Mineral Resources Research Group

INTRODUCTION

We are group of earth scientists, and our goal is to develop research in Mineralogy and Ore Deposit Models.

The task that we develop consists of:

- The study of the **mineral resources** from **metallogeny** to the early stages of **exploration**.
- The industrial and technical **applications** of mineral resources and their **sustainability**.
- The study of the biological and geological **interactions** and the **environmental impact** of mining activity

MEMBERS

Dr. Josep Roqué Rosell – Dr. Joaquín Antonio Proenza – Dr. Joaquin Portillo – Dr. Joan Carles Melgarejo Draper – Dra. María Abigaíl Jiménez Franco.

RESEARCH LINES

- Geological and biological interactions at nanoscale.
- Nanoscale partitioning of metals in geological systems.
- Nanoporosity in rocks and soils.
- Natural nanoparticles aggregation.
- Stability of nanominerals.
- *Ab initio* structure determination of nanominerals.

RECENT PUBLICATIONS

González-Jiménez, J. M., Deditius, A., Gervilla, F., Reich, M., Suvorova, A., Roberts, M. P., Roqué, J. & Proenza, J. A. (2018). ***Am. Mineral.*** 103, 1208–1220. Roqué Rosell, J., Portillo Serra, J., Aiglsperger, T., Plana-Ruiz, S., Trifonov, T. & Antonio Proenza, J. (2017). ***J. Cryst. Growth***. Roqué-Rosell, C. Villanova-de-benavent, J. & Proenza, J. A. (2017). ***Geochim. Cosmochim. Acta.*** 198, 48–69. Aiglsperger, T., Proenza, J., Longo, F., Font-Bardia, M., Galí, S., Roqué, J. & Baurier-Aymat, S. (2016). ***Minerals.*** 6, 126.

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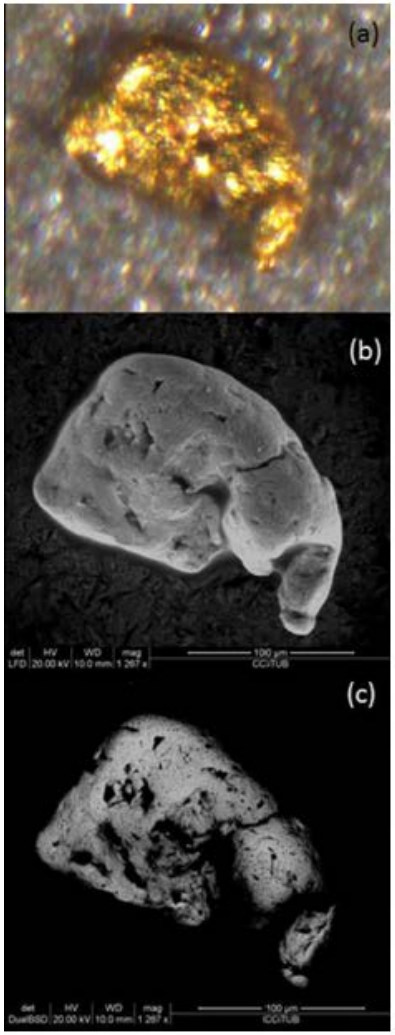
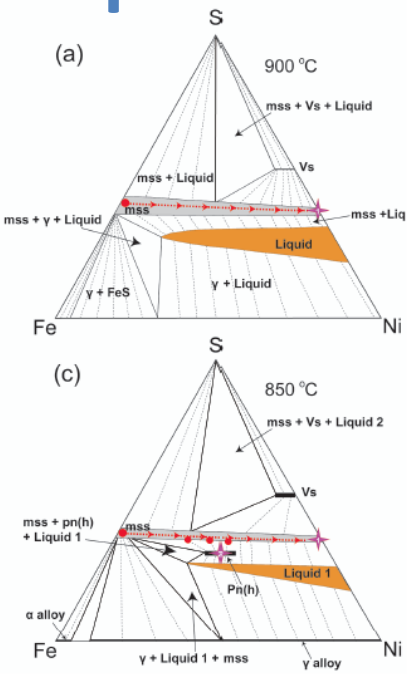
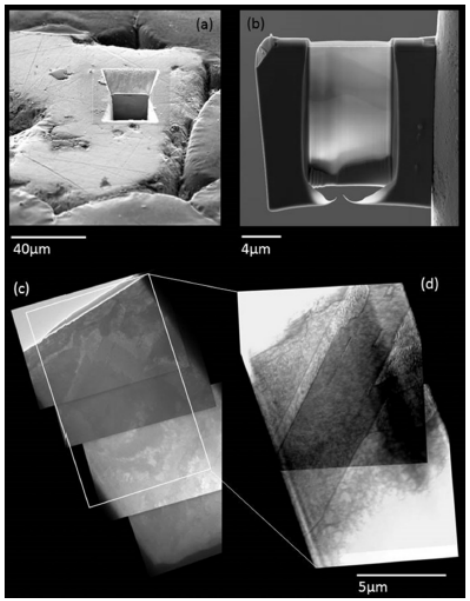
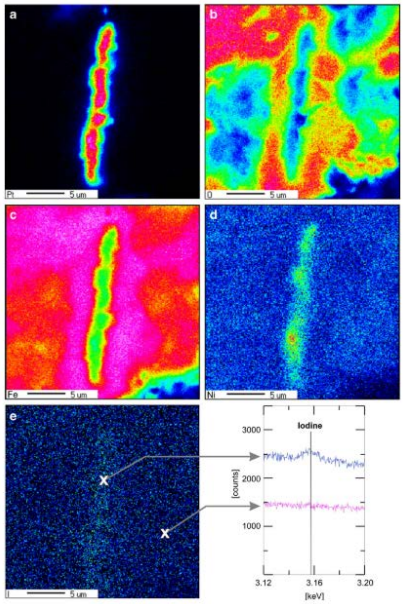


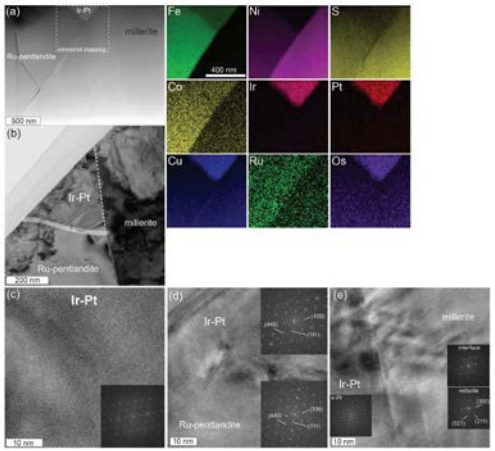
RESEARCH HIGHLIGHTS

Listed from left to right anticlockwise: **Gold micro-nugget** from República Dominicana developed in tropical soils / **FIB sample preparation** for TEM from a natural occurring mineral aggregate / **Fibrous Pt-minerals** from heavy weathered laterites containing iodine / Microanalysis of **metal rich nanoparticles** from a glassy xenolith / Ternary phase diagrams for **monosulfide solid solutions**.









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