

Geophysical Research Abstracts,
Vol. 10, EGU2008-A-07551, 2008
SRef-ID: 1607-7962/gra/EGU2008-A-07551
EGU General Assembly 2008
© Author(s) 2008



Digital image processing of the shape of crushed stone particles

Grohová Krutilová K., Příklad R., Dobrý M.

Institute of Geochemistry, Mineralogy and Mineral Resources, Faculty of Science, Charles University in Prague, Albertov 6, 128 43 Prague 2, Czech Republic; phone: +420-221951500, fax: +420-221951496, e-mail: prikryl@natur.cuni.cz

Aggregate grading and shapes are conventionally measured using standard sieves and gauges. Namely the shape analysis aims to eliminate the aggregates showing inadequate elongation or flakiness that can reflect both the highly anisotropic rock fabric and/or improper crushing mode. Present study introduces image analysis as a rapid and powerful tool for the quantification of geometrical characteristics of crushed stone. The shape analysis consisted of image capturing by means of digital photography in two principal orientations (particles oriented according to the maximum and mean, and mean and minimum elongation) and consequent computer-assisted image analysis of shapes and sizes. The methodical approach has been successfully tested on sedimentary (greywackes) and volcanic rocks.