

Abstract Submitted
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Pressure-induced B1-to-B2 phase transition in AgSbSe₂¹ EUNJA KIM, RAVHI KUMAR, ANDREW CORNELIUS, MALCOLM NICOL, Department of Physics and High Pressure Science and Engineering Center, University of Nevada, Las Vegas, NV 89154 — We have investigated the pressure-induced B1-to-B2 phase transitions in AgSbSe₂. High pressure x-ray diffraction experiments clearly show that the process starts at 20 GPa and completes at 55 GPa. Our density-functional calculations are in good agreement with the experiment and confirm the B1 to B2 transition which is similar to AgSbTe₂. The possible intermediate structure for B1-to-B2 transition in AgSbSe₂ occurring at 21-54 GPa is under investigation. Its similarity and difference to AgSbTe₂ will be discussed in this study.

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