

# MATERIE PRIME E GEOMATERIALI: CRITICITÀ E APPLICAZIONI INDUSTRIALI

**PROGRAMMA 9 dicembre 2024**

**Ore 8:20 – 9:00 Registrazione partecipanti** (in presenza e online)

**Ore 9:00 – 10:00 Cerimonia di apertura**

Introduzione alle Giornate a cura di Elena Belluso (Presidente GABeC) e di Paolo Mazzoleni (Presidente SIMP)

## **Saluti Istituzionali**

- Magnifica Rettore di Sapienza Università di Roma, Prof.ssa Antonella POLIMENI.
- Dott. Alberto CASTRONOVO, Ministero delle Imprese e del Made in Italy
- Dott. Gianluca CUSANO, Direzione generale valutazioni ambientali, Divisione II - Rischio rilevante e autorizzazione integrata ambientale, Ministero dell'Ambiente e della Sicurezza Energetica
  - Dott. Arcangelo Francesco VIOLO, Presidente del Consiglio Nazionale dei Geologi
  - Dott. Fiorenzo FUMANTI, Dipartimento per il Servizio Geologico d'Italia ISPRA, coordinatore della realizzazione del database nazionale geologico minerario
  - Dott. David GOVONI, Presidente della Federazione Europea dei Geologi (FEG/EFG)
  - Dott. Andrea DINI, Direttore dell'Istituto di Geoscienze e Georisorse, CNR
  - Dott.ssa Monica GIARDA, Direttore delle Attività di Assorisorse

## **Ore 10:00 – 18:30 Lectures**

**10:00 – 11:00** "Implementazione del "Critical Material Act" in Europa e in Italia" - Gian Andrea BLENGINI (Università di Torino)

**11:00 – 11:15** *Coffee Break*

**11:15 – 12:15** "Un'introduzione alle risorse minerali e materie prime critiche: dove, come, quante" - Paolo NIMIS (Università di Padova)

**12:15 – 13:15** "Studi sulla disponibilità futura delle Georisorse" - Francesco DI BENEDETTO (Università di Ferrara)

**13:15 – 13:30** *domande sulle lectures*

**13:30 – 14:20** *Pausa Pranzo (registrazione uscita e rientro, in presenza e on line, per i richiedenti i CFP)*

**14:30 – 15:30** "Non solo litio: geoscienze, serendipità e nuovi orizzonti minerari" - Andrea DINI (Istituto di Geoscienze e Georisorse, CNR, Pisa)

**15:30 – 16:30** "Georisorse Nazionali: leva strategica per la decarbonizzazione dell'industria ceramica" - Davide SETTEMBRE (Gruppo Ceramiche GRESMALT, Modena)

**16:30 – 17:30** "Recupero di Materie Prime Critiche da rifiuti estrattivi. Casi studio in Italia" - Licia SANTORO (Università di Torino)

**17:30 – 18:30** "Zeoliti: da minerale industriale a geomateriale strategico. Una nuova sfida per le zeoliti naturali" Mariano MERCURIO (Università degli Studi del Sannio, Benevento) e Piergiulio CAPPELLETTI (Università degli Studi di Napoli)

**18:30 – 18:45** *Registrazione uscita, in presenza e on line, per i richiedenti i CFP*

**18:45** *Registrazione partecipanti (in presenza e online) alla verifica finale*

**18:45 – 19:30** *Verifica Finale (questionario) necessaria per l'ottenimento di ulteriori 3 CFP (previo superamento del questionario)*

## PROGRAMMA 10 dicembre 2024

### *Contributi*

**09:00 – 09:15 Brodu G. et al.:** Recovery of quarry waste by production of pozzolanic mortars using Sardinian rhyolitic rocks

**09:15 – 09:30 Conte S. et al.:** Sustainability in the ceramic tile industry: necessity, constraints and opportunities

**09:30 – 09:45 Di Leo P. et al.:** Phyllosulfates and clay minerals as suitable geomaterials for mechanochemical transformation and removal of xenobiotics: a review

**09:45 – 10:00 Finocchiaro C. et al.:** Technological advances for the production of alternative geo-materials from waste

**10:00 – 10:15 Floreani F. et al.:** Identification and characterisation of mining waste materials through field surveys at a decommissioned Cu-Sb(-Ag) mine site (Monte Avanza, Carnic Alps, NE Italy)

**10:15 – 10:30 Fornari G. et al.:** Cogeneration ashes from Italian biomass-fired power plants as raw materials for fertilizer industry: detailed multi-analytical characterization and feasibility study

**10:30 – 10:45 Fornasaro S. et al.:** The potential reuse of Coal Combustion Wastes: The case study of the Angren Thermal Power Station (Uzbekistan)

**10:45 – 11:00 Lustrino M.:** The difference between a sceptic and a negationist. The CO<sub>2</sub> business and the role of geologists in a greener future

### **11:00 – 11:30 Pausa & poster session**

**11:30 – 11:45 Molinari C. et al.:** Ceramization of hazardous elements: benefits and pitfalls of the inertization process in silicate ceramics

**11:45 – 12:00 Nazzareni S. et al.:** Unusual REE enriched in Agua de Pau syenites (Sao Miguel, Azores Islands): a case study to understand REE-enrichment processes

**12:15 – 12:30 Pavoni E. et al.:** Decommissioned mining areas: an environmental issue or a source of critical raw materials? Insights from the Pb-Zn Raibl mining district (northeastern Italian Alps)

**12:30 – 12:45 Radica F. et al.:** Minero-chemical variability of recycled concrete aggregate (RCA) from a processing plant in Central Italy: towards an improved CDW Up-cycling

**12:45 – 13:00 Randazzo L. et al.:** Clay raw materials: mineralogical characterization and technological properties for eco-sustainable use in the tanning sector and in the Green Building

### **13:00 – 14:00 Pausa pranzo & poster session**

**14:15 – 14:30 Raneri S. et al.:** Recovering lithium: from LIB to LAS and non-compliant Li-rich enamels. Literature insights and new perspective from the LyCicle Project

**14:30 – 14:45 Rimondi V. et al.:** The antimony (Sb) resource in south Tuscany: evaluation of a critical raw material potential and of the environmental impact of past exploitation

**14:45 – 15:00 Sbardella G. et al.:** Cobalt removal from contaminated solutions through synthetic AMC-carbonates

**15:00 – 15:15 Stabile P. et al.:** Crystal and Glass Distribution in a Thermally Treated Bottom Ash: An Experimental Approach

**15:15 – 15:30 Tagliacollo L. et al.:** Critical Raw Materials (CRMs) petro-geochemical investigation in historically dismissed ophiolite-related Volcanogenic Massive Sulfide (VMS) deposits from the Emilia-Romagna region

**15:30 – 15:45 Zanelli C. et al.:** Critical raw materials in the global high-throughput ceramic industry

**16:00-16:30:** TAVOLA ROTONDA CONCLUSIVA condotta dal Presidente GABeC, Elena BELLUSO, dal Presidente SIMP, Paolo MAZZOLENI, e dal Presidente CNG, Arcangelo Francesco VIOLO

## Poster session

1. **Aquilano A. et al.:** Granite Extractive Wastes as a Source for Critical Raw Materials: Insights from Sardinia
2. **Attardi A. et al.:** The metallogenic database of Sardinia
3. **Bussolesi M. et al.:** Implementing Ophiolitic Chromite Concentrates from Metallurgical to Foundry Grade: The Case of Albanian Sands
4. **Cioce S. et al.:** Assessment of Critical Raw Materials in the Northern Apennines (Parma and Piacenza provinces) using bibliographic data and subsurface geological models
5. **Cofano V. et al.:** Closing the loop: a circular approach for Apulian waste streams
6. **Columbu S. et al.:** Recycling of fly-ash as hydraulic additive in eco-friendly mortars and concretes
7. **Deidda M.L. et al.:** The CARG 546 Guspini (SW Sardinia) metallogenic map: state of the art and workflow
8. **Ercoli R. et al.:** Characterization of Fine Fractions in Construction and Demolition Waste (CDW) from Rubble across Multiple Disposal Sites for Assessing Potential Applications.
9. **Graziano S.F. et al.:** Processing waste of quartzite from Jaipur District (India) as secondary raw materials for cementitious adhesives
10. **Mantovani L. et al.:** Resource recovery from municipal solid waste incineration bottom ash
11. **Milliacci G. et al.:** Modeling uranium extraction for energy transition
12. **Perna M.G. et al.:** CRMs from the LREE-F-rich belt of Roman Comagmatic Province (Central Italy)
13. **Raneri et. al.:** New perspectives on extracting and recycling lithium and REEs from mining and industrial wastes along with environmental safety and sustainability: the ARTU project
14. **Rotta D. et al.:** Characterization and valorization of fluvial sand fractions from the Emilia-Romagna region for the Recovery of Critical Raw Materials (CRMs)
15. **Scano L. et al.:** The low-temperature post-Variscan vein mineralization in Sardinia: genesis and economic potential in CRM
16. **Sedda L. et al.:** Advancing Sardinia's Mineral Resource Database: Updates from the Geosciences IR Project
17. **Stabile P. et al.:** Glass-ceramic materials from floating glass and Cu-slag waste: the role of cooling rate
18. **Zanelli C. et al.:** Mineral Resources for the Ceramic Industry: Survey of Feldspathic Raw Materials in Italy
19. **Zatti G. et al.:** Monitoring the quality of a kaolin mine over time: Piloni di Torniella (Tuscany, Italy)

### Il Comitato Organizzatore

Mauro Francesco La Russa, Responsabile

Davide Comboni

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