

**Lista lucrari**

**Dr. Loredana Brinza (Tepes)**

a) LISTA CELOR MAXIMUM 10 LUCRĂRI CONSIDERATE DE CANDIDAT A FI CELE MAI RELEVANTE

1. Loredana Brinza, Hong P. Vu, Samuel Shaw, J. Fred W. Mosselmans, Liane G. Benning, 2015, The effect of molybdenum and vanadium on the hydrothermal crystallization of hematite from ferrihydrite at seawater pH and ionic strength - an in situ EDXRD and XAS study, **Crystal Growth and Design**, *accepted*; FI: 4.558/2013;
2. Loredana Brinza, Frederick J. W. Mosselmans, Paul F. Schofield, Erica Donner, Enzo Lombi, Mark E. Hodson, 2014, Can earthworm-secreted calcium carbonate immobilise Zn in contaminated soils?, **Soil Biology and Biochemistry**, 74, 1-10, DOI:10.1016/j.soilbio.2014.01.012; FI: 4.41/2013
3. L. Brinza, P. F. Schofield, M. E. Hodson, S. Weller, K. Ignatyev, K. Geraki, P. D. Quinn and J. F. W. Mosselmans, 2014, Combining  $\mu$ XANES and  $\mu$ XRD mapping to analyse the heterogeneity in calcium carbonate granules excreted by the earthworm *Lumbricus terrestris*, **Journal of Synchrotron Radiation**, 01/2014, 21, 235-41; DOI:10.1107/S160057751303083X, FI: 3.022/2013;
4. Hong Phuc Vu, Samuel Shaw, Loredana Brinza, Liane G Benning, 2013, Partitioning of Pb (II) during goethite and hematite crystallisation: implication for Pb transport in natural systems, 2013 **Applied Geochemistry**, 39, 119-128; DOI:10.1016/j.apgeochem.2013.10.001, FI: 2.021/2013;
5. Loredana Brinza, Paul D. Quinn, Paul F. Schofield, Frederick J. W. Mosselmans, Mark E. Hodson, 2012, Incorporation of strontium in earthworm-secreted calcium carbonate granules produced in strontium-amended and strontium-bearing soil, **Geochimica et Cosmochimica Acta**, 113 21-37, DOI: 10.1016/j.gca.2013.03.011, FI: 4.250/2013;
6. Rob Raiswell, Hong Phuc Vu, Loredana Brinza, Liane Benning, (2010), The determination of Fe in ferrihydrite by ascorbic acid extraction: methodology, dissolution kinetics and loss of solubility with age and de-watering, **Chemical Geology**, Vol 278, 1-2, 70-79 doi:10.1016/j.chemgeo.2010.09.002, FI: 3.482/2013;
7. Vu Hong Phuc, Shaw Samuel, Brinza Loredana, Benning Liane G., (2010), The crystallization of hematite ( $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>) under alkaline condition: the effects of Pb" **Crystal Growth and Design**, Vol 10, No 4, 1544–1551, DOI: 10.1021/cg900782g, FI: 4.558/2013;
8. Loredana Brinza, Charlotta A. Nygard, Matthew J. Dring, Liane G. Benning, Maria Gavrilescu, (2009), Cadmium tolerance and adsorption by the marine brown alga *Fucus vesiculosus* from the Irish Sea and the Bothnian Sea, **Bioresource Technology**, Vol. 100, No 5, 1727-1733, doi:10.1016/j.biortech.2008.09.041, FI: 5.039/2013;
9. Loredana Brinza, Liane G. Benning, Peter J. Statham, (2008), Adsorption studies of Mo and V onto ferrihydrite, Loredana Brinza, Liane G. Benning, Peter J. Statham, (2008), Adsorption studies of Mo and V onto ferrihydrite, **Mineralogical Magazine**, Vol. 72, No1, 107–110; doi:10.1180/minmag.2008.072.1.385, FI: 1.898/2013;
10. Loredana Brinza, Matthew J. Dring, Maria Gavrilescu, (2007), Marine micro and macro algal species as biosorbents for heavy metals treatment - review, **Environmental Engineering and Management Journal**, Vol. 6, No. 3, 237-251, FI: 1.258/2013

**a) TEZE DE DOCTORAT:**

1. Loredana Brinza, 2010, [Interactions of molybdenum and vanadium with iron nanoparticles](http://etheses.whiterose.ac.uk/1082/1/LBrinza_PhD_thesis.pdf), PhD thesis, University of Leeds, United Kingdom, ISBN: 978-0-85731-019-4 (full thesis at: [http://etheses.whiterose.ac.uk/1082/1/LBrinza\\_PhD\\_thesis.pdf](http://etheses.whiterose.ac.uk/1082/1/LBrinza_PhD_thesis.pdf))
2. Loredana Brinza, 2011, Bioremedierea recuperativă prin biosorbție a factorilor de mediu poluați cu metale (Recuperative Bioremediation Of Metals From Environmental Components using Biosorption), PhD thesis, Gh Asachi, Technical University Iasi, Romania (Thesis resume at: [http://www.tuiasi.ro/users/110/TD\\_BrinzaL2011.pdf](http://www.tuiasi.ro/users/110/TD_BrinzaL2011.pdf))

**b) BREVETE -**

**c) CARTI**

1. Loredana Brinza, 2010, [Interactions of molybdenum and vanadium with iron nanoparticles](http://etheses.whiterose.ac.uk/1082/1/LBrinza_PhD_thesis.pdf), PhD thesis, University of Leeds, United Kingdom, ISBN: 978-0-85731-019-4 (full thesis at: [http://etheses.whiterose.ac.uk/1082/1/LBrinza\\_PhD\\_thesis.pdf](http://etheses.whiterose.ac.uk/1082/1/LBrinza_PhD_thesis.pdf))

**e) ARTICOLE/STUDII PUBLICATE *IN EXTENSO*, ÎN REVISTE DIN CIRCUITUL ȘTIINȚIFIC INTERNAȚIONAL**

1. Loredana Brinza, Hong P. Vu, Samuel Shaw, J. Fred W. Mosselmans, Liane G. Benning, 2015, The effect of molybdenum and vanadium on the hydrothermal crystallization of hematite from ferrihydrite at seawater pH and ionic strength - an in situ EDXRD and XAS study, ***Crystal Growth and Design***, *accepted*
2. Loredana Brinza, Frederick J. W. Mosselmans, Paul F. Schofield, Erica Donner, Enzo Lombi, Mark E. Hodson, 2014, Can earthworm-secreted calcium carbonate immobilise Zn in contaminated soils?, ***Soil Biology and Biochemistry***, 74, 1-10, DOI: 10.1016/j.soilbio.2014.01.012; FI: 4.41/2013
3. L. Brinza, P. F. Schofield, M. E. Hodson, S. Weller, K. Ignatyev, K. Geraki, P. D. Quinn and J. F. W. Mosselmans, 2014, Combining  $\mu$ XANES and  $\mu$ XRD mapping to analyse the heterogeneity in calcium carbonate granules excreted by the earthworm *Lumbricus terrestris*, ***Journal of Synchrotron Radiation***, 01/2014, 21, 235-41; DOI:10.1107/S160057751303083X, FI: 3.022/2013;
4. Hong Phuc Vu, Samuel Shaw, Loredana Brinza, Liane G Benning, 2013, Partitioning of Pb (II) during goethite and hematite crystallisation: implication for Pb transport in natural systems, 2013 ***Applied Geochemistry***, 39, 119-128; DOI:10.1016/j.apgeochem.2013.10.001, FI: 2.021/2013;
5. Loredana Brinza, Paul D. Quinn, Paul F. Schofield, Frederick J. W. Mosselmans, Mark E. Hodson, 2012, Incorporation of strontium in earthworm-secreted calcium carbonate granules produced in strontium-amended and strontium-bearing soil, ***Geochimica et Cosmochimica Acta***, 113 21-37, DOI: 10.1016/j.gca.2013.03.011, FI: 4.250/2013;

6. Rob Raiswell, Hong Phuc Vu, Loredana Brinza, Liane Benning, (2010), The determination of Fe in ferrihydrite by ascorbic acid extraction: methodology, dissolution kinetics and loss of solubility with age and de-watering, **Chemical Geology**, Vol 278, 1-2, 70-79 [doi:10.1016/j.chemgeo.2010.09.002](https://doi.org/10.1016/j.chemgeo.2010.09.002), FI: 3.482/2013;
7. Vu Hong Phuc, Shaw Samuel, Brinza Loredana, Benning Liane G., (2010), The crystallization of hematite ( $\alpha$ -Fe<sub>2</sub>O<sub>3</sub>) under alkaline condition: the effects of Pb" **Crystal Growth and Design**, Vol 10, No 4, 1544–1551, [DOI: 10.1021/cg900782g](https://doi.org/10.1021/cg900782g), FI: 4.558/2013;
8. Loredana Brinza, Charlotta A. Nygard, Matthew J. Dring, Liane G. Benning, Maria Gavrilescu, (2009), Cadmium tolerance and adsorption by the marine brown alga *Fucus vesiculosus* from the Irish Sea and the Bothnian Sea, **Bioresource Technology**, Vol. 100, No 5, 1727-1733, [doi:10.1016/j.biortech.2008.09.041](https://doi.org/10.1016/j.biortech.2008.09.041), FI: 5.039/2013;
9. Loredana Brinza, Liane G. Benning, Peter J. Statham, (2008), Adsorption studies of Mo and V onto ferrihydrite, Loredana Brinza, Liane G. Benning, Peter J. Statham, (2008), Adsorption studies of Mo and V onto ferrihydrite, **Mineralogical Magazine**, Vol. 72, No1, 107–110; [doi:10.1180/minmag.2008.072.1.385](https://doi.org/10.1180/minmag.2008.072.1.385), FI: 1.898/2013;
10. Loredana Brinza, Matthew J. Dring, Maria Gavrilescu, (2007), Marine micro and macro algal species as biosorbents for heavy metals treatment - review, **Environmental Engineering and Management Journal**, Vol. 6, No. 3, 237-251, FI: 1.258/2013;
11. Simona Pintilie, Loredana Brinza, Camelia Betianu, Lucian Vasile Pavel, Florina Ungureanu, Maria Gavrilescu, (2007), Modelling and simulation of heavy metals transport in water and sediments, **Environmental Engineering and Management Journal**, Vol. 6, No. 2, 153-161, FI: 1.258/2013;
12. Loredana Brinza, Matthew J. Dring, Maria Gavrilescu, (2005), Biosorption of Cu (2+) ions from aqueous solution by-*Enteromorpha* sp, **Environmental Engineering and Management Journal**, Vol.4, No.1, 41-51, FI: 1.258/2013;
13. Loredana Brinza, Maria Gavrilescu, (2003), pH Effect on the Biosorption of Cu (2+) from Aqueous Solution by *Saccharomyces Cerevisae*, **Environmental Engineering and Management Journal**, Vol.2, No.3, 243-254, FI: 1.258/2013;

#### Articole publicate in reviste de specialitate internationale necotate ISI

14. Mark E Hodson, Stuart Black, Loredana Brinza, Daniel Carpenter, Denise C. Lambkin, J. Fred W Mosselmans, Barbara Palumbo-Roe, Paul F Schofield, Tom Sizmur, Emma A Versteegh, 2014, Biology as an agent of chemical and mineralogical change in soil, **Procedia Earth and Planetary Science**. 10, 114 – 117, FI: 0.250 (oficiu)
15. Sofia Diaz-Moreno, M. Amboage, R. Boada-Romero, L. Brinza, G. Cibin, A. Dent, A. Freeman, T. Geraki, S. Hayama, F. Mosselmans, S. Parry, P. Quinn and S. Ramos (2012), X-Ray Absorption Spectroscopy at Diamond Light Source: Three Complementary Beamlines to Deliver a Comprehensive Service, **XAS Research Review**, 3, FI:0.250 (oficiu)

**f) LUCRARI PUBLICATE IN EXTENSO IN VOLUMELE UNORE MANIFESTARI STIINTIFICE INTERNATIONALE**

1. Mark E Hodson, Stuart Black, Loredana Brinza, Daniel Carpenter, Denise C. Lambkin, J. Fred W Mosselmans, Barbara Palumbo-Roe, Paul F Schofield, Tom Sizmur, Emma A Versteegh, 2014, Biology as an agent of chemical and mineralogical change in soil, ***Procedia Earth and Planetary Science***. 10, 114 – 117; [doi:10.1016/j.proeps.2014.08.039](https://doi.org/10.1016/j.proeps.2014.08.039), Geochemistry of the Earth's Surface meeting (GES-10), August 18-22, 2014 IPGP Paris 5th, France; <http://ges10.web-events.net/>
2. Loredana Brinza, Liane G. Benning, Peter J. Statham, (2008), Adsorption studies of Mo and V onto ferrihydrite, ***Mineralogical Magazine***, Vol. 72, No1, 107–110; [doi:10.1180/minmag.2008.072.1.385](https://doi.org/10.1180/minmag.2008.072.1.385), Geochemistry of the Earth's Surface (GES8), 18–22 August, 2008, Natural History Museum, London, UK;

**g) ALTE LUCRARI SI CONTRIBUTII STIINTIFICE: NOTE SCURTE PUBLICATE IN JURNALE ISI, ARTICOLE PUBLICATE IN REVISTE DE SPECIALITATE DIN TARA RECUNOSCUTE DE CATRE CNCSIS, CONFERINTE, POSTERE PREZENTATE LA MANIFESTARI STIINTIFICE, COMUNICARI, INDICE HIRSCH, CITARI, MEMBRU COMITETE**

**Articole in extenso publicate in reviste de specialitate din tara recunoscute de catre CNCSIS (B+)**

1. Camelia Betianu, Loredana Brinza, Vasile Lucian Pavel, Maria Gavrilescu, (2007) Partition and sorption of heavy metals to soils, ***Analele USAMV, vol. 50, seria Agronomie***, Editura „Ion Ionescu de la Brad”, Iași, 2007, ISSN 1454-7414, FI: CNCSIS (B+), FI:0.160/oficiu;
2. Loredana Brinza, Maria Gavrilescu, Studies of Heavy Metal Recovery by Biosorption, (2003), ***Bulletin of the Polytechnic Institute of Iasi*** Tomul XLVII (LII), fasc. 1B, *Chemistry and Chemical Engineering*, 250-256 ISSN: 0254 – 7104, FI: CNCSIS (B+), FI: 0.160/oficiu.

**Note scurte/abstracts publicate in jurnale cotate ISI**

1. Loredana Brinza, J. Fred W. Mosselmans, Paul F. Schofield, Erica Donner, Enzo Lombi, Mark E. Hodson, Zn immobilization by *Lumbricus terrestris* calcium carbonate biomineralized granules, (2013), ***Mineralogical Magazine***, 77(5), 774, FI: 1.898/2013;
2. Loredana Brinza, J. Fred W. Mosselmans, Paul F. Schofield, Paul D. Quinn And Mark E. Hodson, (2011), Strontium incorporation into carbonate granules secreted by earthworms, ***Mineralogical Magazine***, 581, FI: 1.898/2013;
3. Loredana Brinza, Sam Shaw, Liane. G. Benning, (2008), The effect of molybdenum on the transformation kinetics of ferrihydrite to hematite: An *in situ* ED-XRD approach

(Abstract) - [Geochimica et Cosmochimica Acta](#), Vol. 72, No. 12S, A115, FI: 4.250/2013;

4. Loredana Brinza, Liane. G. Benning, Peter. J. Statham, (2007), Characterisation of Mo and V interactions with ferrihydrite as an analogue for deep-sea hydrothermal plumes processes (Abstract) - **Geochimica et Cosmochimica Acta**, Vol. 71, No. 15S, A121, FI: 4.250/2013;

**Note scurte publicate in volumele unor manifestari stiintifice**

1. J. Fred W. Mosselmans, Loredana Brinza, Paul F. Schofield, Sophie Weller, Konstantin Ignatyev, Tina Geraki, Mark E. Hodson, New developments in micro-X-ray diffraction and XANES mapping at Diamond's I18 beamline as applied to the mineralogy of earthworm granules, Minerals for Life, 17-18th June 2013, Edinburgh, UK, <http://www.minersoc.org/minerals-for-life.html>
2. Loredana Brinza, J. Fred W. Mosselmans, Paul F. Schofield, Erica Donner, Enzo Lombi, Mark E. Hodson, Zn immobilization by *Lumbricus terrestris* calcium carbonate biomineralized granules, (2013), **Mineralogical Magazine**, 77(5), 774, Goldschmidt 2013, 25-30<sup>th</sup> August 2013, Florence, Italy; <http://goldschmidt.info/2013/program>
3. Loredana Brinza, J. Fred W. Mosselmans, Paul F. Schofield, Erica Donner, Enzo Lombi, David Paterson, Paul D. Quinn, Tina Geraki, Mark E. Hodson, Sr, Cu and Zn incorporation in earthworm synthesized calcium carbonate granules - a  $\mu$ XAS and  $\mu$ S-XRF investigation, (2012), **EMC2012, 2-6th September 2012**, Frankfurt, Germany, <http://meetingorganizer.copernicus.org/EMC2012/EMC2012-260-1.pdf>
4. Loredana Brinza, J. Fred W. Mosselmans, Paul F. Schofield, Paul D. Quinn And Mark E. Hodson, (2011), Strontium incorporation into carbonate granules secreted by earthworms, **Mineralogical Magazine**, 581; DOI: 10.13140/2.1.3115.1042 Goldschmidt 2011 Conference, 14-19th August 2011, Prague, <http://goldschmidt.info/2011/abstracts/view.html>
5. Loredana Brinza, Sam Shaw, Liane. G. Benning, (2008), The effect of molybdenum on the transformation kinetics of ferrihydrite to hematite: An *in situ* ED-XRD approach (Abstract) - **Geochimica et Cosmochimica Acta**, Vol. 72, No. 12S, A115; Goldschmidt 2008, <http://goldschmidt.info/2008/abstracts/B.pdf>
6. Loredana Brinza, Liane. G. Benning, Peter. J. Statham, (2007), Characterisation of Mo and V interactions with ferrihydrite as an analogue for deep-sea hydrothermal plumes processes - **Geochimica et Cosmochimica Acta**, Vol. 71, No. 15S, A121; Goldschmidt 2007, <http://goldschmidt.info/2007/abstracts/B.pdf>
7. Loredana Brinza, Liane. G. Benning, Peter. J. Statham, (2007), The mechanism of molybdenum uptake by ferrihydrite and its fate during the transformation to hematite, **Frontiers in Mineral Sciences**, June 2007, Cambridge, UK
8. Loredana Brinza, Matthew J. Dring, Maria Gavrilescu, (2005), Ability of different algal species to uptake heavy metals from wastewater, **The Phycologist**, No 68, Spring 2005, 30; Annual Meeting of British Phycological Society, University of Birmingham, January 5-7, 2005, United Kingdom <http://www.brphycsoc.org/documents/phycologist/Phycologist-68.pdf>
9. Loredana Brinza, Matthew Dring, Maria Gavrilescu, Biosorption of Cu (2+) ions from aqueous solution by *Enteromorpha* sp, **Environmental Engineering and Manage-**

*ment Journal*, Vol.4, No.1, 41-51, 2nd International Conference on Environmental Engineering and Management, Faculty of Industrial Chemistry, Department of Environmental Engineering Iasi, September 23-36, 2004, Iasi, Romania;

10. Otilia Brinza, Loredana Brinza, Liane G. Benning, Maria Gavrilescu, Studies regarding biosorption on heavy metals on marine algae, Conference of "Gh. Asachi" Technical University Iasi - November 15, 2005, Iasi, Romania
11. Loredana Brinza, Maria Gavrilescu, Biotechnologies in environmental protection: soil remediation and water treatment biotechnologies applicable for heavy metals depollution. The Days of Faculty of Chemical Engineering and Environmental Protection; November 15-16, 2007, Iasi, Romania;

## Conferinte

### Conferinte-prezentari orale

#### Conferinte internationale – prezentari orale

1. Mark E Hodson, Stuart Black, Loredana Brinza, Daniel Carpenter, Denise C. Lambkin, J. Fred W Mosselmans, Barbara Palumbo-Roe, Paul F Schofield, Tom Sizmur, Emma A Versteegh, 2014, Biology as an agent of chemical and mineralogical change in soil, Geochemistry of the Earth's surface GES-10 Paris France, 18-23 August, 2014, oral presentation; <http://ges10.web-events.net/>
2. Loredana Brinza, J. Fred W. Mosselmans, Paul F. Schofield, Erica Donner, Enzo Lombi, Mark E. Hodson, Zn immobilization by Lumbricus terrestris calcium carbonate biomineralized granules, Goldschmidt 2013, 25-30th August 2013, Florence, Italy – oral presentation; <http://goldschmidt.info/2013/program>
3. Loredana Brinza, J. Fred W. Mosselmans Paul F. Schofield, Paul D. Quinn, Mark E. Hodson, Qualitative and quantitative approaches of strontium incorporation into earthworm bio mineralized calcium carbonates granules, Diamond Light Source Science Away Day, Sheepdrove Eco Conference Centre, Lambourne, 10th June 2013, short communication
4. J. Fred W. Mosselmans, Loredana Brinza, Paul F. Schofield, Sophie Weller, Konstantin Ignatyev, Tina Geraki, Mark E. Hodson, New developments in micro-X-ray diffraction and XANES mapping at Diamond's I18 beamline as applied to the mineralogy of earthworm granules, Minerals for Life, 17-18th June 2013, Edinburgh, UK, oral presentation; <http://www.minersoc.org/minerals-for-life.html>
5. Loredana Brinza, J. Fred W. Mosselmans, Paul F.Schofield, Erica Donner, Enzo Lombi, David Paterson, Paul D. Quinn, Tina Geraki, Mark E Hodson, Sr, Cu and Zn incorporation in earthworm synthesized calcium carbonate granules - a  $\mu$ XAS and  $\mu$ S-XRF investigation, EMC2012, 2-6th September 2012, Frankfurt, Germany - oral presentation;<http://emc2012.uni-frankfurt.de/>
6. Loredana Brinza, J. Fred W. Mosselmans, Paul F. Schofield, Paul D. Quinn and Mark E. Hodson, Strontium incorporation into carbonate granules secreted by earthworms. Mineralogical Magazine, 75 581 Goldschmidt 2011 Conference, 14-19 August 2011, Prague - oral presentation; <http://goldschmidt.info/2011/program/index.html>



7. Loredana Brinza, Liane G. Benning, Peter J. Statham, Biosorption studies of Mo and V onto ferrihydrite, Geochemistry of the Earth's Surface (GES 8), August 18–22, 2008, Natural History Museum, London, United Kingdom – oral presentation; <http://www.minersoc.org/pages/meetings/ges8-archive/GES8-archive.html>
8. Loredana Brinza, Sam Shaw, Liane G. Benning, The effect of molybdenum on the transformation kinetics of ferrihydrite to hematite: An in situ ED-XRD approach (oral) Goldschmidt 2008 - "From sea to sky", July 13-18, 2008, Vancouver, Canada - oral presentation, <http://goldschmidt.info/2008/index.html>
9. Loredana Brinza, Sam Shaw, Liane G. Benning, Peter J. Statham, In situ ED-XRD kinetic studies of ferrihydrite transformation to hematite; molybdenum effect and partitioning, Environmental Mineralogy Group of the Mineralogical Society Research in Progress Meeting, May 1, 2008, The Natural History Museum, London, United Kingdom – oral presentation;
10. Loredana Brinza, Liane. G. Benning, Peter. J. Statham, The mechanism of molybdenum uptake by ferrihydrite and its fate during the transformation to hematite, Frontiers in Mineral Sciences, June 26-28, 2007, Cambridge, United Kingdom – oral presentation

#### Conferinte nationale – prezentari orale

11. Otilia Brinza, Loredana Brinza, Liane G. Benning, Maria Gavrilescu, Studies regarding biosorption on heavy metals on marine algae, Conference of "Gh. Asachi" Technical University Iasi - November 15, 2005, Iasi, Romania – oral presentation;
12. Loredana Brinza, Maria Gavrilescu, Biotechnologies in environmental protection: soil remediation and water treatment biotechnologies applicable for heavy metals depollution. The Days of Faculty of Chemical Engineering and Environmental Protection; November 15-16, 2007, Iasi, Romania;

#### Postere

##### Conferinte internationale- postere

1. Loredana Brinza, J. Fred W. Mosselmans, Paul F. Schofield, Erica Donner, Enzo Lombi, David Paterson, Paul D. Quinn Tina Geraki and Mark E. Hodson, Metals incorporation in earthworm-secreted calcium carbonate granules, Diamond Light Source Science Away Day 2012, Sheepdrove Eco Conference Centre, Lambourne, UK – June 2012, - poster
2. Loredana Brinza, J. Fred W. Mosselmans, Paul F. Schofield, Paul D. Quinn and Mark E. Hodson, Earthworms immobilise Sr within bio-synthesised calcium carbonate granules, Synchrotron User Meeting 7-8 September 2011 - prized poster; [http://www.diamond.ac.uk/Home/Events/2011/Synchrotron\\_User\\_Meeting\\_2011.html](http://www.diamond.ac.uk/Home/Events/2011/Synchrotron_User_Meeting_2011.html)
3. Loredana Brinza, Liane G. Benning, Peter J. Statham, Mo and V biosorption onto ferrihydrite, 'Global Biogeochemical Cycles - A Leading View' Symposium, August 27-29,



2008, Leeds, United Kingdom – poster; see <http://www.see.leeds.ac.uk/ebi/gbc-eventdetails.htm#posters>

4. Loredana Brinza, Liane. G. Benning, Peter. J. Statham, Characterisation of Mo and V interactions with ferrihydrite as an analogue for deep-sea hydrothermal plumes processes, Goldschmidt 2007- "atoms to planet", August 20-24, Cologne, Germany; - poster
5. Loredana Brinza, Matthew J. Dring, Maria Gavrilescu, Ability of different algal species to take up heavy metals from wastewater, Annual Meeting of British Phycological Society, University of Birmingham, January 5-7, 2005, United Kingdom – poster; <http://www.brphycsoc.org/documents/phycologist/Phycologist-68.pdf>
6. Loredana Brinza, Matthew Dring, Maria Gavrilescu, Biosorption of Cu (2+) ions from aqueous solution by *Enteromorpha* sp, 2nd International Conference on Environmental Engineering and Management, Faculty of Industrial Chemistry, Department of Environmental Engineering Iasi, September 23-36, 2004, Iasi, Romania - poster;

#### Conferinte nationale- postere

7. Loredana Brinza, Maria Gavrilescu, Studies on Heavy Metal Removal by Biosorption -, 3rd Conference of Faculty of Industrial Chemistry "90 Years of Chemical Engineering Education in Iasi", November 2002, Iasi, Romania – poster

#### Comunicari (invited/keynote speaker)

##### Manifestari internationale

1. Loredana Brinza et al, Advanced synchrotron  $\mu$ -XAS,  $\mu$ -XRF and  $\mu$ -XRD techniques applied to environmental mineralogy research, Research in Progress Meeting, Durham, UK, 25 September 2014 (**keynote speaker**)
2. Loredana Brinza, Maria Gavrilescu, Matthew Dring, Biosorption Cu (II) and Cr (VI) by dead *Fucus vesiculosus*, University of Minho, September 25, 2005, Portugal - short communication;
3. Loredana Brinza, Otilia Brinza, Maria Gavrilescu, Liane G. Benning, Matthew J. Dring, Heavy metals biosorption by marine brown algae: *Ascophyllum nodosum*, *Fucus vesiculosus*, *Sargassum muticum*, *Laminaria digitata*, , University of Minho, September 25, 2005, Portugal - short communication;

##### Manifestari din tara

4. Loredana Brinza, Synchrotron XAS,  $\mu$ -XRF and ED-XRD applied in biogeochemistry research, National Institute of Material Physics, Magurele, Romania, 22 January, 2014 (lecture)

#### Proiecte de cercetare-devzoltare-inovare pe baza de contract/grant

##### Granturi/contracte cu finantare din strainatate

1. Science & Technology Facilities Council (STFC) 1 day beam time for in house research (SP5906-1) at the Diamond Light Source, UK Synchrotron facility at beam line B18- Core XAS - Pb and Zn XAS in iron based minerals, Prof. Mark E Hodson-PI, Prof. Fred Mosselmans, David Hughes, Dr. Loredana Brinza, Dr. Liz Shaw, ca 11250 GBP, 26 June 2013 - team member.
2. Science & Technology Facilities Council (STFC) 1 day beam time for in house research (SP5906-1) at the Diamond Light Source, UK Synchrotron facility at beam line B18- Core XAS - Pb and Zn XAS in iron based minerals, Prof. Mark E Hodson-PI, Prof. Fred Mosselmans, David Hughes, Dr. Loredana Brinza, Dr. Liz Shaw, ca 11250 GBP, 20 March 2013 - team member.
3. Science & Technology Facilities Council (STFC) 3 days beam time for in house research (NT3894-1) at the Diamond Light Source, UK Synchrotron facility at beam line i18-Microfocus spectroscopy - The effect of Mg and P on the mineralogy of calcium carbonate bio mineralized granules: a micro spatial characterization by s-XRD and s-Ca XANES, Dr. Loredana Brinza-PI, Prof. Fred Mosselmans, Dr. Paul F. Scofield, Prof. Mark E. Hodson, ca. 32130 GBP, principal investigator.
4. Science & Technology Facilities Council (STFC) research grant no RCaH R18, 3 months access to Research Complex at Harwell, UK to investigate "Microscopic and spectroscopic investigation of biomineralized calcium carbonates polymorphs" Dr. Loredana Brinza-PI, Prof. Fred Mosselmans, ca XXXXX, 15.09.2012-15.12.2012–principal investigator
5. Science & Technology Facilities Council (STFC) 1 day commissioning beam time for in house research (CM-5712-5) at the Diamond Light Source, UK Synchrotron facility to test improvements to s-XRD technique at the beam line i18-Microfocus spectroscopy, Prof. Fred Mosselmans, Dr. Loredana Brinza, Dr. Tina Geraki, Dr. Konstantin Ignatiev, ca 11250 GBP, December 2012– team member.
6. Science & Technology Facilities Council (STFC) grant No SP7755 for 4 days beam time at the Diamond Light Source, UK Synchrotron facility to carry out XAS and s-XRD experiments on "Ca-XANES maps and synchrotron diffraction on earthworms biomineralized calcium carbonates granules "at the beam line i18-Microfocus spectroscopy, Prof. Fred Mosselmans -PI, Loredana Brinza, Dr. Paul F. Schofield; Prof. Mark E Hodson, ca 45000 GBP, 20-24th September 2012– team member.
7. French Société civile grant no EC-870 for 4 days beamtime at the ESRF, France to carry out research on "Se-XAS in UK and China Se-rich shells" at the beamline ID22. Prof. Liane G Benning -PI, Dr Loredana Brinza, Dr Samwel Allsorn, ca 51300 E 22-26th June 2012 - team member
8. Science & Technology Facilities Council (STFC) grant No NT5731-1 for 3 days beam time at the Diamond Light Source, UK Synchrotron facility to carry out XAS experiments on "Zn and Cu sequestration in earthworm excreted calcium carbonates granules: elemental XRF maps, Ca, Zn and Cu XAS " at the beam line i18-Microfocus spectroscopy, Dr. Loredana Brinza-PI, Prof. Fred Mosselmans; Dr. Paul F. Schofield; Dr. Paul D. Quinn, Prof. Mark E Hodson, ca 32130 GBP, 20-24th February 2012– principal investigator.
9. Australian Synchrotron grant No AS121/XFM/4559 for 3 days beamtime at the Australian Synchrotron Facility to carry out elemental XRF, Zn and Cu-XANES mapping on "Metal incorporation in earthworm-secreted calcium carbonate granules", Dr. Erica Donner-PI, Dr. Enzo Lombi, Prof. Fred Mosselmans; Dr. Paul D. Quinn; Dr. Paul F. Schofield; Dr. Mark E

- Hodson, ca 57600\$, 2-6th February 2012 - team member;
10. Science & Technology Facilities Council (STFC) grant No NT2123-1 for 3 days beam time at the Diamond Light Source, UK Synchrotron facility to carried our XAS experiments on "Zn sequestration in earthworm excreted calcium carbonates granules" at the beam line i18-Microfocus spectroscopy, Dr. Loredana Brinza-PI, Prof. Fred Mosselmans, Dr. Paul D. Quinn; Dr. Paul F. Schofield; Prof. Mark E Hodson, ca 32130 GBP, May 2011,– principal investigator;
  11. Science & Technology Facilities Council (STFC) grant No SP6744-1 for 5 days beam time at the Diamond Light Source, UK Synchrotron facility to carried our XAS experiments on "Selenium in shales: where and who is the bad guy?" Prof. Liane G Benning (PI), Adriana Matamoros Velosa, Dr. Loredana Brinza, 53550 GBP, 25-31 May 2011; team member;
  12. Science & Technology Facilities Council (STFC) grant No CM-1946-2 (2065-3) for 1 day beam time at the Diamond Light Source, UK Synchrotron facility to carried out XAS experiments on "Incorporation of V into iron oxyhydroxides" at the beam line i18-Microfocus spectroscopy, Dr. Loredana Brinza -PI; Prof. Fred Mosselmans, Dr. Tina Geraki, ca 11250 GBP, 4 August 2011– principal investigator;
  13. Science & Technology Facilities Council (STFC) grant No NT2000 for 3 days beam time at the Diamond Light Source, UK Synchrotron facility to carried out XAS experiments on "Incorporation of Sr into earthworm secreted calcium carbonate" at the beam line i18-Microfocus spectroscopy, Prof. Fred Mosselmans-PI; Dr. Loredana Brinza; Dr. Paul D. Quinn; Dr. Paul F. Schofield; Prof. Mark E Hodson, ca 32130 GBP, -5-8th February 2011– team member as research associate;
  14. AMASE (Arctic Mars Analog Svalbard Expedition) grant founded by NASA (National Aeronautics and Space Administration) and JPL (Jet Propulsion Lab), Hans Amundsen (Expedition Leader Norway), Andrew Steele (Science Leader – Carnegie Institution of Washington), Marilyn Fogel (Management team – Carnegie Institution of Washington), Pan Conrad (Management team) and Liane Benning (Management team – University of Leeds, UK (2009), 2.22M US \$, – postdoc collaborator based at the Earth and Biosphere Institute and School of Earth and Environment at the University of Leeds (March-May 2010)
  15. UK Natural Environment Research Council 'Weathering Science Consortium' NE/C004566/1 Biologically-Mediated Weathering of Minerals from Nanometre Scales to Environmental Systems, (Prof. Steward Banwart, University of Sheffield, PI; Prof. Bruce Yardley, Prof. Liane G. Benning, Prof. Rik Brydson; University of Leeds universities group leaders and Co-Investigator), 2006-2011, 364214 GBP – team member as research fellow at Leeds with Prof. Liane G Benning, March-May 2009;
  16. Emeritus Fellowship funded by Leverhulme Trust; Bioavailable nanoparticulate iron in icebergs, Prof. Rob Raiswell -PI; 2007-2009, ca 22000GBP, - team member as research associate, Jan-Feb 2009;
  17. Council for the Central Laboratory of the Research Councils (CCLRC) grant no 50115 for beamtime at 16.4 time-resolved Energy Dispersive-X-Ray Diffraction beamline at Synchrotron Radiation Source (SRS) Daresbury Laboratory, UK 3 days to carry out research on " In situ hydrothermal mineral transformation of iron oxyhydroxides", Prof. Liane G. Benning - PI, Loredana Brinza, Hong Phuc Vu, 2008, ca 18000 GBP, - team member as research fellow
  18. Council for the Central Laboratory of the Research Councils (CCLRC) grant no 47113 on

- 16.5 - Ultra-Dilute Spectroscopy beamline at UK synchrotron, Daresbury Laboratory, UK 3 days to carry out research on "Pb-XAS in iron oxyhydroxides", Prof. Liane G Benning, Loredana Brinza, Hong Phuc Vu, 2007, ca 18000 GBP, - team member as research fellow
19. Council for the Central Laboratory of the Research Councils (CCLRC) grant no 47113 on 15.1 Dilute spectroscopy beamline at UK synchrotron, Daresbury Laboratory, UK 3 days to carry out research on "Mo-XAS in iron oxyhydroxides", Prof. Liane G. Benning, Hong Phuc Vu, Loredana Brinza, 2007, ca 18000 GBP, - team member as research fellow
20. European Community under the Sixth Framework (FP6), Marie Curie Actions Early-Stage Training (EST) Fellowships; grant name BIOTRACS (Bio-transformation of trace elements in aquatic systems) working on "The interaction of trace metals and iron-based nanoparticles in contrasting marine settings" contract number MEST-CT-2004-514262, 2220111 E; Oct 2005 - Dec 2008 – team member as research fellow; see website: [http://cordis.europa.eu/result/rcn/50263\\_en.html](http://cordis.europa.eu/result/rcn/50263_en.html)
21. Marie Curie Individual fellowship at the University of Leeds, Leeds, United Kingdom funded by the European Community under the Fifth Framework (FP5): EU Marie Curie BIOAS-SESS "Biodiversity assessment and conservation science" Grant Reference Number EVK2-CT-2000-57122, 285000 E, Feb 2005 - April 2005 - team member as research fellow; see web: [http://cordis.europa.eu/project/rcn/72350\\_en.html](http://cordis.europa.eu/project/rcn/72350_en.html)
22. Marie Curie Training Site fellowship at the Queen's University of Belfast, Belfast, Northern Ireland, United Kingdom funded by the European Community under the Fifth Framework (FP5): EU Marie Curie Action, "Marine macroalgae : physiological and biochemical ecology, molecular, phylogeny, and aquaculture" Grant Reference Number HPMP-CT- 2001-00268; 240000E; April 2004- Jan 2005 – team member as research fellow. See web: [http://cordis.europa.eu/project/rcn/64248\\_en.html](http://cordis.europa.eu/project/rcn/64248_en.html)

#### Granturi si contracte in tara

1. National Council for Scientific Research in Higher Education, Modeling and simulating processes for liquid fluxes depollution, regarding property transfer. GRANT CNCSIS, tip A, contract 33557/2003, Tema 21, cod CNCSIS 316, PI: prof. dr. eng. Maria Gavrilescu, 6750 RON, - team member as PhD
2. National Council for Scientific Research in Higher Education, Bioremediation of environmental polluted media using chemical engineering and biotechnologies specific processes. GRANT CNCSIS, tip A, contract 40222/2003, Tema 13, cod CNCSIS 774 PI: prof. dr. eng. Matei Macoveanu, 8250 RON,- team member as PhD.

#### Stagii in strainatate

1. Awarded Marie Curie Actions Early-Stage Training (EST) Fellowships at the University of Leeds, Leeds, UK, funded by the European Community under the Sixth Framework (FP6), grant name **BIOTRACS (Bio-transformation of trace elements in aquatic systems)** working on "*The interaction of trace metals and iron-based nanoparticles in contrasting marine settings*" contract number MEST-CT-2004-514262, 2220111 E; Oct 2005 - Dec 2008 – 2 years and 8 months; research fellow.

2. Awarded Marie Curie Actions Early-Stage Training (EST) Fellowships at the University of Southampton, National Oceanography Centre, Southampton UK; funded by the European Community under the Sixth Framework (FP6), grant name **BIOTRACS (Bio-transformation of trace elements in aquatic systems)** working on “*The interaction of trace metals and iron-based nanoparticles in contrasting marine settings*” contract number MEST-CT-2004-514262, 2220111 E; 2006-2007 – 4 months, research fellow
3. Awarded Marie Curie Individual fellowship at the University of Leeds, Leeds, United Kingdom funded by the European Community under the Fifth Framework (FP5): *EU Marie Curie **BIOASSESS “Biodiversity assessment and conservation science”** Grant Reference Number EVK2-CT-2000-57122, 285000 E, Feb 2005 - April 2005 - 3 months; research fellow.*
4. Awarded Marie Curie Training Site fellowship at the Queen’s University of Belfast, Queens Marine Laboratory, Portaferry, Belfast, Northern Ireland, United Kingdom funded by the European Community under the Fifth Framework (FP5): *EU Marie Curie Action, “**Marine macroalgae : physiological and biochemical ecology, molecular, phylogeny, and aquaculture**” Grant Reference Number HPMP-CT-2001-00268, 2004-2005 – 9 months; research fellow*

Citari: 95 (<http://www.researcherid.com/rid/F-9765-2012>) sau 180 (<http://scholar.google.co.uk/citations>)

H index: 7 (researcherid.com) sau 7 (GoogleScholar)

#### Membru in comitetele unor manifestari stiintifice internationale

- Committee Member of Environmental Geochemistry Group, Special Interest Group of Mineralogical Society of Great Britain and Ireland, 2012-present
- Member of European Association of Geochemistry 2009-present
- Member of Geochemical Society, 2008-2009.
- Member of Mineralogical Society, 2007 and 2008;
- Member of British Phycological Society, 2005;
- Member of the Academic Organization of Environmental Engineering and Sustainable Development, OAIMDD, 2003- 2005;7•

#### Premii internationale obtinute prin proces de selectie

1. Prized participation to Diamond Light Source Synchrotron User Meeting: Loredana Brinza, J. Fred W. Mosselmans, Paul F. Schofield, Paul D. Quinn and Mark E. Hodson, Earthworms immobilise Sr within bio-synthesised calcium carbonate granules, Synchrotron User Meeting 7-8th September 2011 - prized poster;
2. Research Student Publication Prize competition awarded letters of commendation sent by the Head of School of Earth and Environmental, University of Leeds, February 2011

#### Supervizare studenti

1. Sophie Weller, Diamond Light Source internship student (2012).

### Activitati de predare curs/laborator:

1. University of Leeds, School of Earth Science, Master students demonstration in: Geochemical modelling (2008-2009).

### Cursuri si specializari (diplome/certificate):

1. Broadening Horizons Workshop for Post-Docs organised by Diamond Light Source LTD, 25-26th February 2013
2. Phyton Course 2011 organised by Diamond Light Source LTD, August 2011
3. XAS data analysis Course organised by Diamond Light Source LTD, 14-16th November 2011
4. Laboratory and cryogenic Gases Safety awareness Training Worksop organised by Diamond Light Source LTD, 5th October 2010
5. Practical Compressed Gases Safety Awareness Training Workshop: connecting regulators and cylinder setup organised by Diamond Light Source LTD, 5th October 2010
6. Safety awareness Training Workshop: Liquid Nitrogen Practical Decanting, organised by Diamond Light Source LTD, 5th October 2010
7. Raman Course organised by Renishaw at the University of Warwick, 23 September 2010
8. Research Funding Poroposals organised by [Staff and Departmental Development Unit](#), The University of Leeds, 11th February 2010;
9. Managing People and Projects organised by [Staff and Departmental Development Unit](#), The University of Leeds, 21-22nd April, 2010;
10. Project Planning and Management organised by [Staff and Departmental Development Unit](#), The University of Leeds, 7-8th Feb 2008;
11. International winter School "Fundaments of Thermodynamics and Kinetic of Water/ Mineral Reactions", organised by Min-Mingro at La Palma, Spain, 21-26th November 2007;
12. International Summer School SuperSTEM organised by Daresbury Laboratories, UK, September 2006.