



NEWSLETTER N°10 - LabEx RESSOURCES21 – JULY 2022

Geology
Ore genesis
Exploration

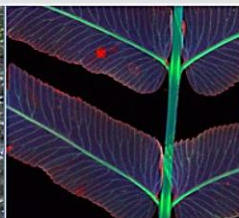
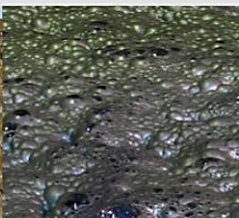
Ore processing
Hydrometallurgy

Agromining

Ecotoxicology
Environment
Remediation

Mines & society:
Territorial & economic integration

Recycling



A unique exhibition “Minerals Got Talent” in Nancy!

An exceptional mineralogical exhibition [Minerals Got Talent](#) that travels around the Europe from 2019 has finally come to Nancy in 2022! This educational European project funded by EIT Raw Materials is led by the Université de Lorraine, LabEX RESSOURCES21 and GeoRessources, and carried out in collaboration with TalTech University in Estonia, University of Oulu in Finland, FCT Universidade Nova de Lisboa in Portugal, the BRGM and the Czech Geological Survey in Czech Republic. The exhibition was created by the European Geoscientists to bring attention to the importance of minerals in our daily lives; it is an engaging installation that welcomes all ages and backgrounds.



Recruitment

Doctor in Geoscience **Olga Chernoburova** joined LabEx RESSOURCES21 in November 2021 as project research engineer. Her mission is to represent LabEx at the networking events, maintain the relationship with current LabEx partners and build new partnerships, take care of successful realization of LabEx projects and to disseminate the obtained results.

SUMMER SCHOOL KRAKOW /Call for PhD. Students Doc-ECE

The 6th edition of Doc-ECE (EIT RawMaterials project) Summer School for PhD. candidates with an affinity for developing new business models in a world of limited resources took place on July 3-8, 2022; [Read more details.](#)

Our latest PhD. thesis defenses

Romane Tisserand defended on February 10, 2021 her thesis entitled “The Ni biogeochemical cycle in a tropical agromine metal crop system”. This work financed by the LabEx RESSOURCES21 was carried out under the supervision of Pr. Guillaume Echevarria and Dr. Antony Van der Ent.

Under the supervision of Pr. Marie-Odile Simonnot and Pr. Yetao Tang, **Bastien Jally** defended on February 22, 2020 his thesis entitled “Expanding Agromining to the rare-earth elements: Key elements of success from a chemical engineering perspective”.







Ruoyu Hu defended on March 10, 2021 her thesis "Mobility and transfer of rare earth elements from soil to plants by arbuscular mycorrhizal fungi" carried out at under the supervision of Dr. Corinne LEYVAL.

Under the supervision of Pr. Yann Gunzburger and Pr. Rasool Mehdizadeh, **Otonne Scammacca** defended his PhD. thesis intitled “Mining risk assessment at the territory scale : development of a tool tested on the example of gold mining in French Guiana” on December 3, 2020.


The [Thematic School](#) "Mineral Resources 2022: Responsible Supply and Transitions" will take place in Orleans at the BRGM site on November 14-19, 2022. The aim of this school is to bring together a multidisciplinary scientific community to discuss in issues related to mineral resources. The theme of responsible sourcing and transitions focus of joint interdisciplinary brainstorming to find the best ways of supporting energy and digital transitions.

[PDAC 2022](#)-The World's Premier Mineral Exploration & Mining Convention happening in person on June 5-9th 2022. As every year for the past 8 years, a 5-person delegation attended the annual convention held in Toronto, Canada that gathers over 1,100 exhibitors, 2,500 investors and 23,000 attendees. Began in 1932, it's today the event of choice for the world's mineral industry. The online events and networking was held on June 28-29, 2022.

FOCUS ON THE RESSOURCES21 PROGRAMS: POSDOCTORAL FELLOWS AND PhD. STUDENTS

	LABORATOIRES	PROJECTS	PROJECT LEADERS
Guyane	PhD. STUDENT GEORESSOURCES	After obtaining a Master's degree from the Faculty of Science and Technology, STPE course, SMGE specialization, at the Université de Lorraine, Alix joined the LabEx in October 2020. He is supervised by Pr. Anne-Sylvie André-Mayer & Dr. Aurélien Eglinger in collaboration with BRGM and his research focuses on the "Mineralizing processes and geochemical tracers of gold deposits in Guyana".	 Alix Hauteville
	PhD. STUDENT GEORESSOURCES	Nina leads a project entitled "Multidisciplinary risks analysis of the mining field for territorial planning. Development of a prototype tool for decision support on the example of gold mining in French Guiana" under the supervision of Pr. Yann Gunzburger & Pr. Rasool Mehdizadeh.	 Nina Fermet Quinet
	PhD. STUDENT LRGP/ LSE	After obtaining his engineering degree in chemistry and processes applied to the environment, Thomas started a PhD. thesis project entitled the "Agromine and hyperaccumulation by gold plants in French Guiana – AhpoG" under the supervision of Pr. Baptiste Laubie & Pr. Guillaume Echevarria.	 Thomas Monnot
Rare Earth Elements	POSTDOCTORAL FELLOW LSE/ LIEC	Clément joined the LabEx as part of the LSE team for a year and a half. His research focuses on "Coupling bioleaching and phytoextraction of rare earths present in soils (PHYTOLIXTER)" under the supervision of Pr. Catherine Sirguy, Pr. Jean-Louis Morel, Dr. Patrick Billard & Dr. Damien Blaudez.	 Dr. Clément Layet
	POSTDOCTORAL FELLOW CRPG/ GEORESSOURCES	Currently working as an ATER, Valentin teaches general geology and continues to valorize his thesis work through scientific publications. In the LabEx, He led "CARB-origin: Carbon & carbonate origin in carbonatites: new constraints on the genesis of the main REE deposits" under the supervision of Dr. Lydéric France.	 Dr. Valentin Casola
Nickel	PhD. STUDENT LSE/ LRGP	After graduating from the Université de Paris Diderot (Paris Saclay) with a Master in Integrative Biology and Physiology, Sérigne works on his PhD. thesis project entitled "Breeding the Ultimate European Nickel Phytomining Crop: A Biomolecular and Eco-physiological Study" supervised by Pr. Guillaume Echevarria.	 Sérigne Ly

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<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Nickel</p> <p>SENIOR RESEARCHER FELLOW GEORESSOURCES</p>	<p>Anthony is between the University of Queensland and the Université de Lorraine, LSE team. He is working in collaboration with Pr. Guillaume Echevarria in the project entitled “Novel methodologies for measuring the metallome in (hyperaccumulator) plants”.</p>	 Dr. Anthony Van der Ent
<p>POSTDOCTORAL FELLOW GEORESSOURCES</p>	<p>After completing her thesis in Orléans at the CEMHTI (Extreme Conditions and Materials team), Marie joined GEORESSOURCES to develop K-Ar dating and application to lithiniferous micas of Panasqueira under the supervision of Dr. Michel Cathelineau.</p>	 Dr. Marie Gérardin
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Lithium</p> <p>POSTDOCTORAL FELLOWS GEORESSOURCES</p>	<p>After having developed the project NEXT ERA for the LabEx ITTEM, Vincent is currently working under the supervision of Pr. Yann Gunzburger on Reconfiguring the lithium geo-economy: a Global Production Networks approach to social and spatial dynamics in Australia and Latin America.</p>	 Dr. Vincent Bos
<p>PhD. STUDENT GEORESSOURCES</p>	<p>Graduated with a Master's degree in industrial and sustainable processes, specializing in catalysis and processes, Abdoul is currently working for the development of boron extraction process within the framework of lithium recovery from brine: Case of the Hombre Muerto salar (Argentina) under the supervision of Pr. Alexandre Chagnes.</p>	 Abdoul Fattah Kiemde
<p>POSTDOCTORAL FELLOWS CRPG/ GEORESSOURCES</p>	<p>Julia is involved in the project entitled “Lithium isotopic profiles in zoned olivine grains in primitive meteorites” under the supervision of Dr. Yves Marocchi.</p>	 Dr. Julia Neukampf
<p>PhD. STUDENT LIEC</p>	<p>Nicolas is working on a PhD. thesis project entitled “Multiscale analysis of the impact of lithium on microorganisms” under the supervision of Pr. Pascale Bauda & Dr. Damien Blaudez for the period of 2021-2024.</p>	 Nicolas Fierling

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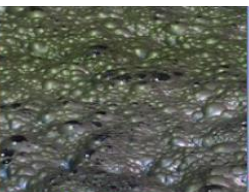
	LABORATORIES	PROJECTS	PROJECT LEADERS
Lithium	PhD. STUDENT GEORESSOURCES	Funded by LUE-R21/UQ (University of Queensland) within the framework of the international laboratory SUCRE, Allen is working on a joined PhD. thesis entitled "Advanced chloride route for lithium extraction from spodumene ores" under the supervision of Pr. Alexandre Chagnes from GEORESSOURCES, Université de Lorraine and the co-direction of Dr. James Vaughan from the University of Queensland.	 Allen Fosu
	PhD. STUDENT GEORESSOURCES	After graduating from the Université de Lorraine with a Master, Naila is currently working on a Portable, quick and quantitative analysis of light elements (Li, Be, F) in rare metal bearing felsic rocks within the framework of Beauvoir case study, under the supervision of Pr. Jean Cauzid & Pr. Cécile Fabre.	 Naila Mezoued
Lithium BEAUVOIR	PhD. STUDENT GEORESSOURCES	Chloé is graduated as an engineer at ENSG, Université de Lorraine, before joining the GEORESSOURCES laboratory as part of the LabEx. His PhD. thesis, supervised by Pr. Lev Filippov focuses on the "Geometallurgical evaluation of Li recovery by flotation from rare metal granites: mineralogical and textural variability study".	 Chloé Korbel
	POSTDOCTORAL FELLOWS GEORESSOURCES/ CRPG	Christophe is involded on the project entitled "Origin and evolution of Li-pegmatite as seen through a multi-isotopic study: application to the Orange river pegmatite belt (South Africa) under the supervision of Dr. Julien Mercadier.	 Dr. Christophe Ballouard
	PhD. STUDENT GEORESSOURCES/ CRPG	Nicolas works on understanding protracted differentiation and its role in Li & rare metals concentration: within the framework of the Beauvoir project under the supervision of Dr. Pierre Bouilhol, Dr. Lydéric France & Dr. Michel Cuney.	 Nicolas Esteves
	PhD. STUDENT GEORESSOURCES	After her engineering degree at EOST (Ecole et Observatoire des Sciences de la Terre), Université de Strasbourg, Océane joined the labEx R21 in 2021 for a PhD. thesis entitled "The hydrothermal system of the beauvoir granite and its impact on the distribution of critical metals" under the supervision of Dr. Antonin Richard & Dr. Julien Mercadier.	 Océane Rocher

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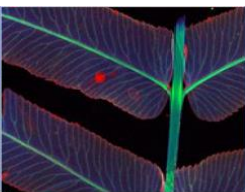
	LABORATORIES	PROJECTS	PROJECT LEADERS
Lithium BEAUVOIR	POSTDOCTORAL FELLOWS CRPG/ GEORESSOURCES	Steven completed his PhD. thesis in geoscience at the Université de Toulouse in France. He is currently working as a post-doctoral fellow for the project “Quantitative mineralogy of the Beauvoir granite” under the supervision of Dr. Michel Cathelineau.	 Dr. Steven Kahou
	POSTDOCTORAL FELLOWS CRPG/ GEORESSOURCES	Patrick is a post-doctoral fellow recruited in the LA-ICP-MS platform. He works on the Multi-datation techniques applied to W-Sn deposits under the supervision of Dr Julien Mercadier. Patrick completed his thesis at ANU (Canberra, Australia) on the development of U-Pb dating of cassiterite (SnO ²) which is the main carrier of tin in deposits.	 Dr. Patrick Carr
Other metals & projects	PhD. STUDENT CRPG/GEORESSOURCES	The project “Reconstructing early orogenesis and sediment sources in the linking zone between the Alps and the Pyrenees (Late Cretaceous – Paleogene)” is conducted by Julien under the supervision of Dr Raphaël Pik & Dr Julien Mercadier.	 Julien Léger
	POSTDOCTORAL FELLOWS GEORESSOURCES	Since 2015, Yoram has been involved in several projects funded by the LabEx RESSOURCES21. He is currently involved in a new project entitled “Nickel enrichment factors in saprolite ores in new caledonia” under the supervision of Dr Michel Cathélineau.	 Dr. Yoram Teitler



GeoRessources
CRPG



GeoRessources
Steval



LSE
Coll LRGP



LSE
LIEC



GeoRessources
BETA



GeoRessources
(Steval, Hydroval)

7 LABORATORIES

International research and teaching collaborations with research institutes:

CANADA (Quebec: UQAT, DIVEX, INRS) CHINA (ECOLAND: international research partnership with Sun-Yatsen university
AUSTRALIA (UQ, SMI: international research partnership SUCRE)

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