

CRITICAL RAW MATERIALS AND THEIR ENVIRONMENTAL IMPACT

PhD course held by Alessandro Cavallo



What are “**critical raw materials**” (CRM)? What are the industrial uses? Why are they so important to the “**green economy**”? This short course will cover the following topics:

- **Critical raw materials:** REE, PGE, Sb, Ge, Ga, In, Li, Mg, Co, Nb, Re, Ta, W, fluorspar, baryte, borate...
- **From mining to industry:** ore deposits, ore processing, industrial uses
- **Environmental impact:** are these materials really “green”? What about recycling? And life-cycle assessment (LCA)?
- **Alternative materials?** State of the art and future trends

The course will be held on the Webex platform:

<https://unimib.webex.com/meet/alessandro.cavallo>

- Tuesday, July 6, 10:30 a.m. - 12:30 p.m. and 2:30 p.m. - 4:30 p.m.
- Wednesday, July 7, 10:30 a.m. - 12:30 p.m.
- Thursday, July 8, 10:30 a.m. - 12:30 p.m.
- Tuesday, July 20, 10:30 a.m. - 12:30 p.m. and 2:30 p.m. - 4:30 p.m.
- Wednesday, July 21, 10:30 a.m. - 12:30 p.m.
- Thursday, July 22, 10:30 a.m. - 12:30 p.m.

Rare Metals in a smart phone



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