

## **Dr. Michael Bode (17-6-2015) ICP-Analysis protocol**

### **Chemical dissolution/analyses (Material Science, Deutsches Bergbau-Museum Bochum)**

About 50 mg of drilled metal had been dissolved with 3 mL HCl and 2 mL HNO<sub>3</sub>, both half-concentrated. Sample solutions were filled up to 50 mL for a final concentration of c. 1000 mg/L. Chemical analyses have been performed with an ICP-SFMS Thermo Scientific ELEMENT XR. For main element analysis, sample solutions had been diluted 1:100, for traces 1:10 with 5% HNO<sub>3</sub>, for Au with 2% HCl (as main element). The analyses were carried out with FAST SC-system, ST 5532 PFA μ-FLOW nebulizer, Peltier-cooled PFA spray chamber and 1.8 mm sapphire injector in triple detector mode at all three different mass resolutions ( $m/\Delta m$ ) depending on the elements of interest. Measurements have been controlled with Cu-standard BAM 376 (Bundesanstalt für Materialforschung) and Sn-Bronze-standard Bronze C (British Chemical Standards).