Title:	Andreev Reflection Spectroscopy on SnAs Single Crystals
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Abstract:	Binary compounds of SnT family (T = As, Sb, Te, S, Se, P) exhibit novel properties like superconductivity and topologically protected states. Some of these compounds crystallize in NaCl type structure or in layered structure, both of which are considered potentially important for high temperature/unconventional superconductivity. It was previously shown that K-doped BaBiO3 with NaCl type structure exhibits superconducting state below ~30 K. SnAs has crystallographic configuration that is exactly similar to K-doped BaBiO3 and this warrants for the investigation of superconductivity in this material. Previously it was reported that SnAs exhibits weakly coupled type I superconductivity with an energy gap of 0.7 meV. Recently, the electronic band-structure calculations have hinted to the existence of possible topologically protected states in SnAs. This has motivated us to investigate the superconducting nature of SnAs using point contact Andreev reflection spectroscopy. Our investigation revealed that superconductivity in SnAs can be well-explained within the BCS framework in the weak coupling limit.
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