

Optical characterization of the São Domingos Mine heaps with satellite imaging

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Talk Abstract

The INCOME Project proposes the creation of an environmental management model for mining areas contaminated by toxic metals. This model integrates the results of the application of a set of analytical methods and instruments for monitoring contaminated areas, such as biophysical analyses, soil, and water chemistry, geophysics, and satellite hyperspectral remote sensing. Data from all research will be used as inputs to be used by artificial intelligence, which will allow the production of contamination models using less data than standard methodologies. The optical characterization of the mining heap using satellite data available from the Copernicus program (EU Space Programme) allows extracting information about the surface to make the correspondence with heavy metals. This work will include the optical analysis of satellite data relating to the surface of the São Domingos Mine (Mértola, Portugal).

Keywords: Optical characterization, Satellite imaging, Remote Sensing.

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