Geophysical Research Abstracts,
Vol. 10, EGU2008-A-02134, 2008
SRef-ID: 1607-7962/gra/EGU2008-A-02134
EGU General Assembly 2008

Geological samples by ACTIVA-M ICP-AES

C. Deraed (1), R. Tessadri (2), R. Nehm (1), A. Cosnier (3), S. Lebouil (3), S. Velasquez (3)

(1) HORIBA Jobin Yvon, Chiemgaustrasse 148, 81549 München, Germany, (2) R. Tessadri, Institute of Mineralogy and Petrography, University of Innsbruck, Austria (3) HORIBA Jobin Yvon, Longjumeau, France (christophe.deraed@jobinyvon.de)

Analysis of geological samples requires an ICP-AES instrument with good resolution and robustness, to compensate for the variability of matrix and the influence of the major elements.The ACTIVA-M instrument can offer a complete assistance for the development and validation of the method, based on the multi-line analysis concept. Among the tools developed, the MASTER: Multi-line Analysis, Selection Tool for Enhanced Reliability (for lines selection) and the SOS: Statistical Outlier Survey (for detection and rejection of outliers).This presentation describes the analysis of several elements (Ba, Be, Co, Cr, Cu, Nb, Ni, Rb, Sc, Sr, V, Y, Zn and Zr) in geological samples, with the ACTIVA-M ICP-AES instrument. A Kimberlite certified sample (SARM 39) was analyzed to validate the analytical methodology. For the determination of low concentrations of Rb, a specific optimization was realized and is detailed. A second application is described, based on Rare Earth Elements analysis. Eu, Nd, Sc are used as illustration of the important benefit of MASTER and SOS tools.