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High pressure magnetotransport properties of single crystals
and thin films of the diluted magnetic semiconductor Sb_{2-x}V_xTe_3
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— Bulk, single crystals of the narrow band gap semiconductor Sb_{2-x}V_xTe_3 doped
with x = 0.03 display a ferromagnetic transition at 22 K. Both carrier concentration
and Curie temperature have been shown to be strongly affected by pressure in these
crystals, thus high pressure experiments allow a way to study the magnetic inter-
actions in these materials. Recently, by employing molecular beam epitaxy (MBE)
thin film growth, the vanadium concentration in Sb_{2-x}V_xTe_3 was increased by an
order of magnitude, resulting in Curie temperatures of 104K and 177K for x = 0.15
and 0.35, respectively. Here, we present the temperature dependent magnetotrans-
port properties of both single crystal and MBE thin film samples for pressures up
to 1.5 GPa. Trends with pressure will be discussed in light of RKKY-type models
for the ferromagnetic interaction.

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