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Magnetic and electrical transport properties of Fe$_{1-x}$Cr$_x$Sb$_2$
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try — We have investigated magnetic, thermodynamic and electrical transport
properties of Fe$_{1-x}$Cr$_x$Sb$_2$ ($0 \leq x \leq 1$) single crystals. Ground state of the system
evolves from nonmagnetic semiconductor for $x = 0$ to antiferromagnetic semicon-
ductor for $x = 1$. In contrast to Co substitution, Cr doping in FeSb$_2$ does not result
in metallic state and magnetoresistance is negligible. Magnetic phase diagram and
conduction mechanism will be discussed.