

## **Thermoelectric properties of Ag-doped SnSe microwires and layers**

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### **Abstract**

*The thermoelectric properties of single-crystal layers and polycrystalline glass-insulated microwires made of Ag-doped SnSe in a temperature range of 90-300 K are studied. SnSeAg<sub>0.01</sub> single crystals are grown by the vertical Bridgman method from a stoichiometric melt. A 35- $\mu\text{m}$ -thick single-crystal layer is formed by the exfoliation method at a low temperature; glass-insulated polycrystalline microwires with different diameters of 39-141  $\mu\text{m}$  are prepared by the Ulitovsky technique. The power factor of all the samples at room temperature has a value of 15-18  $\mu\text{W cm}^{-1} \text{K}^{-2}$ , which monotonically decreases with decreasing temperature. According to the measured thermoelectric power, all the samples exhibit n-type conductivity.*

**Keywords:** Ag-doped SnSe, microwires, power factor, single-crystal layer, thermoelectrics

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