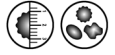


Characterizing sediment samples by transparency using the Morphologi G3



Introduction

The measurement of particle shape in the study of sediments provides information that is not captured in the particle size distribution. Particle shape can only be obtained in a particle imaging experiment using an appropriate magnification. The Morphologi G3 can measure particle shape in sediment samples with a particle size ranging from less than a micron to multiple millimeters.

Circularity is an important parameter in the study of sediments because it is sensitive to both the overall form and the edge roughness of the particles. It is therefore a tool particularly well-suited to investigate the nature of the particles.



Results

The intensity mean (i.e. transparency) distribution of the particles in a sediment sample as shown in figure 1 can help understand the quantitative proportions of materials from different origin.

Conclusion

Intensity parameter measurements performed using diascope illumination on the Morphologi G3 can help understand the origin of sediments.

With thanks to Dr Jon Woodruff, Department of Geosciences, University of Massachusetts for supplying samples and data.

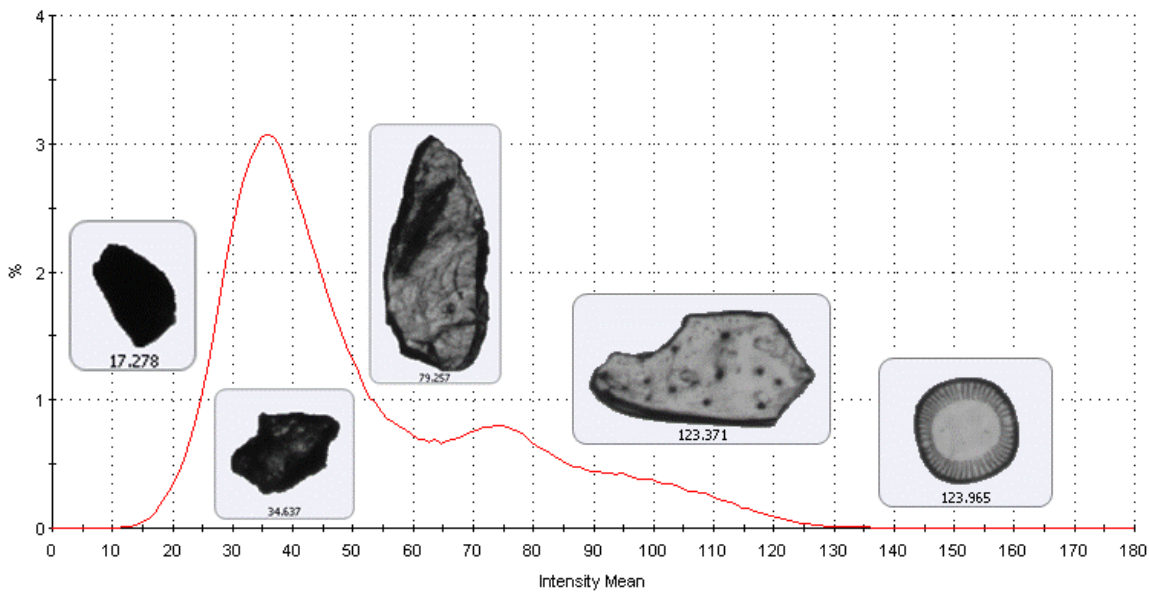
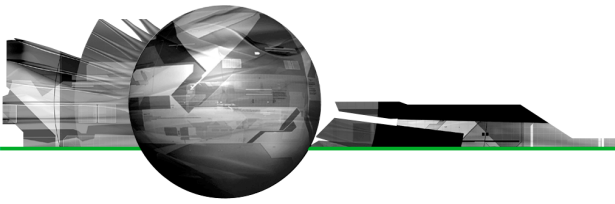


Figure 1: Particle intensity distribution of a sediment sample.



Application Communication

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