

## Electronic Supplementary Material:

### Comparing the role of annealing on the transport properties of polymorphous AgBiSe<sub>2</sub> and monophase AgSbSe<sub>2</sub>

Minmin Zou<sup>\*,a</sup>, Qing Liu<sup>a,b</sup>, Chao-Feng Wu<sup>c</sup>, Tian-Ran Wei<sup>c</sup>, Qing Tan<sup>d</sup>, Jing-Feng Li<sup>c</sup> and Fei Chen<sup>a</sup>

**Table S1** Lattice parameters of AgBiSe<sub>2</sub> at different preparation stage obtained from Rietveld refinements of powder XRD data

Samples	p $\bar{3}m1$		R $\bar{3}m$	
	a (Å)	c(Å)	a (Å)	$\alpha$ (°)
AgBiSe <sub>2</sub> -melting	4.191	19.64	7.080	33.95
AgBiSe <sub>2</sub> -SPS	4.164	19.60	6.975	34.89
AgBiSe <sub>2</sub> -annealing	4.194	19.63	7.044	34.35

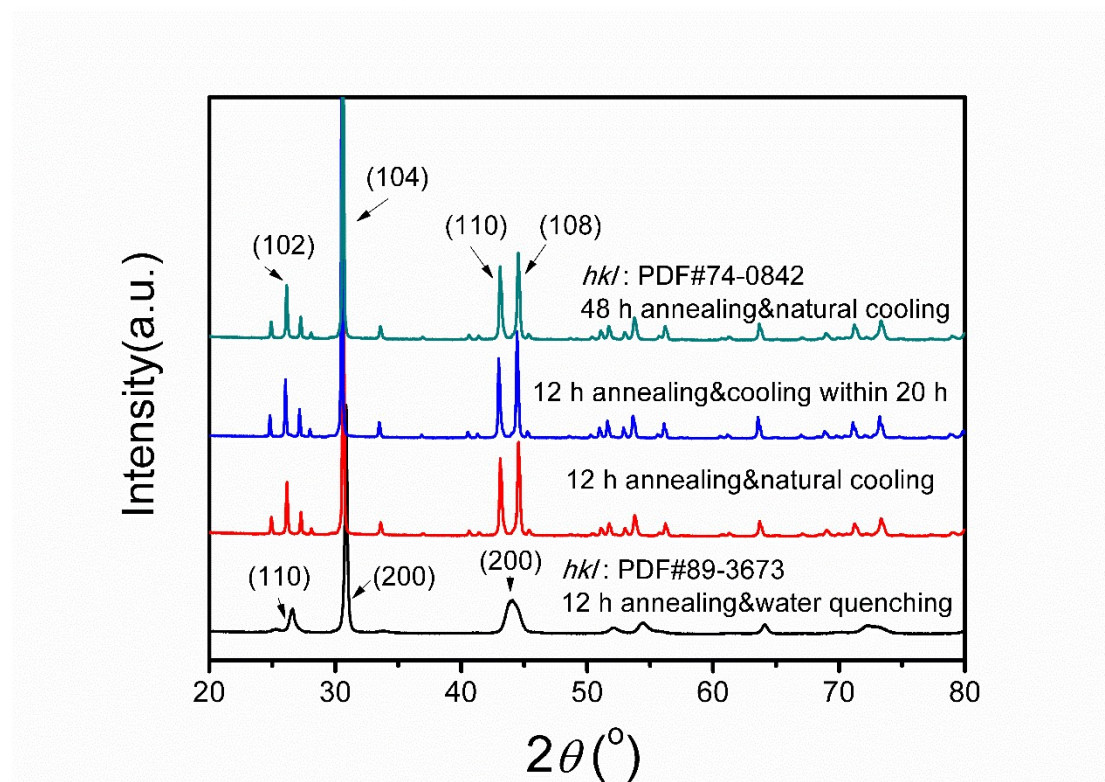


Fig. S1 XRD patterns of bulk AgBiSe<sub>2</sub> samples with different annealing process.