OptimOre

Increasing yield on Tungsten and Tantalum ore production by means of advanced and flexible control on crushing, milling and separation process

4º Mineral processing workshop

Hosted by UPC through webinar

22nd February 13:00 to 15:00 hrs UTC +1, through the link:
https://attendee.gotowebinar.com/register/6244823112823280 67

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The main objective of OPTIMORE is to optimize the crushing, milling and separation ore processing technologies for Tungsten and Tantalum mineral processing, by means of improved fast and flexible fine tuning production process control based on new software models, advanced sensing and deeper process physical study in creasing yield in 7-12% on the current best production processes, increasing energy saving on a 5% compared to the best available techniques

Modern economy is highly dependent on specific raw materials, and it is envisaged that this dependency will increase in the near future. Most of them are scarce in EU and of poor purity, being mixed within complex and low grade aggregates which need to be processed by means of a separation process consuming high quantities of energy and water, and even in some cases this makes its exploitation unfeasible due to production costs. Being EU dependent on some of these materials, as identified by EIP initiative, our society is demanding more efficient extracting processes to contribute to major European independency on these Critical Raw Materials (CRM).

Intelligence techniques, for the more efficient and flexible Tantalum and Tungsten ores processing from crushing to separation process, with the participation of relevant international players in the mining field on research Tungsten and Tantalum ores are two recognized CRMs: In a market currently dominated by China and Russia production (among others), in Europe Tungsten (limited) production is mostly concentrate into UK, Spain and Portugal . On the other side, Tantalum is a key element on electronics with clear EU external production dependency, as it is naturally really scarce in Europe (only 1% of world production is concentrated in EU). Knowing this situation, OptimOre Project proposes the research and development of modelling and control technologies, using advanced sensing and advanced industrial control.

Dr Josep Oliva Moncunill
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Outline programme

- Welcome and introduction to OptimOre project
- Mineral processing work packages
a) State of the art in tungsten and Ta process
b) Crushing developments
c) Milling developments
d) Gravity separations modelling
e) Magnetic separation recovery
f) Froth flotation concentration
- Simulation and process control
- Validation

The time of the event in different cities of the world

6 am: Mexico DF
7 am: Bogotá, Lima, Quito, New York
8 am: Caracas, Santiago of Chile, La Paz, Asunción, La Habana,
9 am: Buenos Aires, Sao Paulo
12 am: London
1 pm: Barcelona, Paris, Amsterdam, Goteborg, Berlin, Freiberg.
2 pm: Athens, Ankara, Istanbul
3 pm: Baghdad, Teheran
5:30 pm: Calcuta, New Delhi
8 pm: Shangai, Pekin, Taipei, Perth
9 pm: Seoul, Tokyo
10 pm: Melburne

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