



SAXIGENUS

geological arts and sciences

ROBERT CHRISTOPHER TACKER

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GEOCHEMISTRY

GEOCHEMICAL ANALYTICAL EXPERIENCE

More than thirty years of experience with petrological and aqueous sample preparation, analytical standardization and thin section petrography. Twenty-five years of experience with data reduction and analysis, including graphical, statistical and thermodynamic analysis.

Microanalysis- Extensive experience with wavelength dispersive (WDA) and energy dispersive analysis (EDA) with electron microprobe (EMP), secondary electron microscope (SEM) with energy dispersive analysis, Fourier transform infrared spectroscopy (FTIR) and laser-Raman microprobe. Limited experience with quadrupole mass spectrometer and Secondary Ion Mass Spectrometry (SIMS).

Bulk analysis- Extensive experience with graphite furnace and flame atomic absorption spectroscopy (AAS), X-ray diffraction (XRD) and chloridometer. Developed new analytical procedure for molybdenum in refractory oxides for graphite furnace AAS. Experienced in operation and application of fluid inclusion heating/cooling microscope. Lesser experience with X-ray fluorescence (XRF) and inductively coupled plasma spectrometer (ICP).

Specific instruments-

- Thermo Nicolet 6700 Analytical FTIR Spectrometer bench, Continuum IR microscope, with OMNIC 8 software
- JEOL JXA-8530F Hyperprobe with native JEOL software
- Hitachi S3200 Variable Pressure Scanning Electron Microscope

COMPUTER SKILLS

- Programming in C and C++ for thermodynamics
- Programming in MatLab, for graphical peakfitting, and thermodynamics, with Statistical, Optimization, and Curve Fitting Toolboxes
- Working familiarity with Photoshop, Illustrator, Peakfit and CrystalMaker
- Experienced with Microsoft suite of programs. Extensive experience with Excel and Visual Basic for Excel.

EDUCATION AND LICENSING

Ph.D. in Geology, 1992, William Marsh Rice University, M.S. Geology, 1986, University of Maryland, College Park, B.S. Geology, 1983, University of North Carolina at Chapel Hill
North Carolina Licensed Professional Geologist number 1497

PROFESSIONAL EMPLOYMENT

Research Curator II for Geology, North Carolina State Museum of Natural Sciences (November, 1996-date)

REFERENCES upon request

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