Ternary chalcogenide superconductor with rock salt structure
KAYA KOBAYASHI, RIIS, Okayama University, TEPPEI UENO, Physics Department, Okayama University, JUN AKIMITSU, RIIS, Okayama University — Binary chalcogenide semiconductor, SnTe, becomes superconducting when deficiency of tin or In is doped. Despite the carriers introduced is estimated the same for several dopants, In strongly modulates the electronic structure and superconductivity. We have synthesized superconductor with rock salt structure, Ag1-xS1+xSe2 as a reference of the aforementioned material. Several dopants give insight of how superconductivity is modulated by the valence state of tin.

Kaya Kobayashi
RIIS, Okayama University

Date submitted: 10 Nov 2016

Electronic form version 1.4