

## **MINERAL TEXTURAL STUDY BY AMS AND ITS APPLICATION ON TRACK OF PALEO-CIRCULATION IN DOLOMITIZED FORMATION**

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Flow circulation in the Earth crust and close to the surface influences significantly tectonic fractures and geochemical transfers. In order to quantify flow migration, the scientific community often uses indirect methods by numerical modelling at a megascopic scale (km). In absence of direct data on kinetics and flow direction, the validity of the calculation is uncertain.

This study aims to present a new analysis concept to interpret textures of hydrothermal formation combining the chemical diffusion theory and laboratory analogue experimentation on the crystal growth in flowing solution with the textural identifications by Anisotropy of Magnetic Susceptibility (AMS) and optical textural analyses on natural rocks. The good understanding of the relationship between theoretical calculation, laboratory experiment and textural analyses from crystal to natural-rock scales will lead to establish the more performing method to study hydrothermal texture.

Our textural study on the dolomitized sedimentary series of La Florida MVT deposits (Santander, Spain) shows that AMS is an efficient tool to determine the mineral texture with respect to classical crystallographic approaches, such as EBSD, goniometry texture and image analysis, which are time consuming. These more representative results give better understandings on hydrothermal history.

Flow circulation, AMS, textural study

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