

International Symposium on Flotation



Program



MULTIMINE

APPROCHES MULTI-ÉCHELLES POUR LA SÉPARATION DES MINÉRAUX

Monday – April 27th

08:45 – 9:25 *Welcome of attendees, coffee*

09:25 – 9:50 *Conference opening*

09:50 – 10:10 **Jean-Marc Montel, Université de Lorraine, France**
A Brief History of Mining Activities in Lorraine

Flotation Experiments Session

10:10 – 10:40 **Pshem Kowalczyk, NTNU, Norway**
Frothers in Flotation: What We Know, What We Measure, and Why Choice Is Still Empirical

10:40 – 11:00 *Coffee Break*

11:00 – 11:20 **Sascha Heitkam, Dresden University of Technology, Germany**
Stereo photogrammetry for non-invasive froth height monitoring in flotation processes

11:20 – 11:40 **Fatima Baila, Ibn Zohr University, Morocco**
Experimental and multivariate investigation into the enhancement and selective recovery of mica minerals by flotation

11:40 – 12:00 **Hammad Farooq, NTNU, Norway**
Selective flotation of graphite from black mass via solvent-based PVDF removal to tune surface chemistry

12:00 – 12:20 **Luis Cisternas, Universidad de Antofagasta, Chile**
Design and Optimisation of Lithium mineral concentration Circuits through Simulation and Global Sensitivity Analysis

12:20 – 14:00 *Lunch*

14:00 – 14:30 **Juliette Lainé, ArcelorMittal Global R&D, France**
From Lab to Circuit: Optimizing Iron Ore Flotation via Kaolinite Floc-Flotation

14:30 – 14:50 **Gabriella Lorena Costa Correa, Université de Lorraine, France**
Hematite and quartz coagulation study for floc-flotation applications using coagulants in iron ore ultrafine fractions

14:50 – 15:10 **Huu-Duong Hoang, Maelgwyn Mineral Services, Germany & UK**
Enhanced Recovery of Fine and Ultrafine Particles from Copper and Gold Tailings Using Pneumatic Imhoflot Cells

- 15:10 – 15:30** **Ebuka Chukwuma, McGill University, Canada**
Investigating the role of Orfom® D8 in the Depression of Chalcopyrite in its Separation from Molybdenite – application to water types
- 15:30 – 16:00** **Coffee Break and poster installation**
- 16:00 – 16:20** **Romina Murga Moraga, Universidad de Talca, Chile**
Evaluation of the use of cellulose-base nanoparticles as a collector in the flotation of copper sulphides in the presence of montmorillonite
- 16:20 – 16:40** **Elenice Maria Schons Silva, Federal University of Catalão, Brazil**
Flotation of a Sulphide Gold Ore With High Amounts of Fine Particles
- 16:40 – 17:30** *Flash oral presentations (10)*
- 17:30 – 18:00** *Poster session*
- 18:00 – 20:00** *Poster session continued & Welcome Cocktail*

Tuesday – April 28th

Hydrodynamics of flotation

- 08:30 – 09:00** *Welcome of attendees*
- 09:00 – 09:30** **Kristian Water, McGill University, Canada**
Gas dispersion: Past, Present and Future
- 09:30 – 09:50** **Till Zürner, HZDR, Germany**
Evolution of local bubble characteristics in a pressurised pneumatic flotation cell
- 09:50 – 10:10** **Jeffrey Opoku, McGill University, Canada**
Visualizing Oxygen Transfer and Wake Dynamics Around Single Bubbles in Frother-Modified Systems
- 10:10 – 10:30** **Mark Lepage, McGill University, Canada**
Shaping flotation bank kinetics using gas dispersion: a modelling approach
- 10:30 – 11:00** *Coffee Break*
- 11:00 – 11:20** **Jan Zawala, Jerzy Haber Inst. of Cat. and Surf. Chemistry, Poland**
Kinetics of air bubble attachment to hydrophobic solid surfaces – experiment and modelling

- 11:20 – 11:40** **Lucas Pereira, HZDR, Germany**
Distinguishing the contribution of true flotation and entrainment on the recovery of individual particles of a complex ore
- 11:40 – 12:00** **Zhou Ruoqian, HZDR, Germany**
Investigation of Turbulence Characteristics and Bubble Breakup in Colliding-Jets Using LES-VOF Simulations
- 12:00 – 12:20** **Berivan Tunç, Metso Finland Oy, Finland**
The Role of Blast Tube Residence Time in Optimizing Concorde Cell™ Flotation Performance
- 12:20 – 14:00** *Lunch*
- 14:00 – 14:30** **Pablo Brito-Parada, Imperial College of London, UK**
Going with the flow – from flotation hydrodynamics to enhanced performance
- 14:30 – 14:50** **Mathilde Perrin, CEA Liten, France**
Comprehensive study of black mass flotation to improve selectivity
- 14:50 – 15:10** **Saeed Chelgani, Luleå University of Technology, Sweden**
MAGFLO as a sustainable approach for the flotation recycling of black mass
- 15:10 – 18:00** *Visit of the UL mineral processing & pilot plant facilities STEVAL*

Wednesday – April 29th

Surface Chemistry of Flotation

- 08:30 – 09:00** *Welcome of attendees*
- 09:00 – 09:30** **Yann Foucaud, Université de Lorraine, Nancy, France**
Gaining understanding in surface chemistry of froth flotation: when modelling meets experiments
- 09:30 – 09:50** **Rubén Soria Martínez, Université de Lorraine, France**
Stepwise Self-Assembly monolayer of Sodium Oleate on (111) Fluorite: Insights from Molecular Dynamics Simulations
- 09:50 – 10:10** **Ali Asimi Neisiani, University of São Paulo, Brazil**
Propyl Gallate as a Green Collector for Fluorite-Calcite Flotation: A DFT Study of Selective Adsorption Mechanisms

- 10:10 – 10:30** **Helmi Fairuz Kalahari, McGill University, Canada**
Surface Chemistry Investigation of Disodium Carboxymethyl Trithiocarbonate (Orfom D8) in Chalcopyrite-Molybdenite Flotation: Depressing Behaviour and Adsorption Mechanism
- 10:30 – 11:00** *Coffee Break*
- 11:00 – 11:20** **Sana Abbas, Sultan Moulay Slimane University, Morocco**
Modelling Interfacial Interactions for Enhanced Fine Particle Flotation
- 11:20 – 11:40** **Espoir Murhula, Queen's University, Canada**
Flowsheet Development and Selective Flotation of Lithium Minerals from the Moose II Pegmatite, Northwest Territories
- 11:40 - 12:00** **Anass Oulakhir, UM6P, Morocco**
Bio-based innovations in mineral processing: sustainable reagents for phosphate enrichment by flotation process
- 12:00 – 12:20** **Agata Wiertel-Pochopien, J. H. Inst. of Cat. and Surf. Chem., Poland**
Stability of wetting films in the presence of polymeric particles as flotation collectors
- 12:20 – 14:00** *Lunch*
- 14:00 – 14:30** **Belinda McFadzean, University of Cape Town, RSA**
Thermochemical Insights into Flotation Surface Processes
- 14:30 – 14:50** **Christopher Bacchieri, Université de Lorraine, France**
Assessment of collector efficiency for phosphate flotation: from technical solution to adsorption mechanism
- 14:50 – 15:10** **Jean Wilfried Hounfodji, Université de Lorraine, France**
Theoretical and experimental investigation of calcium ions adsorption on quartz surfaces
- 15:10 – 15:30** **Amal Abbou, UM6P, Morocco & Université de Lorraine, France**
Cationic Quartz Flotation in Ion-Rich Media: Effects of Water Chemistry and Mitigation Strategies
- 15:30 – 16:00** *Coffee Break*
- 16:00 – 16:20** **Justin Paris, McGill University, Canada**
Sustainable Flotation of Sulphide Ores by Cashew Nutshell Liquid
- 16:20 – 16:40** **Yesica Botero, Université de Lorraine, France**
Investigating the oxidation mechanisms of collector-activated pyrite through advanced surface analysis techniques and computational modelling

- 16:40 – 17:00** **Petra Berin-Costain, Queen's University, Canada**
Pyrochlore flotation with benzohydroxamic acid: Strategies for reducing collector dosage with response surface methodology
- 20:00** **GALA DINER**

Thursday – April 30th

Flotation of iron ore

- 09:00 – 09:30** **Josué Mesquita, ArcelorMittal Global R&D, France**
A Century of Bubbles: The Historical Evolution of Iron Ore Flotation
- 09:30 – 09:50** **Lev Filippov, Université de Lorraine, France**
Improved flotation of complex iron ore minerals using mixed cationic collectors with reduced starch dosage
- 09:50 – 10:10** **Nubia Bottosso, ArcelorMittal Global R&D, France**
Flowsheet Optimization for Premium Magnetite Concentrates Targeting DRI Production
- 10:10 – 10:30** **André Carlos Silva, Federal University of Catalão, Brazil**
Iron Ore Flotation Test In a Bench Scale Pneumatic Flotation Cell
- 10:30 – 11:00** *Coffee Break*
- 11:00 – 11:20** **Anatole Bordey, Université de Lorraine, France**
Organo-silane compounds as novel collectors for selective quartz flotation in iron ore beneficiation
- 11:20 – 11:40** **Claudia Johanna Beltran, Université de Lorraine & ArcelorMittal Global R&D, France**
Selective recovery of zinc and iron from electric arc furnace dust by froth flotation
- 11:40 – 12:00** *Conference closure*
- 12:00 – 13:30** *Lunch*
- 13:30 – 18:00** *Discovery of Nancy*