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Imaging of Dense Minerals in Rocks Using Micro-CT

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High contrast visualization and thus correct identification of high density materials within rocks and drill cores without line, ring and other artifacts is a challenge – e.g. high quality visualization and quantification of gold particles embedded within the rock matrix is important in the mining industry to enhance processes for higher yield in gold extraction. Micro CT was successfully used to visualize and identify gold particles according to its morphology and attenuation coefficient. The associated minerals with gold were studied to get a better understanding of gold deposition, distribution and associations. Due to high density of gold special parameters of a Micro-CT system were optimized to minimize beam hardening to obtain better image quality and contrast. Different filter materials with varying thicknesses were used to increase transmission to aid to the successful reconstruction and higher quality results.

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No

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