



## Curriculum vitae of Prof. Mauricio Leonardo Torem

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### Civil name

**Name** Mauricio Leonardo Torem

### Personal data

**Born** 06/29/1954 - Rio de Janeiro/RJ - Brazil  
**CPF** 425.347.637-68

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### Academic graduation / title

- 1984 - 1989** PhD in Metallurgical and Materials Engineering.  
Federal University of Rio de Janeiro, UFRJ, Rio De Janeiro, Brazil  
Title: Beryl Flotation Mechanisms, Year Obtained: 1989  
Advisor: Antônio Eduardo Clark Peres  
Scholarship holder: Coordination for the Improvement of Higher Education Personnel
- 1977 - 1980** Master's Degree in Chemical Engineering, Materials and Environmental Processes.  
Pontifical Catholic University of Rio de Janeiro, PUC-Rio, Rio De Janeiro, Brazil  
Title: Effect of Some Additives on Electrocrystallization of Manganese in Sulfuric Medium,  
Year of Obtaining: 1980  
Advisor: José Carlos D'Abreu  
Scholarship holder: Coordination for the Improvement of Higher Education Personnel
- 1973 - 1977** Graduated in Metallurgical Engineering.  
Pontifical Catholic University of Rio de Janeiro, PUC-Rio, Rio De Janeiro, Brazil  
Title: Thermodynamics and Reduction Kinetics of Manganese Ore from the Urucum Region  
Advisor: José Carlos D'Abreu

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### Additional training

- 2010 - 2010** Short course in Coal Flotation and Fine Coal Utilization. (Workload: 16h).  
THE INTERNATIONAL MINERAL PROCESSING COUNCIL (IMPC), IMPC, England  
Scholarship holder of: National Council for Scientific and Technological Development
- 1990 - 1990** University extension in Selected Topics In Mineral Processing. (Workload: 18h).  
Federal University of Rio de Janeiro, UFRJ, Rio De Janeiro, Brazil
- 1986 - 1986** University extension in Selected Topics In Mineral Processing. (Workload: 60h).  
Federal University of Minas Gerais, UFMG, Belo Horizonte, Brazil

- 1986 - 1986** University extension in Ore Treatment. (Workload: 60h).  
The Brazilian Society of Metallurgy and Materials, ABM, Brazil
- 1981 - 1981** University extension in Wood and Charcoal Gasification. (Workload: 60h).  
Minas Gerais Technological Center Foundation, CETEC, Belo Horizonte, Brazil
- 1975 - 1977 University** extension in Industrial Engineering. (Workload: 120h).  
Pontifical Catholic University of Rio de Janeiro, PUC-Rio, Rio De Janeiro, Brazil

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## Professional performance

### 1. Pontifical Catholic University of Rio de Janeiro - PUC-Rio

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#### institutional bond

- 2000 - Current** Employment: Cletista , Functional framework: Profess or Associate ,  
Workload: 44, Regime: Exclusive dedication  
Other information:  
Associate Professor at the Department of Materials Engineering at PUC-Rio
- 1989 - 2000** Position: Professor , Functional framework: Assistant Professor , Credit hours  
: 44, Regime: Exclusive dedication  
Other information:  
Assistant Professor at DCMM
- 1983 - 1989** Employment: Formal Cletist, Functional framework: Assistant Professor,  
Hours: 44, Full-time regime  
Other information:  
Assistant Professor at DCMM, PUC-Rio

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#### Activities

- 04/2010 - Current** Boards, Commissions and Consultancy, Scientific Technical Center  
*Specification:*  
*Elected Professor for the Teaching Career Sectorial Commission of the Scientific Technical Center of PUC-Rio*
- 06/2003 - 01/2006** Direction and Administration, Technical-Scientific Center, Department of Materials Engineering  
*Positions held:*  
*Member of the CTC's Physical Space Sector Commission*
- 03/2002 - 03/2006** Direction and Administration, Technical-Scientific Center, Department of Materials Engineering  
*Positions held:*  
*Member of the Internal Committee of the PIBIC-CNPq Program*
- 07/2001 - 01/2006** Direction and Administration, Technical-Scientific Center, Department of Materials Engineering  
*Positions held:*  
*Department Director*
- 07/2001 - 01/2006** Direction and Administration, Technical-Scientific Center, Department of Materials Engineering  
*Positions held:*  
*Department 's Teaching Career Committee*

- 07/2001 - 01/2006** Direction and Administration, Technical-Scientific Center, Department of Materials Engineering  
*Positions held:*  
 Member of the Department General Committee
- 08/1999 - Current** Graduation, Chemical Engineering  
*Disciplines Taught:*  
 QUI 1807 - Inorganic Chemical Processes
- 02/1998 - 12/1999** Direction and Administration, Technical-Scientific Center, Department of Materials Engineering  
*Positions held:*  
 Member of the General Committee of the DCMM
- 03/1996 - 06/2001** Direction and Administration, Technical-Scientific Center, Department of Materials Engineering  
*Positions held:*  
 Graduate Academic Coordinator
- 03/1996 - Current** Graduation, Metallurgical Engineering  
*Disciplines Taught:*  
 MET 1814 - Introduction to Materials Processing, MET 1813 - Mineral Technology
- 1994 - Current** Research and Development, Technical-Scientific Center, Department of Materials Engineering  
*Research lines:*  
 Treatment of Liquid Effluents , Ionic Flotation , Flotation of Precipitates , Flotation of Sorvent Colloids Resumen
- 1994 - Current** Research and Development, Technical-Scientific Center, Department of Materials Engineering  
*Research lines:*  
 Colloid Chemistry , Production of ceramic powders in aqueous media , Rheology of mineral pulps Resumen
- 1994 - Current** Research and Development, Technical-Scientific Center, Department of Materials Engineering  
*Research lines:*  
 Waste Treatment, Recycling of Aluminum Sludge, Characterization of Sludge (powders) from Blast Furnaces, Characterization of Sludge (powders) Aciaria, Recycling of paper by flotation, Recycling of PET and PVC (separation by flotation)
- 06/1993 - 07/1994** Specialized Technical Service, Technical-Scientific Center, Department of Materials Engineering  
*Specification:*  
 Technological Characterization of Pitinga Xenotima
- 01/1992 - 11/1993** Direction and Administration, Technical-Scientific Center, Department of Materials Engineering  
*Positions held:*  
 Member of the General Committee of the DCMM
- 03/1990 - 12/1992** Direction and Administration, Technical-Scientific Center, Basic Cycle  
*Positions held:*  
 CTC Undergraduate Sectoral Coordinator
- 01/1990 - 12/1991** Direction and Administration, Technical-Scientific Center, Department of Materials Engineering  
*Positions held:*  
 Undergraduate Coordination
- 03/1989 - Current** Graduate , Chemical Engineering, Materials and Environmental Processes  
*Disciplines Taught:*  
 MET 2111 - Advanced Ore Treatment, MET 2007 - Physical-Chemistry of Surfaces and Interfaces, MET 2017 - Special Topics in Ore Treatment, MET 21 19 - Special Topics in Extractive Metallurgy, MET 2125 - Process Mineralogy

- 01/1989 - Current** Research and Development, Technical-Scientific Center, Department of Materials Engineering  
*Research lines:*  
 Bioflotation , Flotation , Collector chemistry Resumen
- 1988 - 1989** Direction and Administration, Technical-Scientific Center, Department of Materials Engineering  
*Positions held:*  
 Member of the General Committee of the DCMM
- 03/1984 - 06/1999** Graduation, Chemical Engineering  
*Disciplines Taught:*  
 THU 1811 - Unit Operations I
- 03/1984 - 03/1995** Graduation, Metallurgical Engineering  
*Disciplines Taught:*  
 Mineralogy and Petrography , General Metallurgy , Ore Treatment
- 1983 - 1994** Management and Administration, Technical -Scientific Centre, Department of Materials Engineering  
*Positions held:*  
 Supervisor of the DCMM Mineral Technology Laboratory
- 1983 - Current** Research and Development, Technical-Scientific Center, Department of Materials Engineering  
*Research lines:*  
 Characterization of Ores
- 1983 - Current** Research and Development, Technical-Scientific Center, Department of Materials Engineering  
*Research lines:*  
 Mineral Technology

## 2. The Minerals, Metals & Materials Society (TMS) - TMS

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### institutional bond

- 1993 - Current** Employment: Full Member , Functional framework: Collaborator and Member of the "EPD" Division , Workload: 1, Period: Part-time  
*Other information:*  
 Titular member affiliated to the "Extraction and Processing Division" Committee.

## 3. The Society for Mining, Metallurgy and Exploration - SME

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### institutional bond

- 1997 - Current** Affiliation: Full Member , Functional framework: Full Member , Hours: 1, Period: Part-time  
*Other information:*  
 Member of the Technical Divisions: 1- Environmental Division 2- Mineral and Metallurgical Processing Division

## 4. Brazilian Association of Metallurgy and Materials - ABM

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### institutional bond

- 1998 - 1999** Relationship: Titular partner , Functional framework: Director of the Mineral

Technology Division , Credit hours: 1, Period: Part-time

Other information:

Participation in the various technical-scientific activities related to the Mineral Technology Division

**1996 - 1997** Relationship: Titular partner , Functional framework: Deputy Director of the Mineral Technology Division , Hours: 1, Period: Part-time

**1993 - 2009** Relationship: Titular partner , Functional framework: Advisor of the Regional Rio-ABM , Credit hours: 1, Period: Part-time

Other information:

Organizer of several scientific events linked to the Association of Metallurgy, Materials and Mining.

**1983 - Current** Affiliation: Full Member, Functional framework: Full Member, Regime: Partial

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### Activities

**01/1998 - 12/1999** Direction and Administration, Mineral Technology Division

*Positions held:*

*Director of the Mineral Technology Division*

**1996 - Current** Other technical-scientific activity, Technical Division, Mineral Technology

*Specification:*

*Organization of Events / Congresses / Scientific Symposiums*

**01/1996 - 12/1997** Direction and Administration, Technical Division, Mineral Technology

*Positions held:*

*Vice director*

## 5. BRITCHAM BRASIL - BRITCHAM

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### institutional bond

**2008 - 2008** Affiliation: Member of BRITCHAM , Functional framework: Associate , Hours: 1, Period: Part-time

Other information:

Associate Member of the British Chamber of Commerce and Industry in Brazil

## 6. Military Institute of Engineering - IME

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### institutional bond

**1980 - 1990** Employment: Lecturer Professor , Functional framework: Lecturer Professor , Hours : 3, Period: Partial

Other information:

Lecturer responsible for the disciplines of Ore Treatment and Electrometallurgy

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### Activities

**03/1980 - 12/1990** Graduation, Materials Engineering

*Disciplines Taught:*

*Treatment of Ores , Electrometallurgy Resumen*

## 7. SA White Martins - SAWM

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**institutional bond**

**1980 - 1983** Employment: Cletist, Functional framework: Process Engineer, Credit hours: 40, Full-time regime  
Other information:  
Process Engineer working in the Engineering Department of SA White Martins in the research and development sector in the production of Calcium Carbide (raw materials, reactors for the production of CaO and CaC<sub>2</sub>), equipment analysis. Analysis of mass and energy balances.

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**Activities**

**01/1982 - 12/1983** Specialized Technical Service, Department of Engineering, Department of Calcium Carbide Engineering  
*Specification:*  
*Development of standards and procedures related to the Calcium Carbide Production Process*

**11/1980 - 10/1983** Research and Development, Engineering Department, Calcium Carbide Engineering Department  
*Research lines:*  
*Production of Calcium Carbide , Production of Charcoal , Production of Lime Resumen*

**11/1980 - 12/1981** Management and Administration , Department of Engineering, Department of Calcium Carbide Engineering  
*Positions held:*  
*Project Management in the field of carbide engineering*

**8. Escola de Minas Magazine - REM**

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**institutional bond**

**2015 - Current** Affiliation: Associate Editor - Area: Minas , Functional framework: Associate Editor , Hours: 6, Period: Part-time

**9. FAPERJ - F\_FORN**

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**institutional bond**

**2018 - Current** Employment: Coordinator , Functional framework: Area Coordinator: Metallurgical Engineering , Credit hours: 5, Period: Part-time

**10. Vale Technological Institute - ITV**

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**institutional bond**

**2015 - Current** Employment: Employee , Functional framework: Consultant and Researcher , Hours: 5, Period: Part-time

**11. Elsevier BV - ELSEVIER**

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**institutional bond**

**2013 - 2015** Position: Collaborator , Functional framework: Editor-in-Chief - IJMP , Hours: 5, Period: Part-time  
Other information:  
Editor in Chief / Editor in Chief - International Journal of Mineral Processing - Elsevier<http://ees.elsevier.com/minpro/>

## 12. Coordination for the Improvement of Higher Education Personnel - CAPES

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**institutional bond**

**2005 - 2010** Position: Employee , Functional framework: Member of the Board of Engineering II , Hours: 3, Period: Part-time  
Other information:  
Member of the Engineering Evaluation Committee II

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**Activities**

**11/2005 - Current** Boards, Commissions and Consultancy, Engineering Evaluation Committee II, Evaluation Committee  
*Specification:*  
*Temporary committee member*

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**Research lines**

1. Bioflotation
2. Characterization of Sludge (powder) Steelmaking
3. Characterization of Blast Furnace Sludge (powder)
4. Characterization of Ores
5. Flotation
6. Flotation of Sorvent Colloids
7. Flotation of Precipitates
8. Ionic Flotation
9. Production of ceramic powders in aqueous medium
10. Chemistry of collectors
11. Chemistry of Colloids
12. Aluminum Sludge Recycling
13. Paper recycling by flotation
14. PET and PVC recycling (separation by flotation)

- 15. Rheology of mineral slurries
- 16. Mineral Technology
- 17. Treatment of Liquid Effluents
- 18. Waste Treatment
- 19. Lime Production
- 20. Production of Calcium Carbide
- 21. Charcoal Production

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## periodical reviewer

### 1. Mine Water and the Environment

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**Bond** —

**2020 - Current** Regime: Partial  
**2020 - Current** Regime: Partial

### 2. Journal of Sustainable Mining

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**Bond** —

**2019 - Current** Regime: Partial

### 3. Chemical Engineering Research and Design

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**Bond** —

**2018 - Current** Regime: Partial  
**2018 - Current** Regime: Partial

### 4. Chemical Engineering Communications

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**Bond** —

**2018 - Current** Regime: Partial

### 5. CERAMICS INTERNATIONAL

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**Bond** —

**2017 - Current** Regime: Partial

**6. APPLIED SURFACE SCIENCE**

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**Bond** —

**2017 - Current** Regime: Partial

**7. BIOTECHNOLOGY REPORTS**

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**Bond** —

**2017 - Current** Regime: Partial

**8. Journal of Materials Research and Technology-JMR&T**

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**Bond** —

**2017 - Current** Regime: Partial

**9. Journal of Molecular Liquids (Print)**

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**Bond** —

**2016 - Current** Regime: Partial

**10. Composites. Part B, Engineering**

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**Bond** —

**2016 - Current** Regime: Partial

**11. Journal of Cleaner Production**

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**Bond** —

**2016 - Current** Regime: Partial

**12. Desalination and Water Treatment (Online)**

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**Bond** —

**2016 - Current** Regime: Partial

**13. Environmental Science and Pollution Research International**

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**Bond** —  
**2015 - Current** Regime: Partial

**14. Journal of Taibah University for Science**

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**Bond** —  
**2015 - Current** Regime: Partial  
Other information:  
ISSN: 1658-3655

**15. Ecological Engineering**

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**Bond** —  
**2014 - Current** Regime: Partial

**16. Toxicological & Environmental Chemistry**

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**Bond** —  
**2014 - Current** Regime: Partial  
Other information:  
Toxicological & Environmental Chemistry

**17. Ecotoxicology and Environmental Safety**

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**Bond** —  
**2014 - Current** Regime: Partial

**18. Arabian Journal of Chemistry**

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**Bond** —  
**2014 - Current** Regime: Partial  
Other information:  
ISSN: 1878-5352

**19. African Journal of Biotechnology**

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**Bond** —  
**2013 - Current** Regime: Partial

**20. Central European Journal of Chemistry**

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**Bond** —

2013 - Current Regime: Partial

**21. Chemical Papers (Online)**

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**Bond** —

2013 - Current Regime: Partial

**22. Chemical Papers (Print)**

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**Bond** —

2013 - Current Regime: Partial

**23. Colloids and Surfaces. B, Biointerfaces (Print)**

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**Bond** —

2013 - Current Regime: Partial

**24. Annals of Microbiology**

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**Bond** —

2013 - Current Regime: Partial

**25. World Journal of Microbiology and Biotechnology (Online)**

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**Bond** —

2012 - Current Regime: Partial

**26. Clean (Weinheim. Internet)**

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**Bond** —

2011 - Current Regime: Partial

**27. Industrial & Engineering Chemistry Research**

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**Bond** —

2011 - Current Regime: Partial

28. **Journal of Applied Phycology**

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**Bond** —

2011 - Current Regime: Partial

29. **Desalination (Amsterdam)**

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**Bond** —

2009 - Current Regime: Partial

30. **Hydrometallurgy (Amsterdam)**

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**Bond** —

2008 - Current Regime: Partial

31. **Journal of Environmental Management (0301-4797)**

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**Bond** —

2007 - Current Regime: Partial

32. **Chemical Engineering Journal**

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**Bond** —

2006 - Current Regime: Partial

33. **Brazilian Journal of Chemical Engineering**

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**Bond** —

2006 - Current Regime: Partial

34. **Matter (UFRJ)**

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**Bond** —

2006 - Current Regime: Partial

Other information:

Reviewer of scientific articles related to the processing of materials, mineral technology and its commitments to the

preservation of the environment.

### 35. Minerals Engineering

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**Bond** —

**2006 - Current** Regime: Partial

### 36. International Journal of Environment and Pollution

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**Bond** —

**2005 - Current** Regime: Partial

### 37. Surface and Coatings Technology

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**Bond** —

**2005 - Current** Regime: Partial

Other information:

ISSN: 0257-8972

### 38. Mineral Processing and Extractive Metallurgy

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**Bond** —

**2005 - Current** Regime: Partial

Other information:

Mineral Processing and Extractive Metallurgy (Trans. IMM C). Mineral Processing and Extractive Metallurgy is devoted to scientific, engineering, and economic aspects of the preparation, separation, extraction, and purification of ores, metals, and mineral products by both physical and chemical methods. Contributions on plant operation and techniques are encouraged, especially those bringing together scientific understanding of a process with its engineering and economic implications to generate conclusions of practical benefit. The journal also covers laboratory development of new processes and discussions of the industrial significance of laboratory scale investigations.

### 39. International Journal of Environmental Studies

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**Bond** —

**2005 - Current** Regime: Partial

### 40. Journal of Hazardous Materials

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**Bond** —

**2005 - Current** Regime: Partial

#### 41. Journal of Materials Science

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**Bond** —

**2004 - Current** Regime: Partial

#### 42. International Journal of Mineral Processing (Print)

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**Bond** —

**2008 - 2018** Regime: Partial

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### editorial board member

#### 1. Recycling and Sustainable Development

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**Bond** —

**2018 - Current** Regime: Partial  
Other information:  
ISSN 1820-7480 print issue ISSN 2560-3132 online issue

#### 2. Ultra Engineer

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**Bond** —

**2017 - Current** Regime: Partial  
Other information:  
<http://ultra-engineer.org/>

#### 3. Journal of Mining and Metallurgy, Section A: Mining

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**Bond** —

**2015 - Current** Regime: Partial  
Other information:  
Journal of Mining and Metallurgy, Section A: Mining ISSN 1450-5959 Technical Faculty in Bor, University of Belgrade has been publishing the journal called Journal of Mining and Metallurgy, Section A: Mining since 1965 and it was of a national importance for Yugoslavia. This journal is transformed into an international medium for the publication of work on the theory and practice of mining and metallurgy, under its previous name. Journal of Mining and Metallurgy, Section A: Mining is financially supported by The Ministry of Science and Technological Development Republic of Serbia

#### 4. International Journal of Nonferrous Metallurgy

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**Bond** —

**2012 - Current** Regime: Partial

## 5. Particuology

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**Bond** —

**2012 - Current** Regime: Partial

## 6. Magazine of the School of Mines

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**Bond** —

**2007 - Current** Regime: Partial

Other information:  
Member of the Editorial Committee

## 7. Technological Studies in Engineering

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**Bond** —

**2007 - Current** Regime: Partial

**2007 - Current** Regime: Partial

Other information:  
Technological Studies in Engineering Magazine-ISSN: 1808-7310

## 8. Mineral Technology Series (DNPM)

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**Bond** —

**2001 - Current** Regime: Partial

## 9. Minerals Engineering

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**Bond** —

**2011 - 2017** Regime: Partial

Other information:  
Member of the Editorial Board.

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## Advisory committee member

### 1. National Council for Scientific and Technological Development - CNPq

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**Bond** —

**2013 - 2016** Regime: Partial

Other information:

Full Member of CA-MM for the period from July 1, 2013 to June 30, 2016.

**2013 - 2016** , Functional framework: Full Member of Mining Engineering CA MM , Hours: 3, Period: Part-time  
**2007 - 2010** Regime: Partial  
**2007 - 2010** , Functional framework: Member of the CA-MM Advisory Committee, Hours: 5, Period: Part-time  
Other information:  
Member of the Mining, Materials and Metallurgical Engineering Advisory Committee (CA-MM)

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## Development agency project reviewer

### 1. Research Support Foundation of the State of Bahia - FAPESB

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**Bond** —

**2009 - Current** Regime: Partial

### 2. VOUCH - VOUCH

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**Bond** —

**2008 - Current** Regime: Partial

### 3. Research Support Foundation of the State of Minas Gerais - FAPEMIG

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**Bond** —

**2005 - Current** Regime: Partial

### 4. National Council for Scientific and Technological Development - CNPq

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**Bond** —

**1991 - Current** Regime: Partial

### 5. Coordination for the Improvement of Higher Education Personnel - CAPES

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**Bond** —

**1991 - Current** Regime: Partial

### 6. Carlos Chagas Filho Research Support Foundation of the State of RJ - FAPERJ

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**Bond** —

**1990 - Current**    Regime: Partial