

Preliminary Technical Program

Beneficiation of Phosphates X

An ECI Conference Series

November 2 – 8, 2025

Hanoi, Vietnam

Chair

Dr. Patrick Zhang

**FIPR Industrial and Phosphate Research Institute
Florida Polytechnic University**

Co-Chairs

Phong Vo
Ardaman & Associates USA

Erika Rova
Yara Suomi Oy, Finland

André Carlos Silva
Federal Univ. Catalão, Brazil

Ewan Wingate
Bechtel Australia, Australia

Ruan Chi
Hubei Three Gorges Lab, China

Trong Dang-Vu
SNF, Canada



Engineering Conferences International
32 Broadway, Suite 314 - New York, NY 10004, USA
Phone: 1 - 212 - 514 – 6760
www.engconfintl.org – info@engconfintl.org

Sunday, November 2, 2025

17:00 – 18:00	Registration
18:00 – 19:00	Welcome Reception
19:00 – 21:30	Dinner

Monday, November 3, 2025

07:00 – 08:30	Breakfast
08:30 – 08:40	<u>Welcoming Remarks</u> Dr. Nga Nguyen, Hanoi University of Mining and Geology, Vietnam
08:40 – 08:50	<u>Opening Remarks</u> Patrick Zhang, FIPR Institute, Florida Polytechnic University, USA
08:50 – 09:00	<u>ECI & Vital Conference Information</u> Kevin Korpics, ECI, USA
09:00 – 9:30	Keynote One André Carlos Silva, Federal University of Catalão (UFCAT), Brazil
09:30 – 12:05	<i>Session I. Flotation I</i> Session Co-chairs, TBD
09:30 – 09:55	Flotation of coarse and fine phosphate Yoav Zuk, BASF SE, Country: Germany
09:55 – 10:20	The silicon removal from collophane using double reverse flotation process enhanced by novel compound cationic collector Dongping Tao, Shandong University of Technology, Zibo, China
10:20 – 10:50	Coffee Break
10:50 – 11:15	Comparative assessment of wide versus discrete size fractions - the Crago Process for the upgrade of sedimentary phosphate ore Ashma Singh, Mintek, South Africa
11:15 – 11:40	Effect of Change In %Solids on Upgrade Performance Of Sedimentary Phosphate Nichole Maistry, Mintek, South Africa
11:40 – 12:05	Synthetic collector to counteract the adverse effects of dissolved ions in apatite flotation André Soares Braga, BASF, Brazil
12:05 – 13:30	Lunch
14:00 – 17:40	<u>Session II: Recovery of Critical Materials</u> Session Co-Chairs: TBD
14:00 – 14:25	Behaviour of rare earth metals in Estonian phosphate rock enrichment system by varying residence time and collector dose Kadriann Tamm, Tallinn University of Technology, Estonia
14:25 – 14:50	Characterization Harnessing Vanadium from Jordan Phosphate Rocks: a Pathway to Sustainable Battery Energy Storage Mohammad Al-Hwaiti, Al-Hussein Bin Talal University, Jordan
14:50 – 15:15	Ecological Extraction of Rare Earth Elements from Moroccan Phosphogypsum: a Multi-step Approach Mansouri Said, Mohammed VI Polytechnic University, Morocco
15:15 – 15:45	Coffee break
15:45 – 16:10	Upgrading and valuable extractions from Jordanian phosphate slime Salah Althyabat, Al-Hussein Bin Talal University, Jordan

Monday, November 3, 2025 (continued)

16:35 – 17:00	Processing Flowsheet for REE Recovery from Phosphoric Acid Sludge Patrick Zhang, FIPR, Florida Poly, USA y
17:00 – 17:25	TBD
19:00 – 20:30	Dinner
20:30 – 21:30	Social Hour

Tuesday, November 4, 2025

07:00 – 08:30	Breakfast
08:30 – 11:50	<u>Session III: Phosphogypsum Management and Utilization</u> Session Co-Chairs: TBD
08:30 – 09:00	Case Study – Phosphogypsum Management - Do It Smartly & Avoid Disaster Herbert Donica, Donica Receivership Services, LLC, USA
09:00 – 09:30	Current status of research and use of Phosphogypsum (PG) in Vietnam: A preliminary case study to orient processing technology Thanh-Hai Pham, Hanoi University of Mining and Geology, Vietnam
09:30 – 09:55	Conversion of Phosphogypsum into Calcium Carbonate Haijun Liang, Florida Industrial & Phosphate Research Institute / Florida Poly, USA
09:55 – 10:25	Coffee break
10:25 – 10:55	Foreseeing the Unforeseen in Management of Phosphate Mine & Processing Plant Waste Disposal Mohamad Al-Hawaree P.E., Ardaman & Associates Inc. A Tetra Tech Company, USA Phong Vo, Ardaman & Associates Inc. A Tetra Tech Company, USA
10:55 – 11:20	Double Flotation and Purification of Phosphogypsum Wending Xiao, Hubei Bonan Technology Co., Ltd, China
11:20 – 11:50	TBD
12:00 – 13:30	Lunch
Afternoon	Free time
19:00 – 20:30	Dinner
20:30 – 21:30	Social Hour

Wednesday, November 5, 2022

07:00 – 08:30	Breakfast
08:30 – 12:00	<u>Session IV: Hydrometallurgical Processing</u> Session Co-Chairs: TBD
08:30 – 09:00	Experience and prospects of joint processing of Phosphogypsum and Fluorosilicic Acid to obtain Ammonium Sulfate and Synthetic Calcium Fluoride Maksim Tsikin, PhosAgro Group NIUIF JSC, Russia
09:00 – 09:30	Addressing Key Challenges in Phosphoric Acid Production Through Innovative Leaching Technologies Kevin De Bois, Prayon Technologies, Belgium
09:30 – 10:00	Enhancing belt filter performance with advanced polymer solutions: A case study from a Middle Eastern phosphate plant TRONG DANG – VU, SNF, Canada
10:00 – 10:30	Coffee break
10:30 – 11:00	Overview of mining, processing and using Apatite ore in Vietnam Thi Kim Dung Nhu, Hanoi University of Mining and Geology, Vietnam
11:00 – 11:30	The influence of reaction stoichiometry on aluminium phosphates formed by dehydration on processing, product and thermal stability Erin Valenzuela-Heeger, University of Birmingham, UK
11:30 – 12:00	TBD
12:00 – 13:30	Lunch
14:00 – 20:30	Conference Cultural Excursion with dinner included <i>Guided tour of Hanoi and taste of authentic Vietnamese foods</i>

Thursday, November 6, 2025

07:00 – 08:30	Breakfast
08:30 – 11:00	<u>Session V: Waste Treatment and Sustainable Development</u> Session Co-Chairs: TBD
08:30 – 09:00	Keynote two: From Waste to Inventory: An Overview of the IFA Phosphogypsum Working Group Program Julian Hilton, Aleff Group, UK
09:00 – 09:30	Phosphogypsum Treatment Process Guoxin Wang, Arkema, USA
09:30 – 10:00	A High Efficiency P-Fertilizer Made from Low Grade Ore Without Acid Zongwen Liao, South China Agricultural University, China
10:00 – 10:30	Coffee break
10:30 – 11:00	Overcoming the Big Hurdle to Commercial Utilizations of Florida Phosphogypsum TBD
11:00 – 11:30	Improving the Overall Economics of REE Recovery from Phosphogypsum Through Generating High-value Co-products TBD
11:30 – 12:00	TBD
12:00 – 13:30	Lunch
14:00 – 17:00	<u>Session VI: Flotation II</u> Session Co-Chairs: TBD
14:00 – 14:30	Overview of Apatite-carbonate ore beneficiation studies in Lao Cai, Vietnam Thanh-Hai Pham, Hanoi University of Mining and Geology, Vietnam
14:30 – 15:00	Synergistic effects of non-ionic reagents on direct and reverse flotation of carbonate-rich phosphate ores Lev Filippov, University of Lorraine, France
15:00 – 15:30	An innovative study for a Vietnam phosphate ore flotation Yuanping Yang, Arkema, China
15:30 – 16:00	Coffee break
16:00 – 16:30	Functionalized polystyrene-based nanoparticles as phosphorite flotation collectors: I: Adsorption isotherm SALAH ALTHYABAT, Al-Hussein Bin Talal University, Jordan
16:30 – 17:00	Studying the mechanical floating process in floating apatite ores type III Lao Cai, Vietnam Van Duoc Tran, Hanoi University of Mining and Geology, Vietnam
19:00 – 21:00	Conference Banquet
22:00	Optional Tour - Departure for Conference technical Excursion (overnight train ride to Lao Cai)

Friday, November 7, 2025

Optional Tours – Separate registration and fee apply to tours below

06:45 – 11:00	Tour of phosphate mine and acid plan (Separate fee applies)
11:30 – 22:00	Tour of Tour of SAPA and overnight stay in SAPA

Saturday, November 8, 2025

08:00 – 20:00	Tour of Fansipan and CAT CAT Village
22:30	Overnight train ride back to Hanoi