

Supplementary Information

Facile synthesis of copper selenides with different stoichiometric compositions and their thermoelectric performance at low temperature range

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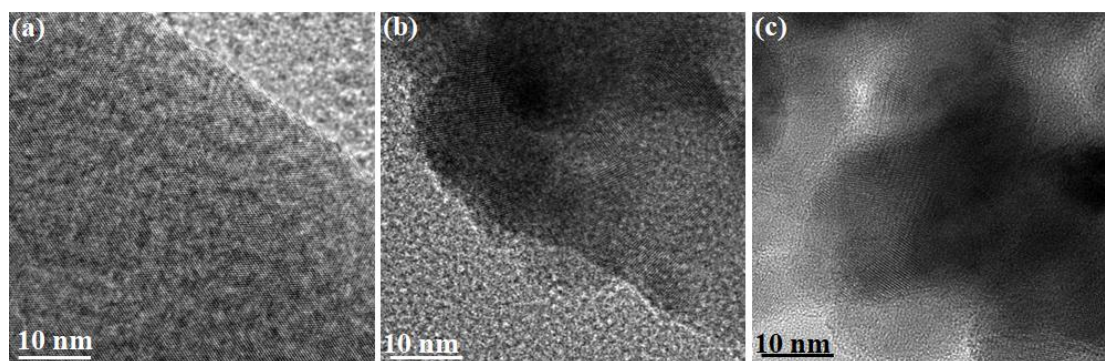


Figure S1 HRTEM images in another resolution of (a)CuSe, (b)Cu₃Se₂, and (c)Cu_{2-x}Se.

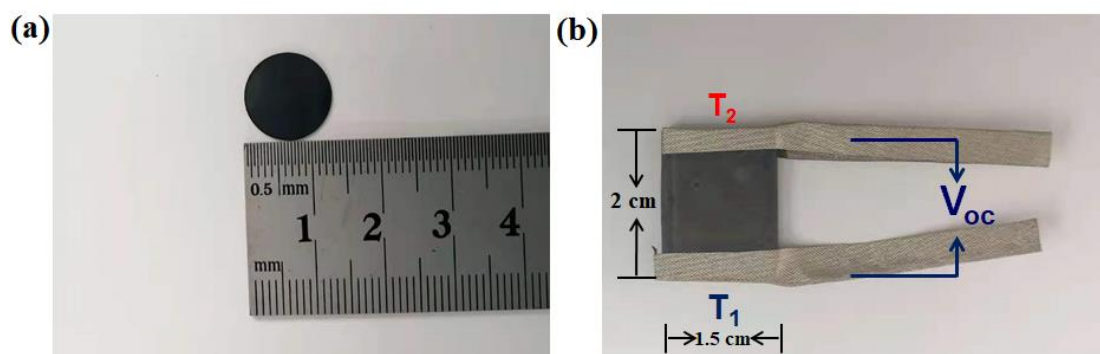


Figure S2 Photos of the actual samples for the TE performance tests: (a)The 1.3 cm wide round disk for Seebeck coefficient, electrical conductivity and thermal conductivity measurements. (b)The 1.5 cm wide and 2.0 cm long rectangle-shaped bulk for the output voltage test. Its upper and lower sides were attached with silver tapes to assist the connection with the electrochemical workstation.

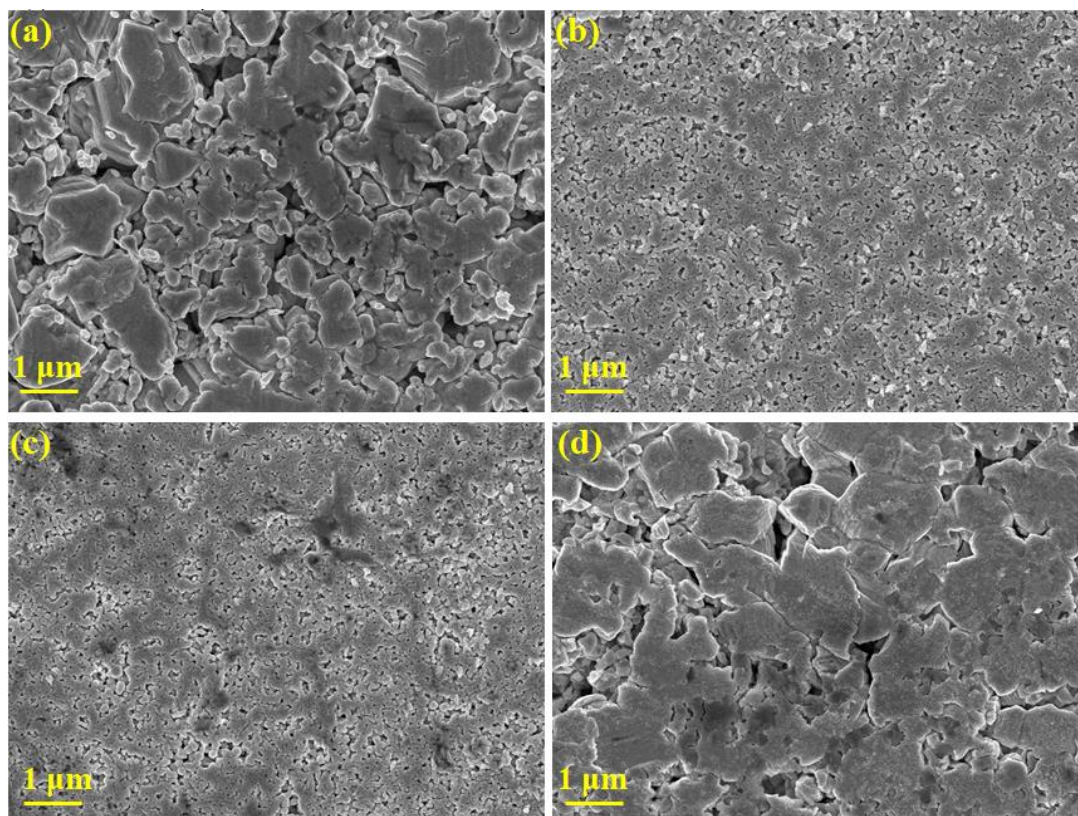


Figure S3 SEM images of the pressed disk-shaped samples of (a)CuSe, (b)Cu₃Se₂, (c)Cu_{2-x}Se, and (d) s-Cu_{2-x}Se.

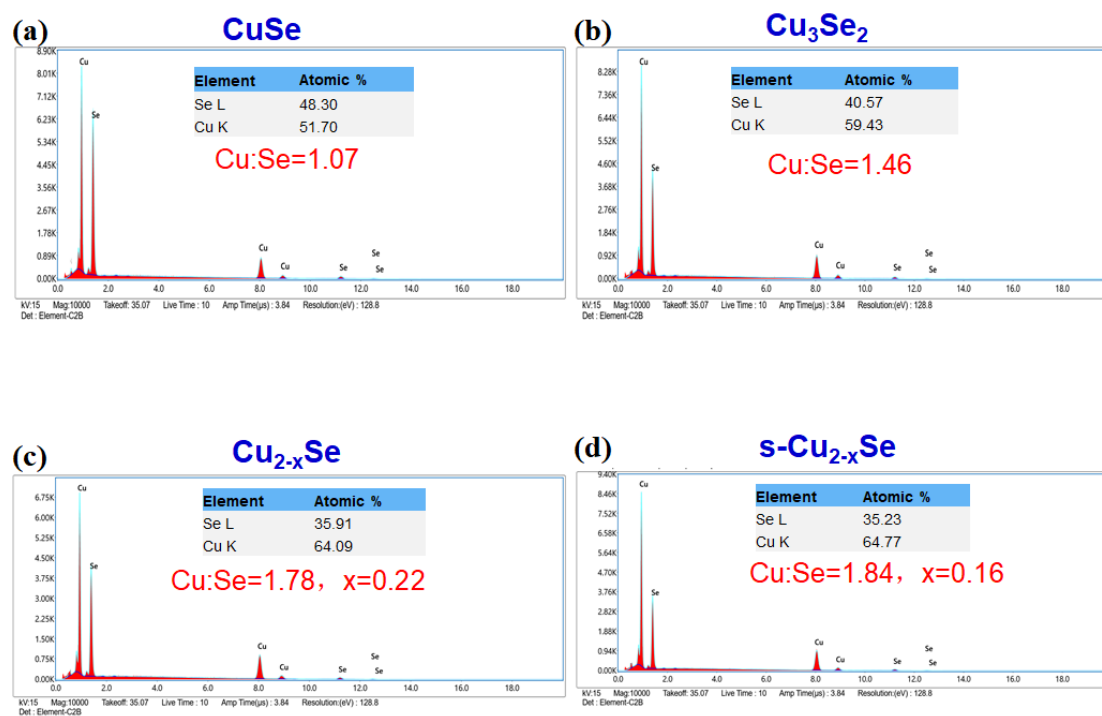


Figure S4 EDX analysis results of the samples (a)CuSe, (b)Cu₃Se₂, (c)Cu_{2-x}Se, and (d) s-Cu_{2-x}Se.