow Cells TOXICOLOGICAL SCIENCES Volume: 142 Issue: 1 Pages: 21-32 Published: NOV 2014
29. Wu, Qinghua; Meng, Ning; Zhang, Yanru; et al. The effect of two novel amino acid-coated magnetic nanoparticles on survival in vascular endothelial cells, bone marrow stromal cells, and macrophages NANOSCALE RESEARCH LETTERS Volume: 9 Article Number: 461 Published: SEP 3 2014
30. Jung, Caroline; Christiansen, Sabine; Kaul, Michael Gerhard; et al. Quantitative and qualitative estimation of atherosclerotic plaque burden in vivo at 7T MRI using Gadospin F in comparison to en face preparation evaluated in ApoE KO mice PLOS ONE Volume: 12 Issue: 8 Article Number: e0180407 Published: AUG 3 2017

**Autocitat:**

31. Jung, Caroline Sophie Laura; Heine, Markus; Freund, Barbara; et al. Quantitative Activity Measurements of Brown Adipose Tissue at 7 T Magnetic Resonance Imaging After Application of Triglyceride-Rich Lipoprotein 59Fe-Superparamagnetic Iron Oxide Nanoparticle Intravenous Versus Intraperitoneal Approach INVESTIGATIVE RADIOLOGY Volume: 51 Issue: 3 Pages: 194-202 Published: MAR 2016

**Rad broj 3:**

**Dučić T.**, Carboni E., Lai B., Chen, S., Michalke B., Lázaro D., Outeiro T., Bähr M., Barski E., Lingor P. (2015) Alpha-synuclein regulates neuronal levels of manganese and calcium, *ACS Chemical Neuroscience* **6**: 1769-1779. DOI: 10.1021/acschemneuro.5b00093 Citata 9 (**M<sub>21a</sub>**; **CHEMISTRY, MEDICINAL (7/60)**; **IF<sub>2016</sub>=3,9** **IF<sub>2014</sub>=4.4**)

**Heterocitati:**

32. Liu, Jun-Ping; Li, Jianfeng; Lu, Yanhua; et al. Impulse control disorder, lysosomal malfunction and ATP13A2 insufficiency in Parkinsonism CLINICAL AND EXPERIMENTAL PHARMACOLOGY AND PHYSIOLOGY Volume: 44 Issue: 2 Pages: 172-179 Published: FEB 2017

33. Eid, Rawan; Arab, Nagla T. T.; Greenwood, Michael T. Iron mediated toxicity and programmed cell death: A review and a re-examination of existing paradigms BIOCHIMICA ET BIOPHYSICA ACTA-MOLECULAR CELL RESEARCH Volume: 1864 Issue: 2 Pages: 399-430 Published: FEB 2017

34. Rcom-H'cheo-Gauthier, Alexandre N.; Osborne, Samantha L.; Meedeniya, Adrian C. B.; et al. Calcium: Alpha-Synuclein Interactions in Alpha-Synucleinopathies FRONTIERS IN NEUROSCIENCE Volume: 10 Article Number: 570 Published: DEC 20 2016

35. Peres, Tanara V.; Schettinger, Maria Rosa C.; Chen, Pan; et al. Manganese-induced neurotoxicity: a review of its behavioral consequences and neuroprotective strategies BMC PHARMACOLOGY & TOXICOLOGY Volume: 17 Article Number: 57 Published: NOV 4 2016

36. Peres, Tanara Vieira; Parmalee, Nancy L.; Martinez-Finley, Ebany J.; et al. Untangling the Manganese-alpha-Synuclein FRONTIERS IN NEUROSCIENCE Volume: 10 Article Number: 364 Published: AUG 4 2016

37. Colvin, Robert A.; Jin, Qiaoling; Lai, Barry; et al. Visualizing Metal Content and Intracellular Distribution in Primary Hippocampal Neurons with Synchrotron X-Ray Fluorescence PLOS ONE Volume: 11 Issue: 7 Article Number: e0159582 Published: JUL 19 2016

38. Tuschl, Karin; Meyer, Esther; Valdivia, Leonardo E.; et al. Mutations in SLC39A14 disrupt manganese homeostasis and cause childhood-onset parkinsonism-dystonia NATURE COMMUNICATIONS Volume: 7 Article Number: 11601 Published: MAY 2016 **39**. Lingor, Paul; Carboni, Eleonora; Koch, Jan Christoph Alpha-synuclein and iron: two keys unlocking Parkinson's disease JOURNAL OF NEURAL TRANSMISSION Volume: 124 Issue: 8 Special Issue: SI Pages: 973-981 Published: AUG 2017

**Autocitat:**

40. Ducic, Tanja; Paunesku, Tatjana; Chen, Si; et al. Structural and elemental changes in glioblastoma cells in situ: complementary imaging with high resolution visible light- and X-ray microscopy ANALYST Volume: 142 Issue: 2 Pages: 356-365 Published: 2017

**Rad broj 4:**

**Dučić T.**, Borchert M., Savic A., Kalauzi A., Mitrovic M., Radotic K. (2013) Enhancement in statistical and image analysis for *in situ* studies of elemental distribution and co-localization, using *Dioscorea balcanica*. *Journal of Synchrotron Radiation* **20**: 339-346 DOI: 10.1107/S0909049512050170 Citata 2 (**M<sub>21a</sub>**; **INSTRUMENTS & INSTRUMENTATION (8/58)**; **IF<sub>2016</sub>=3,0 5/57** **IF<sub>2013</sub>=3**)

**Heterocitati:**

41. Leonardo, T.; Farhi, E.; Boisson, A. -M.; et al. Determination of elemental distribution in green micro-algae using synchrotron radiation nano X-ray fluorescence (SR-nXRF) and electron microscopy techniques

- subcellular localization and quantitative imaging of silver and cobalt uptake by *Coccomyxa actinabiotis* METALLOMICS Volume: 6 Issue: 2 Pages: 316-329 Published: 2014

42. Butler, Owen T.; Cairns, Warren R. L.; Cook, Jennifer M.; et al. 2013 Atomic spectrometry update-A review of advances in environmental analysis JOURNAL OF ANALYTICAL ATOMIC SPECTROMETRY Volume: 29 Issue: 1 Pages: 17-50 Published: JAN 2014

#### Rad broj 5:

**Dučić T.**, Paunesku T, Chen S., Ninković M., Speling S., Wilke C., Lai B., Woloschak G. (2017) Structural and elemental changes in glioblastoma cells in situ: complementary imaging with high resolution visible light- and X-ray microscopy, *Analyst* **142**: 356-365. DOI: 10.1039/c6an02532c Citata 0 (**M<sub>21</sub>**; **CHEMISTRY, ANALYTICAL (12/76)**); **IF<sub>2016</sub>=3,9 IF<sub>2015</sub>=4**

Nema citiranost do oktobra 2017.

#### Rad broj 6:

**Žižić M.\***, **Dučić T.\***, Grolimund D., Bajuk-Bogdanović D., Nikolic M., Stanić M., Križak S., Zakrzewska J. (2015) X-ray absorption near-edge structure micro-spectroscopy study of vanadium speciation in *Phycomyces blakesleeanus* mycelium. *Analytical and Bioanalytical Chemistry* **407**: 7487-7496. DOI: 10.1007/s00216-015-8916-7 Citata 3 (**M<sub>21</sub>**; **CHEMISTRY, ANALYTICAL (16/76)**); **IF<sub>2016</sub>=3,4 IF<sub>2013</sub>=3.6**

Heterocitati:

43. Hadzibrahimovic, Mirzeta; Suznjevic, Desanka; Pastor, Ferenc; et al. The interactions of vanadate monomer with the mycelium of fungus *Phycomyces blakesleeanus*: reduction or uptake? ANTONIE VAN LEEUWENHOEK INTERNATIONAL JOURNAL OF GENERAL AND MOLECULAR MICROBIOLOGY Volume: 110 Issue: 3 Pages: 365-373 Published: MAR 2017

44. Rehder, Dieter Implications of vanadium in technical applications and pharmaceutical issues INORGANICA CHIMICA ACTA Volume: 455 Special Issue: SI Pages: 378-389 Part: 2 Published: JAN 30 2017

Autocitat:

45. Zizic, Milan; Miladinovic, Zoran; Stanic, Marina; et al. V-51 NMR investigation of cell-associated vanadate species in *Phycomyces blakesleeanus* mycelium RESEARCH IN MICROBIOLOGY Volume: 167 Issue: 6 Pages: 521-528 Published: JUL-AUG 2016

#### Rad broj 7:

**Dučić T.**, Barski E., Salome M., Koch J.C., Bähr M., Lingor P. (2013) X-ray fluorescence analysis of iron and manganese distribution in primary dopaminergic neurons. *Journal of Neurochemistry*. **124**: 250-261. DOI: 10.1111/jnc.12073 Citata 22 (**M<sub>21</sub>**; **BIOCHEMISTRY & MOLECULAR BIOLOGY (77/286)**); **IF<sub>2016</sub>=4.1**

Heterocitati:

46. Weekley, Claire M.; Kenkel, Isabell; Lippert, Rainer; et al. Cellular Fates of Manganese(II) Pentaazamacrocyclic Superoxide Dismutase (SOD) Mimetics: Fluorescently Labeled MnSOD Mimetics, X-ray Absorption Spectroscopy, and X-ray Fluorescence Microscopy Studies INORGANIC CHEMISTRY Volume: 56 Issue: 11 Pages: 6076-6093 Published: JUN 5 2017

47. Smith, Matthew Ryan; Fernandes, Jolyn; Go, Young-Mi; et al. Redox dynamics of manganese as a mitochondrial life-death switch BIOCHEMICAL AND BIOPHYSICAL RESEARCH COMMUNICATIONS Volume: 482 Issue: 3 Special Issue: SI Pages: 388-398 Published: JAN 15 2017

48. Ackerman, Cheri M.; Lee, Sumin; Chang, Christopher J. Analytical Methods for Imaging Metals in Biology: From Transition Metal Metabolism to Transition Metal Signaling ANALYTICAL CHEMISTRY Volume: 89 Issue: 1 Pages: 22-41 Published: JAN 3 2017

49. Surowka, A. D.; Toepperwien, M.; Bernhardt, M.; et al. Combined in-situ imaging of structural organization and elemental composition of substantia nigra neurons in the elderly y:

- TALANTA Volume: 161 Pages: 368-376 Published: DEC 1 2016
50. Poujois, Aurelia; Devedjian, Jean-Christophe; Moreau, Caroline; et al. Bioavailable Trace Metals in Neurological Diseases CURRENT TREATMENT OPTIONS IN NEUROLOGY Volume: 18 Issue: 10 Article Number: 46 Published: OCT 2016
51. Colvin, Robert A.; Jin, Qiaoling; Lai, Barry; et al. Visualizing Metal Content and Intracellular Distribution in Primary Hippocampal Neurons with Synchrotron X-Ray Fluorescence PLOS ONE Volume: 11 Issue: 7 Article Number: e0159582 Published: JUL 19 2016
52. da Cunha, Marcel Menezes Lyra; Trepout, Sylvain; Messaoudi, Cedric; et al. Overview of chemical imaging methods to address biological questions MICRON Volume: 84 Pages: 23-36 Published: MAY 2016
53. Finney, Lydia A.; Jin, Qiaoling Preparing Adherent Cells for X-ray Fluorescence Imaging by Chemical Fixation JOVE-JOURNAL OF VISUALIZED EXPERIMENTS Issue: 97 Article Number: e52370 Published: MAR 2015
54. Hernandez, R. B.; Nishita, M. I.; Esposito, B. P.; et al. The role of chemical speciation, chemical fractionation and calcium disruption in manganese-induced developmental toxicity in zebrafish (*Danio rerio*) embryos JOURNAL OF TRACE ELEMENTS IN MEDICINE AND BIOLOGY Volume: 32 Pages: 209-217 Published: 2015
55. Colvin, Robert A.; Lai, Barry; Holmes, William R.; et al. Understanding metal homeostasis in primary cultured neurons. Studies using single neuron subcellular and quantitative metallomics METALLOMICS Volume: 7 Issue: 7 Pages: 1111-1123 Published: 2015
56. Robison, Gregory; Sullivan, Brendan; Cannon, Jason R.; et al. Identification of dopaminergic neurons of the substantia nigra pars compacta as a target of manganese accumulation METALLOMICS Volume: 7 Issue: 5 Pages: 748-755 Published: 2015
57. Carboni, Eleonora; Lingor, Paul Insights on the interaction of alpha-synuclein and metals in the pathophysiology of Parkinson's disease METALLOMICS Volume: 7 Issue: 3 Pages: 395-404 Published: 2015
58. Saal, Kim-Ann; Koch, Jan C.; Tatenhorst, Lars; et al. AAV.shRNA-mediated downregulation of ROCK2 attenuates degeneration of dopaminergic neurons in toxin-induced models of Parkinson's disease in vitro and in vivo NEUROBIOLOGY OF DISEASE Volume: 73 Pages: 150-162 Published: JAN 2015
59. Tatenhorst, Lars; Toenges, Lars; Saal, Kim-Ann; et al. Rho Kinase Inhibition by Fasudil in the Striatal 6-Hydroxydopamine Lesion Mouse Model of Parkinson Disease JOURNAL OF NEUROPATHOLOGY AND EXPERIMENTAL NEUROLOGY Volume: 73 Issue: 8 Pages: 770-779 Published: AUG 2014
60. Devos, David; Moreau, Caroline; Devedjian, Jean Christophe; et al. Targeting Chelatable Iron as a Therapeutic Modality in Parkinson's Disease ANTIOXIDANTS & REDOX SIGNALING Volume: 21 Issue: 2 Pages: 195-210 Published: JUL 10 2014
61. Oh, Eung Seok; Heo, Chaejeong; Kim, Ji Seon; et al. Hyperspectral fluorescence imaging for cellular iron mapping in the in vitro model of Parkinson's disease JOURNAL OF BIOMEDICAL OPTICS Volume: 19 Issue: 5 Article Number: 051207 Published: MAY 2014
62. Carmona, Asuncion; Roudeau, Stephane; Perrin, Laura; et al. Environmental manganese compounds accumulate as Mn(II) within the Golgi apparatus of dopamine cells: relationship between speciation, subcellular distribution, and cytotoxicity METALLOMICS Volume: 6 Issue: 4 Pages: 822-832 Published: 2014
- Autocitati:
63. Ducic, Tanja; Paunesku, Tatjana; Chen, Si; et al. Structural and elemental changes in glioblastoma cells in situ: complementary imaging with high resolution visible light- and X-ray microscopy ANALYST Volume: 142 Issue: 2 Pages: 356-365 Published: 2017
64. Ortega, Richard; Carmona, Asuncion; Roudeau, Stephane; et al. alpha-Synuclein Over-Expression Induces Increased Iron Accumulation and Redistribution in Iron-Exposed Neurons MOLECULAR NEUROBIOLOGY Volume: 53 Issue: 3 Pages: 1925-1934 Published: APR 2016
65. Ducic, Tanja; Carboni, Eleonora; Lai, Barry; et al. Alpha-Synuclein Regulates Neuronal Levels of Manganese and Calcium ACS CHEMICAL NEUROSCIENCE Volume: 6 Issue: 10 Pages: 1769-1779 Published: OCT 2015

Citati u knjigama:

66. Gunter, Thomas E. Are There Distinguishable Roles for the Different Oxidation States of Manganese in Manganese Toxicity? Edited by: Costa, LG; Aschner, M. MANGANESE IN HEALTH AND DISEASE Book Series: Issues in Toxicology Volume: 22 Pages: 158-181 Published: 2015

**67.** Nriagu, Jerome O.; Skaar, Eric P. Trace Metals and Infectious Diseases Introduction  
Edited by: Nriagu, JO; Skaar, EP Conference: Ernst Strungmann Forum Location: Frankfurt, GERMANY  
Date: JAN 19-24, 2014 TRACE METALS AND INFECTIOUS DISEASES Book Series: Strungmann Forum  
Reports Pages: 1-+ Published: 2015

**Rad broj 8:**

Stamenković S., **Dučić T.**, Stamenković V., Kranz A., Andjus P.R. (2017) Imaging of glial cell morphology, SOD1 distribution and elemental composition in the brainstem and hippocampus of the ALS hSOD1<sup>G93A</sup> rat. *Neuroscience*, **357**: 37–55. DOI: 10.1016/j.neuroscience.2017.05.041 Citata 0 (**M<sub>21</sub>**; **NEUROSCIENCES (100/258)**); **IF<sub>2016</sub>=3,3 IF<sub>2013</sub>=4.2**)

Nema citiranost do oktobra 2017.

**Rad broj 9:**

Jung C., **Dučić T.**, Reimer R., Koziolok E., Kording F., Heine M., Adam G., Itrich H, Kaul MG. (2014) Gadospin F enhanced MRI for Diagnosis and Monitoring of Atherosclerosis: Validation with Transmission Electron Microscopy and X-ray Fluorescence Imaging in the ApoE<sup>-/-</sup> mouse. *Molecular Imaging* **13**: 1-10 DOI: 10.2310/7290.2014.00039 Citata 0 (**M<sub>23</sub>**; **RADIOLOGY, NUCLEAR MEDICINE & MEDICAL IMAGING (83/126)**); **IF<sub>2016</sub>=1.5**)

Nema citiranost do oktobra 2017.

**Rad broj 10:**

I. Yousef, L. Ribó, A. Crisol, I. Šics, G. Ellis, **T. Dučić**, M. Kreuzer, N. Benseny-Cases, M. Quispe, P. Dumas, S. Lefrançois, T. Moreno, G. García, S. Ferrer, J. Nicolas & M.A.G. Aranda (2017) MIRAS: The Infrared Synchrotron Radiation Beamline at ALBA. *Synchrotron Radiation News* **30**(4):4-6. DOI: 10.1080/08940886.2017.1338410 Citata 0 (нема импакт фактор)

Nema citiranost do oktobra 2017.

**Rad broj 11 (poglavlje u knjizi):**

Salditt T., **Dučić T.** X-ray microscopy: a review on novel imaging opportunities. Book Chapter in: Optical Methods in Neuroscience. Ed. S. Rizzoli. **Springer**. (257-290). **2014**. /Eds/: Fornasiero, E., Rizzoli, S. DOI: 10.1007/978-1-62703-983-3\_11 Citata 6 (poglavlje u knjizi M12)

Heterocitati:

**68.** Carboni, Eleonora; Nicolas, Jan-David; Toepperwien, Mareike; et al. Imaging of neuronal tissues by x-ray diffraction and x-ray fluorescence microscopy: evaluation of contrast and biomarkers for neurodegenerative diseases BIOMEDICAL OPTICS EXPRESS Volume: 8 Issue: 10 Pages: 4331-4347 Published: OCT 1 2017

**69.** Surowka, A. D.; Toepperwien, M.; Bernhardt, M.; et al. Combined in-situ imaging of structural organization and elemental composition of substantia nigra neurons in the elderly TALANTA Volume: 161 Pages: 368-376 Published: DEC 1 2016

**70.** Guggenmos, Alexander; Raduenz, Stefan; Rauhut, Roman; et al. Ion polished Cr/Sc attosecond multilayer mirrors for high water window reflectivity OPTICS EXPRESS Volume: 22 Issue: 22 Pages: 26526-26536 Published: NOV 3 2014

**71.** Krenkel, Martin; Toepperwien, Mareike; Bartels, Matthias; et al. X-ray phase contrast tomography from whole organ down to single cells Edited by: Stock, SR Conference: Conference on Developments in X-Ray Tomography IX Location: San Diego, CA Date: AUG 18-20, 2014 Sponsor(s): SPIE DEVELOPMENTS IN X-RAY TOMOGRAPHY IX Book Series: Proceedings of SPIE Volume: 9212 Article Number: UNSP 92120R Published: 2014

Autocitati:

72. Ducic, Tanja; Paunesku, Tatjana; Chen, Si; et al. Structural and elemental changes in glioblastoma cells in situ: complementary imaging with high resolution visible light- and X-ray microscopy ANALYST Volume: 142 Issue: 2 Pages: 356-365 Published: 2017

73. Zizic, Milan; Ducic, Tanja; Grolimund, Daniel; et al. X-ray absorption near-edge structure micro-spectroscopy study of vanadium speciation in *Phycomyces blakesleeanus* mycelium ANALYTICAL AND BIOANALYTICAL CHEMISTRY Volume: 407 Issue: 24 Pages: 7487-7496 Published: SEP 2015

12. **Dučić T.**, Thieme J., Polle A. (2012) Phosphorus compartmentalization on the cellular level of Douglas fir root as affected by Mn toxicity: A synchrotron based FTIR approach. *Journal of Spectroscopy*, 27: 265-2723. DOI: 10.1155/2012/374039 Citata: 4. (**M<sub>23</sub>**; **SPECTROSCOPY (35/44)**; **IF<sub>2014</sub>=0.8**).

Heterocitati:

74. Bati, Caterina Briccoli; Santilli, Elena; Lombardo, Luca. Effect of arbuscular mycorrhizal fungi on growth and on micronutrient and macronutrient uptake and allocation in olive plantlets growing under high total Mn levels MYCORRHIZA Volume: 25 Issue: 2 Pages: 97-108 Published: FEB 2015

75. Li, Zhong-yi; Liu, Yuan; Zheng, Yun-yun; et al. Zeta potential at the root surfaces of rice characterized by streaming potential measurements PLANT AND SOIL Volume: 386 Issue: 1-2 Pages: 237-250 Published: JAN 2015

76. The role of ectomycorrhizas in heavy metal stress tolerance of host plants  
Luo, Zhi-Bin; Wu, Chenhan; Zhang, Chao; et al.  
ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 108 Special Issue: SI Pages: 47-62  
Published: DEC 2014

77. McNear, David H., Jr.; Kupper, Joseph V. Mechanisms of trichome-specific Mn accumulation and toxicity in the Ni hyperaccumulator *Alyssum murale* PLANT AND SOIL Volume: 377 Issue: 1-2 Pages: 407-422 Published: APR 2014

13. **Dučić T.**, Quintes S., Nave K.A., Susini J., M. Rak, R. Tucoulou, M. Alevra, P. Guttman, T. Salditt (2011) Structure and composition of myelinated axons: A multimodal synchrotron spectro-microscopy study., *Journal of Structural Biology*. 173: 202–212. DOI: 10.1016/j.jsb.2010.10.001 Citata: 4. (**M<sub>22</sub>**; **BIOPHYSICS (30/73)**; **IF<sub>2016</sub>=2.8**).

Heterocitati:

78. Carboni, Eleonora; Nicolas, Jan-David; Toepperwien, Mareike; et al. Imaging of neuronal tissues by x-ray diffraction and x-ray fluorescence microscopy: evaluation of contrast and biomarkers for neurodegenerative diseases BIOMEDICAL OPTICS EXPRESS Volume: 8 Issue: 10 Pages: 4331-4347 Published: OCT 1 2017

79. Bartels, M.; Krenkel, M.; Cloetens, P.; et al. Myelinated mouse nerves studied by X-ray phase contrast zoom tomography JOURNAL OF STRUCTURAL BIOLOGY Volume: 192 Issue: 3 Pages: 561-568 Published: DEC 2015

80. Chwiej, Joanna; Skoczen, Agnieszka; Matusiak, Katarzyna; et al. The influence of the ketogenic diet on the elemental and biochemical compositions of the hippocampal formation EPILEPSY & BEHAVIOR Volume: 49 Pages: 40-46 Published: AUG 2015

81. Salditt, Tim; Osterhoff, Markus; Krenkel, Martin; et al. Compound focusing mirror and X-ray waveguide optics for coherent imaging and nano-diffraction JOURNAL OF SYNCHROTRON RADIATION Volume: 22 Pages: 867-878 Part: 4 Published: JUL 2015

82. Palombo, Marco; Gentili, Silvia; Bozzali, Marco; et al. New Insight into the Contrast in Diffusional Kurtosis Images: Does It Depend on Magnetic Susceptibility? MAGNETIC RESONANCE IN MEDICINE Volume: 73 Issue: 5 Pages: 2015-2024 Published: MAY 2015

83. de Jonge, Martin D.; Ryan, Christopher G.; Jacobsen, Chris J. X-ray nanoprobe and diffraction-limited storage rings: opportunities and challenges of fluorescence tomography of biological specimens JOURNAL OF SYNCHROTRON RADIATION Volume: 21 Pages: 1031-1047 Part: 5 Published: SEP 2014



- 84.** Inouye, Hideyo; Liu, Jiliang; Makowski, Lee; et al. Myelin Organization in the Nodal, Paranodal, and Juxtaparanodal Regions Revealed by Scanning X-Ray Microdiffraction PLOS ONE Volume: 9 Issue: 7 Article Number: e100592 Published: JUL 1 2014
- 85.** Poccia, Nicola; Campi, Gaetano; Ricci, Alessandro; et al. Changes of statistical structural fluctuations unveils an early compacted degraded stage of PNS myelin SCIENTIFIC REPORTS Volume: 4 Article Number: 5430 Published: JUN 25 2014
- 86.** Rak, Margaret; Salome, Murielle; Kaminskyj, Susan G. W.; et al. X-ray microfluorescence (mu XRF) imaging of Aspergillus nidulans cell wall mutants reveals biochemical changes due to gene deletions ANALYTICAL AND BIOANALYTICAL CHEMISTRY Volume: 406 Issue: 12 Pages: 2809-2816 Published: MAY 2014
- 87.** Mattson, Eric C.; Unger, Miriam; Clede, Sylvain; et al. Toward optimal spatial and spectral quality in widefield infrared spectromicroscopy of IR labelled single cells ANALYST Volume: 138 Issue: 19 Pages: 5610-5618 Published: 2013
- 88.** Chwiej, J.; Kutorasinska, J.; Janeczko, K.; et al. Progress of elemental anomalies of hippocampal formation in the pilocarpine model of temporal lobe epilepsy-an X-ray fluorescence microscopy study ANALYTICAL AND BIOANALYTICAL CHEMISTRY Volume: 404 Issue: 10 Pages: 3071-3080 Published: DEC 2012
- 89.** Szczerbowska-Boruchowska, Magdalena; Krygowska-Wajs, Anna; Ziomber, Agata; et al. The influence of electrical stimulation of vagus nerve on elemental composition of dopamine related brain structures in rats. NEUROCHEMISTRY INTERNATIONAL Volume: 61 Issue: 2 Pages: 156-165 Published: JUL 2012
- 90.** Bohic, S.; Cotte, M.; Salome, M.; et al. Biomedical applications of the ESRF synchrotron-based microspectroscopy platform. JOURNAL OF STRUCTURAL BIOLOGY Volume: 177 Issue: 2 Pages: 248-258 Published: FEB 2012
- 91.** West, Margaret; Ellis, Andrew T.; Potts, Philip J.; et al. Atomic spectrometry update-X-ray fluorescence spectrometry JOURNAL OF ANALYTICAL ATOMIC SPECTROMETRY Volume: 26 Issue: 10 Pages: 1919-1963 Published: 2011

#### Autocitati

- 92.** Jung, Caroline; Ducic, Tanja; Reimer, Rudolph; et al. Gadospin F-Enhanced Magnetic Resonance Imaging for Diagnosis and Monitoring of Atherosclerosis: Validation with Transmission Electron Microscopy and X-Ray Fluorescence Imaging in the Apolipoprotein E-Deficient Mouse. MOLECULAR IMAGING Volume: 14 Published: MAR 2015
- 93.** Alpha-Synuclein Regulates Neuronal Levels of Manganese and Calcium  
Ducic, Tanja; Carboni, Eleonora; Lai, Barry; et al.  
ACS CHEMICAL NEUROSCIENCE Volume: 6 Issue: 10 Pages: 1769-1779 Published: OCT 2015
- 94.** : Ducic, Tanja; Thieme, Juergen; Polle, Andrea Phosphorus Compartmentalization on the Cellular Level of Douglas Fir Root as Affected by Mn Toxicity: A Synchrotron-Based FTIR Approach. SPECTROSCOPY-AN INTERNATIONAL JOURNAL Volume: 27 Issue: 5-6 Pages: 265-272 Published: 2012
- 95.** Salditt, Tim; Ducic, Tanja X-Ray Microscopy for Neuroscience: Novel Opportunities by Coherent Optics Edited by: Fornasiero, EF; Rizzoli, SO SUPER-RESOLUTION MICROSCOPY TECHNIQUES IN THE NEUROSCIENCES Book Series: Neuromethods Volume: 86 Pages: 257-290 Published: 2014
- 96.** Ducic, Tanja; Borchert, Manuela; Savic, Aleksandar; et al. Enhancement in statistical and image analysis for in situ mu SXRf studies of elemental distribution and co-localization, using Dioscorea balcanica JOURNAL OF SYNCHROTRON RADIATION Volume: 20 Pages: 339-346 Part: 2 Published: MAR 2013
- 97.** Ducic, Tanja; Barski, Elisabeth; Salome, Murielle; et al. X-ray fluorescence analysis of iron and manganese distribution in primary dopaminergic neurons JOURNAL OF NEUROCHEMISTRY Volume: 124 Issue: 2 Pages: 250-261 Published: JAN 2013

**14. Dučić T.,** Berthold D, Beese F, Polle A. (2009). Mycorrhizal communities in relation to biomass production and nutrition use efficiency in two varieties of Douglas fir (*Pseudotsuga menziesii* var. *menziesii* and var. *glauca*) in different forest soils. *Soil Biology and Biochemistry* **41**:742-753. DOI: 10.1016/j.soilbio.2009.01.013 Citata: 12. (**M**<sub>21a</sub>; **SOIL SCIENCE (2/3)**; **IF**<sub>2016</sub>=**4.9**).

#### Heterocitati:

- 98.** Leberecht, Martin; Tu, Jing; Polle, Andrea Acid and calcareous soils affect nitrogen nutrition and organic nitrogen uptake by beech seedlings (*Fagus sylvatica* L.) under drought, and their ectomycorrhizal community structure PLANT AND SOIL Volume: 409 Issue: 1-2 Pages: 143-157 Published: DEC 2016

99. Luo, Zhi-Bin; Wu, Chenhan; Zhang, Chao; et al. The role of ectomycorrhizas in heavy metal stress tolerance of host plants ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 108 Special Issue: SI Pages: 47-62 Published: DEC 2014
100. Cesarz, Simone; Fender, Ann-Catrin; Beyer, Friderike; et al. Roots from beech (*Fagus sylvatica* L.) and ash (*Fraxinus excelsior* L.) differentially affect soil microorganisms and carbon dynamics SOIL BIOLOGY & BIOCHEMISTRY Volume: 61 Pages: 23-32 Published: JUN 2013
101. Pena, Rodica; Simon, Judy; Rennenberg, Heinz; et al Ectomycorrhiza affect architecture and nitrogen partitioning of beech (*Fagus sylvatica* L.) seedlings under shade and drought ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 87 Pages: 207-217 Published: MAR 2013
102. Chatzistathis, Theocharis; Orfanoudakis, Michail; Alifragis, Dimitrios; et al. Colonization of Greek olive cultivars' root system by arbuscular mycorrhiza fungus: root morphology, growth, and mineral nutrition of olive plants SCIENTIA AGRICOLA Volume: 70 Issue: 3 Pages: 185-194 Published: 2013
103. Habib, Mohammad Tanbir; Heller, Till; Polle, Andrea Molecular Physiology of Tree Ectomycorrhizal Interactions Edited by: Eshel, A; Beeckman, T PLANT ROOTS: THE HIDDEN HALF, 4TH EDITION Published: 2013
104. Danielsen, L.; Thuermer, A.; Meinicke, P.; et al. Fungal soil communities in a young transgenic poplar plantation form a rich reservoir for fungal root communities ECOLOGY AND EVOLUTION Volume: 2 Issue: 8 Pages: 1935-1948 Published: AUG 2012
105. Kranabetter, J. M.; Stoehr, M. U.; O'Neill, G. A. Divergence in ectomycorrhizal communities with foreign Douglas-fir populations and implications for assisted migration ECOLOGICAL APPLICATIONS Volume: 22 Issue: 2 Pages: 550-560 Published: MAR 2012
106. Kleemann, Frauke; von Fragstein, Maximilian; Vornam, Barbara; et al. Relating genetic variation of ecologically important tree traits to associated organisms in full-sib aspen families EUROPEAN JOURNAL OF FOREST RESEARCH Volume: 130 Issue: 5 Pages: 707-716 Published: SEP 2011
107. Chatzistathis, Th; Therios, I.; Alifragis, D.; et al. Effect of sampling time and soil type on Mn, Fe, Zn, Ca, Mg, K and P concentrations of olive (*Olea europaea* L., cv. 'Koroneiki') leaves SCIENTIA HORTICULTURAE Volume: 126 Issue: 2 Pages: 291-296 Published: SEP 13 2010
108. Winkler, Jana B.; Dannenmann, Michael; Simon, Judy; et al. Carbon and nitrogen balance in beech roots under competitive pressure of soil-borne microorganisms induced by girdling, drought and glucose application FUNCTIONAL PLANT BIOLOGY Volume: 37 Issue: 9 Pages: 879-889 Published: 2010

Autocitat:

109. Ducic, Tanja; Thieme, Juergen; Polle, Andrea Phosphorus Compartmentalization on the Cellular Level of Douglas Fir Root as Affected by Mn Toxicity: A Synchrotron-Based FTIR Approach SPECTROSCOPY-AN INTERNATIONAL JOURNAL Volume: 27 Issue: 5-6 Pages: 265-272 Published: 2012

15. Dučić T., Breunig, E.; Schild, D.; Herbst, J., Novakova, E. .; Susini, J. .; Tucoulu, R. .; Salditt, T. X-ray fluorescence microscopy of olfactory receptor neurons. Edited by: David, C; Nolting, F; Quitmann, C; et al. Conference: 9th International Conference on X-Ray Microscopy: ETH, Zurich, SWITZERLAND, 2008 Book Series: Journal of Physics Conference Series Volume: 186 Article Number: UNSP 012083 Published: 2009 DOI: 10.1088/1742-6596/186/1/012083 Citata: 1. (M<sub>23</sub>; SOIL SCIENCE (2/34); IF<sub>2016</sub>=4.9).

Heterocitati:

110. Surowka, A. D.; Toepperwien, M.; Bernhardt, M.; et al. Combined in-situ imaging of structural organization and elemental composition of substantia nigra neurons in the elderly TALANTA Volume: 161 Pages: 368-376 Published: DEC 1 2016

16. Dučić T., Parladé X, Polle A. (2008) The influence of the ectomycorrhizal fungus *Rhizopogon subareolatus* on growth, root morphology and nutrient element localisation in two varieties of Douglas fir (*Pseudotsuga menziesii* var. *viridis* and var. *glauca*) in response to manganese stress. *Mycorrhiza* 18: 227-239 DOI: 10.1007/s00572-008-0174-5 Citata: 14. (M<sub>21</sub>; MYCOLOGY (9/30); IF<sub>2014</sub>=3.3).

Heterocitati:

111. Qi, Yulin; Zhao, Nanxing; Liu, Jianjun; et al. Biochemical Responses of Ten Ectomycorrhizal Fungal Isolates to Manganese WATER AIR AND SOIL POLLUTION Volume: 227 Issue: 12 Article Number: 477 Published: DEC 2016
112. Mueller, Thomas; Freund, Fabian; Wildhagen, Henning; et al. Targeted re-sequencing of five Douglas-fir provenances reveals population structure and putative target genes of positive selection TREE GENETICS & GENOMES Volume: 11 Issue: 1 Article Number: 816 Published: FEB 2015
113. Seven, Jasmin; Polle, Andrea Subcellular Nutrient Element Localization and Enrichment in Ecto- and Arbuscular Mycorrhizas of Field-Grown Beech and Ash Trees Indicate Functional Differences PLOS ONE Volume: 9 Issue: 12 Article Number: e114672 Published: DEC 2014
114. Luo, Zhi-Bin; Wu, Chenhan; Zhang, Chao; et al. The role of ectomycorrhizas in heavy metal stress tolerance of host plants ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 108 Special Issue: SI Pages: 47-62 Published: DEC 2014
115. Huang, Jian; Nara, Kazuhide; Zong, Kun; et al. Ectomycorrhizal fungal communities associated with Masson pine (*Pinus massoniana*) and white oak (*Quercus fabri*) in a manganese mining region in Hunan Province, China FUNGAL ECOLOGY Volume: 9 Pages: 1-10 Published: JUN 2014
116. Pena, Rodica; Polle, Andrea Attributing functions to ectomycorrhizal fungal identities in assemblages for nitrogen acquisition under stress ISME JOURNAL Volume: 8 Issue: 2 Pages: 321-330 Published: FEB 2014
117. Pena, Rodica; Simon, Judy; Rennenberg, Heinz; et al. Ectomycorrhiza affect architecture and nitrogen partitioning of beech (*Fagus sylvatica* L.) seedlings under shade and drought ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 87 Pages: 207-217 Published: MAR 2013
118. Chatzistathis, Theocharis; Orfanoudakis, Michail; Alifragis, Dimitrios; et al. Colonization of Greek olive cultivars' root system by arbuscular mycorrhiza fungus: root morphology, growth, and mineral nutrition of olive plants SCIENTIA AGRICOLA Volume: 70 Issue: 3 Pages: 185-194 Published: 2013
119. Mueller, Thomas; Ensminger, Ingo; Schmid, Karl J. A catalogue of putative unique transcripts from Douglas-fir (*Pseudotsuga menziesii*) based on 454 transcriptome sequencing of genetically diverse, drought stressed seedlings BMC GENOMICS Volume: 13 Article Number: 673 Published: NOV 28 2012
120. Bojarczuk, K.; Kieliszewska-Rokicka, B. Ex Vitro Ectomycorrhizal Inoculation Enhances Survival and Early Growth of Micropropagated Clones of *Populus x canescens* in Metal-Contaminated Soils Edited by: Prakash, J Conference: 4th International Symposium on Acclimatization and Establishment of Micropropagated Plants Location: Bangalore, INDIA Date: DEC 08-12, 2008 IV INTERNATIONAL SYMPOSIUM ON ACCLIMATIZATION AND ESTABLISHMENT OF MICROPROPAGATED PLANTS Book Series: Acta Horticulturae Volume: 865 Pages: 281-285 Published: 2010
121. Prasad, Kamal ECTOMYCORRHIZAL SYMBIOSIS: POSSIBILITIES AND PROSPECTS Edited by: Rai, M; Kovics, G PROGRESS IN MYCOLOGY Pages: 293-310 Published: 2010
122. Guescini, Michele; Stocchi, L.; Sisti, D.; et al. Characterization and mRNA expression profile of the *TbNre1* gene of the ectomycorrhizal fungus *Tuber borchii* CURRENT GENETICS Volume: 55 Issue: 1 Pages: 59-68 Published: FEB 2009
123. Reich, Marlis; Goebel, Cornelia; Kohler, Annegret; et al. Fatty acid metabolism in the ectomycorrhizal fungus *Laccaria bicolor* NEW PHYTOLOGIST Volume: 182 Issue: 4 Pages: 950-964 Published: 2009

Autocitat:

124. Ducic, Tanja; Berthold, Dirk; Langenfeld-Heyser, Rosemarie; et al. Mycorrhizal communities in relation to biomass production and nutrient use efficiency in two varieties of Douglas fir (*Pseudotsuga menziesii* var. *menziesii* and var. *glauca*) in different forest soils SOIL BIOLOGY & BIOCHEMISTRY Volume: 41 Issue: 4 Pages: 742-753 Published: APR 2009

17. Dučić T., Maksimović V., Radotić K. (2008) Oxalate oxidase and non-enzymatic compounds of the antioxidative system in young Serbian spruce plants exposed to cadmium stress. *Archive of Biological Sciences* 60, 67-76. DOI: 10.2298/ABS0801067D Citata: 9. (M<sub>23</sub>; BIOLOGY (79/85); IF<sub>2016</sub>=0.4).

Heterocitati:

125. Zafari, Somaieh; Sharifi, Mohsen; Chashmi, Najmeh Ahmadian Nitric oxide production shifts metabolic pathways toward lignification to alleviate Pb stress in *Prosopis farcta* ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 141 Pages: 41-49 Published: SEP 2017
126. Zafari, Somaieh; Sharifi, Mohsen; Mur, Luis A. J.; et al. Favouring NO over H<sub>2</sub>O<sub>2</sub> production will increase Pb tolerance in *Prosopis farcta* via altered primary metabolism ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY Volume: 142 Pages: 293-302 Published: AUG 2017
127. Kandziora-Ciupa, Marta; Ciepa, Ryszard; Nadgorska-Socha, Aleksandra; et al. Accumulation of heavy metals and antioxidant responses in *Pinus sylvestris* L. needles in polluted and non-polluted sites ECOTOXICOLOGY Volume: 25 Issue: 5 Pages: 970-981 Published: JUL 2016

- 128.** Zechmann, Bernd Compartment-specific importance of glutathione during abiotic and biotic stress *FRONTIERS IN PLANT SCIENCE* Volume: 5 Article Number: 566 Published: OCT 20 2014
- 129.** Koffler, Barbara Eva; Maier, Romana; Zechmann, Bernd Subcellular Distribution of Glutathione Precursors in *Arabidopsis thaliana* *JOURNAL OF INTEGRATIVE PLANT BIOLOGY* Volume: 53 Issue: 12 Pages: 930-941 Published: DEC 2011
- 130.** Zechmann, Bernd; Mueller, Maria Subcellular compartmentation of glutathione in dicotyledonous plants Conference: Microscopy Conference 2009 Location: Graz, AUSTRIA Date: AUG 30-SEP 04, 2009 *PROTOPLASMA* Volume: 246 Issue: 1-4 Pages: 15-24 Published: OCT 2010
- 131.** Kolb, Dagmar; Mueller, Maria; Zellnig, Guenther; et al. Cadmium induced changes in subcellular glutathione contents within glandular trichomes of *Cucurbita pepo* L. *PROTOPLASMA* Volume: 243 Issue: 1-4 Special Issue: SI Pages: 87-94 Published: JUL 2010
- 132.** Gupta, S.; Satpati, S.; Nayek, S.; et al. Effect of wastewater irrigation on vegetables in relation to bioaccumulation of heavy metals and biochemical changes *ENVIRONMENTAL MONITORING AND ASSESSMENT* Volume: 165 Issue: 1-4 Pages: 169-177 Published: JUN 2010
- 133.** Drazic, Gordana; Mihailovic, Nevena SALICYLIC ACID MODULATES ACCUMULATION OF Cd IN SEEDLINGS OF CD-TOLERANT AND CD-SUSCEPTIBLE SOYBEAN GENOTYPES *ARCHIVES OF BIOLOGICAL SCIENCES* Volume: 61 Issue: 3 Pages: 431-439 Published: 2009

**18.** Bogdanović J., Milosavić N, Prodanović R., **Dučić T.**, Radotić K. (2007) Variability of antioxidant enzyme activity and isoenzyme profile in needles of Serbian spruce (*Picea omorika* (Panc.) Purkinye). *Biochemical Systematics and Ecology*, 35(5):263-274 DOI: 10.1016/j.bse.2006.12.001 Citata: 16. (M<sub>23</sub>; BIOCHEMISTRY & MOLECULAR BIOLOGY (263/290); IF<sub>2014</sub>=1.0).

Heterocitati:

- 134.** Araldi, Cristhyane Garcia; Medeiros Coelho, Cileide Maria; Gaziola, Salete Aparecida; et al. Storage elicits a fast antioxidant enzyme activity in *Araucaria angustifolia* embryos *ACTA PHYSIOLOGIAE PLANTARUM* Volume: 38 Issue: 8 Article Number: UNSP 201 Published: AUG 2016
- 135.** Pristov, Jelena Bogdanovic; Mutavdzic, Dragosav; Prodanovic, Olivera; et al. Relations of cell wall bound peroxidases, phenols and lignin in needles of Serbian spruce *Picea omorika* (Pancic) Purkyne in the natural habitat *BIOCHEMICAL SYSTEMATICS AND ECOLOGY* Volume: 59 Pages: 271-277 Published: APR 2015
- 136.** Liu, Qun; Zhou, Yanqiong; Chen, Juan; et al. DEFENSIVE RESPONSES OF *POPLUS DELTOIDES* 895 SEEDLINGS AGAINST EXOGENOUS METHYL JASMONATE. *PAKISTAN JOURNAL OF BOTANY* Volume: 47 Issue: 1 Pages: 177-188 Published: FEB 2015
- 137.** Jongmevasna, Wischada; Yaiyen, Surachai; Prousoontorn, Manchumas Hengsakul. Cassava (*Manihot esculenta* Crantz of cv. KU50) peroxidase and its potential for the detection of some thiol compounds based on the inhibitory effect of 3,3',5,5'-tetramethylbenzidine oxidation *PROCESS BIOCHEMISTRY* Volume: 48 Issue: 10 Pages: 1516-1523 Published: OCT 2013
- 138.** Reglinski, T.; Taylor, J. T.; Chee, A. Ah; et al. Biochemical responses to ultraviolet-C radiation and methyl jasmonate in *Pinus radiata* seedlings that accompany induced resistance to *Diplodia pinea* *PLANT PATHOLOGY* Volume: 62 Issue: 4 Pages: 851-858 Published: AUG 2013
- 139.** Xin, Peng; Shuang-Lin, Zhou; Jun-Yao, He; et al. Influence of Rare Earth Elements on Metabolism and Related Enzyme Activity and Isozyme Expression in *Tetrastigma hemsleyanum* Cell Suspension Cultures *BIOLOGICAL TRACE ELEMENT RESEARCH* Volume: 152 Issue: 1 Pages: 82-90 Published: APR 2013
- 140.** Miladinovic, Dragoljub L.; Ilic, Budimir S.; Najman, Stevo J.; et al. Antioxidative responses to seasonal changes and chemiluminescence assay of *Astragalus onobrychis* leaves extract *CENTRAL EUROPEAN JOURNAL OF CHEMISTRY* Volume: 11 Issue: 2 Pages: 123-132 Published: FEB 2013
- 141.** Simonovic, Jasna; Stevanic, Jasna; Djikanovic, Daniela; et al. Anisotropy of cell wall polymers in branches of hardwood and softwood: a polarized FTIR study *CELLULOSE* Volume: 18 Issue: 6 Pages: 1433-1440 Published: DEC 2011
- 142.** Miladinovic, Dragoljub L.; Ilic, Budimir S.; Milosavljevic, Violeta N. Trace elements and antioxidants in *Astragalus onobrychis* L. subsp. *chlorocarpus* (Griseb.) S. Kozuharov et DK Pavlova *HEMIJSKA INDUSTRIJA* Volume: 65 Issue: 3 Pages: 323-327 Published: MAY-JUN 2011
- 143.** Miladinovic, Dragoljub; Miladinovic, Ljiljana; Najman, Stevo A study of the antioxidants in *Oxytropis pilosa* (L.) DC. *JOURNAL OF THE SERBIAN CHEMICAL SOCIETY* Volume: 76 Issue: 4 Pages: 505-512 Published: 2011
- 144.** Laketa, Danijela; Bogdanovic, Jelena; Prodanovic, Radivoje; et al. The effect of pH on the activity of soluble peroxidase in needles of Serbian spruce (*Picea omorika* (Panc.) Purkinye): application of a mathematical model *GENERAL PHYSIOLOGY AND BIOPHYSICS* Volume: 29 Issue: 2 Pages: 122-128 Published: JUN 2010
- 145.** Gould, Nick; Reglinski, Tony; Northcott, Grant L.; et al. Physiological and biochemical responses in *Pinus radiata* seedlings associated with methyl jasmonate-induced resistance to *Diplodia pinea*

PHYSIOLOGICAL AND MOLECULAR PLANT PATHOLOGY Volume: 74 Issue: 2 Pages: 121-128  
Published: APR 2009

**146.** Laketa, Danijela; Bogdanovic, Jelena; Kalauzi, Aleksandar; et al. Kinetic parameters for thermal inactivation of soluble peroxidase from needles of Serbian spruce *Picea omorika* (Pancic) Purkyne GENERAL PHYSIOLOGY AND BIOPHYSICS Volume: 28 Issue: 1 Pages: 78-85 Published: MAR 2009

**147.** Prodanovic, Olivera; Prodanovic, R.; Bogdanovic, Jelena; et al. Antioxidative enzymes during germination of two lines of Serbian spruce [*picea omorika* (panc.) purkyae] ARCHIVES OF BIOLOGICAL SCIENCES Volume: 59 Issue: 3 Pages: 209-216 Published: 2007

Autocitat:

**148.** Ducic, Tanja; Maksimovic, V.; Radotic, Ksenija Oxalate oxidase and non-enzymatic compounds of the antioxidative system in young Serbian spruce plants exposed to cadmium stress ARCHIVES OF BIOLOGICAL SCIENCES Volume: 60 Issue: 1 Pages: 67-76 Published: 2008

**19.** Langenfeld-Heyser R., Gao J., **Dučić T.**, Tachd Ph., Lu C.F., Fritz E., Gafur A., Polle A. (2007) *Paxillus involutus* mycorrhiza attenuate NaCl-stress responses in the salt-sensitive hybrid poplar *Populus x canescens*. *Mycorrhiza*. **17**(2):121-131 DOI: 10.1007/s00572-006-0084-3 Citata: 39 (**M<sub>21</sub>**; **MYCOLOGY** **(9/30)**; **IF<sub>2014</sub>=3.3**).

Heterocitati:

**149.** Xie, Yan; Han, Shijuan; Li, Xiaoning; et al. Amelioration of Salt Stress on Bermudagrass by the Fungus *Aspergillus aculeatus* MOLECULAR PLANT-MICROBE INTERACTIONS Volume: 30 Issue: 3 Pages: 245-254 Published: MAR 2017

**150.** Zhang, Yuhong; Sa, Gang; Zhang, Yan; et al. *Paxillus involutus*-Facilitated Cd<sup>2+</sup> Influx through Plasma Membrane Ca<sup>2+</sup>-Permeable Channels Is Stimulated by H<sub>2</sub>O<sub>2</sub> and H<sup>+</sup>-ATPase in Ectomycorrhizal *Populus x canescens* under Cadmium Stress FRONTIERS IN PLANT SCIENCE Volume: 7 Article Number: 1975 Published: JAN 6 2017

**151.** Otgonsuren, Burenjargal; Rewald, Boris; Godbold, Douglas L.; et al. Ectomycorrhizal inoculation of *Populus nigra* modifies the response of absorptive root respiration and root surface enzyme activity to salinity stress FLORA Volume: 224 Pages: 123-129 Published: SEP 2016

**152.** Beaudoin-Nadeau, Martin; Gagne, Andre; Bissonnette, Cyntia; et al. Performance of ectomycorrhizal alders exposed to specific Canadian oil sands tailing stressors under in vivo bipartite symbiotic conditions CANADIAN JOURNAL OF MICROBIOLOGY Volume: 62 Issue: 7 Pages: 543-549 Published: JUL 2016

**153.** Si, Dongjing; Zheng, Mi; Li, Ying; et al. Proteins Involved in Salt Response Mechanisms in Poplar (*Populus* spp.) Current Proteomics Volume: 13 Issue: 4 Pages: 242-250 Published: 2016

**154.** Szuba, Agnieszka Ectomycorrhiza of *Populus* FOREST ECOLOGY AND MANAGEMENT Volume: 347 Pages: 156-169 Published: JUL 1 2015

**155.** Bojarczuk, Krystyna; Karlinski, Leszek; Hazubska-Przybyl, Teresa; et al. Influence of mycorrhizal inoculation on growth of micropropagated *Populus x canescens* lines in metal-contaminated soils NEW FORESTS Volume: 46 Issue: 2 Pages: 195-215 Published: MAR 2015

**156.** Luo, Zhi-Bin; Wu, Chenhan; Zhang, Chao; et al. The role of ectomycorrhizas in heavy metal stress tolerance of host plants ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 108 Special Issue: SI Pages: 47-62 Published: DEC 2014

**157.** Danielsen, Lara; Polle, Andrea Poplar nutrition under drought as affected by ectomycorrhizal colonization ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 108 Special Issue: SI Pages: 89-98 Published: DEC 2014

**158.** Ma, Xujun; Sun, Miao; Sa, Gang; et al. Ion fluxes in *Paxillus involutus*-inoculated roots of *Populus x canescens* under saline stress ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 108 Special Issue: SI Pages: 99-108 Published: DEC 2014

**159.** Chen, Shaoliang; Hawighorst, Peter; Sun, Jian; et al. Salt tolerance in *Populus*: Significance of stress signaling networks, mycorrhization, and soil amendments for cellular and whole-plant nutrition ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 107 Pages: 113-124 Published: NOV 2014

**160.** Lu, Yanwei; Wang, Guangquan; Meng, Qingjie; et al. Growth and physiological responses to arbuscular mycorrhizal fungi and salt stress in dioecious plant *Populus tomentosa* CANADIAN JOURNAL OF FOREST RESEARCH-REVUE CANADIENNE DE RECHERCHE FORESTIERE Volume: 44 Issue: 9 Pages: 1020-1031 Published: SEP 2014

**161.** Desai, Shalaka; Naik, Dhiraj; Cumming, Jonathan R. The influence of phosphorus availability and *Laccaria bicolor* symbiosis on phosphate acquisition, antioxidant enzyme activity, and rhizospheric carbon flux in *Populus tremuloides* MYCORRHIZA Volume: 24 Issue: 5 Pages: 369-382 Published: JUL 2014

**162.** Nadeem, Sajid Mahmood; Ahmad, Maqshoof; Zahir, Zahir Ahmad; et al. The role of mycorrhizae and plant growth promoting rhizobacteria (PGPR) in improving crop productivity under stressful

- environments BIOTECHNOLOGY ADVANCES Volume: 32 Issue: 2 Pages: 429-448 Published: MAR-APR 2014
- 163.** Ma, Yonglu; He, Jiali; Ma, Chaofeng; et al. Ectomycorrhizas with *Paxillus involutus* enhance cadmium uptake and tolerance in *Populus x canescens* PLANT CELL AND ENVIRONMENT Volume: 37 Issue: 3 Pages: 627-642 Published: MAR 2014
- 164.** Mueller, Anna; Volmer, Katharina; Mishra-Knyrim, Manika; et al. Growing poplars for research with and without mycorrhizas FRONTIERS IN PLANT SCIENCE Volume: 4 Article Number: 332 Published: AUG 27 2013
- 165.** Plaut, Z.; Edelstein, M.; Ben-Hur, M. Overcoming Salinity Barriers to Crop Production Using Traditional Methods CRITICAL REVIEWS IN PLANT SCIENCES Volume: 32 Issue: 4 Pages: 250-291 Published: JUL 4 2013
- 166.** Perez-de-Mora, Alfredo; Reuter, Bianca; Lucio, Marianna; et al. Activity of native hydrolytic enzymes and their association with the cell wall of three ectomycorrhizal fungi MYCORRHIZA Volume: 23 Issue: 3 Pages: 185-197 Published: APR 2013
- 167.** Danielsen, Lara; Lohaus, Gertrud; Sirrenberg, Anke; et al. Ectomycorrhizal Colonization and Diversity in Relation to Tree Biomass and Nutrition in a Plantation of Transgenic Poplars with Modified Lignin Biosynthesis PLOS ONE Volume: 8 Issue: 3 Article Number: e59207 Published: MAR 13 2013
- 168.** Li, Jing; Bao, Siqin; Zhang, Yuhong; et al. *Paxillus involutus* Strains MAJ and NAU Mediate K<sup>+</sup>/Na<sup>+</sup> Homeostasis in Ectomycorrhizal *Populus x canescens* under Sodium Chloride Stress PLANT PHYSIOLOGY Volume: 159 Issue: 4 Pages: 1771-1786 Published: AUG 2012
- 169.** Talaat, Neveen B.; Shawky, Bahaa T. Influence of arbuscular mycorrhizae on root colonization, growth and productivity of two wheat cultivars under salt stress ARCHIVES OF AGRONOMY AND SOIL SCIENCE Volume: 58 Issue: 1 Pages: 85-100 Published: 2012
- 170.** Luo, Zhi-Bin; Li, Ke; Gai, Ying; et al. The ectomycorrhizal fungus (*Paxillus involutus*) modulates leaf physiology of poplar towards improved salt tolerance ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 72 Issue: 2 Pages: 304-311 Published: SEP 2011
- 171.** Talaat, Neveen B.; Shawky, Bahaa T. Influence of arbuscular mycorrhizae on yield, nutrients, organic solutes, and antioxidant enzymes of two wheat cultivars under salt stress JOURNAL OF PLANT NUTRITION AND SOIL SCIENCE Volume: 174 Issue: 2 Pages: 283-291 Published: APR 2011
- 172.** Navarro, J. M.; Andujar, S.; Garcia-Olmos, B.; et al. Arbuscular Mycorrhizal Fungi Influence the Response of Citrus Rootstock Seedlings to Salinity Edited by: Fernandez, JE; Ferreira, MI Conference: 28th Int Horticultural Congress on Science and Horticulture for People (IHC) / Int Symposium on Climwater - Horticultural Use of Water in a Changing Climate Location: Lisbon, PORTUGAL DATE: AUG 22-27, 2010 INTERNATIONAL SYMPOSIUM ON CLIMWATER 2010: ORTICULTURAL USE OF WATER IN A CHANGING CLIMATE Book Series: Acta Horticulturae Volume: 922 Pages: 245-252 Published: 2011
- 173.** Beniwal, Rajender Singh; Langenfeld-Heyser, Rosemarie; Polle, Andrea Ectomycorrhiza and hydrogel protect hybrid poplar from water deficit and unravel plastic responses of xylem anatomy ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 69 Issue: 2 Pages: 189-197 Published: NOV 2010
- 174.** Herschbach, Cornelia; Teuber, Markus; Eiblmeier, Monika; et al. Changes in sulphur metabolism of grey poplar (*Populus x canescens*) leaves during salt stress: a metabolic link to photorespiration TREE PHYSIOLOGY Volume: 30 Issue: 9 Pages: 1161-1173 Published: SEP 2010
- 175.** Rennenberg, H.; Wildhagen, H.; Ehling, B. Nitrogen nutrition of poplar trees PLANT BIOLOGY Volume: 12 Issue: 2 Pages: 275-291 Published: MAR 2010
- 176.** Chen, S.; Polle, A. Salinity tolerance of *Populus* PLANT BIOLOGY Volume: 12 Issue: 2 Pages: 317-333 Published: MAR 2010
- 177.** Luo, Zhi-Bin; Janz, Dennis; Jiang, Xiangning; et al. Upgrading Root Physiology for Stress Tolerance by Ectomycorrhizas: Insights from Metabolite and Transcriptional Profiling into Reprogramming for Stress Anticipation PLANT PHYSIOLOGY Volume: 151 Issue: 4 Pages: 1902-1917 Published: DEC 2009
- 178.** Alvarez, Maricel; Huygens, Dries; Fernandez, Carlos; et al. Effect of ectomycorrhizal colonization and drought on reactive oxygen species metabolism of *Nothofagus dombeyi* roots TREE PHYSIOLOGY Volume: 29 Issue: 8 Pages: 1047-1057 Published: AUG 2009
- 179.** Calvo-Polanco, Monica; Jones, Melanie D.; Zwiazek, Janusz J. Effects of pH on NaCl tolerance of American elm (*Ulmus americana*) seedlings inoculated with *Hebeloma crustuliniforme* and *Laccaria bicolor* ACTA PHYSIOLOGIAE PLANTARUM Volume: 31 Issue: 3 Pages: 515-522 Published: MAY 2009
- 180.** Obase, Keisuke; Tamai, Yutaka; Yajima, Takashi; et al. Mycorrhizal synthesis of four ectomycorrhizal fungi in potted *Populus maximowiczii* seedlings MYCOSCIENCE Volume: 50 Issue: 2 Pages: 143-145 Published: MAR 2009
- 181.** Aguilar-Aguilar, Selene; Perez-Moreno, Jesus; Ferrera-Cerrato, Ronald; et al. Ectomycorrhizal fungi and tolerance to salinity in plants REVISTA CHILENA DE HISTORIA NATURAL Volume: 82 Issue: 1 Pages: 163-168 Published: MAR 2009
- 182.** Luo, Zhi-Bin; Li, Ke; Jiang, Xiangning; et al. Ectomycorrhizal fungus (*Paxillus involutus*) and hydrogels affect performance of *Populus euphratica* exposed to drought stress ANNALS OF FOREST SCIENCE Volume: 66 Issue: 1 Article Number: 106 Published: JAN-FEB 2009

- 183.** Hood, Ralph W., Jr. *Mystical, Religious, and Spiritual Experiences* Edited by: DeSouza, M; Francis, LJ; Norman, JOH; et al. INTERNATIONAL HANDBOOK OF EDUCATION FOR SPIRITUALITY, CARE AND WELLBEING, PTS ONE AND TWO Book Series: International Handbooks of Religion and Education Volume: 3 Issue: 1 + 2 Pages: 189-207 Published: 2009
- 184.** Gamalero, Elisa; Berta, Graziella; Glick, Bernard R. *The Use of Microorganisms to Facilitate the Growth of Plants in Saline Soils* Edited by: Khan, MS; Zaidi, A; Musarrat, J MICROBIAL STRATEGIES FOR CROP IMPROVEMENT Pages: 1-22 Published: 2009
- 185.** Calvo-Polanco, Monica; Zwiazek, Janusz J.; Jones, Melanie D.; et al. Effects of NaCl on responses of ectomycorrhizal black spruce (*Picea mariana*), white spruce (*Picea glauca*) and jack pine (*Pinus banksiana*) to fluoride *PHYSIOLOGIA PLANTARUM* Volume: 135 Issue: 1 Pages: 51-61 Published: JAN 2009
- 186.** Langer, Ingrid; Krpata, Doris; Peintner, Ursula; et al. Media formulation influences in vitro ectomycorrhizal synthesis on the European aspen *Populus tremula* L. *MYCORRHIZA* Volume: 18 Issue: 6-7 Pages: 297-307 Published: SEP 2008
- 187.** Beyschlag, Wolfram; Ryel, Ronald J. Plant physiological ecology: An essential link for integrating across disciplines and scales in plant ecology *FLORA* Volume: 202 Issue: 8 Pages: 608-623 Published: 2007

**20. Dučić T. and Polle A. (2007).** Manganese toxicity in two varieties of Douglas fir (*Pseudotsuga menziesii* var. *viridis* and *glauca*) seedlings is modulated by phosphorus supply. *Functional Plant Biology*. **34**: 31-40 DOI: 10.1071/FP06157 Citata: 22 (**M<sub>21</sub>**; **PLANT SCIENCES (64/212**; **IF<sub>2014</sub>=2.9**).

Heterocitati:

- 188.** Kavka, Mareike; Polle, Andrea Dissecting nutrient-related co-expression networks in phosphate starved poplars *PLOS ONE* Volume: 12 Issue: 2 Article Number: e0171958 Published: FEB 21 2017
- 189.** Luo, Zhi-Bin; He, Jiali; Polle, Andrea; et al. Heavy metal accumulation and signal transduction in herbaceous and woody plants: Paving the way for enhancing phytoremediation efficiency *BIOTECHNOLOGY ADVANCES* Volume: 34 Issue: 6 Pages: 1131-1148 Published: NOV 1 2016
- 190.** Oladipo, Oluwatosin Gbemisola; Olayinka, Akinyemi; Awotoye, Olusegun Olufemi Maize (*Zea mays* L.) performance in organically amended mine site soils *JOURNAL OF ENVIRONMENTAL MANAGEMENT* Volume: 181 Pages: 435-442 Published: OCT 1 2016
- 191.** Yao, Yinan; Xiao, Xinlong; Ou, Yongbin; et al. Root transcriptome analysis on the grape genotypes with contrast translocation pattern of excess manganese from root to shoot *PLANT AND SOIL* Volume: 387 Issue: 1-2 Pages: 49-67 Published: FEB 2015
- 192.** Luo, Zhi-Bin; Wu, Chenhan; Zhang, Chao; et al. The role of ectomycorrhizas in heavy metal stress tolerance of host plants *ENVIRONMENTAL AND EXPERIMENTAL BOTANY* Volume: 108 Special Issue: SI Pages: 47-62 Published: DEC 2014
- 193.** Ali, Tamer Awad; Mohamed, Gehad G. Determination of Mn(II) ion by a modified carbon paste electrode based on multi-walled carbon nanotubes (MWCNTs) in different water samples *SENSORS AND ACTUATORS B-CHEMICAL* Volume: 202 Pages: 699-707 Published: OCT 2014
- 194.** Lopez-Rayó, Sandra; Lucena, Silvia; Lucena, Juan J. Chemical properties and reactivity of manganese chelates and complexes in solution and soils *JOURNAL OF PLANT NUTRITION AND SOIL SCIENCE* Volume: 177 Issue: 2 Pages: 189-198 Published: APR 2014
- 195.** McNear, David H., Jr.; Kupper, Joseph V. Mechanisms of trichome-specific Mn accumulation and toxicity in the Ni hyperaccumulator *Alyssum murale* *PLANT AND SOIL* Volume: 377 Issue: 1-2 Pages: 407-422 Published: APR 2014
- 196.** Habib, Mohammad Tanbir; Heller, Till; Polle, Andrea *Molecular Physiology of Tree Ectomycorrhizal Interactions* Edited by: Eshel, A; Beeckman, T *PLANT ROOTS: THE HIDDEN HALF*, 4TH EDITION Published: 2013
- 197.** Yao, Yinan; Xu, Gang; Mou, Dongling; et al. Subcellular Mn compartation, anatomic and biochemical changes of two grape varieties in response to excess manganese *CHEMOSPHERE* Volume: 89 Issue: 2 Pages: 150-157 Published: SEP 2012
- 198.** Chatzistathis, T.; Papadakis, I.; Therios, I.; et al. DIFFERENTIAL RESPONSE OF TWO OLIVE CULTIVARS TO EXCESS MANGANESE *JOURNAL OF PLANT NUTRITION* Volume: 35 Issue: 5 Pages: 784-804 Published: 2012
- 199.** Mou, Dongling; Yao, Yinan; Yang, Yongqing; et al. Plant high tolerance to excess manganese related with root growth, manganese distribution and antioxidative enzyme activity in three grape cultivars *ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY* Volume: 74 Issue: 4 Pages: 776-786 Published: MAY 2011
- 200.** Rosas, Anali; Rengel, Zed; Ribera, Alejandra; et al. Phosphorus nutrition alleviates manganese toxicity in *Lolium perenne* and *Trifolium repens* *JOURNAL OF PLANT NUTRITION AND SOIL SCIENCE* Volume: 174 Issue: 2 Pages: 210-219 Published: APR 2011

**201.** Barben, Steven A.; Hopkins, Bryan G.; Jolley, Von D.; et al. ZINC, MANGANESE AND PHOSPHORUS INTERRELATIONSHIPS AND THEIR EFFECTS ON IRON AND COPPER IN CHELATOR-BUFFERED SOLUTION GROWN RUSSET BURBANK POTATO JOURNAL OF PLANT NUTRITION Volume: 34 Issue: 8 Pages: 1144-1163 Article Number: PII 937505414 Published: 2011

**202.** Barben, Steven A.; Hopkins, Bryan G.; Jolley, Von D.; et al. PHOSPHORUS AND MANGANESE INTERACTIONS AND THEIR RELATIONSHIPS WITH ZINC IN CHELATOR-BUFFERED SOLUTION GROWN RUSSET BURBANK POTATO JOURNAL OF PLANT NUTRITION Volume: 33 Issue: 5 Pages: 752-769 Article Number: PII 919859063 Published: 2010

**203.** Millaleo, R.; Reyes-Diaz, M.; Ivanov, A. G.; et al. MANGANESE AS ESSENTIAL AND TOXIC ELEMENT FOR PLANTS: TRANSPORT, ACCUMULATION AND RESISTANCE MECHANISMS JOURNAL OF SOIL SCIENCE AND PLANT NUTRITION Volume: 10 Issue: 4 Pages: 476-494 Published: 2010

**204.** Misson, Julie; Henner, Pascale; Morello, Marcel; et al. Use of phosphate to avoid uranium toxicity in *Arabidopsis thaliana* leads to alterations of morphological and physiological responses regulated by phosphate availability ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 67 Issue: 2 Pages: 353-362 Published: DEC 2009

**205.** Stoyanova, Zlatimira; Poschenrieder, Charlotte; Tzvetkova, Nikolina; et al. Characterization of the tolerance to excess manganese in four maize varieties SOIL SCIENCE AND PLANT NUTRITION Volume: 55 Issue: 6 Pages: 747-753 Published: DEC 2009

20.

**206.** Peng, Kejian; Luo, Chunling; You, Wuxin; et al. Manganese uptake and interactions with cadmium in the hyperaccumulator - *Phytolacca Americana* L. JOURNAL OF HAZARDOUS MATERIALS Volume: 154 Issue: 1-3 Pages: 674-681 Published: JUN 15 2008

Autocitati:

**207.** Ducic, Tanja; Parlade, Javier; Polle, Andrea The influence of the ectomycorrhizal fungus *Rhizopogon subareolatus* on growth and nutrient element localisation in two varieties of Douglas fir (*Pseudotsuga menziesii* var. *menziesii* and var. *glauca*) in response to manganese stress MYCORRHIZA Volume: 18 Issue: 5 Pages: 227-239 Published: JUN 2008

**209.** Ducic, Tanja; Thieme, Juergen; Polle, Andrea Phosphorus Compartmentalization on the Cellular Level of Douglas Fir Root as Affected by Mn Toxicity: A Synchrotron-Based FTIR Approach SPECTROSCOPY-AN INTERNATIONAL JOURNAL Volume: 27 Issue: 5-6 Pages: 265-272 Published: 2012

**210.** Ducic, Tanja; Berthold, Dirk; Langenfeld-Heyser, Rosemarie; et al. Mycorrhizal communities in relation to biomass production and nutrient use efficiency in two varieties of Douglas fir (*Pseudotsuga menziesii* var. *menziesii* and var. *glauca*) in different forest soils SOIL BIOLOGY & BIOCHEMISTRY Volume: 41 Issue: 4 Pages: 742-753 Published: APR 2009

**21. Dučić T.,** Leinemann L., Finkeldey R. Polle A. (2006). Uptake and translocation of manganese in seedlings of two varieties of Douglas fir (*Pseudotsuga menziesii* var. *viridis* and *glauca*). *New Phytologist* **170**: 11-20 DOI: 10.1111/j.1469-8137.2006.01666.x Citata: 28 (**M<sub>21a</sub>**; **PLANT SCIENCES (9/212 212; IF<sub>2014</sub>=7.9)**).

Heterocitati:

**211.** Salon, Christophe; Avice, Jean-Christophe; Colombie, Sophie; et al. Fluxomics links cellular functional analyses to whole-plant phenotyping JOURNAL OF EXPERIMENTAL BOTANY Volume: 68 Issue: 9 Pages: 2083-2098 Published: APR 1 2017

**212.** Carvalho, Joao; Cardoso, OScar; Costa, Mario; et al. Variation of the chemical composition of Pyrenean oak (*Quercus pyrenaica* Willd.) heartwood among different sites and its relationship with the soil chemical characteristics EUROPEAN JOURNAL OF FOREST RESEARCH Volume: 136 Issue: 1 Pages: 185-192 Published: FEB 2017

**213.** Bachiega Zambrosi, Fernando C.; Lima Mesquita, Geisa; Ribeiro Marchiori, Paulo E.; et al. Anatomical and physiological bases of sugarcane tolerance to manganese toxicity ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 132 Pages: 100-112 Published: DEC 2016

**214.** Luo, Zhi-Bin; He, Jiali; Polle, Andrea; et al. Heavy metal accumulation and signal transduction in herbaceous and woody plants: Paving the way for enhancing phytoremediation efficiency BIOTECHNOLOGY ADVANCES Volume: 34 Issue: 6 Pages: 1131-1148 Published: NOV 1 2016

**215.** Oladipo, Oluwatosin Gbemisola; Olayinka, Akinyemi; Awotoye, Olusegun Olufemi Maize (*Zea mays* L.) performance in organically amended mine site soils JOURNAL OF ENVIRONMENTAL MANAGEMENT Volume: 181 Pages: 435-442 Published: OCT 1 2016



- 216.** Chen, Zhijian; Yan, Wei; Sun, Lili; et al. Proteomic analysis reveals growth inhibition of soybean roots by manganese toxicity is associated with alteration of cell wall structure and lignification JOURNAL OF PROTEOMICS Volume: 143 Special Issue: SI Pages: 151-160 Published: JUN 30 2016
- 217.** Chatzistathis, T.; Alifragis, D.; Papaioannou, A. The influence of liming on soil chemical properties and on the alleviation of manganese and copper toxicity in Juglans regia, Robinia pseudoacacia, Eucalyptus sp and Populus sp plantations JOURNAL OF ENVIRONMENTAL MANAGEMENT Volume: 150 Pages: 149-156 Published: MAR 1 2015
- 218.** Yang, Weidong; Ding, Zheli; Zhao, Fengliang; et al. Comparison of manganese tolerance and accumulation among 24 Salix clones in a hydroponic experiment: Application for phytoremediation JOURNAL OF GEOCHEMICAL EXPLORATION Volume: 149 Pages: 1-7 Published: FEB 2015
- 219.** Yao, Yinan; Xiao, Xinlong; Ou, Yongbin; et al. Root transcriptome analysis on the grape genotypes with contrast translocation pattern of excess manganese from root to shoot PLANT AND SOIL Volume: 387 Issue: 1-2 Pages: 49-67 Published: FEB 2015
- 220.** Luo, Zhi-Bin; Wu, Chenhan; Zhang, Chao; et al. The role of ectomycorrhizas in heavy metal stress tolerance of host plants ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 108 Special Issue: SI Pages: 47-62 Published: DEC 2014
- 221.** You, Xiang; Yang, Lin-Tong; Lu, Yi-Bin; et al. Proteomic changes of Citrus roots in response to long-term manganese toxicity TREES-STRUCTURE AND FUNCTION Volume: 28 Issue: 5 Pages: 1383-1399 Published: OCT 2014
- 222.** Wang, Peng; Menzies, Neal W.; Lombi, Enzo; et al. Quantitative determination of metal and metalloid spatial distribution in hydrated and fresh roots of cowpea using synchrotron-based X-ray fluorescence microscopy SCIENCE OF THE TOTAL ENVIRONMENT Volume: 463 Pages: 131-139 Published: OCT 1 2013
- 223.** Zhou, Chen-Ping; Qi, Yi-Ping; You, Xiang; et al. Leaf cDNA-AFLP analysis of two citrus species differing in manganese tolerance in response to long-term manganese-toxicity BMC GENOMICS Volume: 14 Article Number: 621 Published: SEP 14 2013
- 224.** Kopittke, Peter M.; Lombi, Enzo; McKenna, Brigid A.; et al. Distribution and speciation of Mn in hydrated roots of cowpea at levels inhibiting root growth PHYSIOLOGIA PLANTARUM Volume: 147 Issue: 4 Pages: 453-464 Published: APR 2013
- 225.** Trueman, S. J.; McMahon, T. V.; Bristow, M. Nutrient partitioning among the roots, hedge and cuttings of Corymbia citriodora stock plants JOURNAL OF SOIL SCIENCE AND PLANT NUTRITION Volume: 13 Issue: 4 Pages: 977-989 Published: 2013
- 226.** Yao, Yin An; Mou, Donglin; Xu, Gang; et al. Contrasting Performance and Different Tolerance of Chestnut Rose and Grape to Excess Manganese JOURNAL OF PLANT GROWTH REGULATION Volume: 31 Issue: 3 Pages: 416-426 Published: SEP 2012
- 227.** Chatzistathis, T.; Papadakis, I.; Therios, I.; et al. DIFFERENTIAL RESPONSE OF TWO OLIVE CULTIVARS TO EXCESS MANGANESE JOURNAL OF PLANT NUTRITION Volume: 35 Issue: 5 Pages: 784-804 Published: 2012
- 228.** Kleemann, Frauke; von Fragstein, Maximilian; Vornam, Barbara; et al. Relating genetic variation of ecologically important tree traits to associated organisms in full-sib aspen families EUROPEAN JOURNAL OF FOREST RESEARCH Volume: 130 Issue: 5 Pages: 707-716 Published: SEP 2011
- 229.** Mou, Dongling; Yao, Yinan; Yang, Yongqing; et al. Plant high tolerance to excess manganese related with root growth, manganese distribution and antioxidative enzyme activity in three grape cultivars ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY Volume: 74 Issue: 4 Pages: 776-786 Published: MAY 2011
- 230.** Schreeg, Laura A.; Kress, W. John; Erickson, David L.; et al. Phylogenetic Analysis of Local-Scale Tree Soil Associations in a Lowland Moist Tropical Forest PLOS ONE Volume: 5 Issue: 10 Article Number: e13685 Published: OCT 27 2010
- 231.** Williams, Lorraine E.; Pittman, Jon K. Dissecting Pathways Involved in Manganese Homeostasis and Stress in Higher Plant Cells Edited by: Hell, R; Mendel, RR CELL BIOLOGY OF METALS AND NUTRIENTS Book Series: Plant Cell Monographs Volume: 17 Pages: 95-117 Published: 2010
- 232.** Chatzistathis, Theocharis; Therios, Ioannis; Alifragis, Dimitrios Differential Uptake, Distribution within Tissues, and Use Efficiency of Manganese, Iron, and Zinc by Olive Cultivars Kothreiki and Koroneiki HORTSCIENCE Volume: 44 Issue: 7 Pages: 1994-1999 Published: DEC 2009
- 233.** Pittman, Jon K. MECHANISMS OF MANGANESE ACCUMULATION AND TRANSPORT Edited by: Jaiwal, PK; Singh, RP; Dhankher, OP PLANT MEMBRANE AND VACUOLAR TRANSPORTERS Pages: 173-204 Published: 2009
- 234.** Thomas, Frank M.; Sprenger, Susanne Responses of two closely related oak species, Quercus robur and Q. petraea, to excess manganese concentrations in the rooting medium TREE PHYSIOLOGY Volume: 28 Issue: 3 Pages: 343-353 Published: MAR 2008

Autocitati:

- 235.** Ducic, Tanja; Polle, Andrea Manganese toxicity in two varieties of Douglas fir (Pseudotsuga menziesii var. viridis and glauca) seedlings as affected by phosphorus supply FUNCTIONAL PLANT BIOLOGY Volume: 34 Issue: 1 Pages: 31-40 Published: 2007

**236.** Ducic, Tanja; Thieme, Juergen; Polle, Andrea Phosphorus Compartmentalization on the Cellular Level of Douglas Fir Root as Affected by Mn Toxicity: A Synchrotron-Based FTIR Approach SPECTROSCOPY-AN INTERNATIONAL JOURNAL Volume: 27 Issue: 5-6 Pages: 265-272 Published: 2012

**237.** Ducic, Tanja; Berthold, Dirk; Langenfeld-Heyser, Rosemarie; et al. Mycorrhizal communities in relation to biomass production and nutrient use efficiency in two varieties of Douglas fir (*Pseudotsuga menziesii* var. *menziesii* and var. *glauca*) in different forest soils SOIL BIOLOGY & BIOCHEMISTRY Volume: 41 Issue: 4 Pages: 742-753 Published: APR 2009

**238.** Ducic, Tanja; Parlade, Javier; Polle, Andrea The influence of the ectomycorrhizal fungus *Rhizopogon subareolatus* on growth and nutrient element localisation in two varieties of Douglas fir (*Pseudotsuga menziesii* var. *menziesii* and var. *glauca*) in response to manganese stress MYCORRHIZA Volume: 18 Issue: 5 Pages: 227-239 Published: JUN 2008

**22.** Mitrović A., **Dučić T.**, Lirić-Rajlić I., Radotić K., Živanović B. (2005). Changes in *Chenopodium rubrum* seeds with aging. *Annals of the New York Academy of Sciences* **1048** (1): 505-508 DOI: 10.1196/annals.1342.077 Citata: 121 (**M<sub>21</sub>**; MULTIDISCIPLINARY SCIENCES (**8/64**; **IF<sub>2016</sub>=4.7**)).

Heterocitati:

**239.** Chauhan, D. S.; Deswal, D. P. Effect of ageing and priming on vigour parameters of wheat (*Triticum aestivum*) INDIAN JOURNAL OF AGRICULTURAL SCIENCES Volume: 83 Issue: 11 Pages: 1122-1127 Published: NOV 2013

**240.** Chauhan, D. S.; Deswal, D. P.; Dahiya, O. S.; et al. Change in storage enzymes activities in natural and accelerated aged seed of wheat (*Triticum aestivum*) INDIAN JOURNAL OF AGRICULTURAL SCIENCES Volume: 81 Issue: 11 Pages: 1037-1040 Published: NOV 2011

**241.** Mitrovic, A.; Bogdanovic, J.; Giba, Z.; et al. Effect of photoperiod during growth of *Chenopodium rubrum* mother plants on properties of offspring BIOLOGIA PLANTARUM Volume: 54 Issue: 4 Pages: 735-739 Published: DEC 2010

**242.** Mitrovic, Aleksandra; Bogdanovic, Jelena EFFECT OF GIBBERELLIC ACID ON TOTAL ANTIOXIDANT ACTIVITY DURING *CHENOPODIUM RUBRUM* L. ONTOGENESIS IN VITRO ARCHIVES OF BIOLOGICAL SCIENCES Volume: 61 Issue: 1 Pages: 49-55 Published: 2009

**23.** **Dučić T.**, Lirić-Rajlić I., Mitrović A., Radotić K.,(2003). Activities of antioxidant systems during germination of *Chenopodium rubrum* seeds. *Biologia Plantarum* **47** (4): 527-533. DOI: 10.1023/B:BIOP.0000041057.11390.58 Citata: 24 (**M<sub>22</sub>**; PLANT SCIENCES (**89/212**; **IF<sub>2016</sub>=1.6**)).

Heterocitati:

**243.** Khan, Faiz Ali; Abbasi, Bilal Haider; Shinwari, Zabta Khan; et al. ANTIOXIDANT POTENTIAL IN REGENERATED TISSUES OF MEDICINALLY IMPORTANT *ATROPA ACUMINATA* PAKISTAN JOURNAL OF BOTANY Volume: 49 Issue: 4 Pages: 1423-1427 Published: AUG 2017

**244.** Tesfay, Samson Zeray; Mathe, Sakhile; Modi, Albert T.; et al. A Comparative Study on Antioxidant Potential of Selected African and Exotic Leafy Vegetables HORTSCIENCE Volume: 51 Issue: 12 Pages: 1529-1536 Published: DEC 2016

**245.** Fazal, Hina; Abbasi, Bilal Haider; Ahmad, Nisar; et al. Correlation of different spectral lights with biomass accumulation and production of antioxidant secondary metabolites in callus cultures of medicinally important *Prunella vulgaris* L. JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY B-BIOLOGY Volume: 159 Pages: 1-7 Published: JUN 2016

**246.** Rasheed, A.; Hameed, A.; Khan, M. A.; et al. Variation in temperature and light but not salinity invokes antioxidant enzyme activities in germinating seeds of *Salsola drummondii* PLANT BIOSYSTEMS Volume: 150 Issue: 5 Pages: 1072-1082 Published: 2016

**247.** Todirascu-Ciornea, Elena; Drochioiu, Gabi; Stefanescu, Raluca; et al. Morphological and Biochemical Answer of the Wheat Seeds at Treatment with 2,4-Dinitrophenol and Potassium Iodate BRAZILIAN ARCHIVES OF BIOLOGY AND TECHNOLOGY Volume: 59 Article Number: e16150580 Published: 2016

**248.** Tesfay, S. Z.; Modi, A. T.; Mohammed, F. The effect of temperature in moringa seed phytochemical compounds and carbohydrate mobilization SOUTH AFRICAN JOURNAL OF BOTANY Volume: 102 Pages: 190-196 Published: JAN 2016

**249.** Ramzan, Fahad; Younis, Adnan; Riaz, Atif; et al. Pre-planting Exogenous Application of Gibberellic Acid Influences Sprouting, Vegetative Growth, Flowering, and Subsequent Bulb Characteristics of

'Ad-Rem' Tulip HORTICULTURE ENVIRONMENT AND BIOTECHNOLOGY Volume: 55 Issue: 6 Pages: 479-488 Published: DEC 2014

**250.** Hameed, Abdul; Rasheed, Aysha; Gul, Bilquees; et al. Salinity inhibits seed germination of perennial halophytes *Limonium stocksii* and *Suaeda fruticosa* by reducing water uptake and ascorbate dependent antioxidant system ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 107 Pages: 32-38 Published: NOV 2014

**251.** Paul, Sumi; Kumaria, Suman; Tandon, Pramod. Comparative study on the changes of proteins and oxidative enzymes occurring in protocorms and protocorm-like bodies systems of development in the orchid *Dendrobium hookerianum* ACTA PHYSIOLOGIAE PLANTARUM Volume: 36 Issue: 8 Pages: 2113-2123 Published: AUG 2014

**252.** Khan, Mubarak Ali; Abbasi, Bilal Haider; Ahmed, Nisar; et al. Effects of light regimes on in vitro seed germination and silymarin content in *Silybum marianum* INDUSTRIAL CROPS AND PRODUCTS Volume: 46 Pages: 105-110 Published: APR 2013

**253.** Bae, Mi-Jung; Kim, Young-Saeng; Kim, Il-Sup; et al. Transgenic rice overexpressing the *Brassica juncea* gamma-glutamylcysteine synthetase gene enhances tolerance to abiotic stress and improves grain yield under paddy field conditions MOLECULAR BREEDING Volume: 31 Issue: 4 Pages: 931-945 Published: APR 2013

**254.** An, Yuyan; Liang, Zongsuo Drought tolerance of *Periploca sepium* during seed germination: antioxidant defense and compatible solutes accumulation ACTA PHYSIOLOGIAE PLANTARUM Volume: 35 Issue: 3 Pages: 959-967 Published: MAR 2013

**255.** Bhattacharjee, Soumen An inductive pulse of hydrogen peroxide pretreatment restores redox-homeostasis and oxidative membrane damage under extremes of temperature in two rice cultivars PLANT GROWTH REGULATION Volume: 68 Issue: 3 Pages: 395-410 Published: DEC 2012

**256.** Abbasi, Bilal Haider; Rashid, Abdur; Khan, Mubarak Ali; et al. IN VITRO PLANT REGENERATION IN *SINAPIS ALBA* AND EVALUATION OF ITS RADICAL SCAVENGING ACTIVITY PAKISTAN JOURNAL OF BOTANY Volume: 43 Special Issue: SI Pages: 21-27 Published: DEC 2011

**257.** Begcy, Kevin; Mariano, Eduardo D.; Mattiello, Lucia; et al. An Arabidopsis Mitochondrial Uncoupling Protein Confers Tolerance to Drought and Salt Stress in Transgenic Tobacco Plants PLOS ONE Volume: 6 Issue: 8 Article Number: e23776 Published: AUG 30 2011

**258.** Abbasi, Bilal Haider; Khan, Murad; Guo, Bin; et al. Efficient regeneration and antioxidative enzyme activities in *Brassica rapa* var. turnip PLANT CELL TISSUE AND ORGAN CULTURE Volume: 105 Issue: 3 Pages: 337-344 Published: JUN 2011

**259.** Cai, Feng; Mei, Lan-Ju; An, Xiao-Long; et al. Lipid Peroxidation and Antioxidant Responses during Seed Germination of *Jatropha curcas* INTERNATIONAL JOURNAL OF AGRICULTURE AND BIOLOGY Volume: 13 Issue: 1 Pages: 25-30 Published: JAN 2011

**260.** Eisvand, H. R.; Tavakkol-Afshari, R.; Sharifzadeh, F.; et al. Effects of hormonal priming and drought stress on activity and isozyme profiles of antioxidant enzymes in deteriorated seed of tall wheatgrass (*Agropyron elongatum* Host) SEED SCIENCE AND TECHNOLOGY Volume: 38 Issue: 2 Pages: 280-297 Published: 2010

**261.** Younis, M. E.; Hasaneen, M. N. A.; Tourky, S. M. N. Plant growth, metabolism and adaptation in relation to stress conditions. XXIV. Salinity-biofertility interactive effects on proline, glycine and various antioxidants in *Lactuca sativa* PLANT OMICS Volume: 2 Issue: 5 Pages: 197-205 Published: SEP 2009

**262.** Qin, Jihong; Liu, Qing Impact of seasonally frozen soil on germinability and antioxidant enzyme activity of *Picea asperata* seeds CANADIAN JOURNAL OF FOREST RESEARCH Volume: 39 Issue: 4 Pages: 723-730 Published: APR 2009

**263.** Mitrovic, Aleksandra; Bogdanovic, Jelena EFFECT OF GIBBERELLIC ACID ON TOTAL ANTIOXIDANT ACTIVITY DURING *CHENOPODIUM RUBRUM* L. ONTOGENESIS IN VITRO ARCHIVES OF BIOLOGICAL SCIENCES Volume: 61 Issue: 1 Pages: 49-55 Published: 2009

**264.** Bogdanovic, J.; Radotic, K.; Mitrovic, A. Changes in activities of antioxidant enzymes during *Chenopodium murale* seed germination BIOLOGIA PLANTARUM Volume: 52 Issue: 2 Pages: 396-400 Published: JUN 2008

**265.** Mitrovic, Aleksandra; Bogdanovic, Jelena Activities of antioxidative enzymes during *Chenopodium rubrum* L. ontogenesis in vitro ARCHIVES OF BIOLOGICAL SCIENCES Volume: 60 Issue: 2 Pages: 223-231 Published: 2008

**266.** Prodanovic, Olivera; Prodanovic, R.; Bogdanovic, Jelena; et al. Antioxidative enzymes during germination of two lines of Serbian spruce [*Picea omorika* (panc.) purkyae] ARCHIVES OF BIOLOGICAL SCIENCES Volume: 59 Issue: 3 Pages: 209-216 Published: 2007

**24.** Radotić K., Dučić T., Mutavdžić D. (2000). Changes in peroxidase activity and isoenzymes in spruce needles after exposure to different concentrations of cadmium. *Environmental and Experimental Botany* **44**, 105-113 DOI: 10.1016/S0098-8472(00)00059-9 Citata 102 (M<sub>21a</sub>; PLANT SCIENCES (18/212;

## Heterocitati:

- 267.** Kandziora-Ciupa, Marta; Nadgorska-Socha, Aleksandra; Barczyk, Gabriela; et al. Bioaccumulation of heavy metals and ecophysiological responses to heavy metal stress in selected populations of *Vaccinium myrtillus* L. and *Vaccinium vitis-idaea* L. *ECOTOXICOLOGY* Volume: 26 Issue: 7 Pages: 966-980 Published: SEP 2017
- 268.** Venkatachalam, Perumal; Jayalakshmi, Narayanan; Geetha, Natesan; et al. Accumulation efficiency, genotoxicity and antioxidant defense mechanisms in medicinal plant *Acalypha indica* L. under lead stress *CHEMOSPHERE* Volume: 171 Pages: 544-553 Published: MAR 2017
- 269.** Ashraf, Umair; Kanu, Adam S.; Deng, Quanquan; et al. Lead (Pb) Toxicity; Physio-Biochemical Mechanisms, Grain Yield, Quality, and Pb Distribution Proportions in Scented Rice *FRONTIERS IN PLANT SCIENCE* Volume: 8 Article Number: 259 Published: FEB 28 2017
- 270.** Mohammadi, Mohammad Hossein Sheikh; Etemadi, Nematollah; Arab, Mohammad Mehdi; et al. Molecular and physiological responses of Iranian Perennial ryegrass as affected by Trinexapac ethyl, Paclobutrazol and Abscisic acid under drought stress *PLANT PHYSIOLOGY AND BIOCHEMISTRY* Volume: 111 Pages: 129-143 Published: FEB 2017
- 271.** Dai, Chen; Cui, Weiti; Pan, Jincheng; et al. Proteomic analysis provides insights into the molecular bases of hydrogen gas-induced cadmium resistance in *Medicago sativa* *JOURNAL OF PROTEOMICS* Volume: 152 Pages: 109-120 Published: JAN 30 2017
- 272.** Abdulaal, Wesam H.; Zeyadi, Mustafa; Baothman, Othman A. S.; et al. Investigation of antioxidant and detoxifying capacities of some date cultivars (*Phoenix dactylifera* L.) irrigated with sewage water *RSC ADVANCES* Volume: 7 Issue: 21 Pages: 12953-12958 Published: 2017
- 273.** Abd Allah, E. F.; Hashem, Abeer; Alqarawi, Abdulaziz A.; et al. SELENIUM AMELIORATES CADMIUM STRESS-INDUCED DAMAGE BY IMPROVING ANTIOXIDANT DEFENSE SYSTEM IN *CHLAMYDOMONAS REINHARDTII* *PAKISTAN JOURNAL OF BOTANY* Volume: 48 Issue: 6 Pages: 2223-2231 Published: DEC 2016
- 274.** Nourimand, Maryam; Todd, Christopher D. Allantoin Increases Cadmium Tolerance in *Arabidopsis* via Activation of Antioxidant Mechanisms *PLANT AND CELL PHYSIOLOGY* Volume: 57 Issue: 12 Pages: 2485-2496 Published: DEC 2016
- 275.** Kandziora-Ciupa, Marta; Ciepa, Ryszard; Nadgorska-Socha, Aleksandra; et al. Accumulation of heavy metals and antioxidant responses in *Pinus sylvestris* L. needles in polluted and non-polluted sites *ECOTOXICOLOGY* Volume: 25 Issue: 5 Pages: 970-981 Published: JUL 2016
- 276.** Xue, Chao; Qi, Peishi; Li, Mengsha; et al. Characterization and Sorptivity of the *Plesiomonas shigelloides* Strain and Its Potential Use to Remove Cd<sup>2+</sup> from Wastewater *WATER* Volume: 8 Issue: 6 Article Number: 241 Published: JUN 2016
- 277.** Xu, Dongyu; Zhao, Ye; Zhou, Huaidong; et al. Effects of biochar amendment on relieving cadmium stress and reducing cadmium accumulation in pepper *ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH* Volume: 23 Issue: 12 Pages: 12323-12331 Published: JUN 2016
- 278.** Singh, Anumeha; Kaushik, Manish Singh; Srivastava, Meenakshi; et al. Siderophore mediated attenuation of cadmium toxicity by paddy field cyanobacterium *Anabaena oryzae* *ALGAL RESEARCH-BIOMASS BIOFUELS AND BIOPRODUCTS* Volume: 16 Pages: 63-68 Published: JUN 2016
- 279.** Bankaji, Insaf; Cacador, Isabel; Sleimi, Noomene Assessing of tolerance to metallic and saline stresses in the halophyte *Suaeda fruticosa*: The indicator role of antioxidative enzymes *ECOLOGICAL INDICATORS* Volume: 64 Pages: 297-308 Published: MAY 2016
- 280.** Zafar, S.; Ashraf, M. Y.; Ali, Q.; et al. ANTIOXIDANT ACTIVITY AND SECONDARY METABOLITES IN SELECTED VEGETABLES IRRIGATED WITH SEWAGE WATER *APPLIED ECOLOGY AND ENVIRONMENTAL RESEARCH* Volume: 14 Issue: 5 Pages: 35-48 Published: 2016
- 281.** Yan, Hui; Filardo, Fiona; Hu, Xiaotao; et al. Cadmium stress alters the redox reaction and hormone balance in oilseed rape (*Brassica napus* L.) leaves *ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH* Volume: 23 Issue: 4 Pages: 3758-3769 Published: JAN 2016
- 282.** Piotrowska-Niczyporuk, Alicja; Bajguz, Andrzej; Talarek, Marta; et al. The effect of lead on the growth, content of primary metabolites, and antioxidant response of green alga *Acutodesmus obliquus* (Chlorophyceae) *ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH* Volume: 22 Issue: 23 Pages: 19112-19123 Published: DEC 2015
- 283.** Malar, S.; Sahi, S. V.; Favas, P. J. C.; et al. Assessment of mercury heavy metal toxicity-induced physiochemical and molecular changes in *Sesbania grandiflora* L. *INTERNATIONAL JOURNAL OF ENVIRONMENTAL SCIENCE AND TECHNOLOGY* Volume: 12 Issue: 10 Pages: 3273-3282 Published: OCT 2015
- 284.** Huseynova, Irada M.; Aliyeva, Durna R.; Mammadov, Alamdard Ch.; et al. Hydrogen peroxide generation and antioxidant enzyme activities in the leaves and roots of wheat cultivars subjected to long-term soil drought stress *PHOTOSYNTHESIS RESEARCH* Volume: 125 Issue: 1-2 Special Issue: SI Pages: 279-289 Published: AUG 2015

- 285.** Oztetik, Elif Biomarkers of ecotoxicological oxidative stress in an urban environment: using evergreen plant in industrial areas ECOTOXICOLOGY Volume: 24 Issue: 4 Pages: 903-914 Published: MAY 2015
- 286.** Malar, Srinivasan; Sahi, Shivendra Vikram; Favas, Paulo J. C.; et al. Mercury heavy-metal-induced physiochemical changes and genotoxic alterations in water hyacinths [*Eichhornia crassipes* (Mart.)] ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Volume: 22 Issue: 6 Pages: 4597-4608 Published: MAR 2015
- 287.** Etemadi, Nematollah; Sheikh-Mohammadi, Mohammad-Hosseini; Nikbakht, Ali; et al. Influence of trinexapac-ethyl in improving drought resistance of wheatgrass and tall fescue ACTA PHYSIOLOGIAE PLANTARUM Volume: 37 Issue: 3 Published: MAR 2015
- 288.** Rout, Jyoti Ranjan; Behera, Sadhana; Keshari, Nitin; et al. Effect of iron stress on *Withania somnifera* L.: antioxidant enzyme response and nutrient elemental uptake of in vitro grown plants ECOTOXICOLOGY Volume: 24 Issue: 2 Pages: 401-413 Published: MAR 2015
- 289.** Ben Ammar, Wided; Zarrouk, Mokhtar; Nouairi, Issam Zinc alleviates cadmium effects on growth, membrane lipid biosynthesis and peroxidation in *Solanum lycopersicum* leaves BIOLOGIA Volume: 70 Issue: 2 Pages: 198-207 Published: FEB 2015
- 290.** She, Chongmei; Liu, Huifen; Hao, Jianchao; et al. Effect of Illite on Growth Characteristic and Antioxidant Enzyme System of Rice under Cadmium Stress Edited by: Choi, SB Conference: International Forum on Energy, Environment Science and Materials (IFEESM) Location: Shenzhen, CHINA, 2015 PROCEEDINGS OF THE 2015 INTERNATIONAL FORUM ON ENERGY, ENVIRONMENT SCIENCE AND MATERIALS Book Series: AER-Advances in Engineering Research Volume: 40 Pages: 1077-1081 Published: 2015
- 291.** Liao, Ming'an; Yang, Daiyu; Zhang, Xiao; et al. CLEAVERS (*Galium aparine*), A NEWLY DISCOVERED CADMIUM ACCUMULATOR PLANT OF WINTER FARMLAND WEEDS FRESENIUS ENVIRONMENTAL BULLETIN Volume: 24 Issue: 12 Pages: 4285-4289 Published: 2015
- 292.** Abbasi, Ghulam Hasan; Akhtar, Javaid; Anwar-ul-Haq, Muhammad; et al. Morpho-physiological and micrographic characterization of maize hybrids under NaCl and Cd stress PLANT GROWTH REGULATION Volume: 75 Issue: 1 Pages: 115-122 Published: JAN 2015
- 293.** Malar, Srinivasan; Manikandan, Rajendiran; Favas, Paulo J. C.; et al. Effect of lead on phytotoxicity, growth, biochemical alterations and its role on genomic template stability in *Sesbania grandiflora*: A potential plant for phytoremediation ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY Volume: 108 Pages: 249-257 Published: OCT 2014
- 294.** Khoshgoftarmansh, A. H.; Bahmanziari, H.; Sanaeiostovar, A. Responses of cucumber to deficient and toxic amounts of nickel in nutrient solution containing urea as nitrogen source BIOLOGIA PLANTARUM Volume: 58 Issue: 3 Pages: 524-530 Published: SEP 2014
- 295.** Srivastava, Rajneesh Kumar; Pandey, Poonam; Rajpoot, Ritika; et al. Cadmium and lead interactive effects on oxidative stress and antioxidative responses in rice seedlings PROTOPLASMA Volume: 251 Issue: 5 Pages: 1047-1065 Published: SEP 2014
- 296.** Baloun, Jiri; Nevrtalova, Eva; Kovacova, Viera; et al. Characterization of the HMA7 gene and transcriptomic analysis of candidate genes for copper tolerance in two *Silene vulgaris* ecotypes JOURNAL OF PLANT PHYSIOLOGY Volume: 171 Issue: 13 Pages: 1188-1196 Published: AUG 15 2014
- 297.** Huseynova, Irada M.; Sultanova, Nargiz E.; Aliyev, Jalal A. Histochemical visualization of ROS and antioxidant response to viral infections of vegetable crops grown in Azerbaijan PLANT PHYSIOLOGY AND BIOCHEMISTRY Volume: 81 Special Issue: SI Pages: 26-35 Published: AUG 2014
- 298.** Malar, Srinivasan; Vikram, Sahi Shivendra; Favas, Paulo J. C.; et al. Lead heavy metal toxicity induced changes on growth and antioxidative enzymes level in water hyacinths [*Eichhornia crassipes* (Mart.)] BOTANICAL STUDIES Volume: 55 Article Number: 54 Published: JUL 24 2014
- 299.** Zhang, Ying; Tao, Yue; Sun, Guoqiang; et al. Effects of di-n-butyl phthalate on the physiology and ultrastructure of cucumber seedling roots. Conference: 7th International PCB Workshop - Chemical mixtures in a complex world Location: Arcachon, FRANCE 2012 ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Volume: 21 Issue: 10 Pages: 6662-6670 Published: MAY 2014
- 300.** Shamsi, Imran Haider; Zhang, Guoping; Hu, Hongliang; et al. Assessment of the Hazardous Effects of Cd on Physiological and Biochemical Characteristics of Soybean Genotypes INTERNATIONAL JOURNAL OF AGRICULTURE AND BIOLOGY Volume: 16 Issue: 1 Pages: 41-48 Published: 2014
- 301.** Pandey, Poonam; Srivastava, Rajneesh Kumar; Dubey, R. S. Water deficit and aluminum tolerance are associated with a high antioxidative enzyme capacity in *Indica* rice seedlings PROTOPLASMA Volume: 251 Issue: 1 Pages: 147-160 Published: JAN 2014
- 302.** Tan, Shuduan; Huang, Huang; Zhu, Mingyong; et al. The negative effects of cadmium on Bermuda grass growth might be offset by submergence Conference: 1st meeting of French organic geochemists Location: undefined, FRANCE 2012 ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Volume: 20 Issue: 10 Pages: 7433-7440 Published: OCT 2013
- 303.** Rozpadek, Piotr; Slesak, Ireneusz; Cebula, Stanislaw; et al. Ozone fumigation results in accelerated growth and persistent changes in the antioxidant system of *Brassica oleracea* L. var. *capitata* f. *alba* JOURNAL OF PLANT PHYSIOLOGY Volume: 170 Issue: 14 Pages: 1259-1266 Published: SEP 15 2013

- 304.** Smiri, Moez; Jelali, Nahida; El Ghouli, Jamel Role for plant peroxiredoxin in cadmium chelation JOURNAL OF PLANT INTERACTIONS Volume: 8 Issue: 3 Pages: 255-262 Published: SEP 1 2013
- 305.** Kandziora-Ciupa, Marta; Ciepal, Ryszard; Nadgorska-Socha, Aleksandra; et al. A comparative study of heavy metal accumulation and antioxidant responses in *Vaccinium myrtillus* L. leaves in polluted and non-polluted areas ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Volume: 20 Issue: 7 Pages: 4920-4932 Published: JUL 2013
- 306.** Yu, Lixu; Gao, Rongxia; Shi, Qinghua; et al. EXOGENOUS APPLICATION OF SODIUM NITROPRUSSIDE ALLEVIATED CADMIUM INDUCED CHLOROSIS, PHOTOSYNTHESIS INHIBITION AND OXIDATIVE STRESS IN CUCUMBER PAKISTAN JOURNAL OF BOTANY Volume: 45 Issue: 3 Pages: 813-819 Published: MAY 2013
- 307.** Li, Yong; Zhang, Shanshan; Jiang, Wusheng; et al. Cadmium accumulation, activities of antioxidant enzymes, and malondialdehyde (MDA) content in *Pistia stratiotes* L. ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Volume: 20 Issue: 2 Pages: 1117-1123 Published: FEB 2013
- 308.** Nadgorska-Socha, Aleksandra; Kafel, Alina; Kandziora-Ciupa, Marta; et al. Accumulation of heavy metals and antioxidant responses in *Vicia faba* plants grown on monometallic contaminated soil ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Volume: 20 Issue: 2 Pages: 1124-1134 Published: FEB 2013
- 309.** Duarte, Bernardo; Santos, Dinis; Cacador, Isabel Halophyte anti-oxidant feedback seasonality in two salt marshes with different degrees of metal contamination: search for an efficient biomarker FUNCTIONAL PLANT BIOLOGY Volume: 40 Issue: 8-9 Special Issue: SI Pages: 922-930 Published: 2013
- 310.** El-Beltagi, Hossam S.; Mohamed, Heba I. Reactive Oxygen Species, Lipid Peroxidation and Antioxidative Defense Mechanism NOTULAE BOTANICAE HORTI AGROBOTANICI CLUJ-NAPOCA Volume: 41 Issue: 1 Pages: 44-57 Published: JAN-JUN 2013
- 311.** Papa, S.; Bartoli, G.; Nacca, F.; et al. Trace metals, peroxidase activity, PAHs contents and ecophysiological changes in *Quercus ilex* leaves in the urban area of Caserta (Italy) JOURNAL OF ENVIRONMENTAL MANAGEMENT Volume: 113 Pages: 501-509 Published: DEC 30 2012
- 312.** Kang, Hong-Mei; Chen, Kang; Bai, Juan; et al. Antioxidative system's responses in the leaves of six *Caragana* species during drought stress and recovery ACTA PHYSIOLOGIAE PLANTARUM Volume: 34 Issue: 6 Pages: 2145-2154 Published: NOV 2012
- 313.** Cavusoglu, Kultigin; Kaya, Arzu; Yilmaz, Fadime; et al. Effects of cypermethrin on *Allium cepa* ENVIRONMENTAL TOXICOLOGY Volume: 27 Issue: 10 Pages: 583-589 Published: OCT 2012
- 314.** Duarte, B.; Silva, V.; Cacador, I Hexavalent chromium reduction, uptake and oxidative biomarkers in *Halimione portulacoides* ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY Volume: 83 Pages: 1-7 Published: SEP 1 2012
- 315.** Li, Dan Dan; Zhou, Dong Mei Acclimation of wheat to low-level cadmium or zinc generates its resistance to cadmium toxicity ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY Volume: 79 Pages: 264-271 Published: MAY 1 2012
- 316.** Elobeid, Mudawi; Goebel, Cornelia; Feussner, Ivo; et al. Cadmium interferes with auxin physiology and lignification in poplar JOURNAL OF EXPERIMENTAL BOTANY Volume: 63 Issue: 3 Pages: 1413-1421 Published: FEB 2012
- 317.** Hou, Yanmin; Zhao, Xiaojun; Xie, Jimin Determination of Ni(II) in Water Using Nanometer Attapulgite Adsorption Via FAAS Edited by: Zhang, GD; Cheng, SG Conference: Global Conference on Civil, Structural and Environmental Engineering / 3rd International Symp on Multi-field Coupling Theory of Rock and Soil Media and its Applications Location: China Three Gorges Univ, Yichang, CHINA. ADVANCES IN ENVIRONMENTAL ENGINEERING Book Series: Advanced Materials Research Volume: 599 Pages: 96-99 Published: 2012
- 318.** Zou, Jinhua; Yue, Jieyu; Jiang, Wusheng; et al. EFFECTS OF CADMIUM STRESS ON ROOT Tip CELLS AND SOME PHYSIOLOGICAL INDEXES IN *ALLIUM CEPA* VAR. *AGROGARUM* L. ACTA BIOLOGICA CRACOVENSIS SERIES BOTANICA Volume: 54 Issue: 1 Pages: 129-141 Published: 2012
- 319.** Garg, Neera; Aggarwal, Nalini Effect of mycorrhizal inoculations on heavy metal uptake and stress alleviation of *Cajanus cajan* (L.) Millsp genotypes grown in cadmium and lead contaminated soils PLANT GROWTH REGULATION Volume: 66 Issue: 1 Pages: 9-26 Published: JAN 2012
- 320.** Ozdener, Yasemin; Aydin, Birsan Kilic; Ayyun, S. Fatma; et al. EFFECT OF HEXAVALENT CHROMIUM ON THE GROWTH AND PHYSIOLOGICAL AND BIOCHEMICAL PARAMETERS ON *BRASSICA OLERACEA* L. VAR. *ACEPHALA* DC ACTA BIOLOGICA HUNGARICA Volume: 62 Issue: 4 Pages: 463-476 Published: DEC 2011
- 321.** Sun, Shou-Qin; Wang, Gen-Xu; He, Ming; et al. Effects of Pb and Ni stress on oxidative stress parameters in three moss species ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY Volume: 74 Issue: 6 Pages: 1630-1635 Published: SEP 2011
- 322.** Ozdener, Yasemin; Kutbay, H. Guray PHYSIOLOGICAL AND BIOCHEMICAL RESPONSES OF THE LEAVES OF *VERBASCUM WIEDEMANNIANUM* FISCH & MEY. TO CADMIUM PAKISTAN JOURNAL OF BOTANY Volume: 43 Issue: 3 Pages: 1521-1525 Published: JUN 2011
- 323.** Srivastava, Sarita; Dubey, R. S. Manganese-excess induces oxidative stress, lowers the pool of antioxidants and elevates activities of key antioxidative enzymes in rice seedlings PLANT GROWTH REGULATION Volume: 64 Issue: 1 Pages: 1-16 Published: MAY 2011

- 324.** Hayat, Shamsul; Hasan, Syed Aiman; Ahmad, Aqil Growth, nitrate reductase activity and antioxidant system in cadmium stressed tomato (*Lycopersicon esculentum* Mill.) cultivars BIOTECHNOLOGIE AGRONOMIE SOCIETE ET ENVIRONNEMENT Volume: 15 Issue: 3 Pages: 401-413 Published: 2011
- 325.** Bala, Rajni; Thukral, Ashwani K. Phytoremediation of CR(VI) by *Spirodela polyrrhiza* (L.) Schleiden Employing Reducing and Chelating Agents INTERNATIONAL JOURNAL OF PHYTOREMEDIATION Volume: 13 Issue: 5 Pages: 465-491 Article Number: PII 931349143 Published: 2011
- 326.** Doganlar, Zeynep Banu; Atmaca, Mustafa Influence of Airborne Pollution on Cd, Zn, Pb, Cu, and Al Accumulation and Physiological Parameters of Plant Leaves in Antakya (Turkey) WATER AIR AND SOIL POLLUTION Volume: 214 Issue: 1-4 Pages: 509-523 Published: JAN 2011
- 327.** Gill, Sarvajeet Singh; Tuteja, Narendra Reactive oxygen species and antioxidant machinery in abiotic stress tolerance in crop plants PLANT PHYSIOLOGY AND BIOCHEMISTRY Volume: 48 Issue: 12 Pages: 909-930 Published: DEC 2010
- 328.** Liu Da-lin; Zhang Shu-pan; Chen Zheng; et al. Soil Cadmium Regulates Antioxidases in Sorghum AGRICULTURAL SCIENCES IN CHINA Volume: 9 Issue: 10 Pages: 1475-1480 Published: OCT 20 2010
- 329.** Singh, Anita; Agrawal, Madhoolika Effects of municipal waste water irrigation on availability of heavy metals and morpho-physiological characteristics of *Beta vulgaris* L. JOURNAL OF ENVIRONMENTAL BIOLOGY Volume: 31 Issue: 5 Supplement: S Pages: 727-736 Published: SEP 2010
- 330.** El Beltagi, Hossam Saad; Mohamed, Amal A. Changes in non Protein Thiols, some Antioxidant Enzymes Activity and Ultrastructural Alteration in Radish Plant (*Raphanus sativus* L) Grown under Lead Toxicity NOTULAE BOTANICAE HORTI AGROBOTANICI CLUJ-NAPOCA Volume: 38 Issue: 3 Pages: 76-85 Published: JUL-DEC 2010
- 331.** Martinez Dominguez, David; Cordoba Garcia, Francisco; Canalejo Raya, Antonio; et al. Cadmium-induced oxidative stress and the response of the antioxidative defense system in *Spartina densiflora* PHYSIOLOGIA PLANTARUM Volume: 139 Issue: 3 Pages: 289-302 Published: JUL 2010
- 332.** Piotrowska, Alicja; Bajguz, Andrzej; Godlewska-Zylkiewicz, Beata; et al. Changes in Growth, Biochemical Components, and Antioxidant Activity in Aquatic Plant *Wolffia arrhiza* (Lemnaceae) Exposed to Cadmium and Lead ARCHIVES OF ENVIRONMENTAL CONTAMINATION AND TOXICOLOGY Volume: 58 Issue: 3 Pages: 594-604 Published: APR 2010
- 333.** Feng, Jianpeng; Shi, Qinghua; Wang, Xiufeng; et al. Silicon supplementation ameliorated the inhibition of photosynthesis and nitrate metabolism by cadmium (Cd) toxicity in *Cucumis sativus* L. SCIENTIA HORTICULTURAE Volume: 123 Issue: 4 Pages: 521-530 Published: FEB 2 2010
- 334.** Hang, Xiaoshuai; Wang, Huoyan; Zhou, Jianmin Soil heavy-metal distribution and transference to soybeans surrounding an electroplating factory ACTA AGRICULTURAE SCANDINAVICA SECTION B-SOIL AND PLANT SCIENCE Volume: 60 Issue: 2 Pages: 144-151 Article Number: PII 913048579 Published: 2010
- 335.** Keramat, Batool; Kalantari, Khosrow Manouchehri; Arvin, Mohammad Javad EFFECTS OF METHYL JASMONATE TREATMENT ON ALLEVIATION OF CADMIUM DAMAGES IN SOYBEAN JOURNAL OF PLANT NUTRITION Volume: 33 Issue: 7 Pages: 1016-1025 Article Number: PII 921880911 Published: 2010
- 336.** Manousaki, Eleni; Kalogerakis, Nicolas Phytoextraction of Pb and Cd by the Mediterranean saltbush (*Atriplex halimus* L.): metal uptake in relation to salinity ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Volume: 16 Issue: 7 Pages: 844-854 Published: NOV 2009
- 337.** Malecka, Arleta; Piechalak, Aneta; Tomaszewska, Barbara Reactive oxygen species production and antioxidative defense system in pea root tissues treated with lead ions: the whole roots level ACTA PHYSIOLOGIAE PLANTARUM Volume: 31 Issue: 5 Pages: 1053-1063 Published: SEP 2009
- 338.** Maheshwari, Ruchi; Dubey, R. S. Nickel-induced oxidative stress and the role of antioxidant defence in rice seedlings PLANT GROWTH REGULATION Volume: 59 Issue: 1 Pages: 37-49 Published: SEP 2009
- 339.** Jalloh, Mohamed Alpha; Chen, Jinghong; Zhen, Fanrong; et al. Effect of different N fertilizer forms on antioxidant capacity and grain yield of rice growing under Cd stress JOURNAL OF HAZARDOUS MATERIALS Volume: 162 Issue: 2-3 Pages: 1081-1085 Published: MAR 15 2009
- 340.** Nouairi, Issam; Ben Ammar, Wided; Ben Youssef, Nabil; et al. Antioxidant defense system in leaves of Indian mustard (*Brassica juncea*) and rape (*Brassica napus*) under cadmium stress ACTA PHYSIOLOGIAE PLANTARUM Volume: 31 Issue: 2 Pages: 237-247 Published: MAR 2009
- 341.** Ekmekci, Yasemin; Tanyolac, Deniz; Ayhan, Beycan A crop tolerating oxidative stress induced by excess lead: maize ACTA PHYSIOLOGIAE PLANTARUM Volume: 31 Issue: 2 Pages: 319-330 Published: MAR 2009
- 342.** Dinakar, N.; Nagajothi, P. C.; Suresh, S.; et al. Cadmium induced changes on proline, antioxidant enzymes, nitrate and nitrite reductases in *Arachis hypogaea* L. JOURNAL OF ENVIRONMENTAL BIOLOGY Volume: 30 Issue: 2 Pages: 289-294 Published: MAR 2009
- 343.** Gzyl, Jaroslaw; Rymer, Katarzyna; Gwozdz, Edward A. Differential response of antioxidant enzymes to cadmium stress in tolerant and sensitive cell line of cucumber (*Cucumis sativus* L.) ACTA BIOCHIMICA POLONICA Volume: 56 Issue: 4 Pages: 723-727 Published: 2009

- 344.** Liu, Donghua; Zou, Jin; Meng, Qingmin; et al. Uptake and accumulation and oxidative stress in garlic (*Allium sativum* L.) under lead phytotoxicity *ECOTOXICOLOGY* Volume: 18 Issue: 1 Pages: 134-143 Published: JAN 2009
- 345.** Islam, Mohammad Muzahidul; Hoque, Anamul; Okuma, Eiji; et al. Exogenous proline and glycinebetaine increase antioxidant enzyme activities and confer tolerance to cadmium stress in cultured tobacco cells *JOURNAL OF PLANT PHYSIOLOGY* Volume: 166 Issue: 15 Pages: 1587-1597 Published: 2009
- 346.** Wang, Zi; Zhang, Yuxiu; Huang, Zhibo; et al. Antioxidative response of metal-accumulator and non-accumulator plants under cadmium stress *PLANT AND SOIL* Volume: 310 Issue: 1-2 Pages: 137-149 Published: SEP 2008
- 347.** Dinakar, N.; Nagajyothi, P. C.; Suresh, S.; et al. Phytotoxicity of cadmium on protein, proline and antioxidant enzyme activities in growing *Arachis hypogaea* L. seedlings *JOURNAL OF ENVIRONMENTAL SCIENCES* Volume: 20 Issue: 2 Pages: 199-206 Published: 2008
- 348.** Ekmekci, Yasemin; Tanyolac, Deniz; Ayhan, Beycan Effects of cadmium on antioxidant enzyme and photosynthetic activities in leaves of two maize cultivars *JOURNAL OF PLANT PHYSIOLOGY* Volume: 165 Issue: 6 Pages: 600-611 Published: 2008
- 349.** Chaffai, Radhouane; Seybou, Tinni Nouhou; Marzouk, Brahim; et al. Effects of cadmium on polar lipid composition and unsaturation in maize (*Zea mays*) in hydroponic culture *JOURNAL OF INTEGRATIVE PLANT BIOLOGY* Volume: 49 Issue: 12 Pages: 1693-1702 Published: DEC 2007
- 350.** Horvat, Tea; Vidakovic-Cifrek, Zeljka; Orescanin, Visnja; et al. Toxicity assessment of heavy metal mixtures by *Lemna minor* L. *SCIENCE OF THE TOTAL ENVIRONMENT* Volume: 384 Issue: 1-3 Pages: 229-238 Published: OCT 1 2007
- 351.** Tanyolac, Deniz; Ekmekci, Yasemin; Unalan, Seniz Changes in photochemical and antioxidant enzyme activities in maize (*Zea mays* L.) leaves exposed to excess copper *CHEMOSPHERE* Volume: 67 Issue: 1 Pages: 89-98 Published: FEB 2007
- 352.** Meng, Qingmin; Zou, Jing; Zou, Jinhua; et al. Effect of CU(2+) concentration on growth, antioxidant enzyme activity and malondialdehyde content in garlic (*Allium sativum* L.) *ACTA BIOLOGICA CRACoviENSIA SERIES BOTANICA* Volume: 49 Issue: 1 Pages: 95-101 Published: 2007
- 353.** Chen, J.; Zhu, C.; Lin, D.; et al. The effects of Cd on lipid peroxidation, hydrogen peroxide content and antioxidant enzyme activities in Cd-sensitive mutant rice seedlings *CANADIAN JOURNAL OF PLANT SCIENCE* Volume: 87 Issue: 1 Pages: 49-57 Published: JAN 2007
- 354.** Baycu, Gulriz; Tolunay, Doganay; Ozden, Hakan; et al. Ecophysiological and seasonal variations in Cd, Pb, Zn, and Ni concentrations in the leaves of urban deciduous trees in Istanbul *ENVIRONMENTAL POLLUTION* Volume: 143 Issue: 3 Pages: 545-554 Published: OCT 2006
- 355.** Dong, Jing; Wu, Feibo; Zhang, Guoping Influence of cadmium on antioxidant capacity and four microelement concentrations in tomato seedlings (*Lycopersicon esculentum*) *CHEMOSPHERE* Volume: 64 Issue: 10 Pages: 1659-1666 Published: SEP 2006
- 356.** Singh, S; Eapen, S; D'Souza, SF Cadmium accumulation and its influence on lipid peroxidation and antioxidative system in an aquatic plant, *Bacopa monnieri* L. *CHEMOSPHERE* Volume: 62 Issue: 2 Pages: 233-246 Published: JAN 2006
- 357.** Sharma, P; Dubey, RS Drought induces oxidative stress and enhances the activities of antioxidant enzymes in growing rice seedlings *PLANT GROWTH REGULATION* Volume: 46 Issue: 3 Pages: 209-221 Published: JUL 2005
- 358.** Sinha, S; Saxena, R; Singh, S Chromium induced lipid-peroxidation in the plants of *Pistia stratiotes* L.: role of antioxidants and antioxidant enzymes *CHEMOSPHERE* Volume: 58 Issue: 5 Pages: 595-604 Published: FEB 2005
- 359.** Gratao, PL; Polle, A; Lea, PJ; et al. Making the life of heavy metal-stressed plants a little easier *FUNCTIONAL PLANT BIOLOGY* Volume: 32 Issue: 6 Pages: 481-494 Published: 2005
- 360.** Metwally, A; Safronova, VI; Belimov, AA; et al. Genotypic variation of the response to cadmium toxicity in *Pisum sativum* *JOURNAL OF EXPERIMENTAL BOTANY* Volume: 56 Issue: 409 Pages: 167-178 Published: JAN 2005
- 361.** Hassan, MJ; Shao, GS; Zhang, GP Influence of cadmium toxicity on growth and antioxidant enzyme activity in rice cultivars with different grain cadmium accumulation *JOURNAL OF PLANT NUTRITION* Volume: 28 Issue: 7 Pages: 1259-1270 Published: 2005
- 362.** Srivastava, S; Tripathi, RD; Dwivedi, UN Synthesis of phytochelatins and modulation of antioxidants in response to cadmium stress in *Cuscuta reflexa* - an angiospermic parasite *JOURNAL OF PLANT PHYSIOLOGY* Volume: 161 Issue: 6 Pages: 665-674 Published: JUN 2004
- 363.** Ozden, H; Baycu, G Cadmium exposure and changes in some physiological parameters of *Quercus robur* ssp. *robur* l. (common oak) and *Acer negundo* L. (box elder) seedlings *FRESENIUS ENVIRONMENTAL BULLETIN* Volume: 13 Issue: 3B Pages: 268-273 Published: 2004
- 364.** Zhu, ZJ; Sun, GW; Fang, XZ; et al. Genotypic differences in effects of cadmium exposure on plant growth and contents of cadmium and elements in 14 cultivars of Bai Cai *JOURNAL OF ENVIRONMENTAL SCIENCE AND HEALTH PART B-PESTICIDES FOOD CONTAMINANTS AND AGRICULTURAL WASTES* Volume: 39 Issue: 4 Pages: 675-687 Published: 2004



- 365.** Shah, K; Kumar, RG; Verma, S; et al. Effect of cadmium on lipid peroxidation, superoxide anion generation and activities of antioxidant enzymes in growing rice seedlings PLANT SCIENCE Volume: 161 Issue: 6 Pages: 1135-1144 Published: NOV 2001
- 366.** Silva, Adinan Alves da; Oliveira, Juraci Alves de; Campos, Fernanda Vidal de; et al. Role of glutathione in tolerance to arsenite in *Salvinia molesta*, an aquatic fern Acta Botanica Brasilica Volume: 31 Issue: 4 Pages: 657-664 Published: 2017-09

Autocitati:

- 367.** Ducic, Tanja; Polle, Andrea Transport and detoxification of manganese and copper in plants (Transporte e destoxificação de manganês e cobre em plantas) Brazilian Journal of Plant Physiology Volume: 17 Issue: 1 Pages: 103-112 Published: 2005
- 368.** Ducic, Tanja; Maksimovic, V.; Radotic, Ksenija Oxalate oxidase and non-enzymatic compounds of the antioxidative system in young Serbian spruce plants exposed to cadmium stress ARCHIVES OF BIOLOGICAL SCIENCES Volume: 60 Issue: 1 Pages: 67-76 Published: 2008

**25. Dučić T. and Polle A. (2005). Transport and detoxification of manganese and copper in plants. Brazilian Journal of Plant Physiology. 17 (1): 103-112, DOI:10.1590/S1677-04202005000100009 Citata 105 (M<sub>23</sub>, PLANT SCIENCES (nema IF).**

Heterocitati:

- 369.** Roy, Swapan Kumar; Cho, Seong-Woo; Kwon, Soo Jeong; et al. Proteome characterization of copper stress responses in the roots of sorghum BIOMETALS Volume: 30 Issue: 5 Pages: 765-785 Published: OCT 2017
- 370.** de Araujo, Romaria Pereira; de Almeida, Alex-Alan Furtado; Pereira, Lidiane Silva; et al. Photosynthetic, antioxidative, molecular and ultrastructural responses of young cacao plants to Cd toxicity in the soil ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY Volume: 144 Pages: 148-157 Published: OCT 2017
- 371.** Reyes-Diaz, Marjorie; Inostroza-Blancheteau, Claudio; Berrios, Graciela; et al. Physiological traits and Mn transporter genes expression in ryegrass genotypes under increasing Mn at short-term PLANT PHYSIOLOGY AND BIOCHEMISTRY Volume: 118 Pages: 218-227 Published: SEP 2017
- 372.** Ma, Dongyun; Sun, Dexiang; Wang, Chenyang; et al. Physiological Responses and Yield of Wheat Plants in Zinc-Mediated Alleviation of Drought Stress FRONTIERS IN PLANT SCIENCE Volume: 8 Article Number: 860 Published: MAY 24 2017
- 373.** Santos, Elcio Ferreira; Kondo Santini, Jose Mateus; Paixao, Amanda Pereira; et al. Physiological highlights of manganese toxicity symptoms in soybean plants: Mn toxicity responses PLANT PHYSIOLOGY AND BIOCHEMISTRY Volume: 113 Pages: 6-19 Published: APR 2017
- 374.** Inostroza-Blancheteau, Claudio; Reyes-Diaz, Marjorie; Berrios, Graciela; et al. Physiological and biochemical responses to manganese toxicity in ryegrass (*Lolium perenne* L.) genotypes PLANT PHYSIOLOGY AND BIOCHEMISTRY Volume: 113 Pages: 89-97 Published: APR 2017
- 375.** Trebolazabala, Josu; Maguregui, Maite; Morillas, Hector; et al. Evaluation of metals distribution in *Solanum lycopersicum* plants located in a coastal environment using micro-energy dispersive X-ray fluorescence imaging MICROCHEMICAL JOURNAL Volume: 131 Pages: 137-144 Published: MAR 2017
- 376.** Srivastava, Neerja Remediation of Polluted Soils Using Hyperaccumulator Plants Edited by: Anjum, NA; Gill, SS; Tuteja, N ENHANCING CLEANUP OF ENVIRONMENTAL POLLUTANTS, VOL 1: BIOLOGICAL APPROACHES Pages: 187-214 Published: 2017
- 377.** Neeratanaphan, Lamyai; Khamma, Sukanya; Benchawattananon, Rachadaporn; et al. Heavy metal accumulation in rice (*Oryza sativa*) near electronic waste dumps and related human health risk assessment HUMAN AND ECOLOGICAL RISK ASSESSMENT Volume: 23 Issue: 5 Pages: 1086-1098 Published: 2017
- 378.** Muzolf-Panek, Malgorzata; Kleiber, Tomasz; Kaczmarek, Anna Effect of increasing manganese concentration in nutrient solution on the antioxidant activity, vitamin C, lycopene and polyphenol contents of tomato fruit FOOD ADDITIVES AND CONTAMINANTS PART A-CHEMISTRY ANALYSIS CONTROL EXPOSURE & RISK ASSESSMENT Volume: 34 Issue: 3 Pages: 379-389 Published: 2017
- 379.** Przybysz, Arkadiusz; Wrochna, Mariola; Gawronska, Helena; et al. EFFECT OF MANGANESE ON YIELD AND QUALITY OF HYDROPONICALLY GROWN LETTUCE JOURNAL OF ELEMENTOLOGY Volume: 22 Issue: 1 Pages: 315-327 Published: 2017
- 380.** Bachiega Zambrosi, Fernando C.; Lima Mesquita, Geisa; Ribeiro Marchiori, Paulo E.; et al. Anatomical and physiological bases of sugarcane tolerance to manganese toxicity ENVIRONMENTAL AND EXPERIMENTAL BOTANY Volume: 132 Pages: 100-112 Published: DEC 2016

- 381.** Rahman, Anisur; Nahar, Kamrun; Hasanuzzaman, Mirza; et al. Manganese-induced cadmium stress tolerance in rice seedlings: Coordinated action of antioxidant defense, glyoxalase system and nutrient homeostasis *COMPRES RENDUS BIOLOGIQUES* Volume: 339 Issue: 11-12 Pages: 462-474 Published: NOV-DEC 2016
- 382.** Takoutsing, Bertin; Weber, John; Aynekulu, Ermias; et al. Assessment of soil health indicators for sustainable production of maize in smallholder farming systems in the highlands of Cameroon *GEODERMA* Volume: 276 Pages: 64-73 Published: AUG 15 2016
- 383.** Ceglowska, Aurelia; Sokolowska, Katarzyna; Samecka-Cymerman, Aleksandra; et al. Copper and zinc in *Elodea canadensis* from rivers with various pollution levels *ECOLOGICAL INDICATORS* Volume: 67 Pages: 156-165 Published: AUG 2016
- 384.** Rahman, Anisur; Hossain, Md Shahadat; Jubayer-Al Mahmud; et al. Manganese-induced salt stress tolerance in rice seedlings: regulation of ion homeostasis, antioxidant defense and glyoxalase systems *PHYSIOLOGY AND MOLECULAR BIOLOGY OF PLANTS* Volume: 22 Issue: 3 Pages: 291-306 Published: JUL 2016
- 385.** Grygo-Szymanko, Emilia; Tobiasz, Anna; Walas, Stanislaw Speciation analysis and fractionation of manganese: A review *TRAC-TRENDS IN ANALYTICAL CHEMISTRY* Volume: 80 Pages: 112-124 Published: JUN 2016
- 386.** Roy, Swapan Kumar; Kwon, Soo Jeong; Cho, Seong-Woo; et al. Leaf proteome characterization in the context of physiological and morphological changes in response to copper stress in sorghum *BIOMETALS* Volume: 29 Issue: 3 Pages: 495-513 Published: JUN 2016
- 387.** Svec, Pavel; Kovacik, Jozef; Hedbavny, Josef; et al. Impact of Anions, Cations, and pH on Manganese Accumulation and Toxicity in the Green Alga *Scenedesmus quadricauda* *WATER AIR AND SOIL POLLUTION* Volume: 227 Issue: 5 Article Number: 161 Published: MAY 2016
- 388.** Wang, Yanjie; Dong, Chunlan; Xue, Zeyun; et al. De novo transcriptome sequencing and discovery of genes related to copper tolerance in *Paeonia ostii* *GENE* Volume: 576 Issue: 1 Pages: 126-135 Part: 1 Published: JAN 15 2016
- 389.** Terrazas, R. Alegria; Giles, C.; Paterson, E.; et al. Plant-Microbiota Interactions as a Driver of the Mineral Turnover in the Rhizosphere Edited by: Sariaslani, S; Gadd, GM *ADVANCES IN APPLIED MICROBIOLOGY*, VOL 95 Book Series: Advances in Applied Microbiology Volume: 95 Pages: 1-67 Published: 2016
- 390.** Arpali, Digidem; Furan, M. Alp; Ozturkci, Yusuf RECOVERING WHEAT (*TRITICUM AESTIVUM* L.) TO INTAKE MINERAL NUTRIENT COMPONENTS UNDER DROUGHT STRESS WITH SALICYLIC ACID *FRESENIUS ENVIRONMENTAL BULLETIN* Volume: 25 Issue: 9 Pages: 3395-3402 Published: 2016
- 391.** Kunhikrishnan, A.; Thangarajan, R.; Bolan, N. S.; et al. Functional Relationships of Soil Acidification, Liming, and Greenhouse Gas Flux Edited by: Sparks, DL *ADVANCES IN AGRONOMY*, VOL 139 Book Series: Advances in Agronomy Volume: 139 Pages: 1-71 Published: 2016
- 392.** Fernando, Denise R.; Lynch, Jonathan P. Manganese phytotoxicity: new light on an old problem *ANNALS OF BOTANY* Volume: 116 Issue: 3 Pages: 313-319 Published: SEP 2015
- 393.** Kang, Caixia; Kuba, Takahiro; Hao, Aimin; et al. Antioxidant Responses of *Vallisneria spiralis* to Eutrophic Sediments in Lake Taihu, China *BULLETIN OF ENVIRONMENTAL CONTAMINATION AND TOXICOLOGY* Volume: 95 Issue: 2 Pages: 194-199 Published: AUG 2015
- 394.** Zlobin, I. E.; Kholodova, V. P.; Rakhmankulova, Z. F.; et al. Brassica napus responses to short-term excessive copper treatment with decrease of photosynthetic pigments, differential expression of heavy metal homeostasis genes including activation of gene *NRAMP4* involved in photosystem II stabilization *PHOTOSYNTHESIS RESEARCH* Volume: 125 Issue: 1-2 Special Issue: SI Pages: 141-150 Published: AUG 2015
- 395.** Mei, Lei; Daud, M. K.; Ullah, Najeeb; et al. Pretreatment with salicylic acid and ascorbic acid significantly mitigate oxidative stress induced by copper in cotton genotypes *ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH* Volume: 22 Issue: 13 Pages: 9922-9931 Published: JUL 2015
- 396.** Tripathi, Durgesh Kumar; Singh, Shweta; Singh, Swati; et al. Micronutrients and their diverse role in agricultural crops: advances and future prospective *ACTA PHYSIOLOGIAE PLANTARUM* Volume: 37 Issue: 7 Article Number: 139 Published: JUL 2015
- 397.** Vieira, Licielo Romero; Correa, Emerson Silveira; Moraes, Beatriz Stoll; et al. Cadmium toxicity in plants *REVISTA ELETRONICA EM GESTAO EDUCACAO E TECNOLOGIA AMBIENTAL* Volume: 19 Issue: 2 Pages: 1574-1588 Published: MAY-AUG 2015
- 398.** Qin, Rong; Wang, Congyue; Chen, Da; et al. COPPER-INDUCED ROOT GROWTH INHIBITION OF *ALLIUM CEPA* VAR. *AGROGARUM* L. INVOLVES DISTURBANCES IN CELL DIVISION AND DNA DAMAGE *ENVIRONMENTAL TOXICOLOGY AND CHEMISTRY* Volume: 34 Issue: 5 Pages: 1045-1055 Published: MAY 2015
- 399.** Nobre Esposito, Jessica Bordotti; Esposito, Breno Pannia; Azevedo, Ricardo Antunes; et al. Protective effect of Mn(III)-desferrioxamine B upon oxidative stress caused by ozone and acid rain in the Brazilian soybean cultivar *Glycine max* "Sambaiba" *ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH* Volume: 22 Issue: 7 Pages: 5315-5324 Published: APR 2015

- 400.** Adamczyk-Szabela, Dorota; Markiewicz, Justyna; Wolf, Wojciech M. Heavy Metal Uptake by Herbs. IV. Influence of Soil pH on the Content of Heavy Metals in *Valeriana officinalis* L. WATER AIR AND SOIL POLLUTION Volume: 226 Issue: 4 Article Number: 106 Published: APR 2015
- 401.** Anjum, Naser A.; Singh, Harminder P.; Khan, M. Iqbal R.; et al. Too much is bad-an appraisal of phytotoxicity of elevated plant-beneficial heavy metal ions Conference: 2nd International Conference on Water, Energy, and Environment (ICWEE) Location: Kusadasi, TURKEY Date: SEP 21-24, 2013 ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Volume: 22 Issue: 5 Pages: 3361-3382 Published: MAR 2015
- 402.** Kleiber, Tomasz EFFECT OF MANGANESE ON NUTRIENT CONTENT IN TOMATO (*LYCOPERSICON ESCULENTUM* MILL.) LEAVES JOURNAL OF ELEMENTOLOGY Volume: 20 Issue: 1 Pages: 115-126 Published: MAR 2015
- 403.** de Araujo, Talita Oliveira; de Freitas-Silva, Larisse; Nova Santana, Brenda Vila; et al. Morphoanatomical responses induced by excess iron in roots of two tolerant grass species ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Volume: 22 Issue: 3 Pages: 2187-2195 Published: FEB 2015
- 404.** Lyubenova, Lyudmila; Bipuah, Hanif; Belford, Ebenezer; et al. Comparative study on the impact of copper sulphate and copper nitrate on the detoxification mechanisms in *Typha latifolia* ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Volume: 22 Issue: 1 Pages: 657-666 Published: JAN 2015
- 405.** Gibczynska, Marzena; Galezyczna, Malgorzata; Stankowski, Slawomir; et al. INFLUENCE OF COAL ASH FROM FLUIDIZED-BED COMBUSTION AND EM-1 PREPARATION ON THE CONTENT OF Fe AND Mn IN SPRING WHEAT AND BARLEY JOURNAL OF ELEMENTOLOGY Volume: 19 Issue: 4 Pages: 977-988 Published: DEC 2014
- 406.** Matijevic, Lana; Romic, Davor; Romic, Marija Soil organic matter and salinity affect copper bioavailability in root zone and uptake by *Vicia faba* L. plants Conference: 29th SEGH Conference on Environmental Geochemistry and Health Location: Toulouse, FRANCE Date: JUL 08-12, 2013 ENVIRONMENTAL GEOCHEMISTRY AND HEALTH Volume: 36 Issue: 5 Special Issue: SI Pages: 883-896 Published: OCT 2014
- 407.** Parashar, Akshaya; Yusuf, Mohammad; Fariduddin, Qazi; et al. Salicylic acid enhances antioxidant system in *Brassica juncea* grown under different levels of manganese INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES Volume: 70 Pages: 551-558 Published: SEP 2014
- 408.** Jhanji, Shalini; Sadana, Upkar Singh Genotypic variation in partitioning of dry matter and manganese between source and sink organs of rice under manganese stress PLANT CELL REPORTS Volume: 33 Issue: 8 Pages: 1227-1238 Published: AUG 2014
- 409.** Martins, Viviana; Bassil, Elias; Hanana, Mohsen; et al. Copper homeostasis in grapevine: functional characterization of the *Vitis vinifera* copper transporter 1 PLANTA Volume: 240 Issue: 1 Pages: 91-101 Published: JUL 2014
- 410.** Schoeler, Andreas; Zaharieva, Ivelina; Zimmermann, Sebastian; et al. Biogenic Manganese-Calcium Oxides on the Cell Walls of the Algae *Chara corallina*: Elemental Composition, Atomic Structure, and Water-Oxidation Catalysis EUROPEAN JOURNAL OF INORGANIC CHEMISTRY Issue: 4 Special Issue: SI Pages: 780-790 Published: FEB 2014
- 411.** Nova Santana, Brenda Vila; de Araujo, Talita Oliveira; Andrade, Guilherme Carvalho; et al. Leaf morphoanatomy of species tolerant to excess iron and evaluation of their phytoextraction potential ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Volume: 21 Issue: 4 Pages: 2550-2562 Published: FEB 2014
- 412.** de Araujo, Talita Oliveira; de Freitas-Silva, Larisse; Nova Santana, Brenda Vila; et al. Tolerance to iron accumulation and its effects on mineral composition and growth of two grass species ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH Volume: 21 Issue: 4 Pages: 2777-2784 Published: FEB 2014
- 413.** Kleiber, Tomasz; Borowiak, Klaudia; Budka, Anna; et al. RELATIONS BETWEEN MN CONCENTRATION AND YIELD, NUTRIENT, WATER STATUS, AND GAS EXCHANGE PARAMETERS OF TOMATO ACTA BIOLOGICA CRACOVIENSIS SERIES BOTANICA Volume: 56 Issue: 2 Pages: 98-106 Published: 2014
- 414.** Kleiber, Tomasz EFFECT OF MANGANESE NUTRITION ON CONTENT OF NUTRIENT AND YIELD OF LETTUCE (*Lactuca sativa* L.) IN HYDROPONIC ECOLOGICAL CHEMISTRY AND ENGINEERING SCHEMIA I INZYNIERIA EKOLOGICZNA S Volume: 21 Issue: 3 Pages: 529-537 Published: 2014
- 415.** DalCorso, Giovanni; Manara, Anna; Piasentin, Silvia; et al. Nutrient metal elements in plants METALLOMICS Volume: 6 Issue: 10 Pages: 1770-1788 Published: 2014
- 416.** Ngezimana, Wonder; Agenbag, Gert Andries Nitrogen and Sulfur Effects on Macro- and Micronutrient Contents in Canola (*Brassica napus* L.) Grown on Acidic Soils of the Western Cape Province of South Africa COMMUNICATIONS IN SOIL SCIENCE AND PLANT ANALYSIS Volume: 45 Issue: 13 Pages: 1840-1851 Published: 2014
- 417.** Kleiber, Tomasz CHANGES OF NUTRIENT CONTENTS IN TOMATO FRUITS UNDER THE INFLUENCE OF INCREASING INTENSITY OF MANGANESE NUTRITION ECOLOGICAL CHEMISTRY AND ENGINEERING SCHEMIA I INZYNIERIA EKOLOGICZNA S Volume: 21 Issue: 2 Pages: 297-307 Published: 2014

- 418.** Rojas-Lillo, Yesenia; Alberdi, Miren; Acevedo, Patricio; et al. Manganese toxicity and UV-B radiation differentially influence the physiology and biochemistry of highbush blueberry (*Vaccinium corymbosum*) cultivars *FUNCTIONAL PLANT BIOLOGY* Volume: 41 Issue: 2 Pages: 156-167 Published: 2014
- 419.** Souza, Vania L.; de Almeida, Alex-Alan F.; Souza, Jadel de S.; et al. Altered physiology, cell structure, and gene expression of *Theobroma cacao* seedlings subjected to Cu toxicity *ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH* Volume: 21 Issue: 2 Pages: 1217-1230 Published: JAN 2014
- 420.** Xu, Qinsong; Qiu, Han; Chu, Weiyue; et al. Copper ultrastructural localization, subcellular distribution, and phytotoxicity in *Hydrilla verticillata* (L.f.) Royle Conference: Contaminated land, ecological assessment, and remediation conference series (CLEAR) Location: Hangzhou, CHINA 2012 *ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH* Volume: 20 Issue: 12 Pages: 8672-8679 Published: DEC 2013
- 421.** Arunakumara, K. K. I. U.; Walpola, Buddhi Charana; Yoon, Min-Ho Alleviation of Phyto-toxicity of Copper on Agricultural Plants *JOURNAL OF THE KOREAN SOCIETY FOR APPLIED BIOLOGICAL CHEMISTRY* Volume: 56 Issue: 5 Pages: 505-517 Published: OCT 2013
- 422.** Zhou, Chen-Ping; Qi, Yi-Ping; You, Xiang; et al. Leaf cDNA-AFLP analysis of two citrus species differing in manganese tolerance in response to long-term manganese-toxicity *BMC GENOMICS* Volume: 14 Article Number: 621 Published: SEP 14 2013
- 423.** Gorska-Czekaj, Magdalena; Borucki, Wojciech A correlative study of hydrogen peroxide accumulation after mercury or copper treatment observed in root nodules of *Medicago truncatula* under light, confocal and electron microscopy *MICRON* Volume: 52-53 Pages: 24-32 Published: SEP-OCT 2013
- 424.** Barbosa, Rogerio Hidalgo; Tabaldi, Luciane Almeri; Miyazaki, Fabio Rodrigo; et al. Foliar copper uptake by maize plants: effects on growth and yield *CIENCIA RURAL* Volume: 43 Issue: 9 Pages: 1561-1568 Published: SEP 2013
- 425.** Yuan, Hong-Mei; Xu, Heng-Hao; Liu, Wen-Cheng; et al. Copper Regulates Primary Root Elongation Through PIN1-Mediated Auxin Redistribution *PLANT AND CELL PHYSIOLOGY* Volume: 54 Issue: 5 Special Issue: SI Pages: 766-778 Published: MAY 2013
- 426.** Fidalgo, Fernanda; Azenha, Manuel; Silva, Antonio; et al. Copper-induced stress in *Solanum nigrum* L. and antioxidant defense system responses *FOOD AND ENERGY SECURITY* Volume: 2 Issue: 1 Pages: 70-80 Published: MAY 2013
- 427.** Ando, Yuko; Nagata, Shinji; Yanagisawa, Schuichi; et al. Copper in xylem and phloem saps from rice (*Oryza sativa*): the effect of moderate copper concentrations in the growth medium on the accumulation of five essential metals and a speciation analysis of copper-containing compounds *FUNCTIONAL PLANT BIOLOGY* Volume: 40 Issue: 1 Pages: 89-100 Published: 2013
- 428.** Verbruggen, Nathalie; Hermans, Christian Root Responses to Trace Metallic Elements Edited by: Eshel, A; Beeckman, T *PLANT ROOTS: THE HIDDEN HALF, 4TH EDITION* Published: 2013
- 429.** Martins, Viviana; Hanana, Mohsen; Blumwald, Eduardo; et al. Copper Transport and Compartmentation in Grape Cells *PLANT AND CELL PHYSIOLOGY* Volume: 53 Issue: 11 Pages: 1866-1880 Published: NOV 2012
- 430.** Maksimovic, Jelena Dragisic; Mojovic, Milos; Maksimovic, Vuk; et al. Silicon ameliorates manganese toxicity in cucumber by decreasing hydroxyl radical accumulation in the leaf apoplast *JOURNAL OF EXPERIMENTAL BOTANY* Volume: 63 Issue: 7 Pages: 2411-2420 Published: APR 2012
- 431.** Gasecka, Monika; Mleczek, Miroslaw; Drzewicka, Kinga; et al. Physiological and morphological changes in *Salix viminalis* L. as a result of plant exposure to copper *JOURNAL OF ENVIRONMENTAL SCIENCE AND HEALTH PART A-TOXIC/HAZARDOUS SUBSTANCES & ENVIRONMENTAL ENGINEERING* Volume: 47 Issue: 4 Pages: 548-557 Published: MAR 2012
- 432.** Karim, Md Rezaul; Zhang, Yue-Qiang; Zhao, Rong-Rong; et al. Alleviation of drought stress in winter wheat by late foliar application of zinc, boron, and manganese *JOURNAL OF PLANT NUTRITION AND SOIL SCIENCE* Volume: 175 Issue: 1 Pages: 142-151 Published: FEB 2012
- 433.** Castillo, O. S.; Dasgupta-Schubert, N.; Alvarado, C. J.; et al. The effect of the symbiosis between *Tagetes erecta* L. (marigold) and *Glomus intraradices* in the uptake of Copper(II) and its implications for phytoremediation Conference: 14th International Biotechnology Symposium and Exhibition Location: Rimini, ITALY Date: SEP 14-18, 2010 *NEW BIOTECHNOLOGY* Volume: 29 Issue: 1 Special Issue: SI Pages: 156-164 Published: DEC 15 2011
- 434.** Migocka, Magdalena; Papierniak, Anna; Kosatka, Ewelina; et al. Comparative study of the active cadmium efflux systems operating at the plasma membrane and tonoplast of cucumber root cells *JOURNAL OF EXPERIMENTAL BOTANY* Volume: 62 Issue: 14 Pages: 4903-4916 Published: OCT 2011
- 435.** Hernandez, Amanda; Cazetta, Jairo Osvaldo; Natale, William; et al. FRACTIONATION OF MANGANESE ACCUMULATED IN TISSUE OF STAR FRUIT PLANTLETS *REVISTA BRASILEIRA DE CIENCIA DO SOLO* Volume: 35 Issue: 5 Pages: 1679-1685 Published: SEP-OCT 2011
- 436.** Dorling, Sarah J.; Leung, Susanna; Anderson, Chris W. N.; et al. Changes in 1-aminocyclopropane-1-carboxylate (ACC) oxidase expression and enzyme activity in response to excess manganese in white clover (*Trifolium repens* L.) *PLANT PHYSIOLOGY AND BIOCHEMISTRY* Volume: 49 Issue: 9 Pages: 1013-1019 Published: SEP 2011
- 437.** Iseri, Ozlem Darcansoy; Korpe, Didem Aksoy; Yurtcu, Erkan; et al. Copper-induced oxidative damage, antioxidant response and genotoxicity in *Lycopersicon esculentum* Mill. and *Cucumis sativus* L. *PLANT CELL REPORTS* Volume: 30 Issue: 9 Pages: 1713-1721 Published: SEP 2011

- 438.** Dasgupta-Schubert, N.; Barrera, M. G.; Alvarado, C. J.; et al. The Uptake of Copper by *Aldama dentata*: Ecophysiological Response, Its Modeling, and the Implication for Phytoremediation WATER AIR AND SOIL POLLUTION Volume: 220 Issue: 1-4 Pages: 37-55 Published: SEP 2011
- 439.** Choudhary, Sikander Pal; Bhardwaj, Renu; Gupta, B. D.; et al. Enhancing effects of 24-epibrassinolide and Putrescine on the antioxidant capacity and free radical scavenging activity of *Raphanus sativus* seedlings under Cu ion stress ACTA PHYSIOLOGIAE PLANTARUM Volume: 33 Issue: 4 Pages: 1319-1333 Published: JUL 2011
- 440.** Solti, Adam; Sarvari, Eva; Toth, Brigitta; et al. Cd affects the translocation of some metals either Fe-like or Ca-like way in poplar PLANT PHYSIOLOGY AND BIOCHEMISTRY Volume: 49 Issue: 5 Special Issue: SI Pages: 494-498 Published: MAY 2011
- 441.** Bilodeau-Gauthier, Simon; Houle, Daniel; Gagnon, Christian; et al. Assessment of sugar maple tree growth in relation to the partitioning of elements in xylem along a soil acidity gradient FOREST ECOLOGY AND MANAGEMENT Volume: 261 Issue: 1 Pages: 95-104 Published: JAN 1 2011
- 442.** dos Reis, Andre Rodrigues; Lavres Junior, Jose Genotypic Influence on the Absorption, Use and Toxicity of Manganese by Soybean Edited by: Sudaric, A SOYBEAN - MOLECULAR ASPECTS OF BREEDING Pages: 241-258 Published: 2011
- 443.** Hernandes, Amanda; Natale, William; Cazetta, Jairo Osvaldo; et al. INFLUENCE OF MANGANESE ON GROWTH AND IN THE MINERAL COMPOSITION OF STAR FRUIT TREE SEEDLINGS REVISTA BRASILEIRA DE FRUTICULTURA Volume: 32 Issue: 4 Pages: 1220-1230 Published: DEC 2010
- 444.** Liu, Peng; Tang, Xiumei; Gong, Chunfeng; et al. Manganese tolerance and accumulation in six Mn hyperaccumulators or accumulators PLANT AND SOIL Volume: 335 Issue: 1-2 Pages: 385-395 Published: OCT 2010
- 445.** Bouazizi, Houda; Jouili, Hager; Geitmann, Anja; et al. CUPRIC STRESS INDUCES OXIDATIVE DAMAGE MARKED BY ACCUMULATION OF H<sub>2</sub>O<sub>2</sub> AND CHANGES TO CHLOROPLAST ULTRASTRUCTURE IN PRIMARY LEAVES OF BEANS (*PHASEOLUS VULGARIS* L.) ACTA BIOLOGICA HUNGARICA Volume: 61 Issue: 2 Pages: 191-203 Published: JUN 2010
- 446.** Berber, I.; Onlu, H.; Ekin, S.; et al. Investigation of Some Physiological and Biochemical Parameters in *Pseudomonas syringae*-Infected Tomato Plants ASIAN JOURNAL OF CHEMISTRY Volume: 22 Issue: 6 Pages: 4898-4906 Published: JUN 2010
- 447.** Yener, Sait Hamdi; Yarci, Celal *Alcea pallida* WALDST. & KIT. (MALVACEAE) AS A HEAVY METAL BIOMONITOR IN ISTANBUL (TURKEY) FRESENIUS ENVIRONMENTAL BULLETIN Volume: 19 Issue: 5A Pages: 1024-1030 Published: 2010
- 448.** Millaleo, R.; Reyes-Diaz, M.; Ivanov, A. G.; et al. MANGANESE AS ESSENTIAL AND TOXIC ELEMENT FOR PLANTS: TRANSPORT, ACCUMULATION AND RESISTANCE MECHANISMS JOURNAL OF SOIL SCIENCE AND PLANT NUTRITION Volume: 10 Issue: 4 Pages: 476-494 Published: 2010
- 449.** Lavres Junior, Jose; Reis, Andre Rodrigues; Rossi, Monica Lanzoni; et al. Changes in the ultrastructure of soybean cultivars in response to manganese supply in solution culture SCIENTIA AGRICOLA Volume: 67 Issue: 3 Pages: 287-294 Published: 2010
- 450.** Carmen Marti, M.; Camejo, Daymi; Fernandez-Garcia, Nieves; et al. Effect of oil refinery sludges on the growth and antioxidant system of alfalfa plants JOURNAL OF HAZARDOUS MATERIALS Volume: 171 Issue: 1-3 Pages: 879-885 Published: NOV 15 2009
- 451.** Baslar, Suleyman; Dogan, Yunus; Durkan, Nazmi; et al. Biomonitoring of zinc and manganese in bark of Turkish red pine of western Anatolia JOURNAL OF ENVIRONMENTAL BIOLOGY Volume: 30 Issue: 5 Pages: 831-834 Published: SEP 2009
- 452.** Upadhyay, Rishi Kesh; Panda, Sanjib Kumar Copper-induced growth inhibition, oxidative stress and ultrastructural alterations in freshly grown water lettuce (*Pistia stratiotes* L.) COMPTES RENDUS BIOLOGIES Volume: 332 Issue: 7 Pages: 623-632 Published: JUL 2009
- 453.** Lavres Junior, Jose; Malavolta, Euripedes; Nogueira, Neusa de Lima; et al. CHANGES IN ANATOMY AND ROOT CELL ULTRASTRUCTURE OF SOYBEAN GENOTYPES UNDER MANGANESE STRESS REVISTA BRASILEIRA DE CIENCIA DO SOLO Volume: 33 Issue: 2 Pages: 395-403 Published: MAR-APR 2009
- 454.** Juknys, Romualdas; Racaite, Milda; Vitkauskaitė, Giedre; et al. THE EFFECT OF HEAVY METALS ON SPRING BARLEY (*Hordeum vulgare* L.) ZEMDIRBYSTE-AGRICULTURE Volume: 96 Issue: 2 Pages: 111-124 Published: 2009
- 455.** Stoyanova, Zlatimira; Zozikova, Ekaterina; Poschenrieder, Charlotte; et al. THE EFFECT OF SILICON ON THE SYMPTOMS OF MANGANESE TOXICITY IN MAIZE PLANTS ACTA BIOLOGICA HUNGARICA Volume: 59 Issue: 4 Pages: 479-487 Published: DEC 2008
- 456.** Teklic, Tihana; Engler, Meri; Cesar, Vera; et al. Influence of excess copper on lettuce (*Lactuca sativa* L.) grown in soil and nutrient solution JOURNAL OF FOOD AGRICULTURE & ENVIRONMENT Volume: 6 Issue: 3-4 Pages: 439-444 Published: JUL-OCT 2008
- 457.** Teklic, Tihana; Hancock, John T.; Engler, Meri; et al. ANTIOXIDATIVE RESPONSES IN RADISH (*RAPHANUS SATIVUS* L.) PLANTS STRESSED BY COPPER AND LEAD IN NUTRIENT SOLUTION AND SOIL ACTA BIOLOGICA CRACOVENSIS SERIES BOTANICA Volume: 50 Issue: 2 Pages: 79-86 Published: 2008

- 458.** Shah, K.; Nongkynrih, J. M. Metal hyperaccumulation and bioremediation *BIOLOGIA PLANTARUM* Volume: 51 Issue: 4 Pages: 618-634 Published: DEC 2007
- 459.** Navratil, Tom; Shanley, James B.; Skrivan, Petr; et al. Manganese biogeochemistry in a central czech republic catchment *WATER AIR AND SOIL POLLUTION* Volume: 186 Issue: 1-4 Pages: 149-165 Published: NOV 2007
- 460.** Vernay, Philippe; Gauthier-Moussard, Cecile; Hitmi, Adnane Interaction of bioaccumulation of heavy metal chromium with water relation, mineral nutrition and photosynthesis in developed leaves of *Lolium perenne* L. *CHEMOSPHERE* Volume: 68 Issue: 8 Pages: 1563-1575 Published: JUL 2007
- 461.** Almeida, Alex-Alan F. de; Valle, Raúl R.; Mielke, Marcelo S.; et al. Tolerance and prospection of phytoremediator woody species of Cd, Pb, Cu and Cr (Tolerância e prospecção de espécies lenhosas fitoremediadoras de Cd, Pb, Cu e Cr) *Brazilian Journal of Plant Physiology* Volume: 19 Issue: 2 Pages: 83-98 Published: 2007-06
- 462.** Rosas, Anali; Rengel, Zed; de la Luz Mora, Maria Manganese supply and pH influence growth, carboxylate exudation and peroxidase activity of ryegrass and white clover *JOURNAL OF PLANT NUTRITION* Volume: 30 Issue: 2 Pages: 253-270 Published: 2007
- 463.** Srivastava, Sudhakar; Mishra, Seema; Tripathi, Rudra D.; et al. Copper-induced oxidative stress and responses of antioxidants and phytochelatins in *Hydrilla verticillata* (L.f.) Royle *AQUATIC TOXICOLOGY* Volume: 80 Issue: 4 Pages: 405-415 Published: DEC 30 2006
- 464.** Niehl, A; Lacomme, C; Erban, A; et al. Systemic Potato virus X infection induces defence gene expression and accumulation of beta-phenylethylamine-alkaloids in potato *FUNCTIONAL PLANT BIOLOGY* Volume: 33 Issue: 6 Pages: 593-604 Published: 2006
- 465.** Gratao, PL; Polle, A; Lea, PJ; et al. Making the life of heavy metal-stressed plants a little easier *FUNCTIONAL PLANT BIOLOGY* Volume: 32 Issue: 6 Pages: 481-494 Published: 2005
- 466.** Barbosa, Rogério Hidalgo; Tabaldi, Luciane Almeri; Miyazaki, Fábio Rodrigo; et al. Foliar copper uptake by maize plants: effects on growth and yield *Ciência Rural* Volume: 43 Issue: 9 Pages: 1561-1568 Published: 2013-09
- 467.** Hernandez, Amanda; Cazetta, Jairo Osvaldo; Natale, William; et al. Fractionation of manganese accumulated in tissue of star fruit plantlets *Revista Brasileira de Ciência do Solo* Volume: 35 Issue: 5 Pages: 1679-1686 Published: 2011
- 468.** Hernandez, Amanda; Natale, William; Cazetta, Jairo Osvaldo; et al. Influência do manganês no crescimento e na composição mineral de mudas de caramboleira Influence of manganese on growth and mineral composition of seedlings of star fruit tree *Revista Brasileira de Fruticultura* Volume: 32 Issue: 4 Pages: 1220-1230 Published: 2010
- 469.** Millaleo, R; Reyes- Diaz, M; Ivanov, A.G; et al. MANGANESE AS ESSENTIAL AND TOXIC ELEMENT FOR PLANTS: TRANSPORT, ACCUMULATION AND RESISTANCE MECHANISMS *Journal of soil science and plant nutrition* Volume: 10 Issue: 4 Pages: 470-481 Published: 2010
- 470.** Lavres Junior, José; Reis, André Rodrigues; Rossi, Mônica Lanzoni; et al. Changes in the ultrastructure of soybean cultivars in response to manganese supply in solution culture Alterações na ultra-estrutura de genótipos de soja em resposta ao fornecimento de manganês em solução nutritiva *Scientia Agricola* Volume: 67 Issue: 3 Pages: 287-294 Published: 2010
- 471.** Lavres Junior, José; Malavolta, Euripedes; Nogueira, Neusa de Lima; et al. Changes in anatomy and root cell ultrastructure of soybean genotypes under manganese stress *Revista Brasileira de Ciência do Solo* Volume: 33 Issue: 2 Pages: 395-403 Published: 2009
- 472.** Almeida, Alex-Alan F. de; Valle, Raúl R.; Mielke, Marcelo S.; et al. Tolerance and prospection of phytoremediator woody species of Cd, Pb, Cu and Cr *Brazilian Journal of Plant Physiology* Volume: 19 Issue: 2 Pages: 83-98 Published: 2007

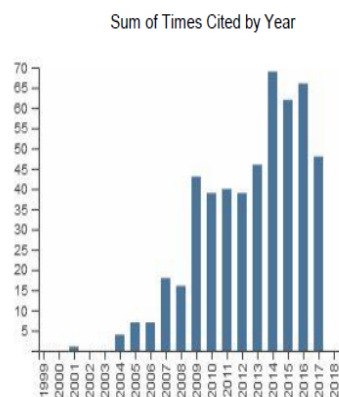
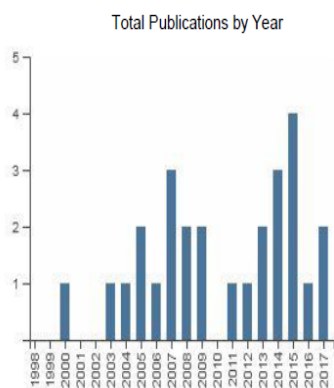
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- 473.** Ducic, Tanja; Thieme, Juergen; Polle, Andrea Phosphorus Compartmentalization on the Cellular Level of Douglas Fir Root as Affected by Mn Toxicity: A Synchrotron-Based FTIR Approach *SPECTROSCOPY-AN INTERNATIONAL JOURNAL* Volume: 27 Issue: 5-6 Pages: 265-272 Published: 2012

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Title	Authors	Corp Edito Book	Source Title	Publication	Publication Volume	Issue	Beginning	Ending	PaçArticle Nun DOI	Conf Total Citati	
Changes in peroxidase activit	Radotic, K; Ducic, T		ENVIRONMET	OCT 2000	2000	44	2	105	113	10.1016/Sc	120
Transport and detoxification o	Ducic, Tanja; Polle		Brazilian Jourr	JAN-MAR : 2005	2005	17	1	103	112	10.1590/S1	104
Paxillus involutus mycorrhiza :	Langenfeld-Heyser,		MYCORRHIZ	MAR 2007	2007	17	2	121	131	10.1007/s0	45
Uptake and translocation of m	Ducic, T; Leineman		NEW PHYTOI	2006	2006	170	1	11	20	10.1111/j.1	31
Activities of antioxidant system	Ducic, T; Liric-Rajlic		BIOLOGIA PL	2003	2003	47	4	527	533		25
Manganese toxicity in two vari	Ducic, Tanja; Polle,		FUNCTIONAL	2007	2007	34	1	31	40	10.1071/FF	24
X-ray fluorescence analysis of	Ducic, Tanja; Barsk		JOURNAL OF JAN	2013	2013	124	2	250	261	10.1111/jnr	22
Structure and composition of i	Ducic, Tanja; Quint		JOURNAL OF FEB	2011	2011	173	2	202	212	10.1016/j.j	19
Mycorrhizal communities in re	Ducic, Tanja; Berth		SOIL BIOLOG	APR 2009	2009	41	4	742	753	10.1016/j.s	17
Intraperitoneal Injection Impro	Jung, Caroline; Kau		CIRCULATION	MAR 2014	2014	7	2	303	311	10.1161/CI	16
Variability of antioxidant enzyr	Bogdanovic, Jelena		BIOCHEMICA	MAY 2007	2007	35	5	263	273	10.1016/j.b	16
alpha-Synuclein Over-Express:	Ortega, Richard; C		MOLECULAR	APR 2016	2016	53	3	1925	1934	10.1007/s1	15
The influence of the ectomycc	Ducic, Tanja; Parla		MYCORRHIZ	JUN 2008	2008	18	5	227	239	10.1007/s0	14
Alpha-Synuclein Regulates N	Ducic, Tanja; Carbc		ACS CHEMIC	OCT 2015	2015	6	10	1769	1779	10.1021/ac	9
Oxalate oxidase and non-enzy	Ducic, Tanja; Maksi		ARCHIVES OI	2008	2008	60	1	67	76	10.2298/AE	9
X-Ray Microscopy for Neurost	Salditt, Tim; Ducic,	Forna:	SUPER-RESC	2014	2014	86		257	290	10.1007/97	5
Phosphorus Compartmentaliz	Ducic, Tanja; Thier		SPECTROSC	2012	2012	27	5-6	265	272	10.1155/20	4
Changes in Chenopodium rub	Mitrovic, A; Ducic, T	Vucini	BIOPHYSICS	2005	2005	1048		505	508	10.1196/an	22nd
X-ray absorption near-edge st	Zivic, Milan; Ducic,		ANALYTICAL	SEP 2015	2015	407	24	7487	7496	10.1007/s0	3
Enhancement in statistical an	Ducic, Tanja; Borch		JOURNAL OF MAR	2013	2013	20		339	346	10.1107/SC	2
X-ray fluorescence microscop	Ducic, T.; Breunig, I	David,	9TH INTERN	2009	2009	186				UNSP 012i	10.1088/179th Ir
IMAGING OF GLIAL CELL M	Stamenkovic, Stefa		NEUROSCIEN	AUG 15 20	2017	357		37	55	10.1016/j.n	0
Structural and elemental chan	Ducic, Tanja; Paun		ANALYST	2017	2017	142	2	356	365	10.1039/c6	0
Gadospin F-Enhanced Magne	Jung, Caroline; Duc		MOLECULAR	MAR 2015	2015	14				10.2310/72	0
Gadospin F-Enhanced Magne	Jung, Caroline; Duc		Molecular ima	2015 Jan-M	2015	14	1	7.29E+12		10.2310/72	0
Gadospin F-enhanced magne	Jung, Caroline; Duc		Molecular ima	2014	2014	13				10.2310/72	0
UPTAKE AND TRANSLOCA	Ducic, T.; Lehmann		ACTA PHYSIC	2004	2004	26	3	117	117		0

## **5. ОЦЕНА САМОСТАЛНОСТИ КАНДИДАТА**

Након избора у звање виши научни сарадник, др Тања Дучић је публиковала укупно једанаест библиографских јединица у међународним часописима. Четири припадају категорији M21a, четири категорији M21, док је у категоријама M22 и M23 публиковала по једну јединицу. Кандидаткиња је такође публиковала поглавље у књизи M13.

Од избора у звање виши научни сарадник, кандидаткиња је била први аутор у пет публикација, и други коаутор у две публикације.

Све то указује на висок степен учешћа у реализацији и идејном осмишљавању експеримената, као и у руковођењу научним задацима у оквиру текућих пројеката.

У великом броју истраживања у којима је учествовала кандидаткиња фаворизовани су мултидисциплинарни приступ истраживањима и међународна сарадња. То је условило већи број сарадника, тј. аутора који су учествовали у истраживањима. Др Тања Дучић је била ко-ментор у изради једне докторске дисертације (Адриан Сарапата), а такође је руководила задацима у оквиру 4 (четири) докторске дисертације (Стефан Стаменковић, Клаус Гевајкемајер, Симон Касторф, Ева Новакова).

### ***Рецензент за научне радове у следећим часописима:***

Др. Дучић је рецензент следећих часописа са SCI листе:

- Journal of Synchrotron Radiation (M21a; INSTRUMENTS & INSTRUMENTATION (8/58); IF<sub>2016</sub>=3,0 5/57 IF<sub>2013</sub>=3)
- Microscopy and Microanalysis (M21; MICROSCOPY 4/10; IF<sub>2016</sub> 1.9),
- Journal of Experimental Botany (M21a; PLANT SCIENCES 14/212 ; IF<sub>2016</sub>=5.8),
- Journal of Structural Biology (M21; BIOPHYSICS 30/73, IF<sub>2016</sub>=2.8)
- Plant Biology (M21; PLANT SCIENCES 65/212 ; IF<sub>2016</sub>=2.1),
- PLOS ONE (M21; MULTIDISCIPLINARY SCIENCES 15/64 ; IF<sub>2016</sub>=2.8),
- Analytical and Bioanalytical Chemistry (M21; CHEMISTRY, ANALYTICAL (16/76); IF<sub>2016</sub>=3,4 IF<sub>2013</sub>=3.6
- Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy (M21; SPECTROSCOPY (12/42); IF<sub>2016</sub>=2.5)



- Journal of Chemical Neuroanatomy (M22; NEUROSCIENCES 193/259; IF<sub>2016</sub> 1.9),

### **Награде:**

- 2001/2002 постдипломски студијски грант за најбоље постдипломске студенте Универзитета Светске универзитетске службе - Канцеларија Аустријског комитета Београда.

- Грант за истраживања "ICRETT Fellowship" за 2014. годину за пројектну посету на North Western универзитету у Чикагу.

### **Пет најзначајнијих научних остварења:**

Међу најзначајнијим научним остварењима др Дучић, у периоду од последњег избора у научно звање, истичу се 5 истраживачких публикација у којима је кандидаткиња била главни носилац истраживања као први аутор, као и 1 поглавље у књизи у којој је као аутор даје доминантан допринос.

1. **Dučić T.**, Carboni E., Lai B., Chen, S., Michalke B., Lázaro D., Outeiro T., Bähr M., Barski E., Lingor P. (2015) Alpha-synuclein regulates neuronal levels of manganese and calcium, **ACS Chemical Neuroscience** **6**: 1769-1779.

M21a; CHEMISTRY, MEDICINAL (7/60); IF<sub>2016</sub>=3,9 IF<sub>2014</sub>=4.4

2. **Dučić T.**, Borchert M., Savic A., Kalauzi A., Mitrovic M., Radotic K. (2013) Enhancement in statistical and image analysis for *in situ* studies of elemental distribution and co-localization, using *Dioscorea balcanica*. **Journal of Synchrotron Radiation** **20**: 339-346.

M21a; INSTRUMENTS & INSTRUMENTATION (8/58); IF<sub>2016</sub>=3,0 5/57 IF<sub>2013</sub>=3

3. **Dučić T.**, Paunesku T, Chen S., Ninković M., Speling S., Wilke C., Lai B., Woloschak G. (2017) Structural and elemental changes in glioblastoma cells in situ: complementary imaging with high resolution visible light- and X-ray microscopy, **Analyst** **142**: 356-365.

M21; CHEMISTRY, ANALYTICAL (12/76); IF<sub>2016</sub>=3,9 IF<sub>2015</sub>=4

4. **Dučić T.**, Barski E., Salome M., Koch J.C., Bähr M., Lingor P. (2013) X-ray fluorescence analysis of iron and manganese distribution in primary dopaminergic neurons. *Journal of Neurochemistry*. **124**: 250-261.

M21; BIOCHEMISTRY & MOLECULAR BIOLOGY (77/286); IF<sub>2016</sub>=4.1

5. Salditt T., **Dučić T.** X-ray microscopy: a review on novel imaging opportunities. Book Chapter in: Optical Methods in Neuroscience. Ed. S. Rizzoli. *Springer*. (257-290). **2014**. /Eds/: Fornasiero, E., Rizzoli, S.

## 6. **НАУЧНИ АНГАЖМАН И ДОПРИНОС УНАПРЕЂЕЊУ НАУЧНОГ И ОБРАЗОВНОГ РАДА**

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Тања Дучић ради на домаћим и европским пројектима: FP7, DFG, DAAD. Од 2002. године учествује на пројектима Министарства за науку Србије, као сарадник др Ксеније Радотић Хаџи-Манић. Домаћу и Међународну научну сарадњу тренутно остварује са групама проф. др Павле Р. Анђус, др Р. Ортега, CNRS: Chimie Nucléaire Analytique Bioenvironnementale (CNAB), Универзитет у Бордоу, Француска; са групом проф. др Паул Лингор, Универзитет Гетинген. Бави се изучавањем усвајања биокоњугата у ћелије у директној сарадњи са групом проф. др Гејл Волошак и са проф др. Татјана Паунеску (Northwestern Универзитет, Чикаго, САД) користећи синхротрон микроскопију.

До сада је објавила 28 радова у међународним часописима, два поглавља у монографијама и имала је преко 30 саопштења на међународним и домаћим научним скуповима. Имала је 10 усмених презентација на међународним и домаћим научним скуповима (између осталог SLAC на Станфорд универзитету (САД) 2016, у Шангају, Кина, 2012: X-ray microscopy; у Coimbra, Portugal 2011: European Conference on the Spectroscopy of Biological Molecules; Northwestern University, Chicago, Illinois, 2010.: Biological Applications of X-ray Fluorescence Microscopy; Bad Sooden-Allendorf, Germany 2009: Congress on Molecular and Optical Imaging) и два предавања студентима (Georg-August Универзитет, Goettingen, Немачка 2011. и Radiation Oncology Department of Feinberg School of Medicine at Northwestern University, Чикаго, САД 2012.).

У последних пет година Тања Дучић ради на припреми нових метода које укључују синхротронско зрачење и микроскопе развијене на следећим институцијама: ESRF- Гренобл, Француска; SLS- Швајцарска, BESSY- Немачка, Soleil- Француска, APS, Чикаго, Америка и PETRA III у Хамбургу.

У последње четири године Дучић ради на развоју и примени рентгенског микроскопа који укључује употребу микро- и нано- фокуса на мерној станици MIRAS на синхротрону АЛБА у Барселони.

Организовала је научни скуп: *Synchrotron Radiation for Bio-Imaging at PETRA III* 29-30. 3. 2010. DESY, Хамбург, где је позвала и колеге са Института за мултидисциплинарна истраживања, Универзитета у Београду. Др Радотић је узела учешће на овом научном скупу.

Др Дучић је успешно осмислила и реализовала прављење прве биохемијске лабораторије која има сертификат C2 за рад са биолошким материјалима на DESY Synchrotron Light Source, у Хамбургу, где истраживачи разних профила могу да припреме своје узорке за мерења на великим машинама попут синхротрона DESY, APS, ALBA.

У сарадњи са Биолошким факултетом Универзитета у Београду, радила је серију експеримената користећи Рентгенске методе са групом проф. др Павла Р. Анђуса. Такође у сарадњи са научним саветником др Јоаном Закшевском (Joanna Zakrzewska) и др Миланом Жижихем радила је успешна мерења на швајцарском националном синхротрону (SLS) и објавила рад у врхунском научном часопису M21 бр.8.

У сарадњи са Институтом за мултидисциплинарна истраживања, Универзитета у Београду са др Ксенијом Радотић Хаџи-Манић радила је на пројектима које су заједнички писале и након тога реализовале серију експеримената на различитим синхротронским изворима светлости: DESY, Хамбург, ALBA, Барселона, што је резултовало заједничким радовима у међународном часопису изузетних вредности, M21a (бр.4.) и саопштењима на научним скуповима.

Др Тања Дучић је била асистент за практичне вежбе студентима на предметима Биофизика, Екологија стреса и Специјални курс екологије и физиологије дрвећа на Универзитету Гетинген.

## **7. ОЦЕНА УСПЕШНОСТИ РУКОВОЂЕЊА НАУЧНИМ РАДОМ**

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У оквиру различитих пројеката на синхротронским изворима светлости др Дучић учествује као предлагач и руководилац пројеката:

- 1. *Trace metals in primary dopaminergic neurons - a cellular model of Parkinson's disease. APS, Chicago***
- 2. *X-ray spectro-microscopy of trace metals in alpha-synuclein cellular models of Parkinson's disease***  
***X-ray spectro-microscopy of trace metals in alpha-synuclein cellular models of Parkinson's disease. ESRF, Grenoble***
- 3. *Trace metals in dopaminergic neurons in Parkinson's disease: distribution and oxidative state. ESRF, Grenoble***
- 4. *Myelinated nerves: Structure and elemental composition of the nodes of Ranvier***
- 5. *Manganese oxidation states in plant cells. ESRF, Grenoble***
- 6. *The transduction compartments of the olfactory system: structure and ion distribution. ESRF, Grenoble***
- 7. *Trace metals in blood and cerebrospinal fluids in neurodegenerative diseases. SLS, Villigen PSI Switzerland***
- 8. *Transmission X-ray microscopy of olfactory neural cells: the ultrastructure of ciliae. HZB Berlin***

Поред европских, Тања Дучић учествује и у домаћим пројектима од 2002. године, као сарадник др Ксеније Радотић Хаџи-Манић. Последњи пројекат „Испитивања односа структура-функција у ћелијском зиду биљака и измене структуре зида ензимским инжењерингом ” успешно се извршава у периоду од 2011 до 2017. године.

Тимски рад је показао успех у области ензимологије, физиологије биљака, као и области примене различитих метода праћења поремећаја хомеостазе под утицајем тешких метала, што показују бројне публикације (8, 9, 10, 12, 13, 14, 16).

Др Дучић је поднела и руководила неколико међународних пројеката који су реализовани и у току су обраде резултата за нове публикације:

- Verification of organic compounds on the subcellular level in the tissue of Amyotrophic lateral sclerosis patients
- FTIR screening of the neurochemical biomarkers in ALS: Organic compound analysis of cerebrospinal fluid (CSF)

- Using attenuated total reflection Fourier transform infrared spectroscopy (ATR-FTIR) to study organic and mineral composition of ancient bone tissues from old Herzegovina
- Sub-cellular characterization of organic carbon dots in maize root after copper stress: synchrotron based FTIR micro-spectroscopy study

## **8. КВАНТИТАТИВНА ОЦЕНА КАНДИДАТОВИХ НАУЧНИХ РЕЗУЛТАТА**

Табеле у прилогу дају сажети преглед постигнутих резултати научног рада др Тање Дучић од избора у звање виши научни сарадник (Табела у прилогу).

<b>КВАНТИТАТИВНИ ПОКАЗАТЕЉИ НАУЧНОГ РАДА НАКОН ИЗБОРА У ЗВАЊЕ ВИШИ НАУЧНИ САРАДНИК</b>						
<b>НАЗИВ ГРУПЕ РЕЗУЛТАТА</b>	<b>ОЗНАКА ГРУПЕ РЕЗУЛТАТА</b>	<b>М</b>	<b>БРО Ј</b>	<b>ВРЕДНОСТ</b>	<b>ВРЕДНОСТ РЕЗУЛТАТА</b>	<b>ВРЕДНОСТ РЕЗУЛТАТА НАКОН НОРМИРАЊА (7 АУТОРА)</b>
Поглавља у монографијама и тематским зборницима	<b>M10</b>	<b>M13</b>	1	7.0	7	7
Радови објављени у научним часописима међународног значаја	<b>M20</b>	<b>M21a</b>	4	10.0	40.0	<b>27.6</b>
		<b>M21</b>	4	8.0	32.0	<b>27.1</b>
		<b>M22</b>	1	5	5	<b>5</b>
		<b>M23</b>	1	3.0	3	<b>1.1</b>
<b>Укупно обавезни (2):</b>					<b>87.0</b>	<b>67.8</b>
Зборници међународних научних скупова	<b>M30</b>	<b>M32</b>	6	1.5	9	<b>9</b>
		<b>M34</b>	11	0.5	5.5	<b>5.1</b>
<b>Укупно:</b>					<b>14.5</b>	<b>14.1</b>

<b>УКУПНО:</b>		
M10+M20+M31+M32+M33+M41+M42+M90 (obavezni (1) ≥50)	<b>96</b>	<b>76.8</b>
M11+M12+M21+M22+M23 (obavezni (2)≥35)	<b>80</b>	<b>60.8</b>
<b>Укупно за све категорије (тражи се ≥70)</b>	<b>111.5</b>	<b>81.9</b>

**Укупно Σ81.3 бодова након нормирања (7 аутора)  $K/(1+0.2(n-7))$**

**За природно-математичке и медицинске науке**

Диференцијални услов - од првог избора у претходно звање до избора у звање	Потребно је да кандидат има најмање XX поена, који треба да припадају следећим категијама:		
		<b>неопходно</b>	<b>остварено</b>
<b>Научни саветник</b>	<b>Укупно</b>	<b>70</b>	<b>81.9</b>
<b>Обавезни (1)</b>	<b>M10+M20+M31+M32+M33+M41+ M42+M90</b>	<b>50</b>	<b>76.8</b>
<b>Обавезни (2)</b>	<b>M11+M12+M21+M22+M23</b>	<b>35</b>	<b>60.8</b>

***Остварене вредности коефицијената М:***

До избора у звање виши научни сарадник	117
После избора у звање виши научни сарадник	81.9
<b><i>Укупно у читавој каријери</i></b>	<b>198.9</b>

**9. АНГАЖОВАНОСТ У РАЗВОЈУ УСЛОВА ЗА НАУЧНИ РАД,  
ОБРАЗОВАЊЕ И ФОРМИРАЊЕ НАУЧНИХ КАДРОВА:**

У сарадњи са Биолошким факултетом, Универзитета у Београду, радила је серију експеримената користећи Рентгенске методе са групом проф. др Павла Р. Анђуса. У току ове сарадње др Дучић је била **руководилац дела тезе који се односио на истраживања користећи Рентгенске зраке на различитим синхротронима Стефана Стаменковића**. Такође је учествовала као члан комисије у одбрани и оцењивању ове докторске дисертације под насловом *“Испитивање раних маркера процеса неуроинфламације и оксидативног стреса у*

мозгу трансгеног *hSOD1 G93A* пацова као експерименталног модела амиотрофичне латералне склерозе” која је успешно одбрањена септембра 2017.

Дучић је била директни ко-ментор тезе Адриана Сарапате (**Adrian Sarapata**), о чему сведочи пропратно писмо професора др Едгара Векерта (Edgar Weckert), директора Hasilab института на синхротрону DESY, Хамбург.

Такође Тања Дучић је преко директне сарадње у реализацији експеримената и писању теза **учествовала у руковођењу докторских дисертација** следећих студената, што је забележено у захвалницама доктораната, као и пропратним писмима професора др Тима Салдита (Tim Salditt), директора института за Рентгенску физику на Физичком факултету Георг-Аугуст Универзитета у Гетингену, Немачка.

1. Клаус Гевајкемајер (Klaus Geweikemeyer): A study on new approaches in coherent x-ray microscopy of biological specimens. Georg-August-Universität zu Göttingen 2011  
[http://webdoc.sub.gwdg.de/univerlag/2011/GSXP5\\_Giewekemeyer.pdf](http://webdoc.sub.gwdg.de/univerlag/2011/GSXP5_Giewekemeyer.pdf)
2. Симон Касторф (Simon Castorph): Synaptic vesicles studied by Small-Angle X-ray scattering, , Georg-August-Universität zu Göttingen 2009  
<http://webdoc.sub.gwdg.de/diss/2010/castorph/castorph.pdf>
3. Ева Новакова (Eva Novakova): Structure of charged two-component lipid membranes and their interaction with colloids studied by different X-ray and microscopy techniques, Georg-August-Universität zu Göttingen 2008  
<http://webdoc.sub.gwdg.de/diss/2009/novakova/novakova.pdf>

Дучић је по позиву проф. др Павла Анђуса, а у организацији Биофизичког Друштва Србије, одржала предавање студентима о примени рентгенских микроскопских метода у неуронаукама у оквиру интернационалне школе IBRO NERKA Biophysics School on NEUROPHOTONICS децембра 2015 у Београду (**IBRO NERKA Biophysics School on NEUROPHOTONICS 2014**. Hosted by IBRO (International Brain Research Organization) „Towards The International Year of Light and Light-based Technologies 2015“, Belgrade, Serbia.)  
<https://www.scribd.com/document/237736432/IBRO-NERKA-School-on-Neurophotonics-2014-Program>

**Асистент за практичне вежбе студентима на следећим предметима:**

- Биофизика за мастер студенте на Факултету за Физику, Univerzitetet Göttingen: Biophysics, Physics Faculty, Göttingen

- Екологија и физиологија стреса за мастер студенте Факултета за Биологију, Univerzitetaet Göttingen: Ecology and stress physiology, Faculty of Biology, Göttingen
- Специјални курс екологије и физиологије дрвећа за мастер студенте Шумарског факултета, Univerzitetaet Göttingen: Special ecology of trees, practice in ecology and physiology, program for master studies Faculty of Forestry, Göttingen

## **10. ЗАКЉУЧАК И ПРЕДЛОГ**

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На основу детаљног разматрања научно-истраживачког рада др Тање Дучић, Комисија констатује да је имала прилику да анализира изузетан научни допринос истраживача, чији су резултати објављени у квалитетним и реномираним међународним и домаћим научним часописима и саопштени на научним скуповима у земљи и иностранству.

О изузетности досадашњих резултата кандидаткиње сведочи и чињеница да је др Дучић остварила већину бодова публикавањем радова у врхунским међународним часописима (M20). Поред тога, у оквиру истраживања из којих су публикације проистекле, кандидаткиња је најчешће учествовала у својству руководиоца истраживања, о чему сведочи чињеница да је на већини публикација присутна као први и кореспондентни аутор.

Свеукупним активностима, истраживачким и образовним, Др Дучић доприноси развоју научног и образовног рада у области физиологије и биофизике, у свету као и у Србији.



Ценећи научни допринос кандидаткиње и критеријуме у Правилнику о поступку и начину вредновања научноистраживачких резултата Министарства науке, Комисија предлаже Научном већу Института за мултидисциплинарна истраживања да прихвати овај реферат и предложи Комисији Министарства за просвету, науку и технолошки развој да **изабере др Тању Дучић** у научно звање **научни саветник**.

Београд, 13.11. 2017.

**Председник комисије:**



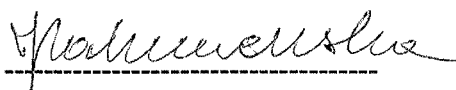
**Др Ксенија Радотић Хаџи-Манић,**

Научни саветник

Институт за мултидисциплинарна истраживања

Универзитет у Београду

**Чланови комисије:**



**Др Јоана Закшевска (Joanna Zakrzewska)**

Научни саветник

Институт за општу и физичку хемију,

Београд



**Др Александар Калаузи**

Научни саветник

Институт за мултидисциплинарна истраживања

Универзитет у Београду

**MINIMALNI KVANTITATIVNI ZAHTEVI ZA STICANJE POJEDINAČNIH NAUČNIH ZVANJA**

**Za prirodno-matematičke i medicinske nauke**

Diferencijalni uslov - od prvog izbora u prethodno zvanje do izbora u zvanje	Potrebno je da kandidat ima najmanje XX poena, koji treba da pripadaju sledećim kategorijama:		
		Neophodno XX=	Ostvareno
<b>Naučni saradnik</b>	Ukupno	16	
Obavezni (1)	M10+M20+M31+M32+M33+M41+M42	10	
Obavezni (2)	M11+M12+M21+M22+M23	6	
<b>Viši naučni saradnik</b>	Ukupno	50	
Obavezni (1)	M10+M20+M31+M32+M33+M41+M42+M90	40	
Obavezni (2)	M11+M12+M21+M22+M23	30	
<b>Naučni savetnik</b>	Ukupno	70	<b>81.9</b>
Obavezni (1)	M10+M20+M31+M32+M33+M41+M42+M90	50	<b>76.8</b>
Obavezni (2)	M11+M12+M21+M22+M23	35	<b>60.8</b>