

Supplementary Material

**Effect of Ag<sup>+</sup> on the thermoelectric properties of Sm<sup>3+</sup> and Ti<sup>4+</sup> co-doped**

**KSr<sub>2</sub>Nb<sub>5</sub>O<sub>15</sub> ceramics: A combined first-principles and experimental study on synergistic optimization of thermal and electrical transport**

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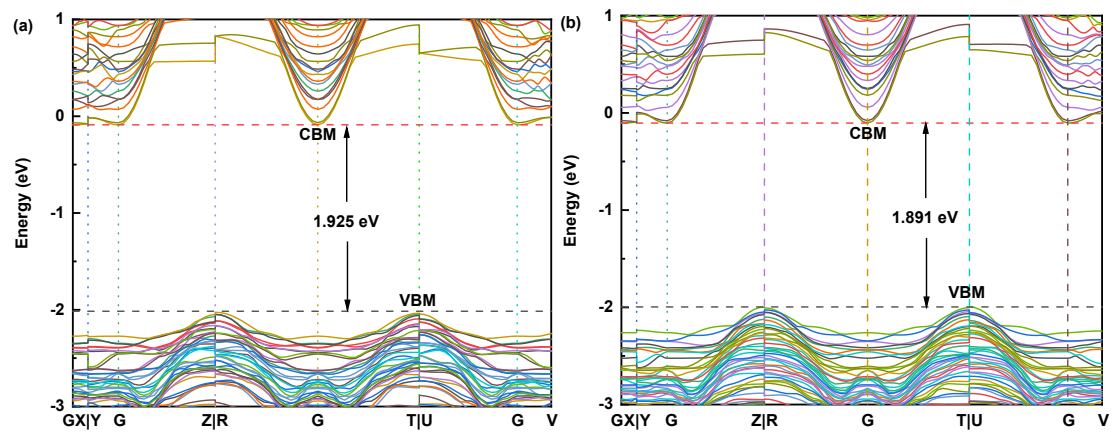


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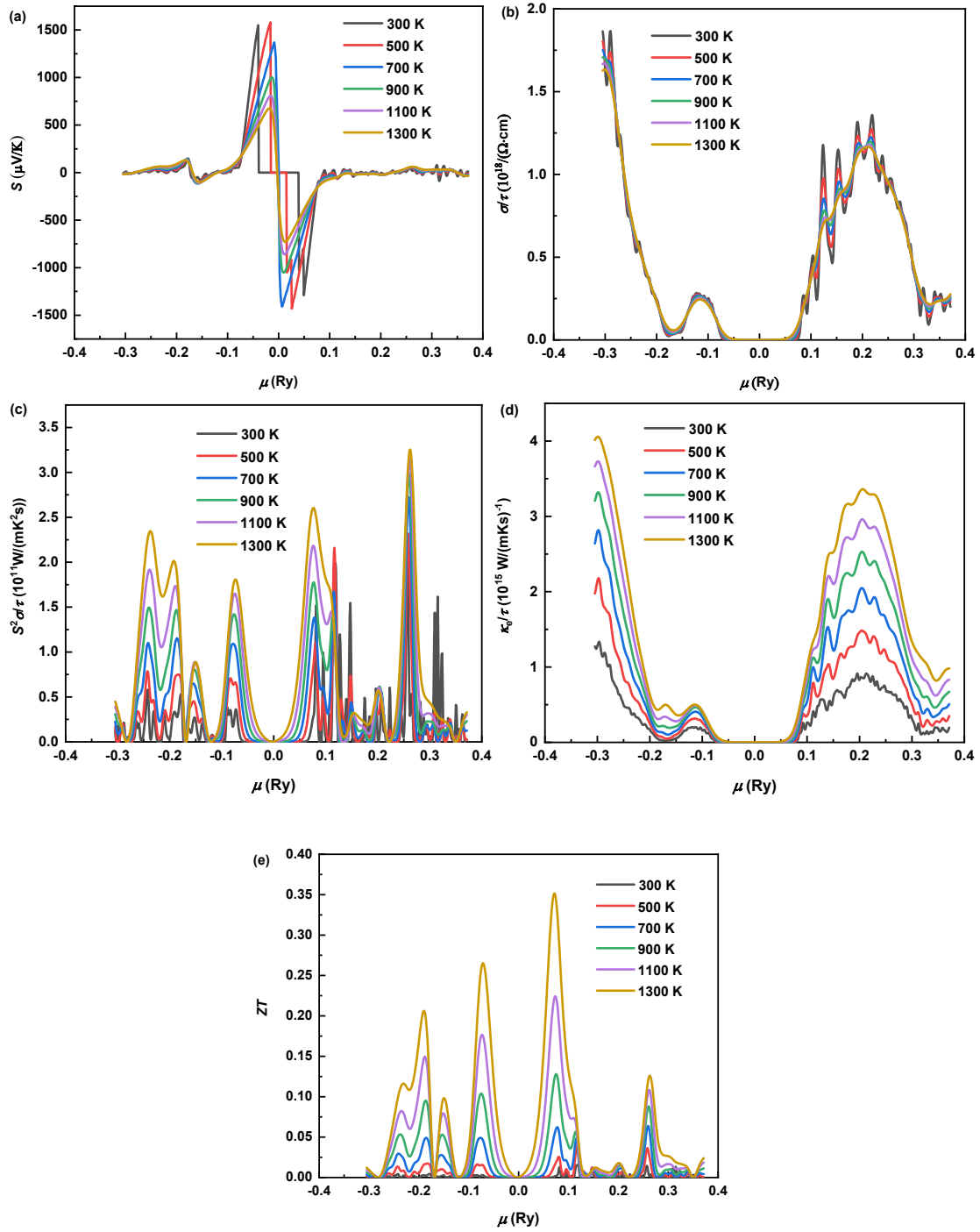


Fig. S2 Chemical potential dependence of (a)  $S$ , (b)  $\sigma/\tau$ , (c)  $S^2\sigma/\tau$ , (d)  $\kappa_e/\tau$  and (e)  $ZT$  of KSNST-Ag1

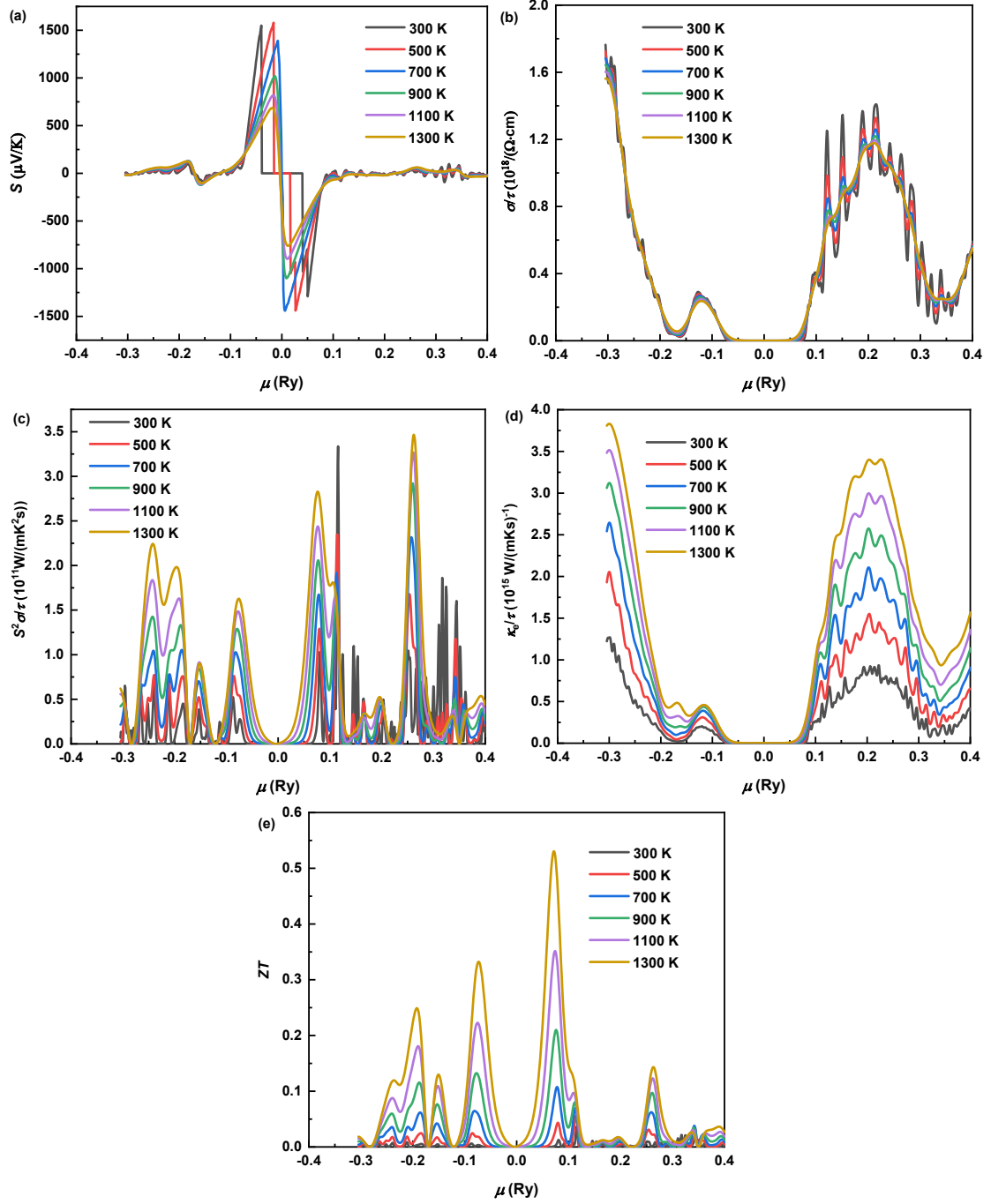


Fig. S3 Chemical potential dependence of (a)  $S$ , (b)  $\sigma/\tau$ , (c)  $S^2\sigma/\tau$ , (d)  $\kappa_c/\tau$  and (e)  $ZT$  of KSNST-Ag<sub>2</sub>

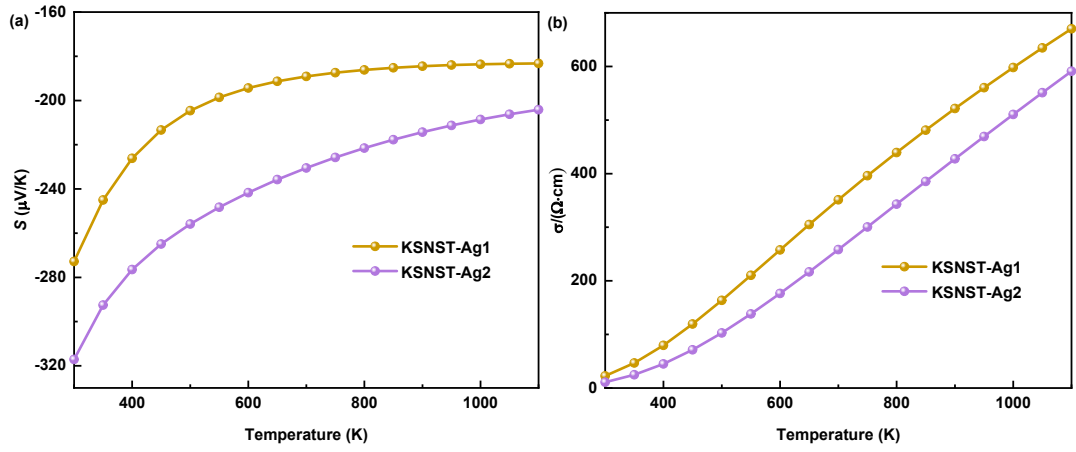


Fig. S4 (a)  $S$  and (b)  $\sigma$  of Ag<sup>+</sup>-doped KSNST

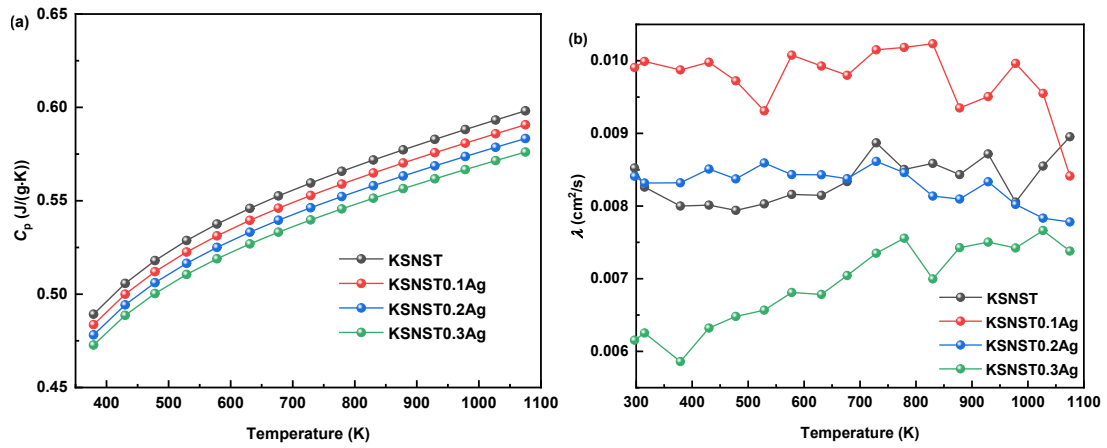


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	$C_{11}$	$C_{12}$	$C_{44}$	$B_{VRH}$	$G_{VRH}$	$E_{VRH}$	$\sigma$
	(GPa)	(GPa)	(GPa)	(GPa)	(GPa)	(GPa)	
KSNST-Ag1	195.962	184.195	60.819	104.829	75.986	183.597	0.208
KSNST-Ag2	192.381	184.518	60.639	106.38	75.960	183.045	0.216