Title (en)

MULTIMODALITY MINERALOGY SEGMENTATION SYSTEM AND METHOD

Title (de)

MULTIMODALES SYSTEM UND VERFAHREN ZUR MINERALOGIESEGMENTIERUNG

Title (fr)

SYSTÈME ET PROCÉDÉ DE SEGMENTATION DE MINÉRALOGIE À MULTIMODALITÉ

Publication

EP 3403238 A1 20181121 (EN)

Application

EP 16705331 A 20160111

Priority

US 2016012864 W 20160111

Abstract (en)

[origin: WO2017123196A1] A multimodality imaging system and method for mineralogy segmentation is disclosed. Image datasets of the sample are generated for one or more modalities, including x-ray and focused ion beam scanning electron microscope (FIB-SEM) modalities. Mineral maps are then created using Energy Dispersive X-ray spectroscopy (EDX) from at least part of the sample covered by the image datasets. The EDX mineral maps are applied as a mask to the image datasets to identify and label regions of minerals within the sample. Feature vectors are then extracted from the labeled regions via feature generators such as Gabor filters. Finally, machine learning training and classification algorithms such as Random Forest are applied to the extracted feature vectors to construct a segmented image representation of the sample that classifies the minerals within the sample.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

See references of WO 2017123196A1

Cited by

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Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

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