

# **15<sup>th</sup> International Congress for Applied Mineralogy (15<sup>th</sup> ICAM)**

## **Congress program**

20-25 August 2023 in Chengdu, Sichuan, China

### **Congress Themes**

#### **-T1 Environmental mineralogy**

Convener: Prof. Xiancai Lu, Prof. Jianxi Zhu, Prof. Yan Li

#### **-T2 Technological mineralogy, industrial minerals, mineral processing, and mining**

Convener: Prof. Maarten A.T.M. Broekmans, Prof. Ming Zhang, Prof. Bo Hui

#### **-T3 Advanced mineral materials with improved characteristics, including technical ceramics and glass**

Convener: Prof. Ling Wang, Prof. Runliang Zhu, Prof. Guocheng Lv, Prof. Liang Bian

#### **-T4 Solid Waste Treatment and Recycling, including comprehensive utilization of non-metallic mineral resources**

Convener: Prof. Hongjuan Sun, Prof. Bowen Li, Prof. Yunfei Xi, Prof. Ping Duan

#### **-T5 Nature-like materials based on mineral basis, biomineralogy, and Medical Mineralogy**

Convener: Prof. Olga Kotova, Prof. Huaming Yang, Gentao Zhou, Prof. Shiyong Sun

#### **-T6 The Interaction of Mineral with Microorganisms**

Convener: Prof. Hailiang Dong, Prof. Tianhu Chen, Prof. Xiancai Lu, Prof. Juan Liu

#### **-T7 Cultural heritage, artifacts, and their preservation**

Convener: Prof. Liangfeng Yang, Prof. Yong Lei, Prof. Guanzheng Zhuang

#### **-T8 Travertine Sedimentary Evolution and Ecological Conservation**

Convener: Prof. Faqin Dong, Prof. Zhongcheng Jiang, Prof. Qunwei Dai

#### **-T9 Applied Clay Mineralogy and Applications**

Convener: Prof. Peng Yuan, Prof. Chunhui Zhou, Prof. Ai Qin Wang

## Congress activities

The academic activities including Keynote Speeches, Invited Lectures, Oral Presentations, Poster presentations, and Field-trips.

### ●Plenary sessions- Opening and Closing Ceremony & Keynote Sessions

Venue: 3<sup>rd</sup> floor Tianfu Hall A; 地点: 3 楼天府宴会厅 A

### ●Parallel Sessions A-Topic T9

Venue: 3<sup>rd</sup> floor, Tianfu Hall A; 地点: 3 楼天府宴会厅 A

### ●Parallel Sessions B- Topic T1, T3, T2

Venue: 3<sup>rd</sup> floor, Tianfu Hall B; 地点: 3 楼天府宴会厅 B

### ●Parallel Sessions C-Topic T8, T5

Venue: 3<sup>rd</sup> floor, Huanglong Hall; 地点: 3 楼黄龙厅

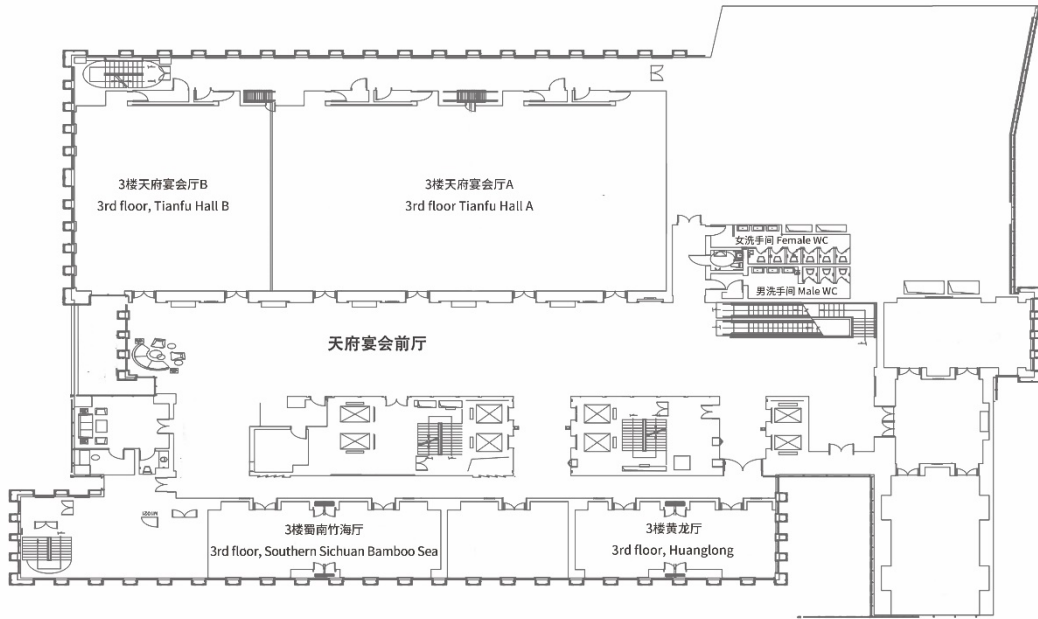
### ●Parallel Sessions D-Topic T6, T7, T4

Venue: 3<sup>rd</sup> floor, Southern Sichuan Bamboo Sea; 地点: 3 楼蜀南竹海厅

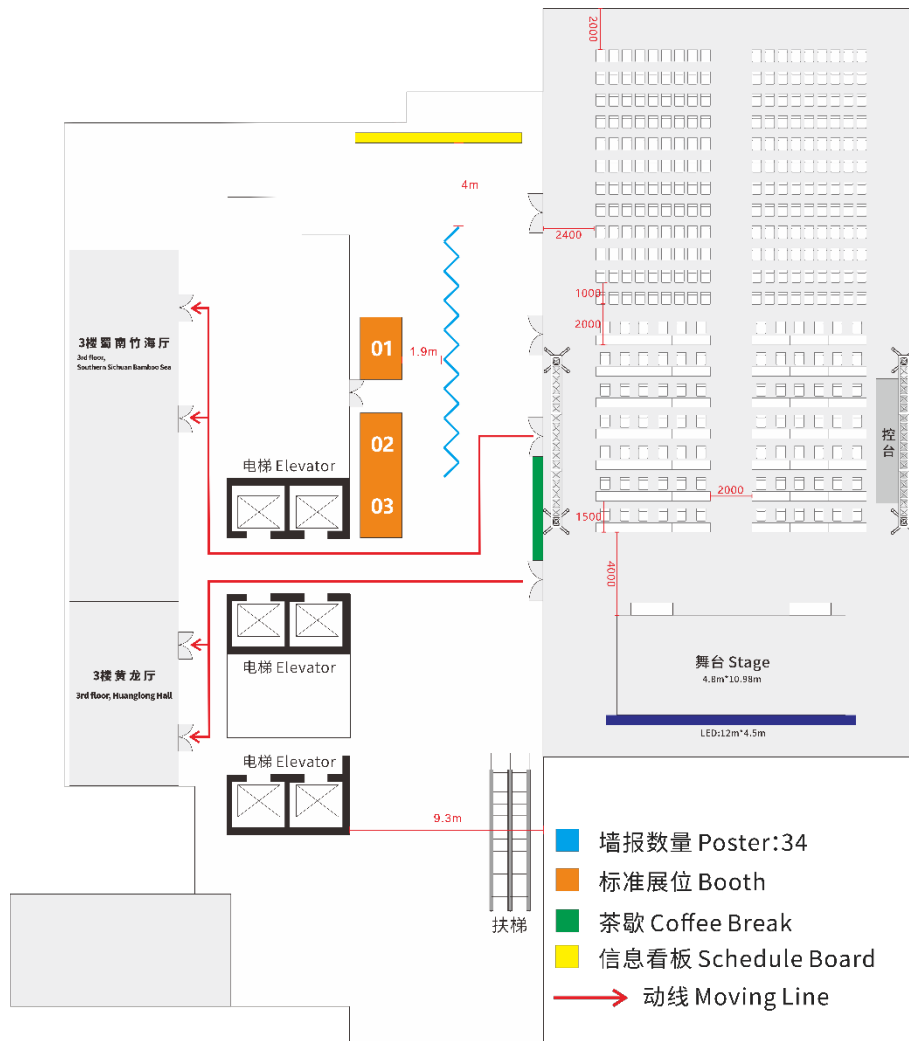
## The arrangement of congress during 20-25 August 2023

Sunday Aug 20	Time	Monday Aug 21	Tuesday Aug 22	Wednesday Aug 23	Aug 24-25		
Registration	08:30-12:10	Opening Ceremony & Plenary Keynote Sessions	Parallel sessions	A, T9 B, T3 C, T5 D, T4	Plenary Keynote Sessions & Closing Ceremony	Post-Field trip	
	12:10-13:10	Lunch & Break	Lunch & Break	Lunch & Break			
	13:10-14:00	Poster presentations	Poster Presentations				
	14:00-18:00	Parallel sessions	A, T9	Parallel sessions	A, T9		Field trip
			B, T1		B, T2		
			C, T8		C		
18:00-19:00	Poster presentations	Poster Presentations	D, T4				

## Congress venue and exhibition & poster distribution map in 3<sup>rd</sup> floor



天府宴会厅: 36\*18\*8  
3rd floor Tianfu Hall



# 15<sup>th</sup> International Congress for Applied Mineralogy (15<sup>th</sup> ICAM)

Congress program-Plenary sessions

<b>Day 1: 21 August 2023</b> <b>Plenary sessions- Opening Ceremony &amp; Keynote Session</b> <b>Venue: 3<sup>rd</sup> floor Tianfu Hall A; 地点: 3楼天府宴会厅 A</b>	
08:00-08:30	On-site registration
08:30-09:55	<b>Opening Ceremony:</b> Host-Prof. Shiyong Sun, General Secretary of 15 <sup>th</sup> ICAM, Southwest University of Science and Technology
08:30-08:35	<b>General reporting of organizing 15<sup>th</sup> ICAM:</b> Prof. Shiyong Sun, Southwest University of Science and Technology
08:35-08:40	<b>Organizing sponsor address:</b> President of ICAM, Prof. Olga Kotova, Institute of Geology of the Komi Science Center of the Russian Academy of Sciences
08:40-08:45	<b>Opening address:</b> Science & Technology Department of Sichuan Province
08:45-08:50	<b>Opening address:</b> Local government of Sichuan Tianfu New Area
08:50-08:55	<b>Welcome Speech:</b> President of Southwest University of Science and Technology
08:55-10:25	<b>Keynote Session: Chair-Prof. Libin Liao</b>
08:55-09:25	<b>Opening Keynote Speech:</b> Prof. Xiande Xie, Guangzhou Institute of Geochemistry, Chinese Academy of Sciences China “Application of high-pressure oxide minerals in the Suizhou L6 chondrite to enrich the mineralogy of Earths mantle”
09:25-09:55	<b>Opening Keynote Speech:</b> Prof. Faqin Dong, Southwest University of Science and Technology “New industrial minerals and carbon neutralization”
09:55-10:25	<b>Opening Keynote Speech:</b> Prof. Anhuai Lu, Peking University “Reactivity of excited-state minerals on solar-irradiated terrestrial and marine surfaces”
10:25-10:40	<b>Coffee break</b>
10:40-12:10	<b>Keynote Session: Chair-Prof. Qinfu Liu</b>
10:40-11:10	Keynote Speech: Prof. Hailiang Dong, China University of Geosciences (Beijing) “Application of microbe-mineral interactions in environmental remediation and resource development”
11:10-11:40	Keynote Speech: Prof. Olga Kotova, Institute of Geology of the Komi Science Center of the Russian Academy of Sciences “Advanced Bauxite Minerals with Improved Characteristics”
11:40-12:10	Keynote Speech: Prof. Runliang Zhu, Guangzhou Institute of Geochemistry, Chinese Academy of Sciences China “nanosilicons from clay minerals as high-performance lithium-ion battery anodes”



# 15<sup>th</sup> International Congress for Applied Mineralogy (15<sup>th</sup> ICAM)

Congress program-Parallel session A

14:00-17:45	<p><b>Day 1: 21 August 2023</b></p> <p><b>Sessions A-Topic T9: Applied Clay Mineralogy and Applications</b></p> <p><b>Venue: 3<sup>rd</sup> floor, Tianfu Hall A; 地点: 3楼天府宴会厅 A</b></p> <p><b>Chair: Prof. Peng Yuan; Co-Chair: Dr. Yanfu Wei</b></p>
14:00-14:15	<p><b>Keynote Lecture (Video): Prof. Eduardo Ruiz-Hitzky</b>, Materials Science Institute of Madrid, CSIC</p> <p>Sepiolite in the framework of advanced nanomaterials</p>
14:15-14:35	<p><b>Invited Lecture: Prof. Weibin Zhang (张伟彬 教授)</b>, Chengdu University of Technology</p> <p>Electrochemical Capacitance of Clay Minerals by Interlayer Engineering</p>
14:35-14:55	<p><b>Invited Lecture: Prof. Wenbin Yu (于文彬 副研究员)</b>, Institute of Geochemistry, Chinese Academy of Sciences</p> <p>Adsorption of iodine anions by chrysotile and halloysite: the effect of nanoporous structure</p>
14:55-15:10	<p><b>Prof. Shuai Zhang (张帅 副教授)</b>, China University of Mining and Technology-Beijing</p> <p>Formation of Carboniferous-Permian Coal-bearing Kaolin in North China and Its Relationship to the Enrichment of Critical Metals in the Coal</p>
15:10-15:25	<p><b>Dr. Xiaomei Wang (王晓梅 博士)</b>, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences</p> <p>Hemostatic application of mixed-dimensional palygorskite clay</p>
15:25-15:40	<p><b>Dr. Huan Gao (高欢 博士)</b>, Chengdu University of Technology</p> <p>Optimization of performance of hierarchical porous kaolinite geopolymer based composite phase change materials</p>
15:40-15:55	<p><b>Keynote Lecture (Video): Dr. Benny K G Theng</b>, Manaaki Whenua-Landcare Research</p> <p>Clay-Organic Complexes and Hybrids: A Personal Narrative</p>
15:55-16:10	<p><b>Coffee break</b></p>
16:10-16:25	<p><b>Keynote Lecture (Video): Prof. Vanessa Prevot</b>, Université Clermont Auvergne</p> <p>CO<sub>2</sub> Electroreduction efficiency of various Cu based layered double hydroxides</p>
16:25-16:45	<p><b>Invited Lecture: Prof. Limei Wu (吴丽梅 教授)</b>, Shenyang Jianzhu University</p> <p>Effect of isomorphic replacement of palygorskite on its heavy metal adsorption performance</p>
16:45-17:05	<p><b>Invited Lecture: Prof. Guanzheng Zhuang (庄官政 副教授)</b>, Guangdong University of Technology</p> <p>Application of Nanofibrous Clay Minerals in Oil-Based Drilling Fluids</p>
17:05-17:20	<p><b>Mr. Chao Li (李超)</b>, Southwest University of Science and Technology</p> <p>Study on properties and mechanism of laterite-phosphoric acid based geopolymer immobilizing radioactive borate liquid waste</p>
17:20-17:35	<p><b>Ms. Li Tian (田莉)</b>, Southwest University of Science and Technology</p>

	Research and Application of Amphoteric Heavy Metal Barrier Materials of Pb and Zn Based on Modified Clay
17:35-17:50	<b>Invited Lecture (Video): Mr. Qiang Li</b> , Sorbonne Université Rheological behavior of bioorganoclay in oil-based drilling fluids
08:30-11:50	<b>Day 2: 22 August 2023</b> <b>Sessions A-Topic T9: Applied Clay Mineralogy and Applications</b> <b>Venue: 3<sup>rd</sup> floor, Tianfu Hall A; 地点: 3楼天府宴会厅 A</b> <b>Chair: Prof. Chunhui Zhou; Co-Chair: Prof. Guanzheng Zhuang</b>
08:30-08:50	<b>Keynote Lecture (Video): Prof. Jon Dawson</b> , University of Southampton Self-assembly of anisotropic nanoclay gels for drug delivery
08:50-09:10	<b>Invited Lecture: Dr. Yun Li (李贇 博士)</b> , Southern University of Science and Technology Effect of Representative Clay Minerals on Carbon Dioxide Hydrate Nucleation: Insights from Molecular Dynamics Simulation Study
09:10-09:30	<b>Invited Lecture: Dr. Xin Liu (刘鑫 博士)</b> , China University of Geosciences, Beijing Phase analysis and crystal structure feature of major palygorskite clays in China
09:30-09:45	<b>Mr. Chen Liu (刘琛)</b> , China University of Geosciences (Wuhan) Illitization of smectite influenced by chemical weathering and its potential control of anatase formation in K-bentonites
09:45-10:00	<b>Ms. Yiming Wang (王一铭)</b> , China University of Geosciences (Wuhan) Biotic weathering-mediated congruent weathering and incongruent weathering-mediated formation of clay minerals in a Quaternary red soil, central China
10:00-10:15	<b>Dr. Wenting Gao (高文婷 博士)</b> , Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences Preparation of stable functional palygorskite/MOFs composites
10:15-10:25	<b>Coffee break</b>
10:25-10:45	<b>Invited Lecture: Prof. Yi Zhou (周熠 副教授)</b> , China University of Geosciences (Beijing) Parallel arrays of clay nanosheets sandwiched in two-dimensional nanofluidic membrane for enhanced ion transport properties
10:45-11:05	<b>Invited Lecture: Dr. Qian Fang (方谦 博士)</b> , China University of Geosciences (Wuhan) The role of clay minerals in Mn oxidation in rock varnishes revealed by observations at the nano- and atomic scales
11:05-11:25	<b>Invited Lecture: Ms. Jiahui Liu (刘佳慧)</b> , Zhejiang University of Technology Thermosensitive Curcumin/Silver/Montmorillonite Hydrogels with Synergistic Photodynamic and Photothermal Antibacterial Activity
11:25-11:40	<b>Ms. Huixing Dai (戴慧邢)</b> , Chengdu University of Technology A rock wool reinforced kaolinite-based porous geopolymer composite thermal insulation material
11:40-11:55	<b>Invited Lecture (Video): Associate Prof. Maxim Rudmin</b> , Tomsk Polytechnic University Glauconite as a material for the creation of “smart” nanocomposites and application in agriculture

11:55-12:10	<b>Invited Lecture (Video): Dr. Mohamed Mouafon</b> , University of Yaoundé I Effect of bovine bone on physical properties of porous ceramics intended for water filtration
14:00-17:40	<b>Day 2: 22 August 2023</b> <b>Sessions A-Topic T9: Applied Clay Mineralogy and Applications</b> <b>Venue: 3<sup>rd</sup> floor, Tianfu Hall A; 地点: 3楼天府宴会厅 A</b> <b>Chair: Prof. Ai Qin Wang; Co-Chair: Prof. Bin Mu</b>
14:00-14:20	<b>Invited Lecture: Dr. Yanfu Wei (魏燕富 博士)</b> , Macau University of Science and Technology Activation of Clay Mineral via Co-calcination and Magnetite via Substitution for Efficient Phosphate Adsorption and Recycling
14:20-14:40	<b>Invited Lecture: Dr. Lulu Zhao (赵璐璐 博士)</b> , China University of Geosciences (Wuhan) Biological controls on clay-mineral transformation and geological thermostat in the Late Miocene world
14:40-14:55	<b>Ms. Jinglei Yang (杨静蕾)</b> , Chengdu University of Technology Montmorillonite Derivatived Geopolymer for Electrochemical Supercapacitor Separator Application
14:55-15:10	<b>Ms. Ying Luo (罗莹)</b> , Southwest University of Science and Technology Passivation effect of Fe <sup>2+/3+</sup> -loaded bumpy clay-biochar composites on Cd <sup>2+</sup> in soil and application research
15:10-15:25	<b>Ms. Jiaqian Zhang (张家千)</b> , Southwest University of Science and Technology Selective adsorption of Pb (II) and Cd (II) on mercapto-functionalized Attapulgite: XPS qualitative analyses
15:25-15:40	<b>Invited Lecture (Video): Yanxiao Xu</b> , China University of Geosciences (Wuhan)/Technical University of Crete Mineralogical and geochemical indicators of paleosol weathering across the Paleocene-Eocene boundary in the Bighorn Basin, Wyoming, USA
15:40-15:55	<b>Coffee break</b>
15:55-16:10	<b>Invited Lecture (Video): Dr. Mohammad Fahimizadeh</b> , Monash University Malaysia Halloysite nanotubes can sustain microbial populations
16:10-16:30	<b>Invited Lecture: Dr. Shangying Li (李尚颖 博士)</b> , Chang'an University Synthesis of kaolinite with different sizes and morphologies from natural minerals
16:30-16:50	<b>Invited Lecture: Dr. Jingjie Yang (杨敬杰 博士)</b> , Southwest University of Science and Technology Removal of uranyl by microorganism and sodium alginate crosslinked polyethylene coated smectite clay minerals
16:50-17:10	<b>Invited Lecture: Dr. Qian Zhao (赵倩 博士)</b> , Southwest University of Science and Technology Confinement of Zeolite for Enhanced Iodine Capture
17:10-17:25	<b>Ms. Zhihui Liao (廖志慧)</b> , Southwest University of Science and Technology Highly efficient iodide adsorption from medical radioactive wastewater by strong alkaline anion exchange fiber
17:25-17:40	<b>Ms. Xingyu Zhang (张星宇)</b> , Southwest University of Science and Technology Heterogeneous reactions of SO <sub>2</sub> and NO <sub>2</sub> on the surface of muscovite mineral



# 15<sup>th</sup> International Congress for Applied Mineralogy (15<sup>th</sup> ICAM)

Congress program-Parallel Sessions B

<b>Day 1: 21 August 2023</b>	
14:00-18:05	<b>Sessions B-Topic T1: Environmental mineralogy</b> <b>Venue: 3<sup>rd</sup> floor, Tianfu Hall B; 地点: 3楼天府宴会厅 B</b> <b>Chair: Prof. Runliang Zhu; Co-chair: Prof. Liang Bian</b>
14:00-14:20	<b>Invited Lecture: Prof. Huan Liu (刘欢 副教授)</b> , Nanjing University Mechanism of reductive transformation of Mn oxides and its environmental implications
14:20-14:40	<b>Invited Lecture: Prof. Jing Liu (刘晶 助理教授)</b> , Macau University of Science and Technology Structure-dependent heterogeneous growth of manganese (oxyhydr)oxides on iron (oxyhydr)oxides
14:40-14:55	<b>Dr. Ke Wen (文科 博士)</b> , University of Wyoming (Video) Mineral surface-catalyzed oxidation of Mn(II) by bromate: Implications for the occurrence of Mn oxides on Mars
14:55-15:10	<b>Mr. Bingxu Hou (侯炳旭)</b> , Peking University Electron transfer rules of minerals under pressure informed by machine learning
15:10-15:25	<b>Dr. Meirong Zong (宗美荣 博士)</b> , Changzhou University Crystal growth mechanism and morphological characteristics of Hematite under hydrothermal conditions
15:25-15:40	<b>Ms. Zhenxiao Wu (武振晓)</b> , Changan University Thermal Migration Behavior of Na <sup>+</sup> , Cu <sup>2+</sup> and Li <sup>+</sup> in Montmorillonite
15:40-15:55	<b>Coffee break</b>
15:55-16:15	<b>Invited Lecture: Prof. Chaowen Wang (王朝文 副教授)</b> , China University of Geosciences (Wuhan) Elevated physical weathering exceeds chemical weathering of clays during the Paleocene-Eocene Thermal Maximum in the continental Bighorn Basin (Wyoming, USA)
16:15-16:35	<b>Invited Lecture: Dr. Jiajia Fan (范佳佳 博士)</b> , Hangzhou Normal University Lanthanum modified kaolinite for effective phosphate removal and cyanobacteria control
16:35-16:50	<b>Dr. Han Song (宋晗 博士)</b> , Southwest University of Science and Technology The Mechanism for Fe(OH) <sub>2</sub> phase transformation to produce nature hydrogen energy during low temperature serpentinization
16:50-17:05	<b>Mr. Ming Guo (郭铭)</b> , Southwest University of Science and Technology Effects of $\gamma$ -ray irradiation on far-infrared emissivity properties of tourmaline
17:05-17:20	<b>Dr. Yingying Zeng (曾莹莹 博士)</b> , Southwest University of Science and Technology Mineralogy and phase transition mechanisms of atmospheric mineral particles: Migration paths, sources, and volatile organic compounds
17:20-17:35	<b>Dr. Junming Zhou (周军明 博士)</b> , Southern Marine Science and Engineering Guangdong Laboratory (Guangzhou) Characterization of Submicron-thick Layered Structure in Hydrogenetic Ferromanganese Nodule
17:35-17:50	<b>Ms. Fangyuan Zhao (赵方源)</b> , Southwest University of Science and Technology Degradation mechanism of alizarin red by natural Fe-tourmaline particle electrodes: Non-radical pathway dominated by singlet oxygen

17:50-18:05	<b>Ms. Xiangyu Xi (习向玉)</b> , Southwest University of Science and Technology Removal mechanism of uranium (VI) by phosphogypsum immobilized sulfate-reducing bacteria microcapsules
08:30-12:10	<b>Day 2: 22 August 2023</b> <b>Sessions B-Topic T3: Advanced mineral materials with improved characteristics, including technical ceramics and glass.</b> <b>Venue: 3<sup>rd</sup> floor, Tianfu Hall B; 地点: 3楼天府宴会厅 B</b> <b>Chair: Prof. Guocheng Lv; Co-chair: Prof. Hongjuan Sun</b>
08:30-08:50	<b>Invited Lecture: Prof. Ling Wang (汪灵 教授)</b> , Chengdu University of Technology Characteristics of high purity quartz and its raw materials
08:50-09:10	<b>Invited Lecture: Prof. Xiuyun Chuan (传秀云 教授)</b> , Peking University The electrochemical property and microstructure of natural pyrite
09:10-09:25	<b>Prof. Hao Liu (刘昊 教授)</b> , China University of Geosciences, Beijing High-purity monoclinic pyrrhotite derived-from pyrite with good removal performance for Cr (VI) and its mechanism
09:25-09:40	<b>Dr. Yuan Li (李源 博士)</b> , Wuhan University of Technology Study on the Structure-Activity Relationship between the Microstructure of Iron Based Minerals and Their Fenton-like Performance for Pollutants Degradation
09:40-09:55	<b>Dr. Zhouyueyang Cheng (乘舟越洋 博士)</b> , Chengdu University of Technology Crystal chemical mechanism of lithium extraction from spodumene
09:55-10:10	<b>Mr. Yang Zhang (张扬)</b> , Dalian University of Technology Fast gelation of vermiculite aerogel initiated by metal ions using for gas storage and thermal insulation
10:10-10:25	<b>Coffee break</b>
10:25-10:45	<b>Invited Lecture: Mr. Hao Zhao (赵昊)</b> , Changan University Geochemical features of lithium-rich bauxite from Benxi Formation in Qinyuan County, Shanxi, China: Insights for their depositional environment and lithium enrichment
10:45-11:05	<b>Invited Lecture: Dr. Peng Liu (刘鹏 博士)</b> , South China University of Technology Different Reactivity of Birnessite and Cryptomelane toward 2 Isoprene: Effect of Structure, Morphology, and Exposed Faces
11:05-11:25	<b>Invited Lecture: Dr. Fangxin Deng (邓方鑫 博士)</b> , Guangzhou Institute of Geochemistry, Chinese Academy of Sciences Hydrothermally treated peat/iron composites as highly efficient heterogeneous Fenton catalyst
11:25-11:40	<b>Dr. Zhehao Wang (王哲皓 博士)</b> , Chengdu University of Technology Raw material evaluation and selection methods of high purity quartz: An example using natural quartz crystals
11:40-11:55	<b>Dr. Xianghui Zhang (张湘辉 博士)</b> , Chengdu University of Technology Comparative Study on Non-isothermal Dehydroxylation Kinetics of Qingtian Pyrophyllite Based on Thermogravimetry and Thermal Dilatometry Techniques
11:55-12:10	<b>Ms. Xiang Li (李湘)</b> , Southwest University of Science and Technology CaO-MgO-Al <sub>2</sub> O <sub>3</sub> -SiO <sub>2</sub> ceramics prepared by asbestos and marble tailings

	<b>Day 2: 22 August 2023</b>
14:00-17:50	<b>Sessions B-Topic T2: Technological mineralogy, industrial minerals, mineral processing, and mining</b> <b>Venue: 3<sup>rd</sup> floor, Tianfu Hall B; 地点: 3楼天府宴会厅 B</b> <b>Chair: Prof. Mingshan Fang; Co-chair Prof. Junhui Xiao</b>
14:00-14:20	<b>Invited Lecture: Dr. Bo Hui (惠博 博士)</b> , Institute of Comprehensive Utilization of Mineral Resources, Chinese Academy of Geological Sciences Application of mineral product investigation project technology in the large resource base
14:20-14:40	<b>Invited Lecture: Prof. Zhen Wang (王振 博士)</b> , Southwest University of Science and Technology New flotation technology of complex micro-fine gold ore
14:40-14:55	<b>Dr. Andrey Smetannikov</b> , Mining Institute of the Ural Branch of the Russian Academy of Sciences The method for the extraction of Pd, Pt, Ag from K-Mg ore processing waste
14:55-15:10	<b>Dr. Vladimir Shchiptsov</b> , Institute of Geology Karelian Research Centre RAS, Russia Mineralogical and technological classification of high-carbon industrial shungite rock types
15:10-15:25	<b>Dr. Zijie Gao (高子杰 博士)</b> , Chengdu University of Technology Comparative study on removal of metallurgical silicon impurities by different acid leaching methods
15:25-15:40	<b>Ms. Yang Lai (赖杨)</b> , Institute of Comprehensive Utilization of Mineral Resources, Chinese Academy of Geological Sciences Application of Process Mineralogy Research in Comprehensive Utilization of Strategic Mineral Resources-Taking the inspection of a Titanium concentrate product inspection in Hongge mining area as an example
15:40-15:55	<b>Coffee break</b>
15:55-17:50	<b>Sessions B-Topic T2: Technological mineralogy, industrial minerals, mineral processing, and mining</b> <b>Venue: 3<sup>rd</sup> floor, Tianfu Hall B; 地点: 3楼天府宴会厅 B</b> <b>Chair: Dr. Hui Bo; Co-chair: Prof. Zhen Wang</b>
15:55-16:15	<b>Invited Lecture: Prof. Junhui Xiao (肖军辉 博士)</b> , Southwest University of Science and Technology Extraction of Sc from Sc-concentrate with Titanium Dioxide Wastewater
16:15-16:35	<b>Invited Lecture: Prof. Mingshan Fang (方明山 教授)</b> , Bgrimm technology group Application of automatic mineral analysis technology in process Mineralogy
16:35-16:50	<b>Prof. Lei Li (李磊 教授)</b> , BGRIMM Technology Group Process mineralogical study of intractable gold ores in Central Asia
16:50-17:05	<b>Mr. Zhichen Liu (刘志臣)</b> , Guizhou University Zircon U-Pb dating of Permian manganese ores in Zunyi, Guizhou Province with LA-ICP-MS and discussion on metallogenic age of the ores
17:05-17:20	<b>Mrs. Lei He (何蕾)</b> , Changan university Geochemical characteristics of garnet from zinc-copper ore bodies in the Changpo-Tongkeng deposit and its geological significance
17:20-17:35	<b>Prof. Jian Xiong (熊健 教授)</b> , Southwest Petroleum University Experimental study on the adsorption and desorption behaviors of methane in clay minerals

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Congress program-Parallel Sessions C

<b>Day 1: 21 August 2023</b>	
14:00-17:35	<b>Sessions C-Topic T8: Travertine Sedimentary Evolution and Ecological Conservation</b> <b>Venue: 3<sup>rd</sup> floor, Huanglong Hall; 地点: 3楼黄龙厅</b> <b>Chair: Prof. Qunwei Dai; Co-Chair: Prof. Fudong Wang</b>
14:00-14:20	<b>Invited Lecture: Prof. Qiongfang Li (李琼芳 教授)</b> , Southwest University of Science and Technology Interaction between diatoms and travertine under typical aqueous environmental conditions in Huanglong, China
14:20-14:40	<b>Invited Lecture: Prof. R. Agustin Mors</b> , Universidad Nacional de Córdoba Controls on CaCO <sub>3</sub> precipitation at different scales
14:40-14:55	<b>Dr. Ting Zhang (张婷 博士)</b> , Southwest University of Science and Technology Study on the effective mechanisms in the formation of travertine pool-rimstone dam system in Huanglong, China
14:55-15:10	<b>Ms. Wuyang He (何武洋)</b> , Southwest University of Science and Technology Geochemical characteristics and paleoclimatic implications of laminated travertine in Huanglong, Sichuan Province
15:10-15:25	<b>Mr. Peiran Chai (柴沛然)</b> , Southwest University of Science and Technology Records of glacier activity by alpine travertine landform in Mount Gongga
15:25-15:40	<b>Ms. Xiarekeyamu Yitiniyazi (夏热克亚木·伊提尼牙孜)</b> , Southwest University of Science and Technology Composition and Diversity of Soil Microbial Community in Huanglong Scenic Area
15:40-15:55	<b>Coffee break</b>
15:55-16:15	<b>Invited Lecture: Dr. Hailong Sun (孙海龙 博士)</b> , Institute of Geochemistry, CAS Subannual-to-biannual-resolved travertine record of Asian Summer Monsoon dynamics in the early Holocen
16:15-16:35	<b>Invited Lecture: Prof. Ezher Tagliasacchi</b> , Pamukkale University DENIZLI travertines (SW-TURKIYE): sedimentary environment and their importance of natural and cultural heritage
16:35-16:50	<b>Ms. Yazhen Ren (任亚珍)</b> , Southwest University of Science and Technology Analysis of microbial diversity and community structure in typical protokarst and alpine karst regions
16:50-17:05	<b>Dr. Weifu Wang (王维富 博士)</b> , Southwest University of Science and Technology A preliminary study on ecological cementation of rock debris in mudslide-prone areas
17:05-17:20	<b>Mr. Shengwen Jing (景盛文)</b> , Southwest University of Science and Technology Characteristics of seismogenic dust particles from mountain and its significance for palaeoseismic records in tufa section: A case study of Jiuzhaigou, China
17:20-17:35	<b>Ms. Heyan Zhu (朱和艳)</b> , Southwest University of Science and Technology Geochemical Characteristics and Depositional Environment of Typical Tufa Profiles in Jiuzhaigou

	<b>Day 2: 22 August 2023</b>
08:30-12:05	<b>Sessions C-Topic T5: Nature-like materials based on mineral basis, biomineralogy, and Medical Mineralogy</b> <b>Venue: 3<sup>rd</sup> floor, Huanglong Hall; 地点: 3楼黄龙厅</b> <b>Chair: Prof. Olga Kotova; Co-chair: Prof. Shiyong Sun</b>
08:30-08:50	<b>Invited Lecture: Prof. Yevgeny Golubev</b> , Institute of Geology Komi Scientific Centre of the Ural Branch of the Russian Academy of Sciences Carbon-mineral interaction in geological environment as a source of new functional carbon materials
08:50-09:10	<b>Invited Lecture: Prof. Mingxian Liu (刘明贤 教授)</b> , Jinan University Halloysite nanotubes for high-performance wound dressing
09:10-09:25	<b>Dr. Ke Wang (王可 博士)</b> , Southwest University of Science and Technology Intrinsic peroxidase-like clay mineral nanozyme-triggered cascade bioplatfrom for colorimetric detection of glucose
09:25-09:40	<b>Mr. Alexey Ponaryadov</b> , Institute of Geology FRC Komi SC UB RAS Complex Evaluation of Titanium Ores (Pizhenskoe Deposit, Russia)
09:40-09:55	<b>Ms. Shuaiquan Chen (陈帅全)</b> , Southwest University of Science and Technology Preparation and characterization of asphalt-based carbon materials
09:55-10:10	<b>Mr. Zhengwei Li (李正伟)</b> , Southwest University of Science and Technology Preparation and Cr <sup>6+</sup> adsorption performance of Fe-ZSM-5/shungite adsorbents
10:10-10:25	<b>Coffee break</b>
10:25-10:45	<b>Invited Lecture: Dr. Xiaochao Zuo (左小超 博士)</b> , China University of Geosciences (Wuhan) Study on structure control of clay minerals and the improvement of thermal energy storage performance of their composite phase change materials
10:45-11:05	<b>Invited Lecture: Dr. Rui Lv (吕瑞 博士)</b> , Mianyang Teachers College Construction of multi-enzyme mimetic Cu-Mn bimetallic phyllosilicate nanozyme for the simultaneously degradation of organic pollutants
11:05-11:20	<b>Mr. Aleksander Kulkov</b> , SPbSU, Russia Morphology and composition of hard teeth tissues in non-carious lesions of tooth
11:20-11:35	<b>Ms. Rui Cao (曹芮)</b> , Xichang University Study on the Effects of Kiwi Fruit Branch Compost on Heavy Metal Forms in Soil of Rare Earth Mining Areas
11:35-11:50	<b>Mrs. Jin Liu (刘瑾)</b> , Southwest University of Science and Technology High-performance cascade nanoreactor based on halloysite nanotubes-integrated enzyme-nanozyme microsystem
11:50-12:05	<b>Mr. Yifan Zeng (曾一凡)</b> , Southwest University of Science and Technology Construction of Copper-Manganese based Aminoclays with significant laccase-like activity and its prominent degradation performance towards bisphenol A

## 15<sup>th</sup> International Congress for Applied Mineralogy (15<sup>th</sup> ICAM)

Congress program-Parallel Sessions D

	<b>Day 1: 21 August 2023</b>
14:00-15:40	<b>Sessions D-Topic T6: The Interaction of Mineral with Microorganisms</b> <b>Venue: 3<sup>rd</sup> floor, Southern Sichuan Bamboo Sea hall; 地点: 3楼蜀南竹海厅</b> <b>Chair: Prof. Haibo Liu; Prof. Qiongfang Li</b>
14:00-14:20	<b>Invited Lecture: Prof. Yichao Wu</b> (吴一超 副研究员), Huazhong Agricultural University The role of extracellular polymeric substances in bacteria-mineral interactions
14:20-14:40	<b>Invited Lecture: Prof. Mingxue Liu</b> (刘明学 教授), Southwest University of Science and Technology Assembly and Succession of Microbial Communities in Purple Soils along the Northern Sichuan Basin, China
14:40-14:55	<b>Dr. Tengxiang Xie</b> (谢腾祥 博士), Southwest University of Science and Technology Carbonate mineral dissolution in the presence of microalgae: a potential strategy of CO <sub>2</sub> sequestration
14:55-15:10	<b>Ms. Rong Peng</b> (彭蓉), China University of Geosciences (Wuhan) Microbial-mediated iron oxidation process affects the transformation of ferrihydrite
15:10-15:25	<b>Dr. Lei Gao</b> (高磊 博士), Nanjing Normal University Biological reduction mechanisms of co-precipitated/adsorbed arsenic-bearing ferrihydrite by different iron reduction bacterial
15:25-15:40	<b>Mrs. Yujie Yang</b> (杨钰婕), Southwest University of Science and Technology Effect of montmorillonite interlayer domain on ALA retention under the action of <i>Bacillus cereus</i>
15:40-15:55	<b>Coffee break</b>
15:55-18:00	<b>Sessions D-Topic T7: Cultural heritage, artifacts, and their preservation</b> <b>Venue: 3<sup>rd</sup> floor, Southern Sichuan Bamboo Sea hall; 地点: 3楼蜀南竹海厅</b> <b>Chair: Prof. Liangfeng Yang; Prof. Yijian Cao</b>
15:55-16:05	<b>Invited Lecture: Prof. Yijian Cao</b> (曹颐戩 教授), Northwestern Polytechnical University, Institute of Culture and Heritage Enhanced consolidation efficacy and durability of highly porous calcareous building stones enabled by nanosilica-based treatments
16:05-16:25	<b>Invited Lecture: Dr. Bin Han</b> (韩宾 博士), University of Chinese Academy of Sciences Minerals in archaeology studies: their identification, function and implication
16:25-16:45	<b>Invited Lecture: Prof. Guanzheng Zhuang</b> (庄官政 副教授), Guangdong University of Technology Role of the microstructure of palygorskite in the formation of Maya blue pigment
16:45-17:00	<b>Prof. Marianna Kulkova</b> , Herzen State Pedagogical University Mineralogy of ceramic pastes of the Late Bronze-Early Iron Age from the Northern Pontic region sites



17:00-17:15	<b>Ms. Xiaowen Chen (陈晓雯)</b> , Geological Museum of China Study on Mineralogical Characteristics of Mineral Pigments for the Main Colors of Thangka
17:15-17:30	<b>Dr. Xiaonan Yang (杨小男 博士)</b> , Geological Museum of China Geological specimen preservation and its information management: Study and practice at the Geological Museum of China
17:30-17:45	<b>Prof. Alexander Kulkov</b> , St. Petersburg State University The assessment of archaeological ceramics porosity, mineral composition and phase transitions on the m-CT data
17:45-18:00	<b>Ms. Ruixuan Hu (胡睿萱)</b> , Chengdu University of Technology Development of online augmented reality museums in the context of digital technology to protect cultural heritage and relics
08:30-12:05	<b>Day 2: 22 August 2023</b> <b>Sessions D-Topic T4: Solid Waste Treatment and Recycling, including comprehensive utilization of non-metallic mineral resources</b> <b>Venue: 3<sup>rd</sup> floor, Southern Sichuan Bamboo Sea; 地点: 3楼蜀南竹海厅</b> <b>Chair: Prof. Ling Wang; Co-Chair: Dr. Feihua Yang</b>
08:30-08:50	<b>Invited Lecture: Dr. Hannian Gu (顾汉念 博士)</b> , Institute of Geochemistry, Chinese Academy of Sciences Multielement separation from red mud based on iron-containing minerals dissolution using oxalic acid
08:50-09:10	<b>Invited Lecture: Dr. Wenjin Ding (丁文金 博士)</b> , Southwest University of Science and Technology Indirect mineral carbonation of phosphogypsum for CO <sub>2</sub> sequestration
09:10-09:25	<b>Ms. Yali Su (粟亚莉)</b> , Chengdu University of Technology Synthesis of 13X zeolite from leached spodumene and its mechanism
09:25-09:40	<b>Mr. Shize Chen (陈仕泽)</b> , Southwest University of Science and Technology Effect and mechanism of Fe <sub>2</sub> O <sub>3</sub> in industrial waste on porous ceramics
09:40-09:55	<b>Mr. Shengjun Lei (雷圣均)</b> , Chengdu University of Technology Lightweight geopolymers from microwave curing of basalt tailings and waste glass powder mixtures
09:55-10:10	<b>Mr. Tao Chen (陈涛)</b> , Southwest University of Science and Technology Diopside-based ceramics prepared via extracted titanium slag and coal fly ash
10:15-10:30	<b>Ms. Li Zeng (曾鹍)</b> , Southwest University of Science and Technology Nanocomposites of LaNi <sub>0.95</sub> Fe <sub>0.05</sub> O <sub>3</sub> /muscovite for enhanced photocatalytic antibacterial activity
10:30-10:45	<b>Coffee break</b>
10:45-11:05	<b>Invited Lecture: Prof. Zhonghui Xu (徐中慧 副教授)</b> , Southwest University of Science and Technology Preparation of slow-release fertilizers by electrolytic manganese residue and geopolymers and its application for Guizhou white tea seedlings growth
11:05-11:20	<b>Mr. Jianghua Chen (陈江华)</b> , Chengdu University of Technology Thermal preparation of a novel silicon fertilizer using lithium pyroxene acid-leaching residues as starting materials
11:20-11:35	<b>Ms. Lingyan Chu (储凌燕)</b> , Southwest University of Science and Technology

