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Discussion on Further Study of Magmatism and Related Metallogeny in Tibet

Dr. Kezhang QIN

Institute of Geology and Geophysics, CAS, Beijing, China

Institute for Study of the Earth's Interior of Okayama Univ. is a very attractive institution for geologists and geochemists worldwide. This June after SRG (Society of Resource Geology) annual meeting symposium in Tokyo, it is my great pleasure to visit ISEI by invitation of Prof. E.Nakamura and Dr. R.Tanaka. Firstly, I express regards of Prof. ZL Ding, Director of Institute of Geology and Geophysics of CAS to Director Nakamura. After interview and brief introduction by Director Nakamura, Dr. Tanaka show me the cleanroom and major facilities on major and trace element analyzers (ICP-MS, XRF), B, Li, La-Ce, Sm-Nd, Re-Os, and U-Th-Pb isotopes on TIMSs, noble gas isotopes on VG5400 mass spectrometer and micro-spot analyses on EPMA and two SIMSs. We also discuss on the establishment and running of this labs with related researchers. All these gave me an intensive impression. The PML lab. is organized and running very well and show high efficiency and the major researches on geologic-geochemical processes are more advanced and systematical than other lab. in China.

After reading the ISEI introduction, the International Advisory/Evaluation Committee and their first report with very high appraisal as well as the great efforts for international collaboration both on program research and students training also gave me deep impression.

We discussed the possibility for further long-term collaborative research in detail. Those advanced and well-running geochemical facilities including magma volatiles are very important and quite useful for understanding the origin, evolution and process of Cenozoic porphyry Cu and epithermal Au mineralization in Tibet and Paleozoic mafic-ultramafic hosted Cu-Ni-Co-PGE mineralization in Xinjiang, NW-China, Central-Asia Orogenic Belt. With the highest elevation and thickest crust in the world, Tibet plateau is very special and crucial area for further understanding subduction-collision orogenesis, mantel-crust interaction, collisional metallogeny and global changes. We have done some field survey on the intrusive-volcanic rocks and related porphyry-skarn Cu-Au-Mo mineralizations both in Gangdise Arc and Jinshajiang belts. These porphyry Cu mineralizations in Tibet show great potential and possess one half for the un-mined copper reserves in the whole China. Some preliminary evidences show complicated origin for those newly-discovered porphyry copper deposits. We hope to trace the contribution and process of the Mesozoic subducted oceanic slab and the Cenozoic thickened lower crust in Tibet utilizing these advanced and systematical geochemical analyzers such as B, La-Ce, Sm-Nd, U-Th-Pb, Re-Os isotopes and comprehensive analyses on major and trace elements in ISEI through collaborative research in the near future.

Prof. Nakamura kindly gave me some suggestions for further work. I will think over and then submit a suitable proposal for possible collaborative research.

Thank you so much for your invitation and reception, and I really enjoy my staying at ISEI.