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MARCELLO MARIZ VEIGA

Professor Emeritus of the University of British Columbia
Norman B. Keevil Institute of Mining Engineering, 517-6350 Stores Rd, UBC, V6T 1Z4, Vancouver, B.C., Canada,
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Brazilian Professional Engineer, CREA 36806-D, Rio de Janeiro, Brazil
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Dual Citizenship: Brazilian and Canadian
Hobbies: Guitar and harmonica player, choir singer
Languages: fluent in Portuguese, English and Spanish, basic French and Italian

My goal as an academic is to generate mining engineers who understand that applying ethical principles while creating wealth for society will change the image of mining and make a positive difference to local communities.

RESEARCH TOPICS AND FIELDS OF INTEREST

- Biogeochemical cycle of heavy metals in the environment
- Artisanal and small-scale mining
- Mercury and cyanide pollution from artisanal gold mining and hydroelectric reservoirs
- Acid Rock Drainage and toxicity of heavy metals
- Process mineralogy applied to mining and mineral processing
- Sustainable development in mining
- Recycling of metals – urban mining
- Mining communities and social issues related to mining
- Mine closure and reclamation planning (social reclamation of communities)
- Mineral processing (in particular gold)
- Industrial minerals

TEACHING ACTIVITIES AT UBC

- Mining and the Environment
- Process Mineralogy
- Mineralogy for Mining Engineers
- Pre-feasibility Studies in Mining and Mineral Processing
- Undergraduate Seminar
- Environmental Technologies and Issues in Mining - graduate level
- Environmental and Health Risk Assessment – grad level
- Mining and the Society - graduate level
- Mining in the Future (recycling) – graduate level
- Small Mining Can Be Beautiful – Edumine on-line webcast course (10 h)
- Sustainability and Image of Mining –Edumine on-line course
- Process Mineralogy of Metals and Coal - Edumine on-line course

EDUCATION

Bachelor Degree (1973-1977) in **Metallurgical Engineering** - Catholic University of Rio de Janeiro (PUC/RJ) Dept. Metallurgy and Materials Science.

M.Sc. (1979-1984) in **Environmental Geochemistry** - Federal Fluminense University (UFF), Niteroi, RJ, Inst. Chemistry, Dept. Geochemistry. Thesis: "Geochemical Properties of Cu-Hydrous Ferric Oxides: A Case Study of the Weathered Ores from Salobo, Carajás, Pará, Brazil".

Ph.D. (1992-1994) in **Mineral Process Engineering -** University of British Columbia, Dept. Mining and Mineral Process Engineering, Vancouver, Canada. Thesis: "A Heuristic System for Environmental Risk Assessment of Mercury from Gold Mining Operations".

PROFESSIONAL ACTIVITIES

Feb 21 – present – Consultant for mining companies, Governments and NGOs.

Jan 2021 – present: Professor Emeritus, Norman B. Keevil Institute of Mining Engineering. University of British Columbia (UBC), Vancouver, Canada

Dec 97 – Dec 2020: Assistant, Associate and Full Professor (since 2012) of the, NBK Institute of Mining, UBC

Mar 05 – Apr 08: At UBC, Chief Technical Advisor of the GEF/UNDP/UNIDO Global Mercury Project based in Vienna and Vancouver. Project Countries: Brazil, Indonesia, Laos, Sudan, Tanzania and Zimbabwe. Affiliated Countries: Colombia, Ecuador, Ghana, Guinea, Mozambique, Suriname, and Venezuela.

Nov 02 – July 04: Seconded to United Nations Industrial Development Organization (UNIDO) based in Vienna to work as Small-scale Mining Expert for the Global Mercury Project. Returned to UBC in Ago 2004.

Oct 98 - Mar 01: Consultant to exploration/mining companies based in Vancouver.

Nov 97: Consultant for UNIDO - United Nations Industrial Development Organization - evaluation of the artisanal gold mining activities and mercury pollution in Suriname and Guyana.

Sept 97 – Dec. 97: Senior Advisor to the Board of Brazilian Goldfields Ltd. Exploration/mining company based in Vancouver and operating in Brazil.

Jan 96 – Nov 97: Adjunct Professor in the Dept. of Mining and Mineral Process Engineering, University of British Columbia. Instructor of Artificial Intelligence Applications.

Dec 96 – Jul 96: Consultant for UNIDO for issues related to artisanal gold miners and mercury pollution in Latin America, Vancouver and Vienna.

Jul 95 – Nov 96: Consultant for Canadian junior companies. Development of new businesses in Brazil. Pilot plant to reprocess gold mining tailings, São Paulo and Goiânia, Brazil.

May 95 – Jul 95: Consultant for UNIDO - alternative gold mining techniques and mercury remediation for the artisanal goldfields, Puerto Ordaz, Venezuela.

May 94 - Dec 95: Director of Madison do Brasil Ltd. - a Brazilian subsidiary of a Canadian geological exploration company, Madison Holdings, Rio de Janeiro.

Jun 89 - May 94: Director Techmat Ltd. Consultant for different engineering and mining companies, São Paulo.

Jul 86 – Jun 89: Paulo Abib Engenharia S.A. (an engineering company specialized in mining projects), manager of the Research & Development group. Developed new opportunities and technologies in fine chemistry, São Paulo.

Nov 84 – Jul 86: DOCEGEO - Rio Doce Geologia e Mineração (CVRD group), subsidiary of Companhia Vale do Rio Doce, technical assistant to the Director of Geology, Rio de Janeiro.

Apr 79 – Oct 84: Center of Mineral Technology (CETEM). Engineer of the Chemical Analysis Division, working at the Laboratory of Mineralogical Analyses, Rio de Janeiro.

Mar 79 – Dec 83: Catholic University - PUC/RJ - Lecturer of Mineralogy & Petrography in the Dept. of Metallurgy and Materials Science, Rio de Janeiro.

EXPERIENCE

⋆ **As Professor (Dept. of Mining Engineering, UBC, Vancouver, Canada):**

- Research activities on effects of trace metals released by mining activities, reactions of mercury-contaminated tailings with natural organic acids, mercury speciation, social and environmental impacts of mining activities, public perceptions on mining, reclamation and sustainability of local communities, artisanal mining, methods to introduce mercury-free techniques into artisanal gold mining.
- Member of the following successful proposals for the Canada Foundation of Innovation (1998-2001):
  - Center of Industrial Minerals Innovation: Cn$ 250,000
  - Center for Environmental Research on Metals, Minerals and Materials: Cn$ 3,800,000
- Visiting Professor at the Dept of Mining Engineering of Univ. São Paulo, Brazil (sabbatical Jul 2010-Jul 2011) teaching graduate courses: Gold Processing Methods, Sustainable Development in Mining and Management of Mining Projects

⋆ **As consultant:**

- Consultant for the University of São Paulo and UNEP on the project Mining without Mercury in Brazil, Assessment of mercury and gold losses in different Br5azilian artisanal mining sites. Suggestion of alternative techniques to reduce

and eliminate mercury usage. Jun 2023 to Aug 2024

- Consultant for Alinea International on Mercury Elimination in the Artisanal Gold Mining Sector of Nigeria. Field work and teaching artisanal miners and staff of the Nigerian Ministry of Solid Minerals Development on gold processing and extraction and mercury pollution impacts. Gold and mercury metallurgical balances in two artisanal mining sites (Uke and Minna). Sept 2022 to Jul 2024
- Consultant (Chief Technical Advisor) to Solidaridad on Technical Solutions and Alternative Livelihood for Artisanal Gold Miners in Suriname. Project with Newmont. Technical assessment of gold losses in the artisanal mining operations at the Pamaka region, near Merian Mine.Jul y 2021 to 2024 (part-time)
- Consultant for the World Bank for the Mining Sector Diagnostic. Feb-Apr 2022.
- Consultant for UNEP-Brazil. Compilation of data and review of the Brazilian National Action Plan for the Minamata Convention Initial Assessment (MIA). Feb-Apr 2022.
- Consultant for Newlox Gold Ventures on Alternative Techniques to Leach Gold from Concentrates from Costa Rica, May 2021-Dec 2022.
- Consultant for the Indonesian Government teaching a course on Artisanal Gold Mining from Oct 18-29, 2022 in Medellin, Colombia.
- Consultant for ABH Engineering on Technical and Environmental Issues to Extract Lithium from Clayminerals. Surrey. BC, Sept 2021.
- Consultant for PACT on Technical Aspects of Artisanal Gold Mining in Mauritania. Apr 18-24, 2021.
- Consultant for the EGPS – World Bank Project conducted by NAP – University of São Paulo in Peixoto de Azevedo, Brazil for coexistence of artisanal miners with conventional mining companies, Mar 2021 - Dec 2022.
- Consultant for Pure Earth in a USDoS project in Antioquia, Colombia on Extraction of Mercury from Amalgamation Tailings. Nov 2019 – May 2022.
- Consultant for the Geological Management Services and Consultancy Ltd (GMSC), Mozambique, for a contract to the Ghanaian Ministry of Lands and Natural Resources – the Ghana ASM Formalisation Project (GASMFP). Feasibility or Proposed Pilot of Demonstration Centers for Artisanal Miners in Ghana. Jun-Nov, 2020.
- Consultant to UNDP on Critical Review of Technical Options for Suitable Mercury-free Technologies for Indonesia. Feb 26-March 26, 2020.
- Consultant to The Copperbelt University, Africa Centre of Excellence for Sustainable Mining, Kitwe, Zambia. Member of the Advisory Board for the Center. Feb 2019- Apr 2019.
- Consultant for Agriteam, COMUNICA Project in Colombia to reduce mercury uses in artisanal mining operations. Training miners on best practices to produce gold and health services professionals (doctors and nurses) on toxicological impacts of Hg, cyanide, Arsenic and Selenium. Installation of demonstration plants using gravity, flotation and cyanidation of concentrates. Colombia (May 2018 – May 2019).
- Consultant for J.T. Boyd Co. (project for the Colombian Ministry of Mines and Energy). Training 600 small miners in Colombia and training trainers for 25,000 micro-miners how to avoid/reduce mercury use in gold mining. Visited 15 formalized artisanal gold mines in Antioquia and suggested technical changes in the processing circuits. Colombia (Feb – Aug, 2018).
- Consultant for the Canadian Embassy in Colombia, Global Affairs Canada, on Techniques to Reduce Mercury Pollution from Artisanal Miners. Evaluation of the CICAN techniques for micro-miners. Three reports generated: Alternatives to amalgamation, Technical feasibility and Economic feasibility of the pieces of equipment developed by the CICAN Project. Bogotá (Nov 2017-Apr 2018).
- Consultant to PACT on Artisanal Tin Mining in Bangka & Belitung, Indonesia (Dec 2016-Jan 2017).
- Consultant for MINESA, Colombia, Social and Environmental Assessment of artisanal mining activities in California Vetas, Colombia (Oct 2016-Jun 2017).
- Consultant for Continental Gold on mercury pollution and formalization of artisanal miners in Colombia (Jul-Dec 2016)
- Consultant for Lundin Foundation on formalization of artisanal miners in Honduras (Jan-Jun 2016)
- Consultant for the Inter-American Bank for education of artisanal miners in Guyana (Jun 2014)
- Consultant for World Bank on Artisanal Mining formalization issues in Colombia (Jun 2014)
- Consultant for AngloGold Ashanti, Colombia on Artisanal Mining Issues. Implementation of solutions for artisanal mining to coexist with large companies, Bogotá and Medellin (May 2010-Nov 2016).
- Consultant for Cassius Venture. Assessment of environmental and social impacts of artisanal gold miners in Nicaragua (Apr 2012).
- Consultant of the INIGEMM – Ecuadorian Institute of Geology. Mining and Metallurgy on introduction of new technologies to replace amalgamation in ASGM sites. Quito, (Nov 2012)
- Consultant for ACME lab for a project sponsored by NRCAN to teach GGMC officers about cyanidation and implementation of a gold lab in Linden, Guyana (Jul 10 - Dec2011).
- Consultant of Blacksmith Institute. Reduction of Mercury Emissions in Dept of Antioquia, Colombia. Sept 2010.
- Consultant for AngloGold Ashanti in Colombia. Processes to co-exist large-scale mining with artisanal gold miners.

Bogota and Cajamarca, Bogota and Cajamarca (Jul - Sept 2010)

- Consultant for Infinito Gold Ltd. Crucitas Mine. Environmnetal risk assessment of mercury, cyanide, and public perceptions. Costa Rica (Sept – Dec. 2009).
- Consultant for NRCan-CANMET on feasibility study of small-scale cyanidation plants replacing the use of mercury Portovelo, Ecuador (Feb-Apr 2009). .
- Consultant for Hatch Engineering (Vancouver) to the Environment and Community Interface. Development of community-company strategies for the Sustainable Development Design Group, Vancouver (Jun08 – Dec 2009)
- Consultant for IAMGold Inc. on artisanal mining, French Guyana and Suriname (Sept. 2008).
- Consultant for Colossus Minerals Inc., Serra Pelada Mine, Brazil Environmental impact assessment of mercury in sediments, water, air and fish (May 2008).
- Technical Advisor of the Aboriginal groups (Tl'azt'en and Nak'azdli bands) in Pinchi Lake Mine Closure, BC, related to the closure process of the Teckcominco mercury mine. Review of the Environmental and Health Risk Assessment docs and Closure Plans, participation in the Technical Working Group, Vancouver and Fort St James (Jul 2005 – 09)
- Consultant for Blacksmith Institute (New York) to teach techniques to reduce Hg emissions and vapor exposure to artisanal miners in Mozambique (May 05) and Guinea (Apr 2006).
- Consultant for Teckcominco through Azimuth Group on Mineralogical Characterization of Hg-rich Sediments from Pinchi Lake Mine, BC, Vancouver and Fort St James (Nov 2002).
- Consultant for Cadre Resources Ltd. introducing concepts of sustainable development to a diamond, gold, ilmenite and gravel dredging operation in the Caroni River, Puerto Ordaz, Venezuela (Oct 2001).
- Consultant for Ministry of Mines of Peru to assess issues related to the mercury spill from Yanacocha Mine, operated by Newmont. Cajamarca, Peru (Nov - Dec 2000).
- Consultant for Ministry of Economy of Chile as part of the Mullin Consulting Ltd. team - part of an assessment methodology to review the activities of various public technology institutes in Chile. Evaluation of the scientific and technological role of the National Service of Geology and Mining (SERNAGEOMIN), Santiago, Chile (Mar 2000).
- Consultant for Raytheon Ltd. to the SIVAM Project - development of a model for mercury emissions and distribution in the Amazon. Use of GIS for monitoring artisanal mining, Garland, Texas (Jul 98 - Jan 2000).
- Consultant for Placer Dome to develop in-situ synthesis of sodium cyanide using urea as a raw material, Vancouver, (Jan 99 – Jan 2000).
- Consultant for Brazilian Goldfields Ltd and El Misti Gold Ltd – property selection and acquisition in Brazil. Metallurgical studies of Peruvian gold ores, Vancouver (Sept. 1997).
- Consultant with Round Table Group, Inc. for Braxton Associates, Boston, USA - applications for natural polymers in the mineral industry, Vancouver (Sept 1997).
- Consultant for Boojum Technologies, Ltd., Toronto on studies of zinc removal from acid mining drainage of an abandoned tailings pond in Ontario. Vancouver and Toronto (Jan- Mar 1997)
- Consultant for the Ministry of Environment of Venezuela, Pro-fauna - Studies on Mercury Bioaccumulation in Guri Hydroelectric Reservoir, Caracas, Venezuela (Sept 1995).
- Consultant for Enerconsult Engineering S.A., São Paulo - lab. and pilot plant testwork of gold placer deposits in Lillooet River, British Columbia. A feasibility study for a 130 t/h plant was prepared. For this same Enerconsult client, a 12 t/h grinding-gravity concentration-flotation plant of a sulphide ore from Texada Island was designed and operated,. Vancouver and São Paulo (Dec 90 - 1992).
- Consultant for the project "Forecasting the Use of New Materials" for CETEM. This study highlighted how the market of new materials affects the mining sector and how mining engineers must be adapted to this new approach of materials use, Rio de Janeiro (Mar-Set 1990).
- Technical Advisor of "The Poconé Project" for: CETEM, sponsored by the Brazilian National Congress. Field study of mercury behaviour in the aquatic environment of Poconé, located near the Pantanal Ecological Park. Implementation of small-scale remedial procedures for polluted areas impacted by artisanal gold miners. Studies of mercury extraction from contaminated tailings. Biological and geochemical monitoring. Social aspects were also examined (Rio de Janeiro and Poconé, Brazil (Jun,89 - Feb,1990).

⋆ **As consultant for UNIDO - United Nations Industrial Development Organization:**

- Consultant for the UNIDO project to assess mercury pollution from artisanal miners in the Puyango &Tumbes Rivers. Assessment of mobility and bioaccumulation heavy metals, Ecuador and Peru (Nov 2012 – Sept 2016).
- Consult ant for the UNIDO Mercury Project in Antioquia, Colombia. Assessment of mercury pollution from processing centers and gold shops in Northeast of Colombia: Remedios, Segovia, Zaragoza, Caucasia, El Bagre, Nechi, San Martin de la Loba. Demonstration of methods to reduce mercury pollution (Dec 07 – Dec 2013).
- Chief Technical Advisor (Project Manager) of to the GEF/UNDP/UNIDO Global Mercury Project. Participating countries: Brazil, Indonesia, Lao PDR, Sudan, Tanzania and Zimbabwe. Managing 56 people implementing Transportable Demonstration Units and Awareness Campaign on mercury pollution in artisanal gold mining sites in six participating countries (US$ 6.8 million). Additional work assessment and implementation of cleaner techniques were conducted in

Chile, Colombia, Ecuador, Guinea, Mozambique, Suriname and Venezuela. Coordination of activities related to policy for mercury for UN. Establishing UN strategy on the subject and design of Project Documents for the new phase of the project (30 countries) (May 05 – Jun 2008).

- Technical Expert of UNIDO (headquarter in Vienna) to the GEF/UNDP/UNIDO Global Mercury Project. Activities: development of Environmental and Health Assessment Protocols, building capacity in local laboratories for monitoring Hg pollution, teaching miners cleaner technologies, participation in the plan for training miners and awareness campaign for the general public. Elaboration of the concept of the Transportable Demonstration Units, selection and teaching local manufacturers how to fabricate pieces of equipment. Conducted environmental assessments and workshops in Brazil, Ghana, Indonesia, Lao PDR, South Africa, Sudan, Tanzania, Venezuela and Zimbabwe, (Vienna, Nov 2002-Jul 2004).
- Implementation of alternative technologies to reduce mercury emissions in El Callao, Venezuela. Evaluation of the mercury emissions, participation in the health assessment. Use of LUMEX CVAAS spectrometer for “in situ” urine, hair and sediment analyses (Venezuela, Nov. and Dec., 2003)
- Evaluation of analytical equipment for mercury monitoring in Ghana (Sept. 2003)
- Evaluation of the artisanal gold mining activities in Suriname and Guyana. Proposal for establishment of Experimental Mining Centers (Paramaribo and Georgetown, Nov. 1997)
- Environmental pollution assessment and health impacts from artisanal gold mining operations in Latin America - Introducing new technologies for abatement of global mercury pollution. Overview of the technical, social and environmental situation of artisanal gold mining in Latin America (Vancouver and Vienna, Nov. 1996 - Jul. 1997).
- Evaluation of the artisanal gold mining sector in Venezuela. Estimate of Hg release for the environment. Study of alternatives and remediation procedures (Puerto Ordaz, May-Jul., 1995).

⋆ **As director of Madison do Brasil (Rio de Janeiro, Brazil) May 94 - Dec 95:**

- Selection and acquisition of gold properties in Brazil.
- Definition of ore processing flowsheet of gold deposits.
- Property negotiation with artisanal miners in Brazil.

⋆ **As engineer of Paulo Abib Engenharia S.A. (acquired by Kilborn Eng.) (São Paulo, Brazil) Jul 86 – Jun 89:**

Manager of the following projects:

- Feasibility studies of bentonite, gold, wolframite, kaolinite, zirconite, manganese, calcite, feldspar, etc.
- Studies of characteristics and availability of raw materials for new materials and fine chemicals.
- Recycling of vanadium catalyst used in sulfuric acid production.
- Synthesis of K-Mg phosphate fertilizer - conceptual project, pilot plant and feasibility study. This pioneer project introduced glauconite as a source of potassium into magnesium fused phosphate. Outstanding results were obtained in the greenhouse using different plants and lateritic soils. Client: CVRD (Companhia Vale do Rio Doce).
- Fine chemicals - synthesis in lab and pilot plant of trichloroisocyanuric acid (TCCA) and cyanuric acid: this project was partially supported by GENCO Chemicals which is the main Brazilian supplier of chlorination products. Pilot tests (3.5 kg/h of TCCA) confirmed the technology developed by the Paulo Abib research group. Feasibility study for a production of 1000 t/y of TCCA and 500 t/y of other cyanurates.
- Synthesis in lab of sodium cyanide from urea: this is an alternative and cheap process to produce NaCN near gold cyanidation plants.
- Batch gravity and cyanidation tests of gold ores - clients: CVRD, Utah Mines.
- Study of the market of natural and precipitated calcite as filler for plastic, paint, paper, rubber and carpet,
- Study of the market of new materials in Brazil (client: Ministry of Science & Technology).

⋆ **As engineer of DOCEGEO (CVRD-Companhia Vale do Rio Doce group) (Rio de Janeiro, Brazil) Nov 84 – Jul 86:**

- Assessor for the Director of Geology for strategic businesses.
- Evaluation of ore deposits (Au, Cu, P, Al). Mineral processing flowsheet design.
- Implementation of CIP gold leaching pilot plant in Bahia State.
- Study of alternative potassium fertilizers (glauconite as K_2O source).
- Study of aluminum fluoride synthesis from fluosilicic acid wasted by fertilizer manufacturers..
- Studies of new opportunities for the mining and chemical sector. Ideas to expand markets of the CVRD group and create new products.

⋆ **As engineer of CETEM (Rio de Janeiro, Brazil) Apr 79 – Oct 84:**

- Engineer of the Mineralogical Analysis Laboratory
- Implementation and operation of the following instruments:
  - ⇒ x-ray diffractometry (for mineral processing products and ceramics): qualitative and quantitative analysis
  - ⇒ x-ray fluorescence spectrometry (establishment of operating conditions for major, minor and trace elements).
  - ⇒ polarizing optical microscope (thin & polished sections).

⇒ scanning electron microscopy (with EDS analysis)

- Use of applied mineralogy to define processing flowsheets of the following minerals:

♦ clay minerals	♦ fluorite	♦ molybdenite	♦ tungsten ore
♦ coal	♦ gold ore	♦ Ta-Nb ore	♦ Uranium ore
♦ Copper	♦ iron ore	♦ tin ore	♦ zinc ore
♦ diatomite	♦ lead ore	♦ titanium ore	♦ zirconium ore

NOTE: The list above is part of CETEM projects for different clients.

⋆ As Lecturer of PUC-RJ - Catholic University of Rio de Janeiro Mar 79 – Dec 83:

- Teaching theoretical and laboratory classes on Applied Mineralogy (core course for 3rd year students in Chemical and Metallurgical Engineering).
- Concepts of mineral identification using polarizing optical microscope.
- Degree of liberation, heavy liquid separation, density gradient.
- Magnetic and electrostatic separation to identify minerals.
- Concepts of wet-chemical and instrumental analyses.
- Estimate of deleterious effect of certain minerals on hydrometallurgical processes (reagent consumption).
- Establishment of mineral processing flowsheets based on mineral properties.
- Processes to characterize the refractory nature of gold ores.

⋆ Guest Speaker and others

- Guest Speaker for the Technical Committee of the Government of the Amazon State, Brazil, talking about Artisanal Gold Mining and Mercury Pollution, Manaus (virtual), Feb 08, 2023
- Guest Speaker at Catholic University of San Pablo, Dept of Environmental Engineering, talking about Mercury and Artisanal Gold Mining, Arequipa, Peru, Sept 30, 2022
- Guest Speaker at National University of San Agustin, talking about Solutions for Artisanal Gold Mining, Arequipa, Peru, Sept 28, 2022
- Guest Speaker at Catholic University of Santa Maria, talking about Regulatory Problems in Artisanal Gold Mining, Arequipa, Peru, Sept 27, 2022.
- Guest Speaker at the PERUMIN 35, Mining Convention in Peru, talking about Artisanal Gold Mining and Mercury Pollution. Arequipa, Sept 26-30, 2022
- Guest Speaker of the ICMGP 2022 – 15th International Conference on Mercury as a Global Pollutant talking about Why the Measures to Eliminate Hg in Artisanal Gold Mining Are Not Working. July 25-29, 2022 – Virtual Event.
- Guest Speaker of the Sustainable Mining in the Amazon Study Group on Training Centers for Artisanal Miners (Mar 25, 2021) and Mercury in Artisanal Gold Mining Operations (Apr 8, 2021). Manaus, Brazil.
- Guest Speaker of the Ecobalance 2021 Webinar on Methods to Curb Mercury Use in Artisanal Gold Mining.. Sendai, Japan Mar 5-5, 2021
- Guest Speaker on the International Webinar on Gold onb Mercury Pollution from Artisanal Gold Miners and Suggested Solutions,, La Paz, Bolivia, Feb 22-23, 2021.
- Guest Speaker for AMIP – Asociación Multisectorial e Interdisciplinaria del Perú. “Clean Techniques for Gold Processing”. Digital Forum of Small-scale Mining. Aug 17, 2020 (via Zoom).
- Guest speaker on International Seminar on Knowledge Sharing on Indonesia’s Artisanal and Small-scale Mining: Challenges and Issues, Jakarta, Feb 26, 2020 (via Zoom).
- Guest Speaker on the Fair for Sustainability of the Industrial Sector of Manaus, Amazon. Nov 28, 2019.
- Guest Speaker on the 28th Brazilian Meeting of Ore Processing and Extractive Metallurgy, 1st Symp. of Sustainable Use of Mineral Tailings. Belo Horizonte, Nov 4-8, 2019
- Guest Speaker on the Copperbelt University, Zambia, on Sustainability of the Mining Sector, Kitwe, Feb 22, 2019.
- Guest Speaker of the Special Seminar Series at the Colorado School of Mines on “Mercury in Artisanal Gold Mining: Health and Environmental Issues”. Golden, US, Oct 24, 2018
- Guest Speaker on the Workshop: “Social License to Operate in Mining”. FEI University, São Paulo, Sept 13, 2018.
- Instructor of the course on “Artisanal Gold Mining: Issues and Solutions”. National University of Saint Agustin, Arequipa, Peru, May 6-9, 2018
- Guest Speaker on the Conference “Small-scale Alluvial Mining: Facts and Possibilities”, Lima, May 10, 2018.
- Instructor of courses on best practices for 160 artisanal miners in Girardota and Buriticá, Antioquia, April 11-15, 2018.
- Guest Speaker on “Foro Mejor Sin Mercurio: Oro Legal y Responsable en Colombia”. Bogotá, Mar 13, 2018.
- Guest Speaker on the XIII Mining Fair and ANDI (Association of Colombian Industries) Mining Congress: “How to Engage Communities in Mining Projects”. Medellin. Colombia, Oct 5-6, 2017.
- Guest Speaker on the Dialogue Roundtable of the Pacific Alliance on Small and Artisanal Mining: “Formalization is not Working”. Medellin. Colombia, Oct 3-4, 2017.

- Guest Speaker on the Mining, Oil & Gas Development and Investment Conference on “Formalization of Artisanal Miners”. Organized by Rocky Mountain Mineral Law Foundation, Quito, Ecuador, Apr 26-28, 2017.
- Guest Speaker on the Stakeholder Meeting organized by Impact Consortium of University of Exeter and sponsored by EU on “Artisanal Mining Sector”, London Mar 27-28, 2017.
- Guest Speaker on the 24th World Mining Congress on “Mining and Sustainability". Oct 18-21, 2016, Rio de Janeiro, Brazil
- Organizer and Speaker of the Roundtable Miners, Minerals and Minamata Convention. Vancouver Dec 2-4, 2015.
- Guest speaker of the 2015 Sustainable Industrial Processing Summit & Exhibition on “Sustainable Mining”. Antalya, Turkey, Oct 4-9, 2015
- Organizer of the Mercury Sessions of the SETAC – Society of Environmental Toxicology and Chemistry, 35th Annual Meeting Vancouver, BC, Nov 9-13, 2014
- Guest speaker of the Colombian National Police on Aspects of Artisanal and Illegal Mining. Bogotá, Oct 27, 2014
- Guest speaker to SENA – Servicio Nacional de Aprendizaje (National Service of Learning) talking about Technical aspects of artisanal mining. Medellin, Colombia, Oct 27-31, 2014.
- Guest Speaker of the 27th International Mineral Processing Congress, talking about Sustainability and Public Engagement in Mining, Santiago, Chile, Oct 20-24, 2014.
- Guest Lecturer at the Universidad de la Republica teaching Social and Environmental Issues in Mining (20 h), Montevideo, Uruguay, Apr 23-29, 2014.
- Guest Speaker at National University of Colombia, talking about Methods to Reduce Mercury from Artisanal Gold Miners, Medellin, Feb 20, 2014
- Guest Speaker of the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development. Talking about Artisanal Gold Mining: Perspectives from the Field. Geneva Oct 28-Nov 1, 2013
- Guest Speaker on the 15th Brazilian Mining Congress, talking about Mining nor Not Mining: this is not the question, Belo Horizonte, Brazil, Sept 23-26, 2013
- Guest Speaker on Plenary Session of the 23rd World Mining Congress, talking about the Importance of Researches in Artisanal Gold Mining, Montreal, Aug 11-15, 2013.
- Guest Speaker on the Int. Workshop on Planning for the Future of ASGM in West Nusa Tenggara Province, talking about “International Trends of Artisanal Gold Mining”, Mataram, Indonesia, May 16-17, 2013
- Guest Speaker on the Mineral Exploration Roundup 2013, Teacher’s Day, talking about “Mining or Not Mining: This is Not a Question”. Vancouver, BC, Jan 31, 2013.
- Instructor of the Course of Small-scale Responsible Gold Mining, INIGEMM, Quito, Ecuador, Nov 19-21, 2012
- Guest Speaker on the UNIDO Conference on Reduction of Mercury Pollution from Artisanal Mining, Quito, Ecuador, Nov 14-17, 2012.
- Guest Speaker at the Anthropology Seminars on: Social and Environmental Problems in Mining, talking about Artisanal Gold Mining, Dept Anthropology, UBC, Vancouver, Oct 10, 2012
- Guest Speaker at Soil Science Grad Seminar, talking about “Artisanal Gold Mining: Pollution and Poverty Trap”, UBC, Dept of Soil Science, Vancouver, Sept 14, 2012
- Guest Speaker on Sustainability in Latin America, LatinCouver, talking about “Mining and Poverty Alleviation in Latin America”, Vancouver, Apr 24, 2012
- Guest Speaker on the Mineral Exploration Roundup 2012, Teacher’s Day, talking about “Small and Large-scale Gold Mines”. Vancouver, BC, Jan 27, 2012.
- Guest Speaker at the SFU-UBC Latin American Studies Workshop, talking about “Small versus Large Gold Mining”, Vancouver, BC, Nov 17, 2011.
- Guest Speaker of the 24th Brazilian Conference on Mineral Processing and Extractive Metallurgy talking about “Small Mining Can Be Beautiful”, Salvador, Bahia, Brazil, Oct. 16-19, 2011.
- Guest Speaker at the University of São Paulo, Dept of Psychology, Lab of Experimental Psychology talking about “Uses of Mercury and Cyanide in Artisanal Gold Mining”, São Paulo, Brazil, Aug 16, 2011.
- Instructor of the course “Mining and Society”. CETEC, Belo Horizonte, Brazil. Aug 10-12, 2011
- Guest Speaker at the Federal University of Alfenas, Inst. Science and Technology talking about “Interdisciplinarity in Engineering” Poços de Caldas, Brazil, Aug 5, 2011.
- Guest Speaker at the University of São Paulo, Dept Civil Engineering talking about “New Methods to Teach Sustainability in Engineering”, São Paulo, Brazil, Apr 26, 2011.
- Instructor of the graduate level course PMI 5774, “Management of Mining Operations”, University of São Paulo, Dept of Mining Engineering, São Paulo, Brazil, Apr-Jun, 2011.
- Guest Speaker at the University of São Paulo, Dept of Legal Medicine, Dec 14, 2010.
- Lecturer of the course Gold Ore Characterization and Processing. Course of 24 hours for the professionals of the Guyana Geology and Mines Commission (Georgetown, Dec 6 to 10, 2010.).
- Guest Speaker of Conference on Mercury and Cyanide Pollution in Artisanal Gold Mining. Ministry of Energy and Mines

of Peru, Lima, Peru, Dec 3, 2010.

- Instructor of the graduate level course PMI 5003, "Gravity Concentration Methods: Case Studies of Gold Mining", University of São Paulo, Dept of Mining Engineering, São Paulo, Brazil, Sept-Nov, 2010.
- Instructor of the graduate level course PMI 5755, "Mining and Sustainable Development", University of São Paulo, Dept of Mining Engineering, São Paulo, Brazil, Sept-Nov, 2010.
- Guest Speaker of the Course of Risk Assessment PMI 2064 at the Dept of Mining Engineering of the University of São Paulo, Brazil, Oct 27, 2010.
- Guest Speaker on Tolima Chamber of Commerce, talking about "Cyanide, Myths and Realities", Ibagué, Colombia, Sept 8, 2010
- Guest Speaker of the Mercer University talking about "Environmental Impacts of Artisanal Gold Mining", Maicon, GA, US, Feb. 8, 2010.
- Guest Speaker of the Conference on Mercury Pollution in Colombia, talking about "Overview of Mercury Pollution from Artisanal Miners in Colombia", Medellin, Colombia, Dec 14, 2009.
- Guest Speaker of the 2009 Canada-China Natural Resource, Environmental & High Tech Trade Mission, talking about "Mining Policies", Richmond, BC, Nov. 22, 2009
- Guest Speaker of the College of William & Mary, talking about "Artisanal Gold Mining", Williamsburg, VA, US, Oct 1-3, 2009
- Guest Speaker of the International Seminar of Health and Ecosystems talking about "Artisanal Gold Mining in Latin America" Guaranda, Ecuador, Jul 6-9, 2009
- Guest Speaker of the Seminar Small-scale Gold Mining in Ecuador, Portovelo, Ecuador, Jul 1-2, 2009
- Guest Speaker of the Bridging the Gap Conference of Engineers without Borders, Vancouver, Mar 14, 2009
- Guest Speaker at the University of São Paulo, Dept Environmental Management, São Paulo Oct 16, 2008
- Guest Speaker of the 8th Annual General Meeting of Communities and Artisanal and Small-scale Mining, World Bank, Brasilia, Brazil, Oct 6-11, 2008
- Instructor of the Course on Artisanal Gold Mining, French Guyana and Suriname, Sept 7-13, 2008.
- Guest Speaker of the Latin American Congress 2008, Miami, FL, US, June 17-19, 2008
- Guest Speaker of the WWF Guianas Regional Goldmining Workshop, Georgetown, Guyana, May 20-22, 2008
- Guest Speaker of the Dept of Geological Survey and Mines of Uganda. Entebbe, Uganda. June 5, 2007
- Guest Speaker of the Dept of Geology, University Eduardo Mondlane, Mozambique. May 31, 2007
- Instructor of Short Course on Training for Trainers: Education of Small-scale Gold Miners in Cleaner Extraction Technologies Paramaribo, Suriname, Feb 19 – 23, 2007
- Guest Speaker of the 24th UNEP Governing Council Meeting. Nairobi, Kenya, Feb 3 - 10, 2007
- Guest Speaker of the 2nd Forum of the National Institute of Minamata Disease (NIMD): Current Issues on Mercury Pollution on the Asia-Pacific Region. Minamata, Japan, Nov. 28-29, 2006
- Instructor of the Course UNIDO - GMP - Training of Trainers for Implementation of Mercury Awareness Campaign and Demonstration Unites. Crepurizão, Para, Brasil, Oct 29 – Nov. 1, 2006.
- Members of the Steering/Organizing Committee of the 8th ICMGP - International Conference on Mercury as a Global Pollutant, Madison, Wisconsin, Aug 6-11, 2006 and Guest Speaker of the Conference Panel
- Guest Speaker of the 2nd International Forum on Small-scale Mining in Bolivar State, Venezuela, Puerto Ordaz, Venezuela, May 12-13, 2006.
- Instructor of the Course Mining and the Environment. Part of the UBC Master Course on Sustainable management of Environmental Health Risks – Module VI. Zaruma, Ecuador, May 5-7, 2006
- Instructor of the Course Environmental and Health Problems with Mercury Uses in Artisanal Gold Mining. Course for the Ministry of Environment, Ministry of Mines of Guinea, Conakry, April 18-20, 2006.
- Guest Speaker of the CASM – Community and Artisanal and Small-scale Mining, 5th Annual General Meeting, Salvador, Brazil. Sept 19-24, 2005
- Guest Speaker of Mercury Meeting organized by the Pan American Health Organization (PAHO), Dept. Sustainable Development and Environmental Health, Washington, D.C., Aug 22-23, 2005
- Guest Speaker at "Global Partnership for Mercury Management in Artisanal and Small-Scale Gold Mining", UNEP-US EPA, Washington, D.C., Jun15, 2005.
- Members of the Steering/Organizing Committee of the 7th ICMGP - International Conference on Mercury as a Global Pollutant, Ljubljana, Slovenia, Jun 27 – Jul 2 , 2004.
- Guest Speaker of the Workshop of the Nordic Council of Ministers on Mercury. Brussels, Mar 29-30, 2004.
- Guest speaker at the Communities and Small Scale Mining (CASM) Annual General Meeting and Learning Event. Elmina, Ghana, Sept. 7-10, 2003.
- Guest speaker, US EPA Office of International Affairs. Mercury from Artisanal Mining: Myths, Impacts, Solutions. April 11, 2002.
- Guest speaker, 1st International Forum on Mercury in Hydroelectric Reservoirs: Guri Case. Ciudad Bolivar, Venezuela,

May 17 - 19, 2001.
- Guest Speaker, Forum'2001-National Institute of Minamata Disease, Minamata, Japan, March19-20, 2001.
- Instructor, Course on Mine-closure. CYTED. La Rabida, Huelva, Spain, Sept. 25-29, 2000.
- Instructor, Course on Gold Extraction from Lateritic Ores. CYTED/CETEM, Rio de Janeiro, Jul 3 - 7, 2000
- Guest Speaker, University of Chile. Environmental and Social Aspects of Mining. Santiago, Mar 31, 2000
- Member of the Steering/Organizing Committee for the 6th International Conference on Mercury as a Global Pollutant, Minamata, Japan, Oct 15-19, 2001.
- Guest speaker at the Forum'99-National Institute of Minamata Disease, Minamata, Japan, Oct. 12-13, 1999.
- Keynote Speaker at the 5th Int. Conference on Mercury as a Global Pollutant, Rio de Janeiro May 23-28, 1999
- Guest Speaker of the Experts Meeting of Artisanal Gold Mining, Jul. 1-3, 1997. UNIDO headquarter, Vienna, Austria.
- Guest Speaker of the Brazil-Canada Meeting on Sustainable Development. CANMET, Ottawa, Mar 5-6, 1997.
- Guest Speaker of Mining Engineering Program, Univ. Toronto - Mercury Pollution in the Amazon, Toronto, Jan. 24, 1997
- Guest Speaker of the 1st International Symp. on Small Mining, Mar. 28-30, 1996. Ciudad Bolivar, Venezuela.
- Guest Speaker of the 16th Brazilian Symposium on Mineral Processing and Hydrometallurgy. Lecture: Mining and the Environment. Rio de Janeiro, Sept. 17-22, 1995.
- Instructor of the course: Knowledge Base Construction for Industrial Fuzzy Systems, Belo Horizonte, Jul. 31 to Aug. 2, 1995. Organized by ATAN - Automation Systems Ltd.
- Instructor of the course: Industrial Fuzzy Systems for Mining, Metals and Materials, São Carlos, Dec. 7-9, 1994
- Instructor of two-day course on Mercury Contamination and Artificial Intelligence Applied to Environmental Sciences. Universidad Experimental de Guayana, Ciudad Guayana, Venezuela, Sept. 14-15, 1995.
- "Speaker of the Month" at Canadian Institute of Mining, Metallurgy and Petroleum, Vancouver, April 29, 1994
- Teaching Assistant at the University of British Columbia (1993-1994).
- Instructor of the course: Geology and Mineral Processing of Gold Ores. 40 hours. Organized by ABM - Brazilian Association of Metals. Rio de Janeiro, Dec. 8-12, 1986.

PUBLICATIONS

Referred Journals

124. Anene,N.C., Musa,B., **Veiga,M.M.** (2024). Assessment of Gold and Mercury Losses in Uke Artisanal Mining Site, Nigeria. Paper in preparation for the *Minerals*.
123. Rodriguez,A., Ortega,A., Marin,D., Vera,A., **Veiga,M.M.** (2024). Homemade Copper-silver plates as an alternative for cleaning mercury-contaminated tailings from artisanal and small-scale gold mining in Colombia. *Int. J. Sustainable Energy and Environmental Research,* v. 13, n. 1, pp. 12-24.
122. Aliprandini,P., Botelho Junior,A.B., **Veiga,M.M.**, Marshall,B.G., Scarazzato,T., Espinosa,D.C.R. (2023). Evaluation of biosorbents as an alternative for mercury cyanide removal from aqueous solution. *Minerals Engineering,* v.204, 108431
121. Torkaman,P., **Veiga,M.M.**, Lavkulich,L.M., Klein,B. (2023). Investigation of techniques to replace amalgamation in artisanal gold mining operations. *Int. J. Sustainable Energy and Environmental Research*, v.12, n.2, p. 17-30.
120. Torkaman,P., Yoshimura,A., Lavkulich,L.M., **Veiga,M.M.** (2023). Experimenting with Dimethyl Sulfoxide to Leach Gold from a Colombian Artisanal Gold Ore. *Metals,* v.13, n.11; 1855; https://www.mdpi.com/2075-4701/13/11/1855/pdf
119. Silva,H.A.M., Kasper,D. Marshall,B.G., **Veiga,M.M.**, Guimarães,J.R.D. (2023). Acute ecotoxicological effects of $Hg(CN)_2$ in *Danio rerio* (zebrafish). *Ecotoxicology*, v.32, n,4, p:429-437
118. Torkaman,P. and **Veiga,M.M.** (2023). Comparing Cyanidation with Amalgamation of a Colombian Artisanal Gold Mining Sample: Suggestion of a Modified Merrill-Crowe Process. *Extractive Industries and Society*, v.13, 101208.
117. **Veiga,M.M**., Tarra A., J.A., Restrepo-Baena,O.J. De Tomi,G. (2022). Coexistence of Artisanal Gold Mining with Companies in Latin America. *The Extractive Industries and Society,* v. 12, 101177*.*
116. Cheng,Y, Nakajima,K., Nansai,K, Seccatore,J., **Veiga,M.M.**, Takaoka,M. (2022). Examining the inconsistency of mercury flow in post-Minamata Convention global trade concerning artisanal and small-scale gold mining activity. *Resources, Conservation & Recycling*, v. 185, 106461.
115. Tarra,J.A., Restrepo-Baena,O., **Veiga,M.M**. (2022). Coexistence between conventional alluvial mining and artisanal mining to deal with problems associated with informality in the lower Nechí River Basin-Colombia*. Resources Policy*, v.78, 10282.
114. Martinez, G.**,** Smith, N., **Veiga, M.M.** (2022). Voluntary gold certification programs: A viable mechanism for improving artisanal and small-scale mining in Peru? *J. Rural Studies*, v.94, p. 54-62.
113. Omar,T and **Veiga,M.M.** (2021). Is Niobium Critical to Canada? *Extractive Industries and Society,* v.8, n.2, 100898*.* DOI: 10.1016/j.exis.2021.100898.
112. Yoshimura,A., Suemasu,K., **Veiga,M.M.** (2021). Estimation of Mercury Losses and Gold Production by Artisanal and

Small-scale Gold Mining (ASGM) in selected countries. *J. Sustainable Metallurgy* https://doi.org/10.1007/s40831-021-00394-8

111. Torkaman,P. **Veiga,M.M.,** Andrade-Lima,L.R.P, Oliveira,L.A., Motta,J.S., Jesus.J.L., Lavkulich,L. (2021). Leaching Gold with Cassava: an Option for Artisanal Miners to Eliminate Mercury Use. *J. Cleaner Production*, v.311, 1275531. https://doi.org/10.1016/j.jclepro.2021.127531.
110. Martinez,G., Restrepo,O.J., **Veiga,M.M.**,(2021). The Myth of Gravity Concentration to Eliminate Mercury Use in Artisanal Gold Mining. *The Extractive Industries and Society,* v.8, p.477-485
109. Marshall,B.G., Camacho,A., Jimenez,G. **Veiga,M.M.**, (2021). The Mercury Reality Challenges in Mexico: Regulatory and Environmental Impacts. *Atmosphere, 12, 57. https://doi.org/10.3390/ atmos12010057*
108. **Veiga,M.M.** and Gunson,A.J. (2020). Gravity Concentration in Artisanal Gold Mining. *Minerals* 10(11), 1026. 49p, https://doi.org/10.3390/min10111026.
107. Seney,C.S., Aljic,S., Moore,M.E., Bridges,C.C., Orr,S.E., Barnes,M.C., Mathis,T.N., McKallip,R.J., Bellott,B.J., Drace,K., **Veiga,M.M.**, Kiefer,A.M. (2020). Reaction of cyanide with Hg^{o}-contaminated gold mining tailings produces soluble mercuric cyanide complexes. *J. Chemical Research in Toxicology.* v.33, n.11, 2834–2844 https://doi.org/10.1021/acs.chemrestox.0c00211..
106. Marshall,B.G., **Veiga,M.M.**, Silva,H.A.M., Guimarães,J.R.D. (2020). Cyanide Contamination of the Puyango-Tumbes River Caused by Artisanal Gold Mining in Portovelo-Zaruma, Ecuador. *Current Environmental and Health Reports* v.7, p.303-310. https://doi.org/10.1007/s40572-020-00276-3
105. **Veiga,M.M.** and Fadina,O. (2020). A Review of the Failed Attempts to Curb Mercury Use at Artisanal Gold Mining and a Proposed Solution. *Extractive Industries and Society,* v.7, p.1135-1146.
104. Aliprandini,P., **Veiga,M.M**., Marshall,B.G., Scarazzato,T., Espinosa,D.C.R (2020). Investigation of Mercury Cyanide Adsorption from Synthetic Wastewater Aqueous Solution on Granular Activated Carbon. *J. Water Process Engineering*, v.34, 101154.
103. Shi,P., **Veiga,M.M.**,Anderson,C.W.N. (2020). Geochemical Assessment of Platinum Group Metals for Phytomining. *REM - International Engineering Journal* 73(1), 85-91*. https://doi.org/10.1590/0370-44672019730038*
102. Thomas,M.J., **Veiga,M.M**., Marshall,B.G., Dunbar,W.S. (2019). Artisanal Gold Supply Chain: Measures from the Ecuadorian Government. *Resources Policy,* v.64, p.101505, 8p.
101. Maia,F., **Veiga,M.M**., Marshall,B.G., Stocklin-Weinberg,R., Constanzo,C., Hariojati,N., Villegas,C. (2019). Need for Technological Improvements in the Indonesian Cassiterite Artisanal Mining Sector. *The Extractive Industries and Society,* v.6, p.1292-1310.
100. Schudel,G., Kaplan,R., Adler Miserendino,R., **Veiga,M.M.**, Velasquez-López,P.C., Guimarães,J.R.D. Bergquist,B.A. (2019). Mercury isotopic signatures of tailings from artisanal and small-scale gold mining (ASGM) in southwestern Ecuador. *Science of the Total Environment*, v.686, p.301-310
99. Stokes,D.M., Marshall, B.G., **Veiga,M.M.** (2019). Indigenous Participation in Resource Developments: Is It a Choice? *The Extractive Industries and Society,* v.6, p.50-57
98. Stocklin-Weinberg,R., **Veiga,M.M.**, Marshall,B.G. (2019). Training Artisanal Miners: A Proposed Framework with Performance Evaluation Indicators. *Science of the Total Environment*. v.660, p.1533-1541.
97. **Veiga,M.M.** and Marshall,B.G. (2019). The Colombian Artisanal Mining Sector: Where Formalization is a Heavy Burden. *The Extractive Industries and Society,* v.6, n.1, p.223-228.
96. Jovel,E., Abramowski,Z., Pakalnis,E., Marshall,B., **Veiga,M.M.** (2018). Mercury (II) Binding Activity of Vegetable and Fruit Juices: Identifying Potential Detoxifying Juices for the Citizens of Portovelo-Zaruma, Ecuador. *Aspects in Mining & Mineral Science,* v.2, n.1, p.1-15.
95. **Veiga,M.M.,** Masson,P., Peron,D., Laflamme,A.C., Gagnon,R., Jimenez,G., Marshall,B.G. (2018). An Affordable Solution for Micro-miners in Colombia to Process Gold Ores without Mercury. *J. Cleaner Production,* v.205, p.905-1005.
94. Toledo,Z. and **Veiga,M.M**. (2018). Locals' Attitudes toward Artisanal and Large-scale Mining—A Case Study of Tambogrande, Peru. *The Extractive Industries and Society,* v.5, n.2, p.327-334.
93. Marshall,B.G., **Veiga,M.M.**, Kaplan,R.J., Miserendino,R.A., Schudel,G., Berquist,B., Guimarães,J.R., Gonzalez-Mueller,C. (2018). Evidence of Transboundary Mercury and other Pollutants in the Puyango-Tumbes River basin, Ecuador-Peru. *Environmental Science: Processes & Impacts,* v.20, p.638-641.
92. Schudel,G., Adler-Miserendino,R.,**Veiga,M.M**., Velasquez-López,P.C., Lees,P.S.J., Winland-Gaetz,S. Guimarães,J.R.D.,Bergquist,B.A. (2018). An Investigation of Mercury Sources in the Puyango-Tumbes River: Using Stable Hg Isotopes to Characterize Transboundary Hg Pollution. *Chemosphere,* v.202, p.777-787.
91. Spiegel,S.J., Agrawal,S., Mikha,D., Vitamerry,K., Le Billon,P., **Veiga.M.M.** Konolius,K., Paul,B. (2018). Phasing Out Mercury? Ecological Economics and Indonesia's Small-Scale Gold Mining Sector. *Ecological Economics,* v.144, p.1–11.
90. **Veiga,M.M.** and Marshall,B.G. (2017). Teaching Artisanal Miners about Mercury Pollution Using Songs. *The Extractive Industries and Society,* v.4, p.842-845.
89. Gonçalves,A.O., Marshall,B.G., Moreno-Chavez,J., **Veiga,M.M.** (2017). Mercury and Cyanide Use at Artisanal and Small-scale Gold Processing Centers in Zaruma-Portovelo, Southern Ecuador. *J. Cleaner Production,* v.165, p. 836-

845
88. Marshall,B.G. and **Veiga,M.M**. (2017). Formalization of Artisanal Miners: Stop the Train, We Need to Get Off! *The Extractive Industries and Society,* v.4, p.300–303
87. Drace,K., Kiefer,A.M., **Veiga,M.M.,** (2016). Cyanidation of Mercury-Contaminated Tailings: Potential Health Effects and Environmental Justice. *Current Environmental Health Reports*, v.3, n.4, p.443-449.
86. Marin,T., Seccatore,J., De Tomi,G., **Veiga,M.M.** (2016). Economic Feasibility of Responsible Small-Scale Gold Mining. *J. Cleaner Production* v.129, p.531-536.
85. **Veiga,M.M**. and Marshall,B.G. (2016). Why Does Canada Export Mercury to Cuba? *The Extractive Industries and Society,* v.3, p.359–360
84. Mayala,L.P., **Veiga,M.M**., Khorzoughi,M.B. (2016). Assessment of Mine Ventilation Systems and Air Pollution Impacts on Artisanal Tanzanite Miners at Merelani, Tanzania. *J. Cleaner Production.* v.116, p. 118-124.
83. Cordy,P., **Veiga,M**.**M**., Bernaudat,L., Garcia,O. (2015). Successful Airborne Mercury Reductions in Colombia. *J Cleaner Production.* v.108, p.992-1001.
82. Nichols,B.; **Veiga,M.M.,** van Zyl,D., Xavier,A.M. (2015). Closure of Artisanal Small Scale Gold Mining Processing Plants in Ecuador*. J.Management and Sustainability*; v.5, n. 2; p.41-47.
81. Xavier,A., Meech,J.,**Veiga,M.M.** (2015). Mining and First Nations in Canada. *Global Journal of Management and Business Research*, v.15, n.1, p.31-43
80. Balzino,M., Seccatore J., Marin,T., Tomi,G., **Veiga,M.M.** (2015). Gold Losses and Mercury Recovery in Artisanal Gold Mining on the Madeira River, Brazil. *J. Cleaner Production,* v.102, p. 370–377.
79. **Veiga,M.M.** and Tucker,C. (2015). Sustainability and Public Engagement in Mining: The Role of Engineers. *J. Earth Science and Engineering*. v.5, p.280-288. https://pdfs.semanticscholar.org/b54f/c6630baa5eebb26ac4cee8cb6f7894b7780a.pdf
78. Xavier,A., **Veiga,M.M.**, van Zyl,D.(2015). Introduction and Assessment of a Socio-Economic Mine Closure Framework. *J. Management and Sustainability* v.5, n.1. p.38-49
77. **Veiga,M.M.**, Nichols,B.D., Holuszko, M.E., (2015). Teaching Cleaner and Responsible Mining through Songs. *The Extractive Industries and Society,* v.2, p.209-216
76. **Veiga,M.M.,** Angeloci-Santos,G., Ñiquen,W., Saccatore,J. (2015). Reducing Mercury Pollution by Training Peruvian Artisanal Gold Miners. *J. Cleaner Production,* v.94, p.268-277
75. Garcia,O., **Veiga,M.M.,** Cordy,P., Suescún,O.E., Molina,J.M., Roeser.M. (2015). Artisanal Gold Mining in Antioquia, Colombia: A Successful Case of Mercury Reduction. *J. Cleaner Production,* v.90, p. 244–252
74. Spiegel,S., Keane,S., Metcalf,S., **Veiga,M**. (2015) Implications of the Minamata Convention on Mercury for informal gold mining in Sub-Saharan Africa: from global policy debates to grassroots implementation? *Environment, Development & Sustainability*, v.17, n.4, p.765–785
73. Seccatore,J., **Veiga,M.M.**, Origliasso,C., Marin,T., Tomi,G., (2014). An Estimation of the Artisanal Small-Scale Production of Gold in the World. *Science of the Total Environment,* v.496, p.662–667.
72. Spiegel,S., Keane,S., Metcalf,S., **Veiga,M.M.** (2014). The Minamata Convention on Mercury and Its Implications for Artisanal Gold Mining: Are Policymakers Prepared for Grassroots Implementation? *Environmental Health Perspectives*, v.122, n.8, p.A203-204.
71. **Veiga,M.M.,** Angeloci-Santos,G., Meech,J.A. (2014). Review of Barriers to Reduce Mercury Use in Artisanal Gold Mining. *Extractive Industries and Society,* v.1, n.2, p.351–361.
70. Seccatore,J., Marin,T., Tomi,G., **Veiga,M.M.** (2014). A Practical Approach for the Management of Resources and Reserves in Small-Scale Mining.*Journal of Cleaner Production* v.84, p.803-808.
69. Kiefer,A.M., Drace,K., Gottlieb,S., Coursey,S., **Veiga,M.M.,** Marrumbe,P.N.C., Chapo,M.A.J. (2014). Evaluation of Mercury Content in Amalgams from Munhena Mine, Mozambique. *Journal of Cleaner Production, v.*84, p.783-785
68. Spiegel,S., Keane,S., Metcalf,S., **Veiga,M.M**., Yassi,A. (2014). The Minamata Convention on Mercury: Time to Seek Solutions with Artisanal Mining Communities, Environmental Health Perspectives, v.122, n.8, 2p., on-line. http://ehp.niehs.nih.gov/1408514/.
67. **Veiga,M.M.**, Angeloci,G., Hitch,M., Velasquez-López,P.C. (2014). Processing Centers in Artisanal Gold Mining. *J. Cleaner Production*, v.64, p.535-544.
66. Miserendino,R.A.,Bergquist,B.A.,Adler,S.E., Guimarães,J.R.D., Lees,P.S.J., Niquen,W., Velasquez-López,P.C., **Veiga,M.M.** (2013).Challenges to Measuring, Monitoring, and Addressing the Cumulative Impacts of Artisanal and Small-scale Gold Mining in Ecuador. *Resources Policy*, v.38, n.4, p.713–722
65. Cordy,P., **Veiga,M.M.,** Crawford,B., Garcia,O., Gonzalez,V., Moraga,D., Roeser,M., Wip,D. (2013). Characterization, Mapping and Mitigation of Mercury Vapour Emissions from Artisanal Mining Gold Shops. *Environmental Research*, v. 125, p.82–91.
64. Drace,K., Kiefer,A.M., **Veiga,M.M.**, Williams,M.K., Ascari,B., Knapper,K.A., Logan,K.M., Breslin,V.M., Skidmore,A., Bolt,D., Geist,G., Reidy,L., Cizdziel,J.V. (2012). Mercury-Free, Small-Scale Artisanal Gold Mining in Mozambique: Utilization of Magnets to Isolate Gold at Clean Tech Mine*. J. Cleaner Production,* v.32, p.88-95.
63. Spiegel,S., Ribeiro,C., Sousa,R., **Veiga,M.M**. (2012). Mapping Spaces of Environmental Dispute: GIS, Mining and Surveillance in the Amazon. *Annals of the Association of American Geographers*, v. 102, n. 2, p. 320-349.

62. Gunson,A.J., Klein,B., **Veiga,M**., Dunbar,S. (2012). Reducing Mine Water Requirements. *J. Cleaner Production*, v. 21, p.71-82.
61. Shandro,J., Koehoorn,M., Ostry,A., Gibson,N., **Veiga,M.M.** (2012). Mental Health, Cardiovascular Disease and Declining Economies in British Columbia Mining Communities. *Minerals*, v.1, n.1, p.30-48.
60. Metcalf, S. and **Veiga,M.M.** (2012). Using Street Theatre to Increase Awareness of and Reduce Mercury Pollution in the Artisanal Gold Mining Sector: A Case from Zimbabwe. *J. Cleaner Production, v.*37 , p.179-184.
59. Cordy,P., **Veiga,M.M.**, Salih,I., Al-Saadi,S., Console,S., Garcia,O., Mesa,L.A., Velásquez-López,P.C., Roeser,M. (2011). Mercury Contamination from Artisanal Gold Mining in Antioquia, Colombia: the World's Highest Per Capita Mercury Pollution. *Science of the Total Environment*, v. 410, p.154–160.
58. Shandro, J., **Veiga,M.M**., Shoveller, J., Scoble,M., Koehoorn,M. (2011). Perspectives on Community Health Issues and the Mining Boom-Bust Cycle. *Resources Policy* v. 36(2), p.178–186
57. Sousa,R.N., **Veiga,M.M.**, Van Zyl,D., Telmer,K., Spiegel,S., Selder,J. (2011). Policies and Regulations for Brazil's Artisanal Gold Mining Sector: Analysis and Recommendations. *J. Cleaner Production*, v.19, p.742-750.
56. Sousa,R.N., **Veiga,M.M**., Meech,J.A., Jokinen,J., Souza,A. (2011). A Simplified Matrix of Environmental Risks to Assess Small Scale Mining Impacts. *J. Cleaner Production,*v.19, p.580-587.
55. Velasquez-L.,P.C., **Veiga,M.M.**, Klein,B., Shandro,J., Hall,K. (2011). Cyanidation of Mercury-rich Tailings in Artisanal and Small-scale Gold Mining: Identifying Strategies to Manage Environmental Risks in Southern Ecuador. *Journal of Cleaner Production,* v.19, p.1125-1133.
54. Sousa,R.N., **Veiga,M.M.**, Klein,B., Telmer,K., Gunson,A.J., Bernaudat,L. (2010). Strategies for Reducing the Environmental Impact of Reprocessing Mercury-contaminated Tailings in the Artisanal and Small-scale Gold Mining Sector: Insights from Tapajos River Basin, Brazil. *J. Cleaner Production,* v.18, p. 1757-1766.
53. Gunson,A.J., Klein,B., **Veiga,M.M.**, Dunbar,S. (2010). Reducing Mine Water Network Energy Requirements. *J. Cleaner Production*, v.18, n.13, p.1328-1338.
52. Siegel,S. and **Veiga,M.M.** (2010). The Myth of Alternative Livelihoods: Artisanal Mining, Gold, and Poverty. *International Journal of Environment and Pollution*, v 41, n. 3/4, p.272-288.
51. McDaniels,J., Chouinard,R., **Veiga,M.M**. (2010). Appraising the Global Mercury Project: an Adaptive Management Approach to Combating Mercury Pollution in Small-scale Gold Mining. *International Journal of Environment and Pollution,* v. 41, n. 3/4, p. 242-258.
50. Spiegel,S.J. and **Veiga,M.M.** (2010). International Guidelines on Mercury Management in Small-Scale Gold Mining. *J. Cleaner* Production, v. 18, n.4, p. 375–385
49. Velasquez-L.,P.C., **Veiga,M.M**., Hall,K. (2010). Mercury Balance in Amalgamation in Artisanal and Small-scale Gold Mining: Finding Ways to Reduce Environmental Pollution in Portovelo-Zaruma, Ecuador. *J. Cleaner Production*, v. 18, n.3, p.226–232.
48. Sousa,R.N., **Veiga,M.M.,** Sobrinho, D.F. (2009). Sustainability of the Artisanal Gold Mining in the Amazon: Shortening the Way between Theory and Practice. *Revista Meio Ambiente Industrial,* v.78, p.32-37, Mar-Apr 2009, (in Portuguese)
47. **Veiga,M.M.** (2009). Artisanal Gold Mining: a Trap of Poverty and Pollution. *Geotechnical News*, v. 27, n. 1, p. 45-47
46. **Veiga,M.M**., Nunes,D., Klein,B., Shandro,J.A., Velasquez,P.C., Sousa,R.N. (2009). Mill leaching: a viable substitute for mercury amalgamation in the artisanal gold mining sector? *J. Cleaner Production,* v.17, p.1373–1381.
45. Hinton,J.J. and **Veiga,M.M.** (2009). Using Earthworms to Assess Hg Distribution and Bioavailability in Gold Mining Soils. *Soil and Sediment Contamination*: *An International Journal*, v.18, n.4, p.512-524.
44 Shandro,J.A., **Veiga,M.M**., Chouinard,R. (2009). Reducing Mercury Pollution from Artisanal Gold Mining in Munhena, Mozambique. *J. Cleaner Production*. v. 17, p.525–532
43. Sousa,R.N. and **Veiga,M.M.** (2009). Using Performance Indicators to Evaluate an Environmental Education Program in an Artisanal Gold Mining in the Brazilian Amazon. *Ambio*, v.38, n.1, p.40-46.
42. Siegel, S. and **Veiga,M.M.** (2009). Artisanal and Small-scale Mining as an Extralegal Economy: De Soto and the Redefinition of "Formalization". *Resources Policy,* v.34, p. 51-56.
41. Hinton,J.J. and **Veiga,M.M**. (2008). The Influence of Organic Acids on Mercury Bioavailability: Insight from an Earthworm Assessment Protocol. *J. Environmental Bioindicators*, v.3, p.47-67.
40. Swain,E.B., Jakus,P.M., Rice,G., Lupi,F., Maxson,P.A., Pacyna,J.M., Penn,A., Spiegel,S.J., **Veiga,M.M.** (2007). Socioeconomic Consequences of Mercury Use and Pollution. *Ambio*, v. 36, n. 1, p.46-61.
39. Castilhos, Z.C., Rodrigues-Filho,S., Rodrigues,A.P., Villas-Bôas,R.C., Siegel, S., **Veiga,M.M**., Beinhoff,C. (2006). Mercury Contamination in Fish from Gold Mining Areas in Indonesia and Human Health Risk Assessment. *Science of the Total Environment.* v. 368, p.320–325.
38. Spiegel,S.J., Savornin,O., Shoko,D., **Veiga,M.M.** (2006). Mercury Reduction in Munhena, Mozambique: Homemade Solutions and the Social Context for Change. *International Journal of Occupational and Environmental Health*, v.12, n.13, p.215-221
37. **Veiga,M.M**., Maxson,P., Hylander,L. (2006). Origin of Mercury in Artisanal Gold Mining. *J. Cleaner Production,* v.14, p. 436-447.

36. Handelsman, S. and **Veiga, M.M.** (2006) Tailings Hot Topic: Mercury Pollution. *Mining Environmental Management* (March 2006) p. 19.
35. Sandoval,M.C., **Veiga,M.M**., Hinton,J.J. (2006). Application of Sustainable Development Concepts to an Alluvial Mineral Extraction Project in Lower Caroni River, Venezuela. *J. Cleaner Production*, v.14, p.415-426.
34. Spiegel,S.J., Yassi,A., Spiegel,J.M.,**Veiga,M.M**. (2005). Reducing Mercury and Responding to the Global Gold Rush. *Lancet*, v.366, p. 2070-72.
33. Spiegel, S. and **Veiga**,**M.M**. (2005). Building Capacity in Small-scale Mining Communities: Health, Ecosystems Sustainability and the Global Mercury Project. *EcoHealth*, v.2, p.1-9.
32. **Veiga,M.M.** (2004). Mercury Pollution: Revealing Sources and Suggesting Solutions. *Environmental Practice*, v.6, n.2, p.97-98.
31. Gunson, A.J. and **Veiga,M.M.** (2004). Mercury and Artisanal Gold Mines in China. *Environmental Practice*, v.6, n.2, p.109-120.
30. Otchere,F.A., **Veiga,M.M.**, Hinton,J.J., Farias,R.A., Hamaguchi, R. (2004). Transforming Mining Open Pits into Fish Farms: Moving towards Sustainability. *Natural Resources Forum*, v. 28, p. 216-223.
29. **Veiga,M.M.**, Baker,R., Bernaudat,L., Beinhoff,C. (2003). Mercury in Artisanal Gold Mining and the Global Mercury Project. *Urban Health and Development Bulletin*, v.6, n.4, p.12-20. South Africa.
28. Handelsman,S., Scoble,M., **Veiga,M.M.** (2003). Human Rights and the Minerals Industry: Challenges for Geoscientists. *Explor. Mining Geol*., v. 12, n.1-4, p. 35–51. CIM - Canadian Institute of Mining, Metallurgy and Petroleum.
27. Hinton,J.J., **Veiga,M.M**., Beinhoff,C. (2003). Women, Mercury and Artisanal Gold Mining: Risk Communication and Mitigation. *Journal de Physique IV*. France, v.107, p. 617-620.
26. Meech,J.A., Scoble,M., Wilson,W., Pakalnis,R., Klein,B., **Veiga,M.M.**, Hall,R., Ghomshei,M., Baldwin,S., Lavkulich,L., Suttle,C., Mortensen,J., Weis,D., Smith,L., Hall,K., Dixon,D., Tromans,D., Dreisinger,D., Dunbar,S., Pawlik,M., Morin,M., Cullen,W., Teschke,K., Gibson,G., Ulansky,R., Hinton,J., Wickland,B., Bissiri,Y., Lang,B., (2003). CERM3 and its Contribution to Providing Sustainable Research for the Mining Industry. *CIM Bulletin*, v.96, n.1067, p.72-81.
25. Lussier, C., **Veiga,M.M.**, Baldwin,S.A. (2003). Geochemistry of Se Associated with Coal Waste in the Elk River Valley, Canada. *Environmental Geology,* v.44, p.905–913.
24. Hinton,J.J., **Veiga,M.M**., Veiga,A.T. (2003). Clean Artisanal Mining, a Utopian Approach? *Journal of Cleaner Production* v. 11, p. 99–115.
23. **Veiga,M.M**. and Hinton,J.J. (2002). Abandoned Artisanal Gold Mines in the Amazon: A Legacy of Mercury Pollution. *Natural Resources Forum*. v. 26, n.1, p. 15-26.
22. Hinton, J.J. and **Veiga,M.M.** (2002). Earthworms as Bioindicators of Mercury Pollution from Mining and other Industrial Activities. *Geochemistry: Exploration, Environment, Analysis*, v. 2, n. 3, p. 269-274. Geological Society of London
21. **Veiga,M.M.**, Scoble,M, McAllister,M.L. (2001). Mining with Communities. *Natural Resources Forum,* v.25, p.191-202.
20. McAllister,M.L., Scoble,M., **Veiga,M.M**. (1999). Sustainability and the Canadian Mining Industry at Home and Abroad. *CIM - Canadian Institute Mining, Metallurgy and Petroleum Bulletin*, v. 93, n.1033, p.85-92.
19. Meech,J.A and **Veiga,M.M.** (1998). An Adaptive Fuzzy Model to Evaluate Technological Evolution. *Minerals Engineering*, v.11, n.7, p.597-604.
18. Meech,J.A., **Veiga,M.M.**, Tromans,D. (1998). Reactivity of Mercury from Gold Mining Activities in Darkwater Ecosystems. *Ambio* , v. 27, n.2, p. 92-98.
17. **Veiga,M.M.** and Beinhoff,C. (1997). UNECA Centers, a Way to Reduce Mercury Emissions from Artisanal Gold Mining and Provide Badly Needed Training. *UNEP (United Nations Environment Programme) - Industry and Environment*, Oct-Dec. 1997, v. 20, n.4, p.49-51.
16. Meech,J.A., **Veiga,M.M.**, Tromans,D. (1997). Mercury Emissions and Stability in the Amazon Region. *Canadian Metal. Quarterly,* v.36, n.4, p.231-239.
15. Tromans,D., Meech,J.A., **Veiga,M.M.** (1996). Natural Organics and the Environmental Stability of Mercury: Electrochemical Considerations. *Journal of Electrochemical Society*, v. 143, n.6, p. L123-126.
14. **Veiga,M.M.** and Meech,J.A. (1995). HgEx - A Heuristic System on Mercury Pollution in the Amazon. *Water, Air & Soil Pollution* , v.80, p. 123-132.
13. **Veiga,M.M.** and Meech,J.A. (1995). Gold Mining Activities in the Amazon: Clean-up Techniques and Remedial Procedures for Mercury Pollution. *Ambio*, v. 24, n. 6, p. 371-375.
12. **Veiga,M.M.**, Meech,J.A., Hypolito,R. (1995). Educational Measures to Address Hg Pollution from Gold Mining Activities in the Amazon. *Ambio,* v. 24, n.4, p.216-220.
11. **Veiga,M.M.**, Meech,J.A., Oñate,N. (1994). Mercury Pollution from Deforestation. *Nature,* v. 368, p.816-817.
10. Silva,A.P., Ferreira,N.L.S., Pádua,H.B., **Veiga,M.M**., Silva,G.D., Oliveira,E.F., Silva,E.C., Ozaki,S.K. (1993). Mercury mobility in Poconé. *Ambiente*, v.7, n.1, p. 52-56 (in Portuguese).
9. Lins,F.A.F., **Veiga,M.M**., Stewart,J.A., Papalia,A., Papalia,R. (1992). Performance of a New Centrifuge (Falcon) in Concentrating a Gold Ore from Texada Island, BC. *Minerals Engineering*, v.5, n.10/12, p.1113-1121.

8. **Veiga,M.M.**, Schorscher, J.H.D., Fyfe,W.S. (1991). Relationship of Copper with Hydrous Ferric Oxides: Salobo, Carajas, Para, Brazil. *Ore Geology Review*, v.6, n. 2-3, p. 245-55.
7. **Veiga,M.M**., Soares,P.S.M., Silva, A.P., Alvarinho,S.B. (1989). Market Research of Advanced Ceramics in Brazil. *Cerâmica*, v. 35, n. 239, p. 6-20 A (in Portuguese).
6. **Veiga,M.M**. (1989). Technical Evaluation of Gold Ores. *Brasil Mineral,* v.72, p.124-136 (in Portuguese).
5. Martins,M.J.G., Kishida,A., **Veiga,M.M**. (1988). Planning the Mineral Exploration. *Brasil Mineral*, v. 52, p.40-43 (in Portuguese).
4. **Veiga,M.M**., Silva,A.P., Santos,J.F. (1987). Colorimetric Kits: an Analytical Solution for Mineral Prospecting. *Brasil Mineral*, v. 40, p.50-53 (in Portuguese).
3. Mandetta,P., **Veiga,M.M**., Felitti Filho,W. (1986). Mineralogical and Technological Aspects of Mining and Metallurgical Projects. *Brasil Mineral*, v. 37, p.60-67 (in Portuguese).
2. Pietroluongo,L.R.V. and **Veiga,M.M.** (1982). Quantitative Mineralogical Analysis by using X-ray Diffractometry. *Cerâmica*, v. 28, n. 153, p. 377-383 (in Portuguese).
1. Horn Filho,F.X. and **Veiga,M.M.** (1980). Beneficiation of Canavieira's Diatomite. *Mineração e Metalurgia*, v. 424, p.14 - 21 (in Portuguese).

Proceedings

178. Anene,N.C., Musa,B., Mohammed,Y.H., Robert-Lemire,R., Yeomans,C. **Veiga,M.M.** (2024). Obtaining Gold and Mercury Losses in an Artisanal Mining Site in Nigeria. Proc. of the 16th International Conference of Mercury as a Global Pollutant. Cape Town, South Africa, Jul 21-26, 2024 (Abstract)
177. **Veiga,M.M**. (2024). How Projects on Mercury-Free for AGM Could be More Effective. Proc. of the 16th International Conference of Mercury as a Global Pollutant. Cape Town, South Africa, Jul 21-26, 2024 (Abstract)
176. Silva,E.M., Torkaman,P., Barreto,M.C.S., Mariz,J.V., **Veiga,M.M.**, De Tomi,G. (2024). Use of Bitter Cassava as an Alternative to Gold Amalgamation. Proc. of the 16th International Conference of Mercury as a Global Pollutant. Cape Town, South Africa, Jul 21-26, 2024 (Abstract)
175. Yoshimura,A., Torkaman,P., Matsuno,Y., **Veiga,M.M**. (2023). Alternative Gold Refining Procedure Using “Organic Aqua Regia. Proc. of the ALTA – Metallurgical Conference 2023, Perth Australia, May 1-5, 202. 8 p.
174. **Veiga,M.M**., Tarra,J.A., Restrepo-Baena,O.J., De Tomi,G. (2022). Coexistence as a Process of Formalizing Artisanal Gold Miners and Reduce Pollution. Proc. XXIX National Meeting of Ore Processing and Extractive Metallurgy. Buzios, Brazil, 8p. Sept 25-28, 2022 (in Portuguese).
173. **Veiga,M.M.**, Tarra, J.A., Restrepo-Baena,O.J., De Tomi, G. (2022). Coexistence with Artisanal Gold Miners: A Way to Eliminate Mercury Use. ICMGP 2022 – 15th International Conference on Mercury as a Global Pollutant July 25-29, 2022 – Virtual Event (abstract)
172, Torkaman,P. and **Veiga,M.M.** (2022). Suggested Technical Alternatives to Eliminate Mercury in ASGM. ICMGP 2022 – 15th International Conference on Mercury as a Global Pollutant July 25-29, 2022 – Virtual Event (abstract).
171. Yoshimura,A. Suzuki,T., Fadina,O., Torkaman,P., Matsuno,Y., **Veiga,M.M.** (2021). Novel Extraction Process of Gold from Ore Using “Organic Aqua Regia” as an Alternative Procedure of the Amalgamation in Artisanal and Small-scale Gold Mining (ASGM). Proc. 14th Biennial Intern. Conf. on Ecobalance. Webinar. Sendai, Japan, Feb 25-Mar 5, 2021 (abstract).
170. **Veiga,M.M.**, Fadina,O., Torkaman,P, Yoshimura,A. (2021). Alternatives to Curb the Use of Mercury in Artisanal Gold Mining. Proc. 14th Biennial Intern. Conf. on Ecobalance. Webinar. Sendai, Japan, Feb 25-Mar 5, 2021 (abstract).
169. Suemasu,K., Yoshimura,A., **Veiga,M.M.** (2021). Estimation of Mercury Use and Lost in Artisanal and Small-Scale Gold Mining (ASGM). Proc. 14th Biennial Intern. Conf. on Ecobalance. Webinar. Sendai, Japan, Feb 25-Mar 5, 2021 (abstract).
168. Correa,M., **Veiga,M.M**., Liu,S. (2019). Technical Assessment of a Small Hg-free Gold Processing Plant in Colombia. 14th International Conference of Mercury as a Global Pollutant. Krakow, Poland, Sept 8-13, 2019. (abstract)
167. Martinez,G., Smith,N. **Veiga,M,M.** (2019). Artisanal and Small-scale Gold Mining in the Puno region of Peru: A Case Study of Mercury Use in Formalized Operations. 14th International Conference of Mercury as a Global Pollutant.. Krakow, Poland, Sept 8-13, 2019. (abstract).
166. **Veiga,M,M**, (2019). Barriers and Suggested Solutions to Replace the Use of Mercury in Artisanal Gold Mining. 14th International Conference of Mercury as a Global Pollutant. Krakow, Poland, Sept 8-13, 2019. (abstract)
165. Aliprandini,P.; Tenório,J.A.S.; **Veiga,M.M.**; Espinosa,D.C.R. (2018). Study of the Adsorption of Mercury Cyano Complexes from an Artisanal Gold Mining Waste. Proc. 19th Brazilian Mining Symp. .7p. DOI: 10.5151/2594-357X-31712 (In Portuguese).
164. Marshall,B.G and **Veiga,M.M.** (2017). Co-existence of Artisanal and Conventional Miners: A Good Solution for Formalization. 13th International Conference of Mercury as a Global Pollutant. Providence,RI,, J.ul 16-21, 2017 (abstract)
163. Marshall,B.G., Gonçalves,A.O., **Veiga,M.M.**, Kaplan,R.J., Miserendino,R.A., Schudel,G., Berquist,B., Guimarães,J.R., Gonzalez-Mueller,C. (2017). Fluvial Mobility of Mercury, Cyanide And Other Heavy Metals in the

Puyango-Tumbes River basin, Ecuador-Peru. 13th International Conference of Mercury as a Global Pollutant. Providence,RI,, Jul 16-21, 2017 (abstract)

162. **Veiga,M.M**., Marshall,B., Thomas,M. (2017). Artisanal Gold Mining: Formalization is Not Reducing Pollution. *In*: Proc. of International Mining and Oil & Gas Law, Development, and Investment Conference. Mineral Law Series, v. 2017, n.2, p.20C1-15. Ed. Rocky Mountain Mineral Law Foundation. Quito, Ecuador, Apr 26-28, 2017. Mineral Law Series. ISBN 978-1-943497-10-2.
161. Anderson,C., Shi,P., **Veiga,M.M.**, Meech,J.A. (2015). Resource Assessment for Phytomining of Platinum Group Metals. 2015 Sustainable Industrial Processing Summit & Exhibition, Antalya, Turkey, Oct 4-9, 2015 (abstract)
160. Nichols,B. and **Veiga, M.M.** (2015). Mine Closure Planning and Remediation for Mercury Contaminated Artisanal Mine Sites in Ecuador. 2015 Sustainable Industrial Processing Summit & Exhibition, Antalya, Turkey, Oct 4-9, 2015 (abstract)
159. Ranieri,B., Dales,K., **Veiga,M.M**. (2015). Heavy Metal Contamination of Agricultural Products and Human Exposure Via Food Intake in the Artisanal Gold Mining Province of Portovelo & Zaruma, El Oro State, Southern Ecuador. 2015 Sustainable Industrial Processing Summit & Exhibition, Antalya, Turkey, Oct 4-9, 2015 (abstract)
158. Kaplan,R., **Veiga,M.M**., Gonzalez-Mueller,C., Velasquez-Lopez,C., Granda,L., Rivera,L. (2015). Mercury and Heavy Metal Origin and Contamination of the Puyango-Tumbes River System, Ecuador. 2015 Sustainable Industrial Processing Summit & Exhibition, Antalya, Turkey, Oct 4-9, 2015 (abstract)
157. Toledo,Z. and **Veiga,M.M.** (2015). Perceptions of Small and Large Scale Mining in Tambogrande, Piura, Peru. 2015 Sustainable Industrial Processing Summit & Exhibition, Antalya, Turkey, Oct 4-9, 2015 (abstract)
156. Dales,K, Ranieri,B., **Veiga,M.M.** (2015). From Minamata to Mitigation: Exploring Geographically Representative Monitoring of Lead and Mercuryin Artisanal Gold Mining Communities of Northern Nigeria. 2015 Sustainable Industrial Processing Summit & Exhibition, Antalya, Turkey, Oct 4-9, 2015 (abstract)
155. Stocklin-Weinberg,R., **Veiga,M.M.**, Stockwel,A. (2015). Feasibility Study for a Fairtrade Gold Centre of Excellence Programme. 2015 Sustainable Industrial Processing Summit & Exhibition, Antalya, Turkey, Oct 4-9, 2015 (abstract)
154. Selder,J. and **Veiga,M.M.** (2015). Co-existence Of Large-scale Gold Mining With Artisanal Gold Miners. 2015 Sustainable Industrial Processing Summit & Exhibition, Antalya, Turkey, Oct 4-9, 2015 (abstract)
153. Rodrigues,L.C. and **Veiga,M.M.** (2015). Sustainable Development in Football: A Strategy of the Fluminense Football Club. 2015 Sustainable Industrial Processing Summit & Exhibition, Antalya, Turkey, Oct 4-9, 2015. 10p.
152. Gonçalves,A., **Veiga,M.M**., Jackson,R., Menezes,S., Ramos,D., Avelar,B. (2015). Metallurgical Study of Gold Recovery from a Small Scale Mine Tailings from Costa Rica. XXVI Brazilian Symposium of Ore Dressing and Hydrometallurgy. Poços de Caldas – Brazil, Oct 18-22, 2015. 8p.
151. Kaplan,R., **Veiga,M.M.**, Rivera,L., Gonzalez-Mueller,C., Bernaudat,L. (2015). Mercury Origin and Contamination of the Puyango-Tumbes River System, Ecuador. 12th International Conference of Mercury as a Global Pollutant. Jeju, Korea, Jun 14-19, 2015 (abstract)
150. **Veiga,M.M.** and Ruiz,H. (2015). Training Centres for Artisanal Gold Miners: An Effective Way to Reduce Mercury Use. 12th International Conference of Mercury as a Global Pollutant. Jeju, Korea, Jun 14-19, 2015 (abstract)
149. Handelsman,S.D. and **Veiga,M.M.** (2014). Human Rights, Ethics and Corporate Social Responsibility – The Present, Past and Future. CIM - Canadian Institute of Mining, Metallurgy and Petroleum Annual Conference, May 12, 2014, Vancouver (abstract).
148. **Veiga,M.M**. and Tucker,C. (2014). Sustainability and Public Engagement in Mining: The Role of Engineers. 27th International Mineral Processing Congress, Oct 20-24, 2014. Santiago, Chile. 10p.
147. Anderson, C.W., Meech,J.A,, **Veiga,M.M**., Krisnayanti,D. (2014). Can Phytoextraction Support the Gold Mining Industry in Developing Ccountries? Case Study for Indonesia. Shechtman International Symposium, Jun 29 - Jul 04, 2014, Cancun, Mexico 13p.
146. Meech,J.A., Xavier,A.M., Veiga,M.M. (2014) Review of First Nations Issues and Mining in Canada. Shechtman International Symposium, Jun 29 - Jul 04, 2014, Cancun, Mexico 18p.
145. Meech,J.A., **Veiga,M.M**., Angeloci, G. (2014). Changing the Habits of Artisanal Miners. Shechtman International Symposium, Jun 29 - Jul 04, 2014, Cancun, Mexico 15p.
144. Ruiz,H.. and **Veiga,M.M.** (2014). Political Risk and Cultural Corporate Management or Lack Thereof in Mine Closure Exploration Activities: The Case of Cerro Chorcha, Panama City, Panama. Mine Closure Solutions. Apr 28−30, 2014. Ouro Preto, Brazil. 15p.
143. Nichols,B, van Zyl,D., **Veiga,M.M.** (2014). Consolidation and Closure of Artisanal Mining Processing Plants in Portovelo, Ecuador Mine Closure Solutions. Apr 28−30, 2014. Ouro Preto, Brazil. 14p.
142. Xavier, A, **Veiga,.M,M.**, van Zyl,D. (2014) Capturing Local Citizen's Perceptions of Mine Closure in Mongolia and Assessing the Socio-Economic Mine Closure (SEMC) Framework. Mine Closure Solutions. Apr 28−30, 2014. Ouro Preto, Brazil. 15p.
141. Xavier,A., **Veiga,M.M**., van Zyl, D. (2013). Socio-Economic Mine Closure (SEMC) Guideline: A Management Tool for Addressing the Social and Economic Challenges of Mine Closure. 6th. International Conference on Sustainable Development in the Mining Industry (SDIMI). Jun 30 – Ju 3, 2013. Milos Island, Greece.

140. Angeloci,G., **Veiga,M.M.**, Meech,J.A. (2013). Small Mining Can Be Clean and Profitable. 23rd World Mining Congress, Montreal, Aug 11-15, 2013, paper 230, 11p.
139. Miserendino,R.A., Guimarães,J.R.D., Lees, P.S.J., Velasquez-López,P.C., **Veiga,M.M.**, Bergquist,B.A. (2013). Exploiting Stable Mercury Isotopic Analysis to Differentiate between Mercury Sources: Artisanal and Small-Scale Gold Mining vs. Land-Cover and Land-Use Change in Amazonian and Andean Aquatic Ecosystems. 11th International Conference of Mercury as a Global Pollutant. Edinburgh, Jul 27-Aug 2, 2013 (abstract).
138. Cordy,P., **Veiga,M.M**., Garcia,O., Crawford,B. (2013). Urban Atmospheric Mercury Contamination from Artisanal Gold: Mapping and Mitigation Measures. 11th International Conference of Mercury as a Global Pollutant. Edinburgh, Jul 27-Aug 2, 2013 (abstract).
137. Angeloci,G., Veiga,M.M.,Meech,J.A. (2013). Mercury in Artisanal Gold Mining: Myths and Realities. 11th International Conference of Mercury as a Global Pollutant. Edinburgh, Jul 27-Aug 2, 2013 (abstract).
136. Velasquez-Lopez,P.C., **Veiga,M.M.**,Selder,J., Tomi,G.,Seccatore,J., Passos,A., Niquen,W. (2013). ITCAM - International Training Center for Artisanal Miners: Education to Reduce Mercury Pollution in South America. 11th International Conference of Mercury as a Global Pollutant. Edinburgh, Jul 27-Aug 2, 2013 (abstract).
135. Seccatore,J., **Veiga,M.M.**, Origliasso,C., Tomi,G. (2013). An Estimation Model of the Artisanal Small-Scale Production of Gold in the World. 11th International Conference of Mercury as a Global Pollutant. Edinburgh, Jul 27-Aug 2, 2013 (abstract).
134. **Veiga,M.M.** and Thomas,J. (2013). Evaluation of the Mercury Use in Artisanal and Small-Scale Gold Mining in Nicaragua. 11th International Conference of Mercury as a Global Pollutant. Edinburgh, Jul 27-Aug 2, 2013 (abstract)
133. Xavier,A., **Veiga,M.M.**, van Zyl, D. (2012). Socio-Economic Mine Closure (SEMC) Protocol: A Management Tool for Addressing the Social and Economic Challenges of Mine Closure. Poster presented at the SME Annual Meeting – 2012, Seattle, Feb 19-22, 2012.
132. Angeloci, G. and **Veiga,M.M.** (2012). Improvements in Small scale and Artisanal Mining. Poster presented at the SME Annual Meeting – 2012, Seattle, Feb 19-22, 2012
131. Angeloci, G. and **Veiga,M.M.** (2011). Small scale and Artisanal Mining: Reducing the Mercury Contamination. 1st International Seminar on Social Responsibility in Mining. Santiago, Chile, Oct 19-21, 2011, poster.
130. Xavier,A., **Veiga,M.M.**, van Zyl, D. (2011). An Evaluation of the Local Economic Development Initiatives Implemented by the Mining Industry. 1st International Seminar on Social Responsibility in Mining. Santiago, Chile, Oct 19-21, 2011, poster.
129. Angeloci,G., Fujii,R., Cruz,M., Zeitune,C.,**Veiga,M.** (2011). Environmental and Social Consequences of Mining in a Touristic Park, Brazil. 1st International Seminar on Social Responsibility in Mining. Santiago, Chile, Oct 19-21, 2011. 8p.
128. **Veiga,M.M**., Veiga,S.M.B., Tomi, G. (2011). Small Mining Can Be a Good Business. 24th Brazilian Conf. on Mineral Processing and Extractive Metallurgy. Salvador, Brazil, Oct 16-19, 2011. p.45-52 (in Portuguese).
127. Tomi, G. and **Veiga, M.M.** (2011). Opportunities in Small Gold Mining. WWF Workshop on Solutions for Artisanal Gold Mining. Paramaribo, Suriname, May 31– Jun 1, 2011 (abstract).
126. **Veiga,M.M**., Siegel,S., Salih,S., Al-Saadi,S., Console,S., Cordy,P., Garcia,O., Mesas,L.A., Roeser,M. (2011). Preventing the Next Minamata: Mercury Contamination from Semi-Industrial Gold Mining in Antioquia, Colombia—the World's Highest Per Capita Mercury Polluter. 10th International Conference of Mercury as a Global Pollutant. Halifax, Canada, Jul 24-29, 2011 (abstract).
125. **Veiga,M.M.** (2011). Processing Centers in Artisanal and Small-scale Gold Mining: Evolution or More Pollution? 3rd Int. Workshop on Advances in Cleaner Production. São Paulo, Brazil, May 18-20, 2011. 11p. Available at: http://www.advancesincleanerproduction.net/third/files/sessoes/4B/5/Veiga_MM%20-%20Paper%20-%204B5.pdf
124. Shandro,J., Scoble,M., Ostry,A., **Veiga,M.M**., Koehoorn,M. (2011). Health research studies in British Columbia mining communities. Conf. Sustainable Development in the Minerals Industry. Aachen, Germany, Jun 14-17, 2011 (abstract).
123. Sousa,R.N. and **Veiga,M.M.** (2010). The Use of Mercury in Artisanal Gold Mining in Brazil: the Ineffectiveness of Prohibition. International Mercury EXPO., College of William and Mary, Williamsburg, VA, USA, Apr 22 – 25, 2010 (abstract)
122. Metcalf,S.A. and **Veiga,M.M.** (2010). Using Development Theatre as a Communication Tool to Reduce Mercury Emission in Artisanal Gold Miners in Zimbabwe. International Mercury EXPO., College of William and Mary, Williamsburg, VA, USA, Apr 22 – 25, 2010 (abstract)
121. Cordy,P., Crawford,B., **Veiga,M.M.** (2010). Local Scale Measurement of Atmospheric Mercury Emissions from Artisanal Mining. International Mercury EXPO., College of William and Mary, Williamsburg, VA, USA, Apr 22 – 25, 2010 (abstract)
120. **Veiga,M.M**., Garcia,O., Jaramillo,J., Alvarez,S., Mesa,L.A. Perez,A., Suescún,O., Roeser,M. (2010). Mercury Pollution Caused by Artisanal Gold Miners in Antioquia, Colombia. International Mercury EXPO., College of William and Mary, Williamsburg, VA, USA, Apr 22 – 25, 2010 (abstract)
119. Metcalf,S. and **Veiga,M.M**. (2010). Using Development Theatre as a Communication Tool to Reduce Mercury Emissions by Artisanal Gold Miners in Zimbabwe. 31st Annual Meeting of the SETAC – Society of Environmental

Toxicology and Chemistry, Portland, US. Nov 7-11, 2010 (abstract).

118. **Veiga,M.M**., Cordy,P., Siegel,S. (2010). Mercury Emissions from Artisanal Gold Mining in South America: Solutions Being Implemented. Int. Workshop on Mercury in Contaminated Sites: Characterization, Impacts and Remediation . Piran, Slovenia, Oct 10-14, 2010 (abstract).
117. Gunson,A.J., Klein,B., **Veiga,M.M.** (2010). Improving Mine/Mill Water Network Design by Reducing Water and Energy Requirements. Paper 19. 42nd Annual Meeting of the Canadian Mineral Processors of CIM. Ottawa, Jan 19-21, 2010. p.299-315.
116. Xavier,A.M, **Veiga,M.M**, Kimball,S, Parreira,J. (2009). Supra-Regulatory Agreements in Canada – Private Contracts Between Companies and Indigenous Communities Without Governmental Participation: Are These Effective Practices Towards Sustainability? XXIII ENANPAD, Sao Paulo, Brazil, Sep 19-24, 2009.
115. Xavier, A.M, **Veiga,M.M**, Kimball,S, Parreira,J. (2009). Beyond the traditional lecture: mining engineering education using multiple intelligences. International Conference in Engineering Education – ICEE. Seoul, South Korea, August 23-28, 2009.
114. Xavier,A.M, **Veiga,M.M.**, Kimball,S, Parreira,J, Wook,J.C. (2009). Can Impact & Benefit Agreements Work as a Bridge Towards More Sustainable Practices in Mining Industry? Rethinking Extractive Industry, York University, Toronto – ON, March 5-7, 2009.
113. Xavier,A., Davis,G., Kimball,S., **Veiga,M.M**., (2009). Beyond the Traditional Lecture: Mining Engineering Education Using Multiple Intelligences. International Conf. on Engineering Education & Research. Seoul, Korea, Aug 23-29, 2009. 9p. http://www.ineer.org/Events/ICEEiCEER2009/full_papers/full_paper_047.pdf.
112. Sousa,R.N., **Veiga,M.M**., Gunson,A.J. (2009). An Effective Option to Replace Whole Ore Amalgamation in order to Reduce Mercury Emissions in Artisanal Gold Mining. 9th International Conference of Mercury as a Global Pollutant. Guiyang, China, June 7-12, 2009 (abstract).
111. Telmer,K. and **Veiga,M.M.** (2009). World Emissions of Mercury from Artisanal And Small Scale Gold Mining and Reduction Scenarios. 9th International Conference of Mercury as a Global Pollutant. Guiyang, China, June 7-12, 2009 (abstract)
110. Metcalf,S. and **Veiga,M.M.** (2009). Mercury Dissolution by Cyanide and Nitric Acid at Zimbabwe's Gold Milling Centers. 9th International Conference of Mercury as a Global Pollutant. Guiyang, China, June 7-12, 2009 (abstract).
109. Velasquez.P.C. and **Veiga,M.M.** (2009). Mercury, Cyanide and Environmental Pollution in Artisanal Small-scale Gold Mining. 9th International Conference of Mercury as a Global Pollutant. Guiyang, China, June 7-12, 2009 (abstract).
108 Cordy,P., **Veiga,M.M.,** Carrasco,V.H.G. (2008). Urban Artisanal Gold Shops and Mercury Emissions. 32nd Annual British Columbia Mine Reclamation Symposium. Kamloops, BC, Sept. 15 - 18, 2008. 9p.
107 Sousa, R.N. and **Veiga,M.M.** (2008). Garimpo Canaan - A Successful Case of Reclamation of an Artisanal Gold Mine in the Amazon. 32nd Annual British Columbia Mine Reclamation Symposium. Kamloops, BC, Sept. 15 - 18, 2008. 12p.
106 Sousa,R.N. and **Veiga,M.M.** (2007). Implementing Programs to Improve Gold Recovery and Reduce Environmental Impacts by Artisanal Gold Mining in Brazil. 31st Annual British Columbia Mine Reclamation Symposium. Squamish , BC, Sept. 17-20, 2007. 10p.
105. **Veiga,M.M**., Shandro.J., Scoble,M. (2007). Using Music to Teach Mine Reclamation. 31st Annual British Columbia Mine-Reclamation Symposium. Squamish , BC, Sept. 17-20, 2007. 12p.
104. Spiegel,S. and **Veiga, M.M.** (2006). Interventions to Reduce Mercury Pollution in Artisanal Gold Mining Sites: Lessons from the UNDP/GEF/UNIDO Global Mercury Project. Proc 2nd Forum of the National Institute of Minamata Disease, Minamata, Japan, Nov. 28-29, 2006, p. 1-18.
103. Metcalf,S., Miskolczi,J, Nunes,D.G., **Veiga,M.M**. (2006). The Use of Cyanides in Artisanal and Small Scale Gold Mining and Its Effects on Tailings Containing Metallic Mercury from Amalgamation. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).
102. Tesha,A. and **Veiga,M.M**. (2006) Implementation of Global Mercury Project Initiatives in Tanzania in Reducing Mercury Emissions from Small-Scale Gold Miners around Great Lakes of East Africa. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).
101. Siegel,S. and **Veiga,M.M**. (2006). The Diagnosis and the Cure: Assessing the Viability of Intervention in Artisanal Gold Mining Communities. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).
100. Telmer,K., Ribeiro,C.A.A.S., **Veiga,M.M.** (2006). Knowledge Gaps in the Understanding of Mercury Pollution from Gold Mining. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug 6-11, 2006 (abstract).
99. Spiegel,S. Shoko,D., Tesha,A., Love,D., **Veiga,M.M**. (2006). Legal and Policy Approaches to Address Mercury Hazards in Africa: An Analysis of Government Strategies in the Small-Scale Mining Sector. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).
98. Sulaiman,R., Baker,R., **Veiga,M.M**., Susilorini,B. (2006). Incomplete Transition from Mercury Amalgamation to Cyanidation Practice,North Sulawesi, Indonesia. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).
97. Ribeiro,C.A., Telmer,K., **Veiga,M.M**., Spiegel,S., Oliveira,A.M. (2006). Towards Mining Land Reclamation in the Brazilian Amazon: Implications for Policy and Practice. 8th International Conference of Mercury as a Global

Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).

96. Castilhos,.Z.C., Egler,S., Yallouz,A.V., Pedroso,L.R., Villas-Boas,R., Luz,A..B.**,** Metcalf,S., **Veiga,M.M**. Meurer.B.C. (2006). Mercury Awareness Campaign in Brazil. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).
95. Scoble,J., Bamber,A., **Veiga,M.M**. (2006). Organisation, Business, Technology and Education: Interventions for Reducing Mercury Use in Artisanal Gold Mining in Tanzania and Zimbabwe. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).
94. Telmer,K, Ribeiro,C.A.A.S., Stevens,D., **Veiga,M.M**. (2006) Reclamation Strategies for Gold Mining Regions Polluted with Mercury. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).
93. Rodrigues,A.P., Ramos,A., Muniz,K., Pedroso,L.R., Lima,C.A., Castro,A.M.L., Castilhos,Z., Albuquerque,C., Inácio,A.F., Viana,T.A.P., Linde,A.R., Novo,L.A., Rodrigues Filho,S., Villas-Bôas,R., Beinhoff,C., **Veiga,M.M**. (2006). Biomarkers of Mercury Exposure in Amazonian Fish, Pará, Brazil. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).
92. Villas-Bôas,R., Rodrigues Filho,S., Castilhos,Z., Santos,R., Yallouz,A., Luz,A.B., **Veiga,M.M**. Egler,S. (2006). The Presence of Hg in the Tapajos River Basin. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).
91. Velasquez, P.C. and **Veiga,M.M.** (2006). Preliminary Assessment of Fate of Mercury in Artisanal Gold Mining in Zaruma-Portovelo, Ecuador. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug 6-11, 2006 (abstract).
90. Spiegel,S., Savornin,O., Shoko,D., **Veiga,M.M.** (2006). Preventing Mercury Pollution in Artisanal GoldMining: Lessons from Manica District, Mozambique. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).
89. **Veiga,M.M.** and Huidobro,P. (2006). Introducing Solutions to Reduce Mercury Pollution in Artisanal Mining: The Global Mercury Project. 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).
88. Baker,R., Sulaiman,R., **Veiga,M.M.** (2006) GlobalMercury Project Status Update - Kalimantan, Indonesia. . 8th International Conference of Mercury as a Global Pollutant. Madison, US, Aug. 6-11, 2006 (abstract).
87. Costa,S., **Veiga,M.M.**, Scoble,M., White,D. (2005). Monitoring Employee Quality of Life in Mine Camps: Towards Workforce Well-being. XXVII Peruvian Mining Convention. Arequipa, Peru, Sept. 12-16, 2005. 17p. in CD
86. Telmer, K. and **Veiga, M.M**. (2005). The Global Mercury Project (GMP): Removal of Barriers to the Introduction of Cleaner Artisanal Gold Mining and Extractive Technologies. Sustainable Development of Geo-resources & Geo-environment. Coordinating Committee for Geoscience Programmes in East and Southeast Asia. Beijing, China. Sept. 16-17, 2005. p.. 227-229.
85. Silva, A.C. and **Veiga, M.M**. (2005). Using Value-focused Thinking to Identify Better Recycling Alternatives: The Case Study of Lead-acid Batteries in British Columbia, Canada. Proceedings of the XIII ICHMET International Conference of Heavy Metals in the Environment, Rio de Janeiro, Brazil, June 5-9, 2005.
84. Roberts, S. and **Veiga, M.M**. (2005). Achieving Sustainable Mine Closure: Reclaiming a Mine in British Columbia, Canada. 3rd International Conference on New Directions in the Humanities, University of Cambridge, United Kingdom, Aug. 2-5, 2005.
83. Gunson, A.J. and **Veiga, M.M** (2004). Estimating Mercury Releases from Small-Scale Gold Mines in China. 4th World Congress and 25th Annual Meeting of the SETAC – Society of Environmental Toxicology and Chemistry, Portland, US., Nov. 14-18, 2004 (abstract) p.136..
82. Gunson, A.J., **Veiga, M.M**., Klein,B. (2004). Alternative Technology for Small-scale Gold Miners. 4th World Congress and 25th Annual Meeting of the SETAC – Society of Environmental Toxicology and Chemistry, p.136. Portland, US., Nov. 14-18, 2004 (abstract).
81. **Veiga, M.M.** and Baker, R.F. (2004). Protocols for Environmental Assessment and Remediation of Sites Impacted by Mercury Released by Artisanal Gold Mining. 4th World Congress and 25th Annual Meeting of the SETAC – Society of Environmental Toxicology and Chemistry, p.137. Portland, US., Nov. 14-18, 2004 (abstract).
80. **Veiga, M.M**., Veiga, S.M.B., Baker,R.F., Turner, R.R. (2004). Speciation and Bioavailability of Hg in Contaminated Sediments, Pinchi Lake Mine BC. 4th World Congress and 25th Annual Meeting of the SETAC – Society of Environmental Toxicology and Chemistry, p.137. Portland, US., Nov. 14-18, 2004 (abstract).
79. Baker,R.F., Turner,R.R., Veiga,S.M.B.,.**Veiga,M.M.** (2004). Assessment of Sediment Mercury Contamination – Pinchi Lake Mercury Mine, BC, Canada. 4th World Congress and 25th Annual Meeting of the SETAC – Society of Environmental Toxicology and Chemistry, p.137. Portland, US., Nov. 14-18, 2004 (abstract).
78. Castilhos,Z.C., Rodrigues-Filho,S., Rodrigues,A.P., Villas-Bôas,R.C., **Veiga,M.M.**, Beinhoff,C. (2004). Mercury Contamination in Fish from Gold Mining Areas in the Amazon Region and Human Health Risk Assessment. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p. 26-30.
77. Castilhos,Z.C., Rodrigues-Filho,S., Rodrigues,A.P., Villas-Bôas,R.C., **Veiga,M.M.,** Beinhoff,C. (2004).

Biomagnification of Hg in Fish from Gold Mining Affected Amazonian Aquatic Systems. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p.31-34.

76. Castilhos,Z.C., Rodrigues-Filho,S., Rodrigues,A.P., Villas-Bôas,R.C., **Veiga,M.M.,** Beinhoff,C. (2004). Mercury Contamination in Fish from Gold Mining Areas in Indonesia. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p. 35-38.
75. Castilhos,Z.C., Rodrigues-Filho,S., Rodrigues,A.P., Villas-Bôas,R.C., **Veiga,M.M.,** Beinhoff,C. (2004). Fish as Indicators of Hg Availability in Amazonian Aquatic Systems Affected by Gold Mining. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. . *RMZ Materials and Geoenvironment*, v.51, Part 1, p. 39-43.
74. Egler,S.G., Rodrigues-Filho,S., Villas-Bôas,R.C., **Veiga,M.M.**, Beinhoff,C. (2004) Evaluation of Mercury Pollution in Cultivated and Wild Plants from Two Small Communities of the Tapajos Gold Mining Reserve, Para State, Brazil. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p. 79-82.
73. Rodrigues-Filho,S., Peregovich,B., Castilhos,Z.C., Santos,R., Yallouz,A.V., Egler,S.G., Nascimento,F.M., Pedroso,L.R.M., Villas-Bôas,R.C., **Veiga,M.M.**, Beinhoff,C. (2004). Environmental Assessment of Mercury Pollution in Two Brazilian Gold Mining Areas - Biogeochemical Aspects. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p.235-239.
72. Rodrigues-Filho,S., Peregovich,B., Castilhos,Z.C., Santos,R., Yallouz,A.V., Egler,S.G., Nascimento,F.M., Pedroso,L.R.M., Villas-Bôas,R.C., **Veiga,M.M.**, Beinhoff,C. (2004). Environmental Assessment of Mercury Pollution in Two Indonesian Gold Mining Areas - Biogeochemical Aspects. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p. 240-243.
71. Santos,R., Rodrigues-Filho,S., Sobral,L.G., Peregovich,B., Villas-Bôas,R.C., **Veiga,M.M.**, Beinhoff,C. (2004). Evaluation of the Use of Mercury in the Brazilian and Indonesian Gold Prospecting Areas: Searching for Environmental Sustainable Solutions. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p. 244-249.
70. Shoko,D.S.M. and **Veiga,M.M.** (2004). Solutions for Mercury Pollution in Artisanal Gold Mining in the Kadoma-Chakari area, Zimbabwe. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p. 255-258.
69. Taylor,H, Chitamweba,D., Mkumbo,O., Machiwa,J.F., Appleton,J.D., Lister,R., Smith,B., Tesha,A.L, Beinhoff,C., **Veiga,M.M.** (2004). Exposure to Environmental Mercury in the Rwamagasa Artisanal Gold Mining Area, Geita District, Tanzania. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p. 290-293.
68. Tesha,A., Nayopa,J., **Veiga,M.M.**, Appleton,D., Lister,R. (2004). Mercury in Artisanal Gold Mining in Geita District, Tanzania. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p. 294-297.
67. **Veiga,M.M.**, Maxson,P., Hylander,L. (2004). Mercury in Artisanal Gold Mining: Flows, Uses and Exposures. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p. 303-310.
66. Yallouz,A., Pereira,D., Rodrigues-Filho,S., Villas-Bôas,R.C., **Veiga,M.M**., Beinhoff,C. (2004). Alternative Low Cost Method for Mercury Semi-quantitative Determination in Fish: Training of Local Users in Itaituba, Brazil and Manado, Indonesia. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p. 317-320.
65. Bermudez,D., **Veiga,M.M.**, Roeser,M., Pacheco-Ferreira,H., Pedroso,L.R.M., Voss,L., Penna,S., Maciel,W. (2004) Health Impact Diagnosis Due to Gold Mining Activities in “Bloque B” at El Callao, Bolivar State, Venezuela. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p.352.
64. Beinhoff,C., **Veiga,M.M.**, Baker,R., Hinton,J. (2004). Removal of Barriers to the Introduction of Cleaner Artisanal Gold Mining and Extraction Technologies: The GEF/UNDP/UNIDO Global Mercury Project (GMP). 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 1, p. 570-574.
63. Castilhos,Z.C., Silva,L.C.P., Almosny,N., Rodrigues-Filho,S., Rodrigues,A.P., Villas-Bôas,R.C., **Veiga,M.M.,** Beinhoff,C. (2004). Biochemical and Hematological Parameters in Amazonian Fish from Aquatic Systems Affected by Gold Mining. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 2, p. 906-909.
62. Yallouz,A., Cesar,R., Rodrigues-Filho,S., Villas-Bôas,R.C., **Veiga,M.M.**, Beinhoff,C. (2004). Development of Semi-quantitative Method for Mercury Determination in Soils, Sediments and Small Gold Mining Residues. 7th International Conference of Mercury as a Global Pollutant. Ljubljana, Slovenia, June 27-July 2, 2004. *RMZ Materials and Geoenvironment*, v.51, Part 3, p. 2064-2067.

61. Otchere,F.A., **Veiga,M.M**., Hinton,J.J., Hamaguchi,R. (2002). Mining and Aquaculture: A Sustainable Venture. 26th Annual British Columbia Mine Reclamation Symposium, p. 191-203, Dawson Creek, BC, Sept. 9-13, 2002.
60. Richert, K., Lehmann,M., **Veiga,M.M.** (2002). Teaching ARD-Reclamation Techniques in High School. To be published at the 26th Annual British Columbia Mine Reclamation Symposium p. 121-128, Dawson Creek, BC, Sept. 9-13, 2002.
59. Sandoval,M.C., **Veiga,M.M.**, Sandner,S. (2002). An Integrated Sustainable Approach to a Placer Operation in the Lower Caroni River, Venezuela. Conference on Sustainable Mining in the 21st Century, Vancouver, BC, May 2-3, 2002 (abstract)
58 Otchere, F.A., Hinton, J.J., Gomez-Galindo,C., Afonso,L.O., Keen,P.L., **Veiga,M.M**. (2002). Mining and Aquaculture. Proceedings of the Conference on Sustainable Mining in the 21st Century, Vancouver, BC, May 2-3, 2002 (abstract)
57. Hinton,J.J., Odell,C., **Veiga,M.M**. (2002). Innovative Reclamation Methods. 104th Annual General Meeting of the Canadian Institute of Mining, Metallurgy and Petroleum. Vancouver Apr. 28-May 1, 2002.
56. Hinton,J.J., Rubio,E., **Veiga,M.M**., Scoble,M. (2002). Social and Environmental Aspects of the Block Caving Mining Method. 104th Annual General Meeting of the Canadian Institute of Mining, Metallurgy and Petroleum. Vancouver Apr. 28-May 1, 2002. (abstract)
55. Hinton,J.J., **Veiga,M.M**., Hodaly,A., Baldwin,S. (2001). Transforming Tailings Water Covers into Wetlands. 8th Annual BC Metal Leaching/ARD Workshop. Vancouver, Nov. 28-30, 2001.
54. Lussier,C., **Veiga,M.M.,** Baldwin, S. (2001). Geochemistry of Selenium Release from the Elk River Valley Coal Mines. 8th Annual BC Metal Leaching/ARD Workshop. Vancouver, Nov. 28-30, 2001.
53. Gunson, A.J. and **Veiga, M.M.** (2001). Mercury and Artisanal Gold Mines in China. 6th International Conference on Mercury as a Global Pollutant, p. 197. Minamata, Oct. 15-19, 2001 (abstract).
52. Hinton, J.J. and **Veiga, M.M.** (2001). Mitigation of Mercury Pollution in an Artisanal Gold Mining Community, Cachoeira do Piriá, Brazil. 6th International Conference on Mercury as a Global Pollutant, p. 197. Minamata, Oct. 15-19, 2001 (abstract).
51. **Veiga, M.M.** and Hinton, J.J. (2001). Methylation of Mercury-Organic Compounds by Earthworms 6th International Conference on Mercury as a Global Pollutant, p. 117. Minamata, Oct. 15-19, 2001 (abstract).
50. Roberts, S.A. and **Veiga, M.M.** (2001). Planning for Closure in the Post-industrial Age: A Proposed Framework for Building More Sustainable Mining Communities. 24th Annual British Columbia Mine Reclamation Symposium. p. 252-262. Campbell River, BC, Sept. 24-27, 2001.
49. Sandoval, M.C., **Veiga, M.M**., Hinton, J.J., Klein, B. (2001). Review of Bioindicators for Mine Effluents: Proposed Protocol for Earthworms. 24th Annual British Columbia Mine Reclamation Symposium. p. 67-79. Campbell River, BC, Sept. 24-27, 2001.
48. Roberts, S.A. and **Veiga, M.M.** (2001). Using Fuzzy Logic as a Decision Aid in the Identification of Indicators of Sustainability. of IPMM 2001 - 3rd International Conference on Intelligent Processing and Manufacturing of Materials, Vancouver, BC, Jul. 29-Aug. 3, 2001. CD-ROM
47. Gunson,A.J., **Veiga,M.M**., Meech,J.A. (2001). HgEx: Assessing the Risk of Mercury Pollution from Artisanal Gold Mines. 29th International Symposium on Computer Applications in the Minerals Industries: APCOM 2001. p. 745-750. Apr 25-27 2001 Beijing, China.
46. **Veiga,M.M**. and Hinton,J.J. (2001). Mercury Bioaccumulation by Aquatic Biota in Hydroelectric Reservoirs: Review and Consideration of the Mechanisms. I Intern. Forum on Mercury in Hydroelectric Reservoirs: Guri Case. Ciudad Bolivar. Venezuela. 15 p. May 17 - 19, 2001
45. Hinton, J.J. and **Veiga,M.M**. (2001). Mercury Contaminated Sites: A Review of Remedial Solutions. of the NIMD (National Institute for Minamata Disease) Forum 2001, p. 73-84, Minamata, Japan, Mar 19-20, 2001.
44. Silva,R.M., Sandoval,M.C., **Veiga,M.M.**, Hinton,J.J., Klein,B. (2000). Earthworms as Bioindicators of Acid Rock Drainage. 7th Annual BC Metal Leaching/ARD Workshop. Vancouver, Nov. 29-30, 2000.
43. Veiga, A.T. and **Veiga, M.M.** (2000). A Proposal for Rehabilitation of Degraded "Garimpo" Areas in the Amazon. of Iberoamerican Workshop on Mine-closure. 9 p. of Iberoamerican Workshop on Mine-closure. 24 p. CD ROM. Sponsored by CYTED. La Rabida, Huelva, Spain, Sept. 25-29, 2000 (in Portuguese).
42. Roberts,S., **Veiga,M.M**., Peiter,C.C., Sirotheau,G.J., Barreto,M.L., Ezequiel,G. (2000). Filling the Void: the Changing Face of Mine-Reclamation in the Americas. of Iberoamerican Workshop on Mine-closure. 24 p. CD ROM. Sponsored by CYTED. La Rabida, Huelva, Spain, Sept. 25-29, 2000.
41. **Veiga,M.M.**, Klein,B., Sandoval,M.C. (2000). Environmental Aspects of Laterites. Workshop on Extracting Gold from Lateritic Ores. 138 slides (ppt) in CD ROM. CYTED/CETEM, Rio de Janeiro, Jul. 3 - 7, 2000
40. Hinton,J.J. and **Veiga,M.M.** (2000). Earthworms as Bioindicators of Mercury Pollution. International Conference on Heavy Metals in the Environment. 4p. CD ROM. Ann Arbor, Michigan, Aug 6-10, 2000.
39. **Veiga,M.M.,** McAllister,M.L., Scoble,M. (2000). Mining with Communities. of Mining Millenium 2000, PDAC/CIM Conference, Toronto, Mar. 5-10, 1999. (abstract in CD-ROM)
38. **Veiga,M.M.**, Hinton,J.J., Lilly,C. (1999). Mercury in the Amazon: A Comprehensive Review with Special Emphasis on Bioaccumulation and Bioindicators. of the NIMD (National Institute for Minamata Disease) Forum'99, p. 19-39, Minamata, Japan, Oct. 12-13, 1999.

37. Veiga,S.M.B., **Veiga,M.M.**, Chaklader,A.C.D., Bressiani,J.C. (1999) A New Process to Produce Advanced Zirconia-bases Ceramic Composites from Low-value Minerals. of IPMM'99 - 2nd Int. Conf. on Intelligent Processing and Manufacturing of Materials, v.2, p. 797-804, Honolulu, Hawaii, Jul. 10-15, 1999.
36. Ghomshei,M.M., Bolorunduro,S.A., Keen,P.L., **Veiga,M.M.** (1999). Bio-kinetics in Mercury Pollution Studies: a Holistic Approach to Mercury Liberation and its Toxicity. 5th International Conference on Mercury as a Global Pollutant. p. 225, Rio de Janeiro, May 23-28, 1999 (abstract).
35. Davidson,J. and **Veiga,M.M.** (1999). Developing Strategies for Mercury Abatement in a Zone of Uncontrolled Mercury Use: Km 88 District, Venezuela. 5th International Conference on Mercury as a Global Pollutant. p. 493, Rio de Janeiro, May 23-28, 1999 (abstract).
34. **Veiga,M.M**., Meech, J.A., Beinhoff, C.A. (1999). Mercury in Artisanal Gold Mining: Myths, Facts and Solutions. 5th Int. Conference on Mercury as a Global Pollutant. p. 497, Rio de Janeiro, May 23-28, 1999 (abstract).
33. Quik,J.A.M., **Veiga,M.M**., Healy,C, de Kom,J.F.M., Silva,M.N. (1999). Mercury Pollution and Endangerment of Indigenous Communities Resulting from Gold Mining in Suriname: a Proposal for Abatement. 5th International Conference on Mercury as a Global Pollutant. p. 183, Rio de Janeiro, May 23-28, 1999 (abstract).
32. Veiga, A.T.C., Salomão, E.P., **Veiga,M.M**., Barros,J.G.C. (1999). Tapajós Project – a Proposal for a Clean "Garimpagem" in the Brazilian Amazon. 5th International Conference on Mercury as a Global Pollutant, p. 291, Rio de Janeiro, May 23-28, 1999 (abstract).
31. Bermudez,D.T.and **Veiga,M.M.** (1999). Mercury Pollution from Artisanal Gold Mining Operations in Guayana Region, Venezuela. 5th International Conference on Mercury as a Global Pollutant, p. 486, Rio de Janeiro, May 23-28, 1999 (abstract).
30. Meech, J.A. and **Veiga,M.M.** (1998). An Intelligent System for Artisanal Gold Miners using Amalgamation. 100th AGM of CIM, Montreal, Quebec, pp.8. (proceedings in CD-ROM)
29. **Veiga, M.M.** and Meech,J.A., (1997). Fuzzy-neural Systems for Adaptive Reasoning on Environmental Risk Analysis. MineIT '97, First International Symposium on Information Technologies in the Mineral Industry via the Internet, organized by G. Panagiotou, Dec. 1-12, 1997, CyberSpace and Athens, Greece, 10 HTML pages.
28. Meech,J.A. and **Veiga,M.M.** (1997). Predicting the Impact of Mercury Pollution with a Fuzzy Expert System. 97-IEEE Int. Conf. on Systems, Man and Cybernetics, v. 2, p. 1056-1061, Orlando, Florida, Oct. 12-15.
27. Meech,J.A. and **Veiga,M.M.** (1997). Artificial Intelligence for Artisanal Miners. IPMM'97, Australasia-Pacific Forum on Intelligent Processing and Manufacturing of Materials, Gold Coast, Australia, v.1, p. 268-275, July 14-17, 1997,
26. **Veiga,M.M.** (1997). Mercury in Artisanal Gold Mining in Latin America: Facts, Fantasies and Solutions. Expert Group Meeting on Artisanal Mining, UNIDO, Vienna, Austria, July 1-3, 1997. 27p.
25. **Veiga,M.M.** and Meech,J.A. (1995). A fuzzy Model for Risk Assessment. of 1995 IEEE Int. Conf. Systems, Man & Cybernetics, p.1640-1643, Vancouver, Oct. 22-25, 1995.
24. **Veiga,M.M.** and Meech, J.A. (1995). A Brief History of Amalgamation Practices in the Americas. 16th Brazilian Symp. on Mineral Processing and Hydrometallurgy. vol 1, p.581-594. Rio de Janeiro, Sept. 17-22, 1995.
23. Meech,J.A., **Veiga,M.M.**, Tromans,D. (1995). Mercury Emissions and Stability in the Amazon Region. Int. Symp. Waste Processing & Recycling in Mineral and Metallurgical Industries II. 34th Annual Conference of Metallurgist, Metallurgical Society of CIM, p.523-537, Vancouver, Aug. 20-24, 1995.
22. Veiga,S.M.B., **Veiga,M.M.**, Chaklader,A.C.D., Bressiani,J.C. (1995). Synthesis of Al_2O_3, SiC and ZrC from Kaolinite and Zircon. Int. Symp. Advanced Ceramics for Structural and Tribological Applications. 34th Annual Conference of Metallurgist, Metallurgical Society of CIM, p.107-116. Vancouver, Aug. 19-24, 1995.
21. **Veiga,M.M.** and Meech,J.A. (1995). An Adaptive Fuzzy Model for Risk Assessment of Mercury Pollution in the Amazon. 6th Int. Fuzzy Systems Assoc. World Congress. vol. 1, p. 489-492. São Paulo, July 22-28, 1995.
20. Veiga,S.M.B., **Veiga,M.M.**, Chaklader,A.C.D., Bressiani,J.C. (1995). Quantitative X-ray Diffraction Analysis of Al_2O_3-SiC-ZrC in ceramic composites. 39th Congr. of Brazilian Ceramic Society. vol. 2, p.900-905. Águas de Lindóia, SP, June 10-13, 1995 (in Portuguese).
19. Ferreira,N.S. and **Veiga,M.M.** (1995). Control of Mercury Bioavailability by Sediment Adsorption. Eco Urbs' 95, p.53-55. Rio de Janeiro, June 19-23, 1995.
18. **Veiga,M.M.**, Veiga,A.T., Franco,L.L., Bonagamba,M. Meech,J.A. (1995). An Integrated Approach to Mercury-contaminated Sites. Eco Urbs' 95, p.51-53. Rio de Janeiro, June 19-23, 1995.
17. **Veiga,M.M.** and Meech,J.A. (1994). Application of fuzzy logic to environmental risk assessment. 4th Meeting of the Southern Hemisphere on Mineral Technology, p. 355-370. Concepcion, Chile, Nov. 20-23, 1994.
16. **Veiga,M.M.** and Meech,J.A. (1994). Heuristic Approach to Mercury Pollution in the Amazon. International Symposium on Extraction and Processing for the Treatment and Minimization of Wastes, p.23-38. 123rd Congress of TMS, The Mineral, Metals and Materials Society, S. Francisco, CA, Feb. 27-Mar. 3, 1994.
15. Meech,J.A, **Veiga,M.M.** and Hypolito,R. (1993). Remedial Procedures for Hg Pollution from Gold Mining Activities in the Amazon: II. Educational Measures. Randol '93, p.175-181. Acapulco, Mexico, Oct. 25 -27.
14. **Veiga,M.M.** and Meech,J.A. (1993). Remedial Procedures for Mercury Pollution from Gold Mining Activities in the

Amazon: I. a Review of Clean-up Techniques. Randol '93, p. 169-174. Acapulco, Mexico, Oct. 25 -27.

13. **Veiga,M.M.** and Lins,F.F. (1992). Fine Gold Recovery with a New Centrifuge - Falcon. 3rd South Hemisphere Symp. on Min. Tech., part A, vol. 1, p. 477-489. São Lourenço, Minas Gerais, Sept. 13-16, 1992 (in Portuguese).
12. **Veiga,M.M.** and Meech, J.A. (1992). Expert System for Risk Assessment of Mercury Discharge from Gold Mining Operations. 31st Annual Conference of Metallurgist, Metallurgical Society of Canadian Institute of Mining, Metallurgy and Petroleum, p.107-118. Edmonton, Aug. 23-27, 1992.
11. Manzoni, C. and **Veiga, M.M.** (1991). Vanadium Extraction from Used Catalysts. Seminar on Recovery of Wastes from Metallurgical Industry, p. 211-224, São Paulo, SP, Nov. 20-22, 1991, published by ABM (Brazilian Association of Metals) (in Portuguese).
10. **Veiga,M.M.** and Fernandes,F.R.C. (1990). Poconé: an Opportunity for Studying the Environmental Impact of the Gold Fields. 1st International Symposium on Environmental Studies on Tropical Rain Forests (Forest' 90) p.185-194. Manaus, Amazonas, Oct. 7-14, 1990. Also available in Portuguese in: *Série Tecnologia Ambiental*, n.1, p.1-25, Ed. Veiga & Fernandes. Edited by CETEM/CNPq, Rio de Janeiro, 1991.
9. Paschoal, J.O.A., **Veiga,M.M.**, Afonso,A. (1990). Raw Materials for Advanced Ceramics. 14th Brazilian Symp. on Mineral Processing and Hydrometallurgy, v. 2, p.1150-1166, Salvador, Bahia, Sept. 9-12, 1990 (in Portuguese).
8. Soares,P.S.M., Cassola,M.S., **Veiga,M.M**., Schorscher,J.H.D. (1990). Characterization of Gold Ores by Mineral Processing Techniques. of the MAC-ICAM Int. Symp. on Applied Mineralogy, in: Process Mineralogy IX, p.241-246, Montreal, Mar. 14-17, 1989, . Ed. by W.Petruk et al., TMS Publication.
7. **Veiga,M.M**., Soares,P.S.M., Silva,A.P., Alvarinho,S.B. (1989). Current and Potential Brazilian Market of Advanced Ceramics. 1st Florida-Brazil Seminar on Materials, 16p., Rio de Janeiro, Aug. 2-4, 1989, (in Portuguese).
6. Soares,P.S.M., Cassola,M.S., **Veiga,M.M.** (1988). A Methodology for Technological Gold Ore Characterization. 13th Brazilian Symp. on Mineral Processing and Hydrometallurgy, v.1, p. 263-278. São Paulo, Sept. 26-29, 1988 (in Portuguese).
5. **Veiga,M.M.** and Assaz,G. (1987). Raw Materials for Special Metals and Alloys. Meeting on Trends and Perspectives of the New Materials, p.97-114. São Paulo, SP, Jul. 15, 1987, published by ABM (Brazilian Association of Metals) (in Portuguese).
4. **Veiga,M.M.** and Kishida,A. (1985). A Stoichiometric Method to Obtain Mineralogical Composition of 3 Samples from Kerr-Addison Mine, Canada. 11th Brazilian Symposium on Mineral Processing and Hydrometallurgy, v.I, p.235-246. Natal, Rio Grande do Norte, Oct. 23-25, 1985 (in Portuguese).
3. **Veiga,M.M.** and Pietroluongo,L.R.V. (1985). A Simple Procedure to Obtain Colored X-ray Images in the Scanning Electron Microscope. 10th Brazilian Meeting of Electron Microscopy Society, São Paulo, Sept. 1-6, 1985, (abstract - Portuguese).
2. **Veiga,M.M.** and Schorscher,J.H.D. (1982). Characterization of Copper-Hydrous Ferric Oxides Relationship in the Weathered Copper Ore from Carajas, Maraba, PA. 1st Meeting Southern Hemisphere on Mineral Technology, v.I, p.606-613. Rio de Janeiro, Dec. 5-10, 1982 (in Portuguese).
1. **Veiga,M.M.** and Horn Filho,F.X (1980). Characterization and Processing of Diatomites from the State of Ceará. 4th Brazilian Congress on Engineering and Materials Science, paper C-04, p.495-503. Camboriu, Santa Catarina, Dec. 15-17, 1980 (in Portuguese).

Books and chapters in books

25. **Veiga,M.M**. and Delgado-Jimenez,A.J. (2024). Can Small Mining Be Beautiful?' *In*: Heavy Metal: Earth's Minerals and the Future of Sustainable Societies, p. 117-126. Ed. P.D. Tortell. Cambridge, UK: Open Book Publishers, 2024, https://doi.org/10.11647/OBP.0373 (chapter in book).
24. Enriquez,M.A., **Veiga,M.M**., Loureiro,J.G.G. (2022). Mining Cities and Sustainable Development. *In*: Routledge Handbook of the Extractive Industries and Sustainable Development. Ch. 24. p. 460-479. Editors: N. Yakovleva, E. Nickless. Routledge, Abington, UK, 704 p, ISBN 9780367429959 (chapter in book).
23. **Veiga,M.M.** and Correa, M, (2019). Alternative Technologies for Processing Gold in Artisanal Mining. Pub. Canadian Foreign Affairs, Ed. Agriteam and Comunica Project. Bogotá, Colombia. 89p. ISBN 978-958-56865-3-3. https://comunicacolombia.co/images/recursos/libro_mercurio.pdf (in Spanish)
22. Kiefer,A., Drace,K., Seney,C., **Veiga,M.M.** (2015). Challenges Associated with Using Retorts to Limit Mercury Exposure in Artisanal and Small-scale Gold Mining: Case Studies from Mozambique, Ecuador and Guyana. *In:* Trace Materials in Air, Soil, and Water. Chapter 3, p 51-77. Editors:K.R. Evans, E.S. Roberts-Kirchhoff, M.A. Benvenuto, K.C. Lanigan, A. Rihana-Abdalla. v. 1210. American Chemical Society Symp. Series. Oxford Univ Press. 240pp.
21. Silva,A.C.A., Costa,S.D., **Veiga,M.M.** (2011). Drivers of Conflict around Large Scale Mining Activity in Latin America: The Case of the Carajás Iron Ore Complex in the Brazilian Amazon. *In*: Governance Ecosystems: Corporate Social Responsibility in Latin American Mining Sector. Editors J.Sagebien, N.Lindsay. Palgrave Macmillan, UK, p.154-169.
20. Telmer,K. and **Veiga,M.M.** (2009). World emissions of mercury from small scale artisanal gold mining and the

knowledge gaps about them. In: Mercury Fate and Transport in the Global Atmosphere: Measurements, Models and Policy Implications. Editors N.Pirrone, R.Mason. Ch. 6. p. 131-172. ISBN: 978-0-387-93957-5. Springer Science+Business Media (chapter in book)

19. Hinton,J.J., Hinton,B.E., **Veiga,M.M.** (2006). Women in Artisanal and Small-scale Mining in Africa. In: Women Miners in Developing Countries. Editors L.Lahiri-Dutt, M.MacIntyre. Ch. 10. p. 209-225. ISBN-10:0 7546 4650 5. Ashgate Pub., Hants, UK. (chapter in book)
18. **Veiga,M.M**., Metcalf,S., Baker,R.F., Klein,B., Davis,G., Bamber,A., Siegel,S., Singo,P. (2006). Manual for Training Artisanal and Small-scale Gold Miners. Pub. GEF/UNDP/UNIDO Global Mercury Project. Vienna, 146p. (book)
17. **Veiga,M.M**., Bermudez,D., Pacheco-Ferreira,H., Pedroso,L.R.M., Gunson,A.J., Berrios,G., Vos,L., Huidobro,P., Roeser,M. (2005). Mercury Pollution from Artisanal Gold Mining in Block B, El Callao, Bolívar State, Venezuela. In: Dynamics of Mercury Pollution on Regional and Global Scales, Atmospheric Processes and Human Exposures around the World. p. 421-450. Editors N.Pirrone, K.R.Mahaffey. ISBN: 0-387-24493-X, July 2005, Springer, Norwell, MA, USA (chapter in book)
16. **Veiga,M.M.** and Baker, R. (2004). Protocols for Environmental and Health Assessment of Mercury Released by Artisanal and Small-scale Gold Miners. Published by GEF/UNDP/UNIDO Global Mercury Project. Vienna. 289p, ISBN 92-1-106429-5, (book). https://iwlearn.net/resolveuid/617e8a7184a7ec1e292a61c2319dc30f
15. Farias, R.A., **Veiga,M.M.**, Villas Boas, R.C., Hacon, S. (2003). Fish Farming: A Possible Sustainable Viability for Areas Impacted by Artisanal Mining Activities. *In*: Pequeña Mineria y Mineria Artesanal en Iberoamerica. p. 97-110. Editors R.Villas Boas, A,M.Aranibar. Pub. CETEM/CYTED/CONACYT (chapter in book in Portuguese).
14. Hinton,J.J., **Veiga,M.M**., Beinhoff, C. (2003). Women and Artisanal Mining: Gender Roles and the Road Ahead. Chapter 11 – p. 161-203. *In:* The Socio-Economic Impacts of Artisanal and Small-Scale Mining in Developing Countries. Editor G.Hilson. Pub. A.A. Balkema, Swets Publishers, Netherlands (chapter in book).
13. Meech,J.A., **Veiga,M.M**., Kawazoe,Y, LeClair,S.R. (Eds) (2002). Intelligence in a Materials World. CRC Press LLC, Boca Raton, Florida, November, 2002, ISBN: 0-8493-1493-3, 952 p.
12. **Veiga,M.M.,** Silva,A.R.B., Hinton,J.J. (2002). Technical, Social and Environmental Aspects of Artisanal Gold Mining in the Amazon Region. Chapter 11, p. 277-306. *In*: Extração de Ouro - Princípios, Tecnologia e Meio Ambiente. Editors R.B.E.Trindade, O.Barbosa Filho. Pub. CETEM/CNPq, Rio de Janeiro, Brazil ISBN 85-7227-150-3 (chapter in book in Portuguese).
11. Roberts,S., **Veiga,M.M.**, Peiter,C.C. (2000). Overview of Mine-closure and Reclamation in the Americas. Bibliographic review on mine-closure and reclamation. Database in Access with 3000 entries and Executive Summary 79 pages. Published and sponsored by MPRI - Mining Policy Research Initiative of the International Development Research Centre (IDRC). Oct. 2000.
10. Roberts,S., **Veiga,M.M**., Peiter,C.C., Sirotheau,G.J., Barreto,M.L., Ezequiel,G. (2000). Filling the Void: the Changing Face of Mine-Reclamation in the Americas. *In*: Mine Closure: Iberoamerican Experiences, p.1-23. Editors R.Villas-Boas, M.L.Barreto. Pub CYTED-IMACC/UNIDO, Rio de Janeiro.456 p.
9. **Veiga,M.M.** and Meech,J.A. (1999). Reduction of Mercury Emissions from Gold Mining Activities and Remedial Procedures for Polluted Sites. In: Environmental Impacts of Mining Activities. Chapter 10. p.143- 162. Editor J.M. Azcue. Berlin, Springer-Verlag (chapter in book).
8. **Veiga,M.M.** (1997). Introducing New Technologies for Abatement of Global Mercury Pollution in Latin America. Published by UNIDO/UBC/CETEM. Rio de Janeiro, 94p. ISBN: 85-7227-100-7. (book). http://artisanalmining.org/Repository/02/The_GMP_Files/processed%20files%20-%20iwlearn.net/Reports%20%28by%20country%29/introducing-new-technologies-for-abatement-of-global-mercury-pollution-in-latin-america.pdf
7. **Veiga,M.M.** (1992). Mineralogical aspects. In: Aspectos Diversos da Garimpagem de Ouro. Editor F.A.F.Lins. *Serie Tecnologia Mineral*, n.54, p.15-30. Published by CETEM/CNPq, Rio de Janeiro (chapter in book in Portuguese).
6. Silva,A.P. & **Veiga,M.M.** (1992). Mercury in Poconé Goldfields: Other Technocratic Villain. In: Garimpo, Meio Ambiente e Sociedades Indígenas. Editors L.Barbosa,L., A.L.Lobato, J.A.Drummond. Pub. CETEM/EDUFF - Ed. Univ. Fluminense, Niterói, p.43-48 (chapter in book in Portuguese).
5. Silva,A.P., Silva,E.C., Oliveira,E.F., Silva,G.D., Padua,H.B., Pedroso,L.R.M., **Veiga,M.M.,** Ferreira,N.L.S., Osaki, S.K. (1991). Biogeochemical Studies on Mercury in the Aquatic Environment of Poconé. In: Poconé: um Campo de Estudos do Impacto Ambiental do Garimpo. Editors M.M.Veiga, F.R.C.Fernandes. Pub. CETEM/CNPq, Rio de Janeiro, p.61-83 (chapter in book in Portuguese).
4. **Veiga,M.M.** and Fernandes,F.R.C. (1991). General Aspects of the Poconé Project. In: Poconé: Um Campo de Estudos do Impacto Ambiental do Garimpo. Editors M.M.Veiga, F.R.C.Fernandes. Pub. CETEM/CNPq, Rio de Janeiro, p.1-25 (chapter in book in Portuguese).
3. **Veiga,M.M.** & Paschoal,J.O.A. (1991). Panorama of the Brazilian Sector of Materials and its relationship with Mining: contributions for R&D programmes. *Serie Estudos e Documentos*, n.16. Published by CETEM/CNPq, Rio de Janeiro, 126 p. (book in Portuguese). ISBN 857227-014-0.
2. Engineering Companies in the Brazilian Mining Sector. Participation in the book elaboration. Published by Ministry of Mining & Energy. Brasilia, 1984. 277 p (book in Portuguese)

1. Lastres,H.M.M., Fellows Filho,L., **Veiga,M.M**., Soares,M.C.C., Perim,C.A., Damião,F.N. (1983). Technological and Scientific Potential of the Brazilian Mineral Sector. Published by CNPq, Brasilia, 324p. (book in Portuguese).

Further training programs:

May 4-7, 1993: Fuzzy Expert Systems. Short course with L. Zadeh, J. Meech, C.A.Harris. Richmond, BC.

Jan-Dec, 1992: As a visiting scholar at the Univ. British Columbia, Dept. Mining and Mineral Process Eng., Vancouver, BC - with Dr. John A. Meech - Expert Systems, Fuzzy Logic Applications.

Mar-Jul, 1984: Visiting researcher at the Univ. of Western Ontario, Dept.Geology, London Ontario - with Dr.W.S.Fyfe. Instrumental Geochemical Analysis applied to Environmental Geochemistry.

Patents in Brazil:

- "Process for synthesis of alkaline metal dichloroisocyanurates"
- "Process for producing trichloroisocyanuric acid"
- "Process for producing high grade cyanuric acid"
- "Process to manufacture sodium cyanide from urea"

Awards:

- Killam Teaching Prize (UBC best teacher), UBC, May 2012
- Top 25 Canadian Immigrant, 2009. – Canadian Immigrants Magazine
- CIM - Canadian Institute of Mining, Metallurgy and Petroleum - Distinguished Lecturer 2002-2003
- CIM - Canadian Institute of Mining, Metallurgy and Petroleum - winner of the graduate student contest with the work: "Mercury Transformations in the Natural Environment" (Feb. 1994).
- George E. Winkler Memorial Scholarship, in recognition of academic achievements (Dec. 1993)