

# First announcement: CEBiTOR 2014

2<sup>ND</sup> International conference on Environmental Bioinorganic and Toxicology Research  
Sao Paulo School of Advanced Sciences on Environmental Bioinorganic Chemistry and Toxicology Research

**From basic to translational researches in environmental bioinorganic chemistry**



*Bandeirantes Mausoleum, in São Paulo City near to Iberoquera Park and Federal University of São Paulo*

Dear Colleagues,

It is our pleasure and honor to invite you and your co-workers to participate in the second edition of the International Conference on Environmental Bioinorganic Chemistry and Toxicology Research – CEBiTOR 2014 that will be held in Sao Paulo city, Brazil, from November 17<sup>th</sup> to 19<sup>th</sup>, 2014. This interdisciplinary meeting will congregate bioinorganic, analytical and environmental chemists, as well as toxicologists, neuroscientists, pharmacologists and other experts dedicated to the study of the flows of chemical species through the environment and living systems, similar to CEBiTOR 2012 ([http://www.unifesp.br/home\\_diadema/pdfs/eventos/CEBITOR\\_2012.pdf](http://www.unifesp.br/home_diadema/pdfs/eventos/CEBITOR_2012.pdf)). For the 2014 edition, the central theme will be “From basic to translational researches in environmental bioinorganic chemistry”.

Along with CEBiTOR 2014 we are also organizing a School of Advanced Sciences focused on Environmental Bioinorganic Chemistry and Toxicology Research (SEBiTOR 2014). It will be held at the Federal University of São Paulo, November 17<sup>th</sup> to 30<sup>th</sup>, 2014. The main purpose of this school is to offer an opportunity to PhD students and young researchers to increase their knowledge of fundamental and practical aspects of modern approaches in environmental bioinorganic chemistry. In order to encourage discussions and to promote future collaborations, participating students and young researchers are encouraged to participate in a special poster session during CEBiTOR 2014.

**Where:** São Paulo City, Brazil

**Organizing:** NEBiTOR and Federal University of São Paulo

Preliminary schedule of **CEBiTOR**: November 17-19, 2014

Preliminary schedule of **SEBiTOR**: November 17-30, 2014

Saturday and Sunday	Monday to Wednesday	Thursday to Saturday	Sunday	Monday to Saturday	Sunday
Free and accreditation	CEBiTOR/SEBiTOR	SEBiTOR	Free	SEBiTOR	Closing SEBiTOR

## Organizing Committee

Prof. Dr. Raúl Bonne Hernández (ICAQF-UNIFESP), Chair  
Prof. Dr. Fabio Kummrow (ICAQF-UNIFESP), Vice Chair  
Prof. Dr. Diogo de Oliveira Silva (ICAQF-UNIFESP)  
Prof. Dra. Denise de Oliveira Silva (IQ-USP)

## Scientific Committee

Prof. Dra. Denise de Oliveira Silva (IQ-USP)  
Prof. Dr. Marcelo Farina, UFSC

**More informations:** [cebitor2014@unifesp.br](mailto:cebitor2014@unifesp.br)

[http://www.unifesp.br/home\\_diadema/pdfs/eventos/CEBITOR\\_2014.pdf](http://www.unifesp.br/home_diadema/pdfs/eventos/CEBITOR_2014.pdf)

## Topics for CEBiTOR and SEBiTOR

*All topics cited below will be extensively discussed in SEBiTOR*

### 1. From basic to translational researches in environmental bioinorganic chemistry and toxicity: Technical, scientific, educational and financing possibilities in Brazil (one day)

- Challenges on the integration of scientific approaches for environmental metal pollution and toxicity studies.
- The importance of scientific communications for understanding environmental metal toxicity (invited editors of international and Brazilian scientific journals)
- FAPESP presentation about research and scholarship grants in São Paulo State.
- Technical visit to interdisciplinary and multiuser scientific facilities at Brazilian universities (University of São Paulo and Federal University of São Paulo) for research and academic programs.
  - SEBiTOR WORKSHOP (Oral and poster presentation of students)

### 2. Spectroscopic and electrochemical approaches for studies of metal complexes and its biomedical and environmental applications (four days)

- Mössbauer Spectroscopy
- X-Ray approaches
- EPR Spectroscopy
- Xanes and EXAFS Spectroscopy
- RMN Spectroscopy
- Electrochemical approaches for metal speciation
- Electrochemistry at nano-scale
- Biosensors designed for environmental and biomedical metal detection
- Electrochemical Detection of Biomarkers

### 3. Omics and behavioral approaches for environmental metal studies (five days)

- Toxicogenomic for environmental studies of metals
- Metallomic for environmental studies of metals
- Proteomic for environmental studies of metals
- Metabolomic for environmental studies of metals
- Behavioral protocols for toxicological studies of metals

### 4. Environmental bioinorganic chemistry and environmental health (one day, but some subtopics only)

- Clean techniques for environmental sample collection and analysis.
- Monitoring and management of environmental metal toxicity
- Epidemiology of metals: a linking among metal poison, developmental toxicity and neuro(degenerative) disorders.
- The role metal speciation and fractionations in environmental health.
- Modelling in environmental toxicology of metals
- The role the chemical mixtures for metal toxicity
- Responses of organisms to metal exposure: The role alternative animal models.
- Metal toxicity and biomarker development: Metalloproteins, enzymes, metal homeostasis and trafficking.
- Metal detoxification and metalloprotection.

### 5. Environmental risk assessment, remediation and control of metals (one day, but some subtopics only)

- Challenges of metal mining and the environment
- Natural and synthetic substance for environmental control of metals.
- Environmental metal remediation
- Environmental metal risk assessment
- Politics to the control of metals in the environment and foods

### 6. Metal ions on bioenergy and biogeochemical cycles (one day, but some subtopics only)

- Metal ions on biofuels and petroleum: Environmental and technical impacts.
- Metal ions in artificial photosynthetic and alternative energy systems.
- Metal ions in cyanobacteria metabolism and its impacts on biogeochemical cycles.
- Environmental metal cycles