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Summer school Invitation

The Division of Resource Recovery would like to invite you to participate in four summer schools that will take place from the 17th – 20th of September 2024 at KTH in Stockholm, Sweden. These summer schools are part of the joint initiative between EIT Raw Materials and project partners within Dyscovery, EU Magnesium, Scaleup and Valore.

Is this for you?

Are you in industry roles like engineer, scientist, technologist, or researcher? Or are you in academia as a postgraduate student or postdoctoral researcher? If the answer is yes to any of the above, then you are the ideal participant.

Cost

Registration to this event is free. Click [here](#) to register. However, the travel, accommodation and subsistence costs will be borne by the participant.

Contact

Should you have questions or need more information, email: cledwyn@kth.se



Programme: Day 1, 17th of September

Dyscovery – EoL permanent NdFeB and SmCo magnet recycling

Time	Topic	Presenter
9:00 - 9:30	<i>Morning coffee</i>	
9:30 - 10:00	Primary raw materials for magnet manufacturing: challenges and risks	Beate Orberger, CATURA
10:00 - 10:30	NdFeB magnets and the rare earth market: manufacturer perspective	Matej Zaplotnik, Magneti
10:30 - 11:00	NdFeB magnets and the rare earth market: end user perspective	Fabio Scaffidi Muta, CRF
11:00 - 11:30	NdFeB magnets (structure, composition)	Pavel Korzhavy, KTH
11:30- 12:00	Magnet preparation for recycling	Daniel Vogt, TUBAF
12:00- 13:00	<i>Lunch Break</i>	
13:00- 13:45	The Dyscovery project overview:	Anastasia Moschovi, Monolithos
13:45- 14:15	The H ₂ -free Dyscovery leaching process	Robin Scharfenberg, MEAB
14:15- 15:00	<i>Coffee Break</i>	
15:00- 15:30	Hydrometallurgical processing of REE	Kerstin Forsberg, KTH
15:30- 16:00	Electrowinning in the Dyscovery project	Daniel Vogt, TUBAF
16:00- 16:30	Life-cycle assessment and MFA	Dimitria Skentzou SE&C
16:30- 17:15	Participation of students: 20 min workshops upon questions for students in small groups and 3 min presentations of their results	
17:15- 17:30	Concluding discussions	

Programme: Day 2, 18th of September

EU Magnesium – Mg extraction and production from Cr production residues and dolomite

Time	Topic	Presenter
9:00 - 9:30	<i>Morning coffee</i>	
9:30 - 10:30	Magnesium and Scandium in the Master alloy automotive or aircraft sector industries	Henk van de Laan, VIC
10:30 - 11:30	The Magnesium market and market evolution: Risks, challenges, potential for Europe	Henk van de Laan, VIC
11:30 - 12:15	Primary and secondary Magnesium resources, and introduction to the EU-Magnesium project	Beate Orberger, CATURA
12:15 - 13:00	<i>Lunch Break</i>	
13:00 - 13:45	MURES Magnesium: Magnesium metal production in and for Europe (Challenges (investment), risks, successes)	Duane Runciman – Matt Dey (MURES Magnesium)
13:45 - 14:30	How sustainable brownfield redevelopment provides Magnesium to the EU	Martin Dreiseite, F & R Worldwide
14:30 - 15:00	<i>Afternoon coffee</i>	
15:00 - 16:15	Mg metal production via molten salt electrolysis and Aluminium thermoreduction	Alen Rupnik, Blaz Likozar, National Institute of Chemistry
16:15 - 17:00	Life Cycle Assessment of MURES plant – challenges and results	Dimitra Skentzou, SE@C
17:00 - 17:30	Concluding discussions	

Programme: Day 3, 19th of September

Scaleup – Scaling up Scandium production from European Bauxite Residue

Time	Topic	Presenter
9:00 - 9:30	<i>Morning coffee</i>	
9:30 - 10:00	Scandium overview	Dag Øistein Eriksen, UiO
10:00 - 10:30	Scandium and Al/Sc alloy market	Admiris
10:30 - 11:00	Bauxite and the Scale-up project	Beate Orberger, CATURA
11:00 - 12:00	Pilot plant and leaching operation	Efthymios Balomenos, Mytilineos
12:00 - 13:00	<i>Lunch Break</i>	
13:00 - 13:30	Sc separation by ion exchange	Elena Mikeli, NTUA
13:30 - 14:00	Impurity reduction	
14:00 - 14:30	Crystallization of Sc compounds	Kerstin Forsberg, KTH
14:30 - 15:00	<i>Afternoon coffee</i>	
15:00 - 15:30	Sc-Al alloys	Dimitrios Sparis, NTUA
15:30 - 16:00	Business perspective	Mytilineos, Admiris
16:00 - 17:00	<i>Workshop</i> Participants work in groups on theme related questions and presents their conclusions.	
17:00 - 17:30	Concluding discussions	

Programme: Day 4, 20th of September

Valore – V, Ga extraction from Bayer Liquor

Time	Topic	Presenter
9:00 - 9:30	<i>Morning coffee</i>	
9:30 - 10:00	The Gallium market and market evolution: Risks, barriers and or challenges, opportunities for Europe	Dirk Vangeneugden, Vito
10:00 - 10:30	Endusers view: Gallium applications in the electronics sector	Ericsson
10:30 - 11:15	Primary and secondary extraction of Gallium resources	Jochen Petersen, UCT
11:15 - 12:00	Introduction to the EU-Valore project	Beate Orberger, CATURA
12:00 - 13:00	<i>Lunch Break</i>	
13:00 - 13:45	Case Study: Gallium metal production within Al and Zn extraction and recycling: The business case (Challenges, risks, successes) <i>Mytilineos (Resins)/MEAB (SX) – Piloting</i>	Carsten Dittrich, MEAB
13:45 - 14:30	The Vanadium market and market evolution: Risks, barriers and or challenges, opportunities for Europe	Elena Mihaela Seftel, Vito
14:30 - 15:00	<i>Afternoon coffee</i>	
15:00 - 16:00	Vanadium extraction: Novel vs Conventional route – Panel Presentations <ul style="list-style-type: none"> • Bayer chemistry: Behaviour of V and Ga within the Bayer process • Vitos adsorbent development journey • Vanadium crystallization 	Efthymios Balomenos, Mytilineos Subhamoy Bhowmick, Vito Cledwyn Mangunda, KTH
16:00 - 16:15	Q & A to panel members	
16:15 - 17:00	Participants group activity (3 groups: -10 minutes presentation plus 5 minutes to take questions fielded at them.	Mytilineos, Admiris
17:00 - 17:15	<i>Kahoot online Q & A of material presented. - Prizes awarded to top 3 participants.</i>	
17:15 - 17:30	Concluding discussions	