Electronic Supplementary Information

Syntheses, structures, and thermoelectric properties of ternary tellurides: $RECuTe_2$ (RE = Tb–Er)

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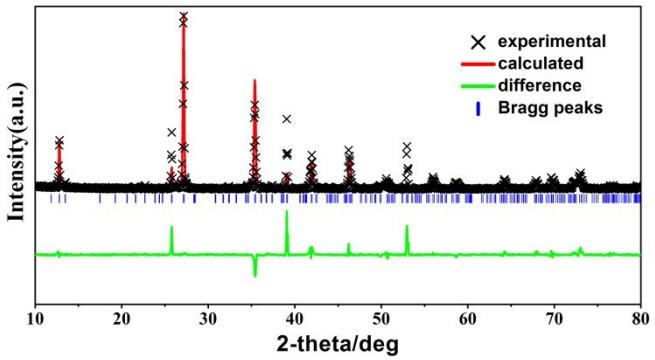

Figure S1. The refined powder XRD of TbCuTe2.

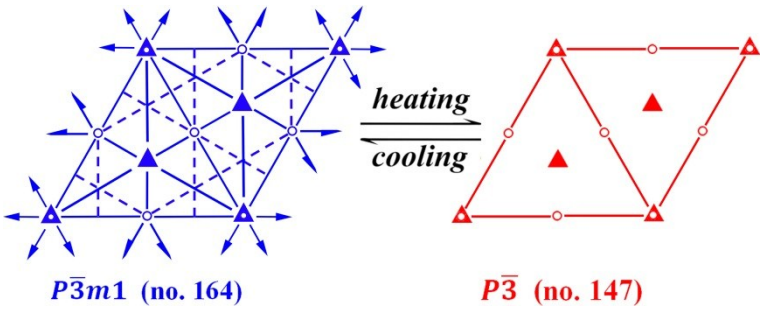

Figure S2. Spatial symmetry operation change from the LTP ($P\bar{3}m1$) to the HTP ($P\bar{3}$).

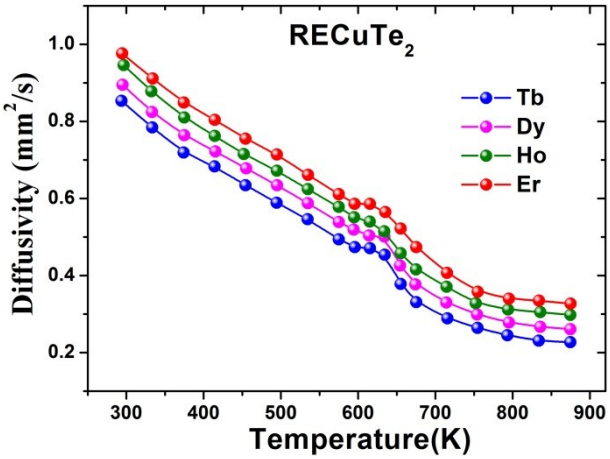

Figure S3. Temperature dependence of the thermal diffusivity for $RECuTe_2$ (Tb–Er).

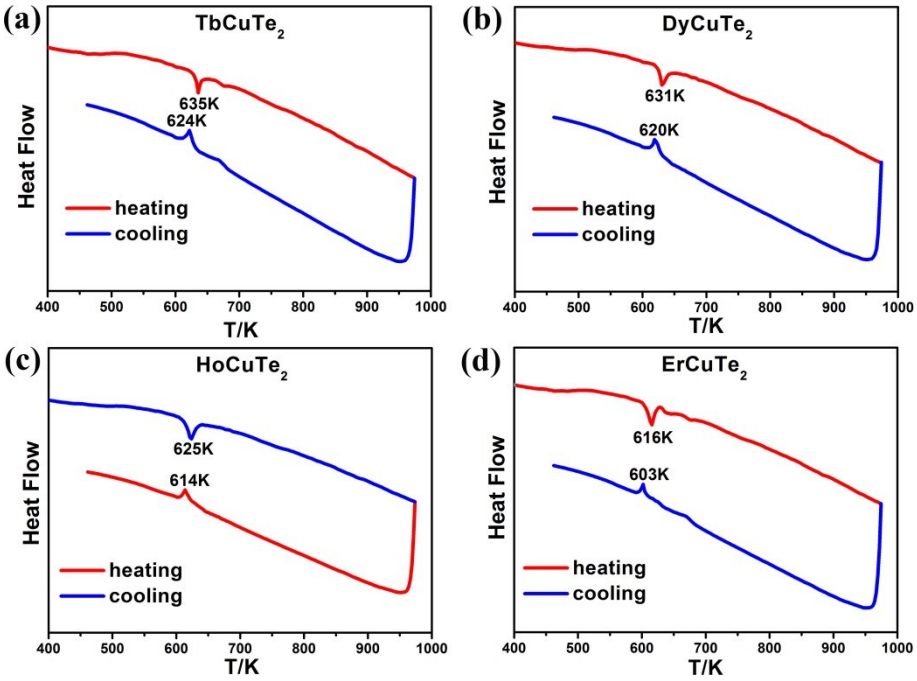

Figure S4. DSC diagrams of $RECuTe_2$ (Tb–Er).

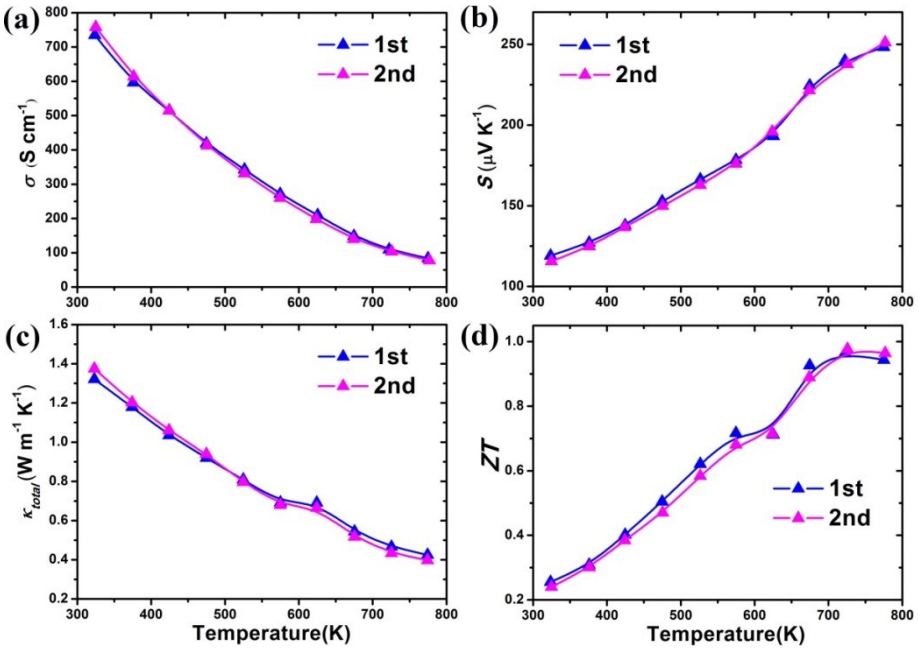

Figure S5. Thermal stability of thermoelectric transport parameters of $TbCuTe_2$ along the hot-pressed direction during two thermal cycles. (a) electrical conductivity (σ), (b) Seebeck coefficient (*S*), (c) total thermal conductivity (κ_{total}) and (d) *ZT* value. The solid lines are a guide for the eyes.

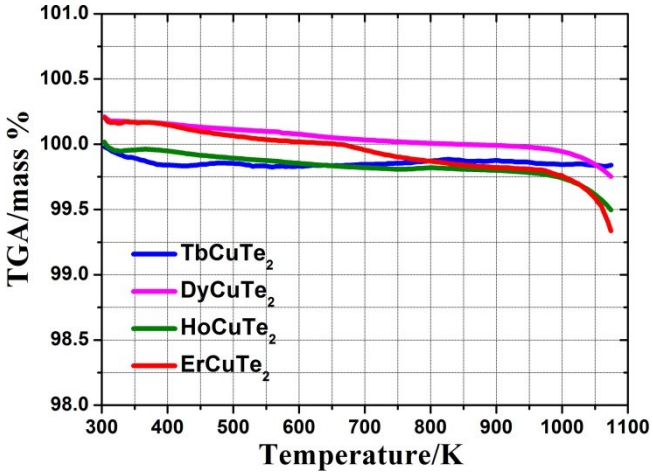

Figure S6. The TGA curves for $RECuTe_2$ (RE = Tb, Dy, Ho, Er).