Supplementary information for:

# Point defect-assisted doping mechanism and related thermoelectric transport properties in Pb-doped BiCuOTe

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**Figure S1.** Relative intensities of the main peak for $Bi_2O_3$ (111) to that for BiCuOTe (102) in the XRD patterns of Fig. 1(a).

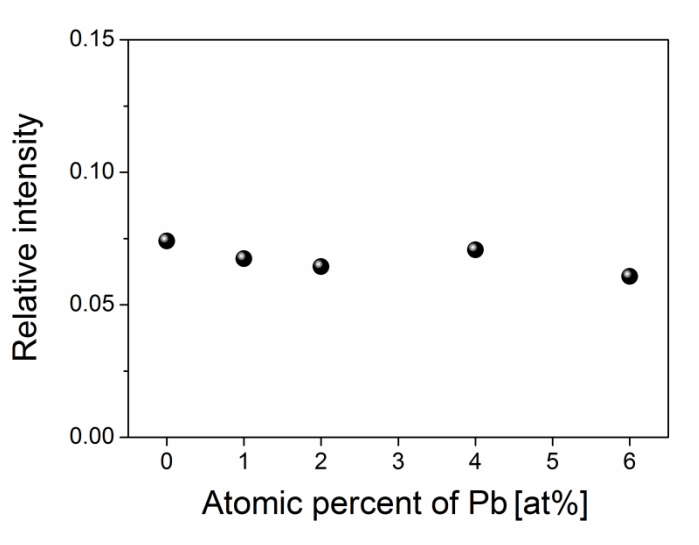

**Table S1.** Lattice parameters of Pb-doped BiCuOTe compounds.

| Pb (at%) | *a* (nm) | *c* (nm) |
|---|---|---|
| 0 | $0.4035 \pm 0.8146 \times 10^{-4}$ | $0.9516 \pm 0.2215 \times 10^{-4}$ |
| 1 | $0.4037 \pm 1.3041 \times 10^{-4}$ | $0.9524 \pm 0.6141 \times 10^{-4}$ |
| 2 | $0.4039 \pm 3.7186 \times 10^{-4}$ | $0.9534 \pm 3.2486 \times 10^{-4}$ |
| 4 | $0.4047 \pm 8.6220 \times 10^{-4}$ | $0.9562 \pm 5.5241 \times 10^{-4}$ |
| 6 | $0.4043 \pm 9.9589 \times 10^{-4}$ | $0.9572 \pm 0.9802 \times 10^{-4}$ |