

Supplementary Materials for

Facile p-n Control, Magnetic and Thermoelectric Properties of Chromium Selenides $\text{Cr}_{2+x}\text{Se}_3$

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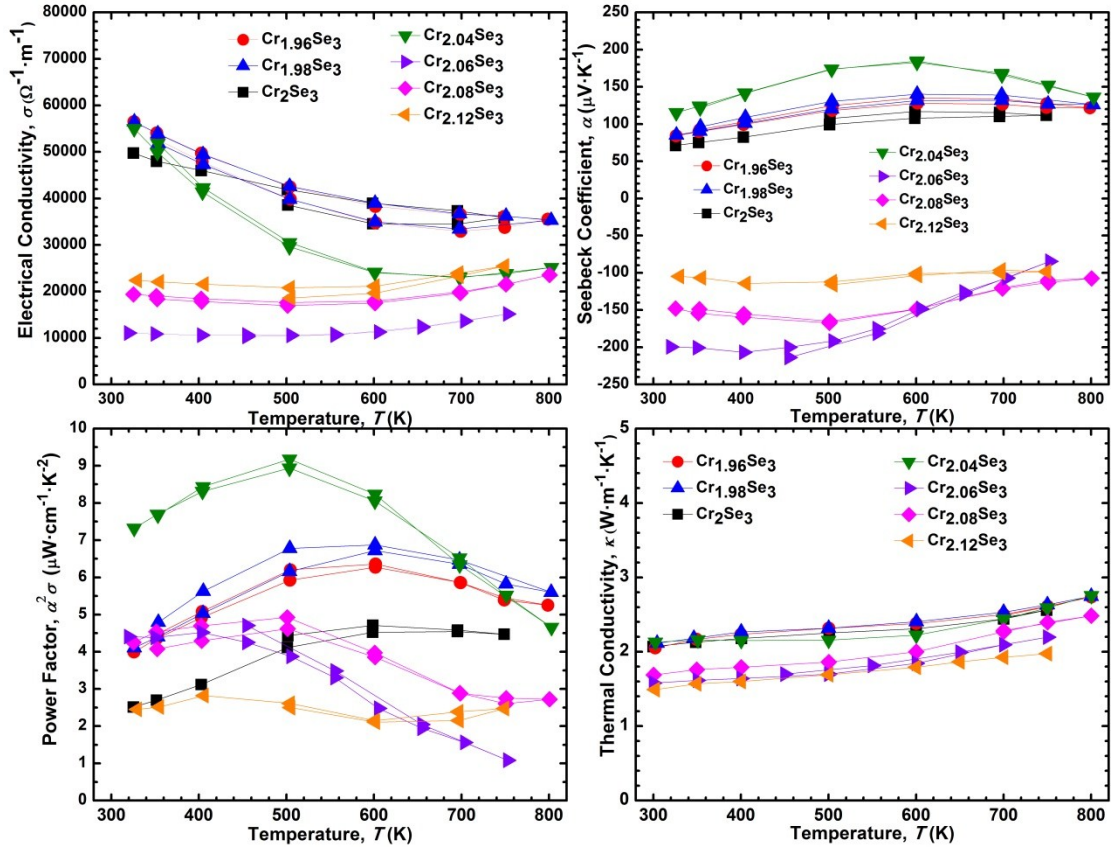


Figure S1. Temperature dependence of (a) Electrical conductivity, (b) Seebeck coefficient, (c) Power factor and (d) Thermal conductivity of $\text{Cr}_{2+x}\text{Se}_3$ ($x = -0.04, -0.02, 0, 0.04, 0.06, 0.08$ and 0.12). No significant hysteresis was observed.

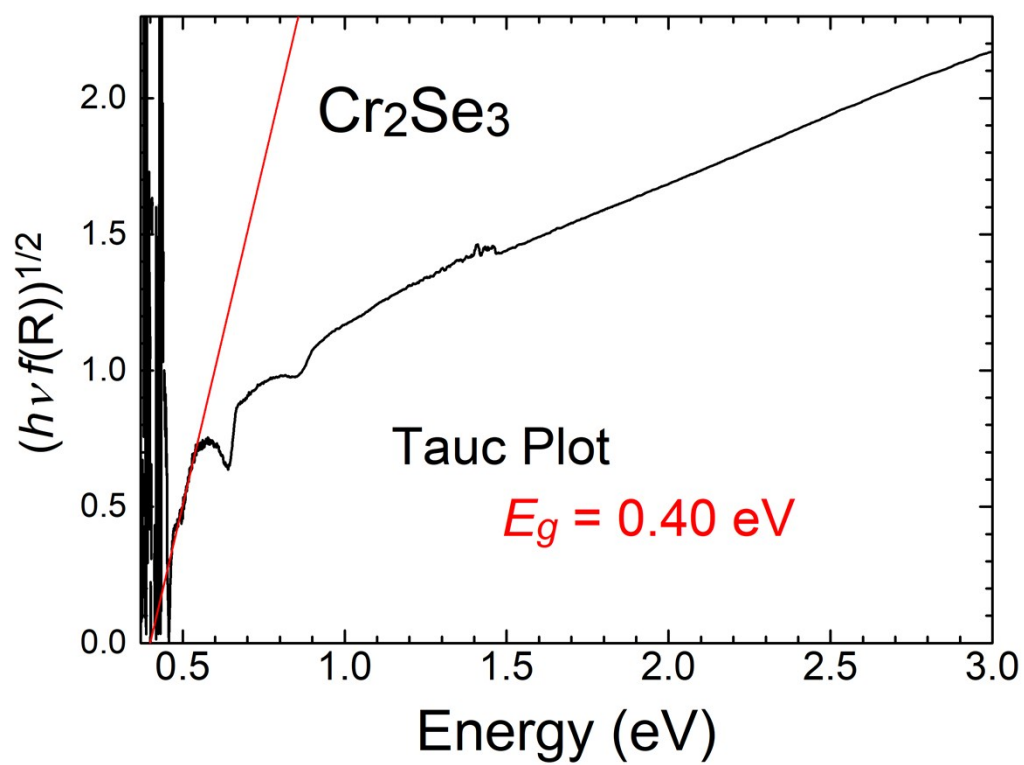


Figure S2. Tauc plot for Cr_2Se_3 .

Table S1. Lattice parameters of $\text{Cr}_{2+x}\text{Se}_3$ ($x = -0.04, 0, 0.08$) at room temperature.

Sample	$x = -0.04$	$x = 0$	$x = 0.08$
$a [\text{\AA}] = b$	6.2478(3)	6.2510(2)	6.2490(1)
$c [\text{\AA}]$	17.3354(9)	17.3280(5)	17.3853(4)
$V [\text{\AA}^3]$	586.02(8)	586.38(5)	587.94(2)
$R_{\text{p}}^a \setminus R_{\text{B}}^b$	0.107 \setminus 0.066	0.109 \setminus 0.106	0.122 \setminus 0.096

$$^a R_{\text{p}} = \Sigma |y_{\text{o}} - y_{\text{c}}| / \Sigma |y_{\text{o}}|$$

$$^b R_{\text{B}} = \Sigma |I_{\text{o}} - I_{\text{c}}| / \Sigma |I_{\text{o}}|$$