



The 11th Interfaces Against Pollution

14-17 May 2021

Program Schedule

Wuhan, China



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IAP2021 Program Overview

Beijing		Paris	Washington*	Theme	
Friday 14 May	9:00-22:00	3:00-16:00	21:00 (-1)-10:00	On-site registration (Educational Training Centre, Huazhong Agricultural University)	
Saturday 15 May	8:20-8:40	2:20-2:40	20:20(-1)-20:40(-1)	Opening ceremony (On-site: Room A; On-line: Zoom platform 9035407588)	
Academic report				On-site, Room A On-line, Zoom platform 9035407588	On-site, Room B On-line, Microsoft Teams
Saturday 15 May	8:40-9:20	2:40-3:20	20:40(-1)-21:20(-1)	Plenary Lecture (On-site: Room A; On-line: Zoom platform 9035407588)	
	9:20-12:00	3:20-6:00	21:20(-1)-24:00(-1)	Keynote & Oral Presentation	Keynote & Oral Presentation
	14:30-15:10	8:30-9:10	2:30-3:10	Plenary Lecture (On-site: Room A; On-line: Zoom platform 9035407588)	
	15:10-18:00	9:10-12:00	3:10-6:00	Keynote & Oral Presentation	Keynote & Oral Presentation
	19:00-21:30	13:00-15:30	7:00-9:30	Student Session	Student Session

Sunday 16 May	8:30-9:10	2:30-3:10	20:30(-1)-21:10(-1)	Plenary Lecture (On-site: Room A; On-line: Zoom platform 9035407588)	
	9:10-11:40	3:10-5:40	21:10(-1)-23:40(-1)	Keynote & Oral Presentation	Keynote & Oral Presentation
	14:30-15:10	8:30-9:10	2:30-3:10	Plenary Lecture (On-site, Room A; On-line, Zoom platform 9035407588)	
	15:10-17:40	9:10-11:40	3:10-5:40	Keynote & Oral Presentation	Keynote & Oral Presentation
	19:00-21:00	13:00-15:00	7:00-9:00	Poster Presentations	Poster Presentations
Monday 17 May	8:30-9:45	2:10-3:45	20:30(-1)-21:45(-1)	Keynote	Keynote
	9:45-10:45	3:45-4:45	21:45(-1)-22:45(-1)	Plenary Lecture (On-site: Room A; On-line: Zoom platform 9035407588)	
	10:45-11:00	4:45 -5:00	22:45(-1)-23:00(-1)	Award Ceremony (On-site: Room A; On-line: Zoom platform 9035407588)	
	11:00-11:20	5:00- 5:20	23:00(-1)-23:20(-1)	Closing Ceremony (On-site: Room A; On-line: Zoom platform 9035407588)	

IAP2021 Technical Schedule

(Beijing Time)

Friday 14 May

9:00-22:00	On-site registration (Educational Training Centre, Huazhong Agricultural University)
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Saturday 15 May

8:20-8:40	Opening ceremony Moderators: Wenfeng Tan <ul style="list-style-type: none">• Speech by President of HZAU• Speech by President of IAP, Prof. Jérôme Duval
8:40-9:20	Plenary Session (On-site, Room A; On-line, Zoom platform 9035407588) Moderators: Qiaoyun Huang PL1: Biofilm/microbiome on anthropogenic surfaces: An emerging environmental issue <u>Yong-Guan Zhu</u> , <i>Institute of Urban Environment and State, China</i>

Keynote Session	
9:20-10:10	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Room A/Zoom platform 9035407588 Moderators: Qiaoyun Huang </div> <div style="width: 48%;"> Room B/Microsoft Teams Moderators: Peng Cai </div> </div>
9:20-9:45	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> KN1: Kinetics of coupled redox processes at iron-water interfaces <u>Paul G. Tratnyek</u>, <i>OHSU-PSU School of Public Health, Oregon Health & Science University, USA</i> </div> <div style="width: 48%;"> KN2: Bioavailability of tetracycline to <i>escherichia coli</i> at solid-water interfaces <u>Hui Li</u>, <i>Michigan State University, USA</i> </div> </div>
9:45-10:10	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> KN3: Initial stage dynamics of flocculation of model colloids studied in the normalized mixing <u>Adachi Yasuhisa</u>, <i>University of Tsukuba, Japan</i> </div> <div style="width: 48%;"> KN4: PAHs in Soil-Plant System: Recent Advances <u>Yanzheng Gao</u>, <i>Nanjing Agricultural University, China</i> </div> </div>
10:10-10:40	Tea break
Oral Session	
10:40-12:00	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Room A/Zoom platform 9035407588 Moderators: Adachi Yasuhisa, Takumi Saito </div> <div style="width: 48%;"> Room B/Microsoft Teams Moderators: Yanzheng Gao, Tongxu Liu </div> </div>
10:40-11:00	<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Oral 1: Hierarchical aggregation structures of humic acid by small-angle X-ray and neutron scattering <u>Takumi Saito</u>, <i>The University of Tokyo, Japan</i> </div> <div style="width: 48%;"> Oral 2: Electron transfer and elemental transformation processes between iron cycling bacteria and minerals <u>Tongxu Liu</u>, <i>Institute of Eco-environmental and Soil Sciences, China</i> </div> </div>

11:00-11:20	<p>Oral 3: Hyphal-mineral interfacial processes drive fungal nutrient cycles <u>Guanghai Yu</u>, <i>Tianjin University, China</i></p>	<p>Oral 4: Molecular mechanisms of lead binding to ferrihydrite-bacteria composites: ITC, XAFS and μ-XRF investigations <u>Linchuan Fang</u>, <i>Northwest A&F University, China</i></p>
11:20-11:40	<p>Oral 5: Removal of PAHs in soil-plant system using domesticated indigenous microbial flora <u>Jian Wang</u>, <i>Nanjing Agricultural University, China</i></p>	<p>Oral 6: Species of nickel(II) sorption or precipitation on minerals <u>Xiaoli Tan</u>, <i>North China Electric Power University, China</i></p>
11:40-12:00	<p>Oral 7: Nonmonotonic effect of montmorillonites on the horizontal transfer of ARGs to bacteria <u>Xiaojie Hu</u>, <i>Nanjing Agricultural University, China</i></p>	<p>Oral 8: Molecular-scale understanding of sulfate exchange from schwertmannite by chromate versus arsenate <u>Xiaoming Wang</u>, <i>Huazhong Agricultural University, Chin</i></p>
12:00-13:00	Lunch	
14:30-15:10	Plenary Session (On-site, Room A; On-line, Zoom platform 9035407588) Moderators: Jérôme Duval	
	<p>PL2: Arsenic mobilization and removal – causes and solutions for the World’s largest mass poisoning <u>Andreas Kappler</u>, <i>University of Tuebingen, Germany</i></p>	
15:10-16:00	Keynote Session	
	<p>Room A/Zoom platform 9035407588 Moderators: Jérôme Duval</p>	<p>Room B/Microsoft Teams Moderators: Jaume Puy</p>

15:10-15:35	KN5: Oceanic (Ba, Sr)SO ₄ mysteries and aquatic Sr removal: Heterogeneous (Ba, Sr)SO ₄ nucleation on organics <u>Yandi Hu</u> , <i>Peking University, China</i>	KN6: Coupled kinetics of arsenic adsorption/desorption and redox reactions at the mineral-water interfaces <u>Zhenqing Shi</u> , <i>South China University of Technology, China</i>
15:35-16:00	KN7: Environmental implications of humic acid and Fe oxides nanoparticle interaction <u>Claudio Colombo</u> , <i>University of Molise, Italy</i>	KN8: Redox reactivity of manganese oxides versus inorganic contaminants: Beneficial role of associated (in)organic ligands <u>Bruno Lanson</u> , <i>Université Grenoble Alpes, France</i>
16:00-16:20	Tea break	
16:20-18:00	Oral Session	
	Room A/Zoom platform 9035407588 Moderators: Zhenqing Shi, Josep Galceran	Room B/Microsoft Teams Moderators: Bruno Lanson, Benedicte Prelot
16:20-16:40	Oral 9: Iron oxide surfaces against chromate pollution <u>Juan Antelo</u> , <i>University of Santiago de Compostela, Spain</i>	Oral 10: The conditional affinity spectrum, a tool for the interpretation of adsorption data and adsorption isotherms <u>Jaume Puy</u> , <i>Universitat de Lleida, Spain</i>
16:40-17:00	Oral 11: Development of functional polymers for decontamination of lanthanides and actinides from effluents <u>Xianyu Ding</u> , <i>Université de Montpellier, France</i>	Oral 12: Addressing the electrostatics of protons binding to humic matter beyond the Donnan level <u>Jose Paulo Pinheiro</u> , <i>Université de Lorraine, France</i>
17:00-17:20	Oral 13: AGNES and SSCP determination of free indium ion concentration <u>Josep Galceran</u> , <i>Universitat de Lleida, Spain</i>	Oral 14: How to better explain ion specificity and competitive adsorption using calorimetric approaches <u>Benedicte Prelot</u> , <i>Université de Montpellier, France</i>

17:20-17:40	<p>Oral 15: The photocatalytic reduction of U(VI) over CdS/g-C₃N₄</p> <p><u>Ping Li</u>, Northwest Institute of Eco-Environment and Resources, CAS, China</p>	<p>Oral 16: Critical role of collector surface roughness on the retention and release of nanoparticles in porous media</p> <p><u>Yan Liang</u>, <i>Guangxi University, China</i></p>
17:40-18:00	<p>Oral 17: Proton binding to natural nano particles: specific and electrostatic interactions unravelled using charge density-pH curve</p> <p><u>Luuk K Koopal</u>, <i>Wageningen University and Research, Netherland</i></p>	<p>Oral 18: Effective heavy metal adsorption driven by electrochemically controlled redox of manganese oxides</p> <p><u>Lihu Liu</u>, <i>Huazhong Agricultural University, China</i></p>
18:00-19:00	<i>Dinner</i>	

Sunday 16 May

8:30-9:10	Plenary Session (On-site, Room A; On-line, Zoom platform 9035407588) Moderators: Yandi Hu	
	<p>PL3: Nanoparticle interaction with biological membranes: the role of proteins <u>Joel Pedersen</u>, <i>University of Wisconsin-Madison, USA</i></p>	
9:10-10:00	Keynote Session	
	<p>Room A/Zoom platform 9035407588 Moderators: Qiaohui Fan</p>	<p>Room B/Microsoft Teams Moderators: Xionghan Feng</p>
9:10-9:35	<p>KN9: Molecular geochemistry: systematic understanding of behaviors of various elements and new methods to support the approach <u>Yoshio Takahashi</u>, <i>University of Tokyo, Japan</i></p>	<p>KN10: Biofilm biology-informed biofilm engineering for environmental biotechnology <u>Bin Cao</u>, <i>Nanyang Technological University, Singapore</i></p>
9:35-10:00	<p>KN11: Humic acid-enhanced hydroxyl radical production during Fe(II)-bearing clay mineral oxygenation: changes of electron transfer pathway and number <u>Songhu Yuan</u>, <i>China University of Geosciences, China</i></p>	<p>KN12: The spatiotemporal change of redox-sensitive elements in the soil-water interface and rice rhizosphere <u>Zheng Chen</u>, <i>Xi'an Jiaotong-Liverpool University, China</i></p>
10:00-10:20	Tea break	

Oral Session		
10:20-11:40	Room A/Zoom platform 9035407588 Moderators: Songhu Yuan, Juan Gao	Room B/Microsoft Teams Moderators: Zheng Chen, Anxu Sheng
10:20-10:40	Oral 19: The formation and application of free radicals on clay surfaces <i>Juan Gao, Institute of Soil Science, China</i>	Oral 20: Aggregation of microplastic particles in the presence of humic acid: Effects of KCl and CaCl ₂ solutions <i>Azizul Hakim, University of Chittagong, Bengal</i>
10:40-11:00	Oral 21: Simultaneous quantification effects of pH, calcium and phosphorus on the adsorption of arsenic in Paddy Soils <i>Yingxuan Deng, Henan Normal University, China</i>	Oral 22: Mechanistic understanding about Fe(II)-catalyzed ferrihydrite transformation <i>Anxu Sheng, Peking University, China</i>
11:00-11:20	Oral 23: Manganese oxide-coated zeolite decreases the Cd uptake of wheat plants in weakly alkaline soils <i>Guohong Qiu, Huazhong Agricultural University, China</i>	Oral 24: Electron transfer at the interface between Shewanella, pyrogenic carbon and nitroaromatic compounds <i>Hefei Wang, Nanjing Agricultural University, China</i>
11:20-11:40	Oral 25: Iron-montmorillonite-cyclodextrin composites as recyclable sorbent-catalysts for the adsorption and surface oxidation of per-fluorinated compounds <i>Samapti Kundu, Faculty of Civil and Environmental Engineering, Technion, Israel</i>	Oral 26: Highly enhanced As(III) oxidation at the surface of birnessite in the presence of pyrophosphate: depassivation effect & reaction mechanisms <i>Xionghan Feng, Huazhong Agricultural University, China</i>
12:00-13:00	Lunch	

	Plenary Session (On-site, Room A; On-line, Zoom platform 9035407588) Moderators: David Waite	
14:30-15:10	PL4: Machine learning exploration of biochar amendment in the immobilization of soil heavy metals <u>Yong Sik Ok</u> , <i>Korea University, Korea</i>	
	Keynote Session	
15:10-16:00	Room A/Zoom platform 9035407588 Moderators: Yong Sik Ok	Room B/Microsoft Teams Moderators: Jerzy Zajac
15:10-15:35	KN13: Nanoparticles and the mineral/biofilm/solution interface <u>Marc F. Benedetti</u> , <i>IPGP-Université de Paris, France</i>	KN14: Flow capacitive deionisation (FCDI): does this interesting technology for water treatment and resource recovery have a future? <u>David Waite</u> , <i>University of New South Wales, Australia</i>
15:35-16:00	KN15: Cotransport of plastic particles with different types of colloids in porous media <u>Meiping Tong</u> , <i>Peking University, China</i>	KN16: Chemodynamic features of nanoparticles: insights into the dynamic life cycle of SARS-CoV-2 <u>Raewyn Town</u> , <i>Universiteit Antwerpen, Belgium</i>
16:00 16:20	Tea break	
	Oral Session	
16:20-17:40	Room A/Zoom platform 9035407588 Moderators: Raewyn Town, Laurent Duclaux	Room B/Microsoft Teams Moderators: Meiping Tong, Philippe Behra
16:20-16:40	Oral 27: Macroscopic screening of competitive and co-operative effects in selective retention of pollutant ions	Oral 28: Study of glyphosate sorption onto chitosan molecularly imprinted polymers by surface plasmon resonance

	by charged solid surfaces <u>Jerzy Zajac</u> , <i>Institut Charles Gerhardt Montpellier, France</i>	<u>Philippe Behra</u> , <i>Université de Toulouse, France</i>
16:40-17:00	Oral 29: Adsorption of cationic dyes onto unmodified and modified biochar <u>Yassine Bentahar</u> , <i>Université Côté d'Azur, Institut de Physique de Nice, France</i>	Oral 30: As(III) adsorption on Fe-Mn binary oxides: are Fe and Mn oxides synergistic or antagonistic for arsenic removal? <u>Jingtao Hou</u> , <i>Huazhong Agricultural University, China</i>
17:00-17:20	Oral 31: Activated carbon beads from chitosan for the NO ₂ and formaldehyde removal from indoor air <u>Laurent Duclaux</u> , <i>Université Savoie Mont Blanc, France</i>	Oral 32: Hydration/Dehydration of adsorbed phthalic acid on goethite studied by IR spectroscopy and DFT+U Calculations <u>Romain Botella</u> , <i>Institut de Recherche de Chimie Paris, France</i>
17:20-17:40	Oral 33: Are the binding groups of Baltic coastal dissolved organic matter affected by seasonal variabilities? <u>Pablo Lodeiro</u> , <i>University of Lleida, Spain</i>	Oral 34: Evolution of Ni crystal chemistry and stability in birnessite during aging at room temperature and treatment at different temperatures <u>Hui Yin</u> , <i>Huazhong Agricultural University, China</i>
17:40-18:00	Oral 35: Natural organic matter-iron oxides interaction and effect on ion adsorption <u>Liping Weng</u> , <i>Agro-Environmental Protection Institute, Ministry of Agricultural and Rural Affairs, China & Wageningen University & Research, Netherland</i>	
18:00-19:00	Dinner	

Monday 17 May

Keynote Session		
8:30-9:45	Room A/Zoom platform 9035407588 Moderators: Marcelo Avena, Xiao-Ying Yu	Room B/Microsoft Teams Moderators: Yoshio Takahashi, Mengqiang Zhu
8:30-8:55	KN17: Multimodal imaging of oil-in-water bilgewater emulsion and biofilms <i>Xiao-Ying Yu, Earth and Biological Sciences Directorate, Pacific Northwest National Laboratory, USA</i>	KN18: Adsorption and oxidation of dissolved organic matter by iron and manganese oxides: insights from ESI-FT-ICR mass spectrometry <i>Mengqiang Zhu, University of Wyoming, USA</i>
8:55-9:20	KN19: Structural design and interface regulation of graphene based macro-materials for water purification <i>Baoliang Chen, Zhejiang University, China</i>	KN20: In-situ quick-scanning EXAFS measures rapid formation of surface precipitates at mineral-water interface <i>Wei Li, Nanjing University, China</i>
9:20-9:45	KN21: Electrochemical property of biochar and its application in environmental remediation <i>Xinde Cao, Shanghai Jiao Tong University, China</i>	KN22: Intercomparison and refinement of surface complexation models for U(VI) adsorption to goethite based on a metadata analysis <i>Zimeng Wang, Fudan University, China</i>
9:45-10:25	Plenary Session (On-site, Room A; On-line, Zoom platform 9035407588) Moderators: Marcelo Avena	
	PL5: Stability of U(VI) on surfaces of montmorillonite and UO ₂ <i>Daniel E. Giammar, Washington University in St. Louis, USA</i>	

<i>10:25-10:45</i>	<i>Tea break</i>	
10:45-11:00	Award Ceremony (On-site, Room A; On-line, Zoom platform 9035407588) <ul style="list-style-type: none"> • Best Poster • Best student presentation 	Moderators: Liping Weng
11:00-11:20	Closing Ceremony (On-site, Room A; On-line, Zoom platform 9035407588) <ul style="list-style-type: none"> • Speech of welcoming to IAP2022 	Moderators: Michael Sander
<i>12:00-13:00</i>	<i>Lunch</i>	

Student Session

(Saturday, 15 May; 19:00-21:30 Beijing Time)

19:00-21:30	Room A/Zoom platform 9035407588 Moderators: Xiaoli Tan, Xiaoming Wang	Room B/Microsoft Teams Moderators: Linchuan Fang, Jingtao Hou
19:00-19:15	SS1: Enhanced catalytic activity of OMS-2 for carcinogenic benzene elimination by tuning Sr ²⁺ contents in the tunnels <u>Chunlan Ni</u> , <i>Huazhong Agricultural University, China</i>	SS2: Transport of enzymes in quartz sand column partially coated with goethite: effects of pH and humic acid <u>Yan Li</u> , <i>Huazhong Agricultural University, China</i>
19:15-19:30	SS3: Nano-gold decorated TiO ₂ , and ZnO for NO _x degradation: new photocatalytic materials for the improvement of air quality <u>Castelló Lux Kevin</u> , <i>Laboratoire de Chimie de Coordination de Toulouse, France</i>	SS4: Reactive transport of REE: surface complexation with quartz surfaces and modeling investigations <u>Muhammad Muqet Iqbal</u> , <i>Universite de Rennes, France</i>
19:30-19:45	SS5: Fe-Chitosan Complexes for oxidative degradation of emerging contaminants in water: structure, activity, and reaction Mechanism <u>Giulio Farinelli</u> , <i>Politecnico di Torino, Italy</i>	SS6: Evaluation of heavy metal availability in soils near former zinc smelters by chemical extractions and geochemical modelling <u>Hui Gao</u> , <i>Wageningen University & Research, Netherland</i>
19:45-20:00	SS7: A novel phosphate-modified calcite adsorbent using for fluoride removal: Synthesis, efficiency, and defluoridation mechanism	SS8: Prediction of nano-magnetite stoichiometry in aqueous solution <u>Phoomipat Jungcharoen</u> , <i>University of Rennes, France</i>

	<u>Jingzhao Wang</u> , <i>Nanjing University, China</i>	
20:00-20:15	SS9: Coupled effects of Mn(II), pH and anionic ligands on the reactivity of nanostructured birnessite <u>Qinzhi Li</u> , <i>École Nationale Supérieure de Chimie de Rennes, France</i>	SS10: The influence of the gel or resin layer thicknesses on the measurement of metal accumulation in DGT <u>Jordi Sans-Duno</u> , <i>Universitat de Lleida, Spain</i>
20:15-20:30	SS11: Heterogeneous degradation of refractory pollutants by peroxymonosulfate activated by cobalt-doped FeS <u>Yanting Pan</u> , <i>Huazhong Agricultural University, China</i>	SS12: Evaluation of dyes sorption onto hierarchical Faujasite based on multiscale approaches <u>Marwa Assaf</u> , <i>Université de Montpellier, France</i>
20:30-20:45	SS13: Adsorption capacity of the corrosion products of nanoscale zerovalent iron for emerging contaminants <u>Junmin Deng</u> , <i>Ecole nationale supérieure de chimie de Rennes, France</i>	SS14: Selective sorption of phytate and orthophosphate on ferrihydrite with different aggregation <u>Zhen Hu</u> , <i>Huazhong Agricultural University, China</i>
20:45-21:00	SS15: Microstructure of Al-substituted goethite and its adsorption performance for Pb(II) and As(V) <u>Yu Liang</u> , <i>Huazhong Agricultural University, China</i>	SS16: Inter-laboratory validation of vapor pressure measurements of two endocrine-disrupting molecules: 4-tert-octylphenol & 4-n-octylphenol using gas saturation and static method <u>Joanna Farhat</u> , <i>Université Claude Bernard Lyon, France</i>
21:00-21:15	SS17: Photosensitized degradation of paracetamol by rose bengal-modified clays and alginate materials/rose-bengal <u>Yanet Mayer</u> , <i>Universidad Nacional del Sur, Argentina</i>	SS18: Water dispersible colloids and related nutrient availability in Amazonian Terra Preta soils <u>Qian Zhang</u> , <i>Institute of Bio- and Geosciences, Agrosphere (IBG-3), Forschungszentrum Jülich GmbH, Germany</i>

21:15-21:30	<p>SS19: Molecular understanding of humic acid-promoted hydrolysis of phytate through stabilizing a conserved catalytic domain in phytase</p> <p><u>Xinfei Ge</u>, <i>Huazhong Agricultural University, China</i></p>	<p>SS20: A new protocol for executing acid/base titration on organic matter applied to seven new IHSS batches</p> <p><u>Marawit Tesfa</u>, <i>Université Rennes, France</i></p>
21:30-21:45	<p>SS21 : Nanoscale Imaging of Simultaneous Occlusion of Nanoplastics and Glyphosate within Soil Minerals</p> <p><u>Jialin Chi</u>, <i>Huazhong Agricultural University, China</i></p>	<p>SS22: As(III) adsorption-oxidation behavior and mechanisms on Cr(VI)-incorporated schwertmannite</p> <p><u>Hong Ying</u>, <i>Huazhong Agricultural University, China</i></p>
21:45-22:00	<p>SS23: Molecular sorption mechanisms of Cr(III) to organo-ferrihydrite coprecipitates using synchrotron-based EXAFS and STXM techniques</p> <p><u>Xing Xia</u>, <i>Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences, China</i></p>	<p>SS24: Molecular mechanisms of cadmium sorption to rape straw biochars using ¹³C nuclear magnetic resonance spectroscopy and Cd L₃-edge X-ray absorption near-edge structure</p> <p><u>Yihao Wang</u>, <i>Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences, China</i></p>

Poster Presentations

(Sunday, 16 May; 19:00-21:00 Beijing Time)

P1: Building an effective concentration signature for Zn availability from 4 techniques to a stream

Kevin Rosales-Segovia, *Universitat de Lleida, Spain*

P2: Physical and chemical fractionation of soil organic carbon in relation to long-term phosphate fertilization

Yilina Bai, *Wageningen University, Netherlands*

P3: Photocatalytic activation of sulfite by maghemite ($\gamma\text{-Fe}_2\text{O}_3$) towards iohexol degradation with magnetic separation

Cheng Wang, *Huazhong Agricultural University, China*

P4: Passivation of heavy metals in landfill soils of mountain villages by phosphorus-containing substances

Li Huang, *Huazhong Agricultural University, China*

P5: Effects of organic matter–goethite interactions on reactive transport of nalidixic acid: Column study and modeling

Wei Cheng, *South Central University of Nationalities, China*

P6: Coagulation and sedimentation of imogolite: effect of pH and salt concentration

Yuji Yamashita, *University of Tsukuba, Japan*

P7: Influence of titanium dioxide nanoparticles on metallic trace elements behaviour in soils

Quynh Nguyen-Phuong, *University of Reims Champagne-Ardenne, France*

P8: Ultrasound-synthesized zero valent iron nanoparticles for Cr(VI) removal, application for the treatment of metal surface processing wastewater

N. Bounab, *Université Savoie Mont Blanc, France*

- P9:** Wood wastes: from an environmental burden to efficient biochars for pharmaceutical molecules removal in aqueous solution
Laurent Duclaux, *Université Savoie Mont Blanc, France*
- P10:** Development of new materials for the adsorption of arsenic (V)
Carina Luengo, *INQUISUR, Universidad Nacional del Sur, Argentina*
- P11:** Synthesis of montmorillonite-alginate beads applied to the kinetic study of paraquat adsorption
Mariana Etcheverry, *Universidad Nacional del Sur (UNS), INQUISUR-CONICET, Argentina*
- P12:** Removal of caffeine from water sources using alginate/carbon nanotubes beads
Orduz Angie, *Universidad Nacional del Sur, Argentina*
- P13:** Use of mosses for heavy metals removal from the environment
Sarah Fiol, *Universidad de Santiago de Compostela, Spain*
- P14:** Mesoporous silica: Is it really effective for decontamination of water bodies?
Julián Ortiz Otalvaro, Maximilano Brigante, *Universidad Nacional del Sur - INQUISUR, Argentina*
- P15:** The role of mineral structure in metal speciation and cycling in contaminated soil
Wei Zhao, *Northwest A&F University, China*
- P16:** Phosphate speciation on Al-substituted goethite: ATR-FTIR /2D-COS and CD-MUSIC modeling
Jinling Xu, *Shandong Normal University, China*
- P17:** Selective and quantitative adsorption mechanisms of soil humic substance on multi-component minerals
Hongfeng Chen, *Three Gorges University, China*

P18: Fraction distribution of heavy metals and its relationship with iron in polluted farmland soils around distinct mining areas

Wantong Zhao, *Huazhong Agricultural University, China*

P19: Facet-dependent surface charge and Pb^{2+} adsorption characteristics of hematite nanoparticles: CD-MUSIC-eSGC modelling

Mingxia Wang, *Huazhong Agricultural University, China*

P20: Impact of low-molecular-weight organic acids on selenite immobilization by goethite: Understanding a competitive-synergistic coupling effect and speciation transformation

Dun Fang, *Hubei Minzu University, China*

P21: Modifying MIL-100(Fe) through co-growing iron oxides to enhance its adsorption for selenite

Shiyong Wei, *Hubei Minzu University, China*