## 20th AIRAPT and 43th EHPRG Meeting

## Novel Perovskite Compounds at Elevated High Pressure C. Q. Jin et al. Institute of Physics, Chinese Academy of Sciences, P. O. Box 603, Beijing 100080 P. R. China

High pressure synthesis is a very powerful tool to stabilize new compounds with perovskite-like structure. This has been exclusively demonstrated in the research of high Tc cuprate superconductors (HTS) which can be viewed as the derivatives of copper-oxide based perovskites containing the [CuO2] plane. This presentation will introduce our recent work on the phase formation and physical properties of the perovskite-like structures by using high pressure synthesis and diamond anvil cell technique in the A-Cu-O system (A represents the alkaline earth element), which in most case are superconductors being modulated by chlorine and oxygen occupancy at the charge reservoir block. Besides included is the work of the polymorphous transition to perovskite like structure of other related copper oxides. Also covered is the high pressure synthesis and property studies of other related transition metal oxides.

Corresponding author: Changqing Jin Email: cqjin@aphy.iphy.ac.cn