

Supplementary information for “Comparative high-pressure structural study of thermoelectric (Bi_{1-x}Sb_x)₂Te₃ compounds”

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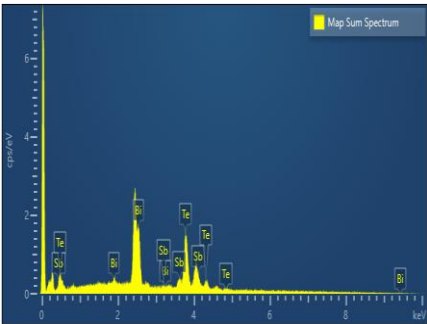
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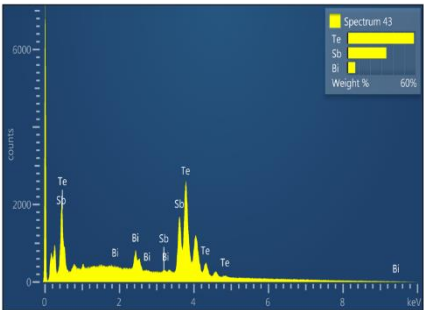
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BST-0.2



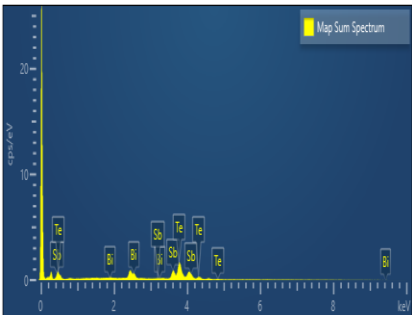
Element	Wt%	Atomic%
Sb	6.9	8.66
Te	49.8	59.61
Bi	43.3	31.73
Total:	100.0	100.0

BST-0.7



Element	Wt%	Atomic %
Sb	26.70	29.86
Te	53.84	57.46
Bi	19.46	12.68
Total:	100.00	100.00

BST-0.9



Element	Wt%	Atomic %
Sb	34.39	36.42
Te	58.68	59.30
Bi	6.94	4.28
Total:	100.00	100.00

FIG. S1. Representative EDX spectra and corresponding elemental analysis of the BST compounds of this study. The elemental analysis is based on the average of, at least, 10 measurements at different probing positions of the relevant specimens.

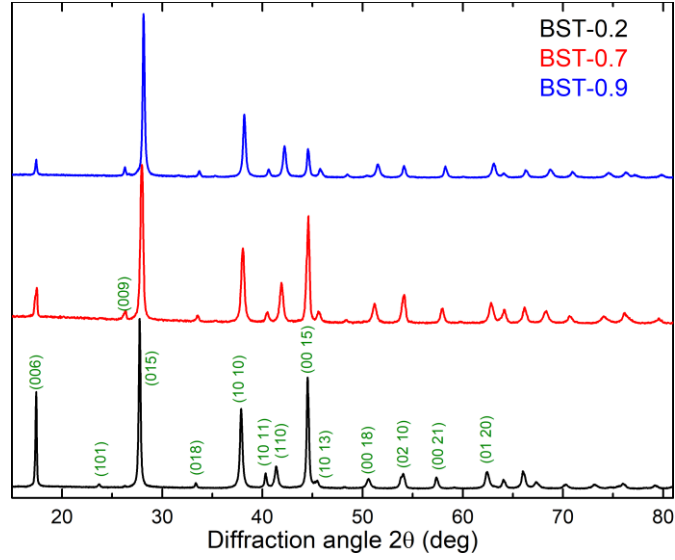


FIG. S2. XRD patterns of BST-0.2, 0.7 and 0.9 at ambient conditions. The relevant Miller indices are denoted with green above the corresponding Bragg peaks. The x-ray wavelength is $\lambda=1.54059\text{\AA}$.

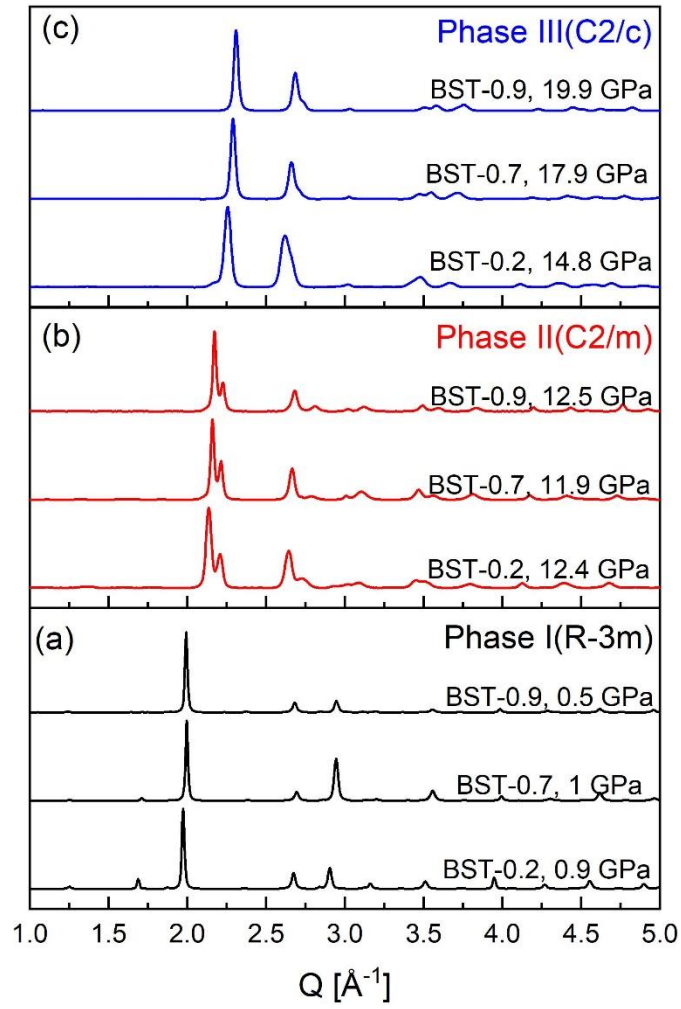


FIG. S3. XRD patterns in Q range for (a) R – 3m, (b) C2/m and (c) C2/c phases of the BST compounds of this study.

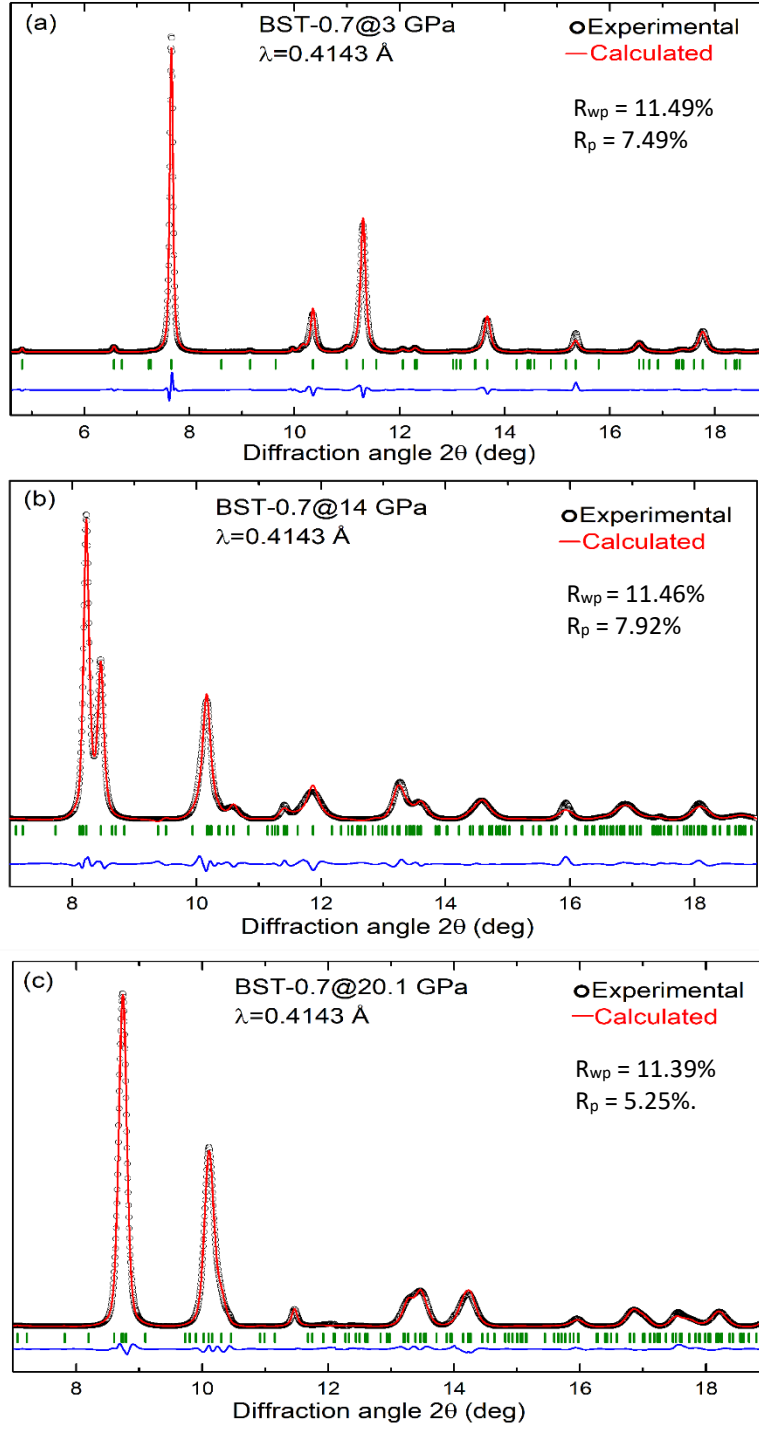


FIG. S4. Representative Rietveld refinements for the (a) R – 3m, (b) C2/m and (c) C2/c phases of BST-0.7. Black open symbols correspond to the measured profile and the red solid lines represent the results of the refinement. The difference curves (blue curves) are shown also. Green vertical ticks mark the positions of the Bragg peaks of the corresponding phases.

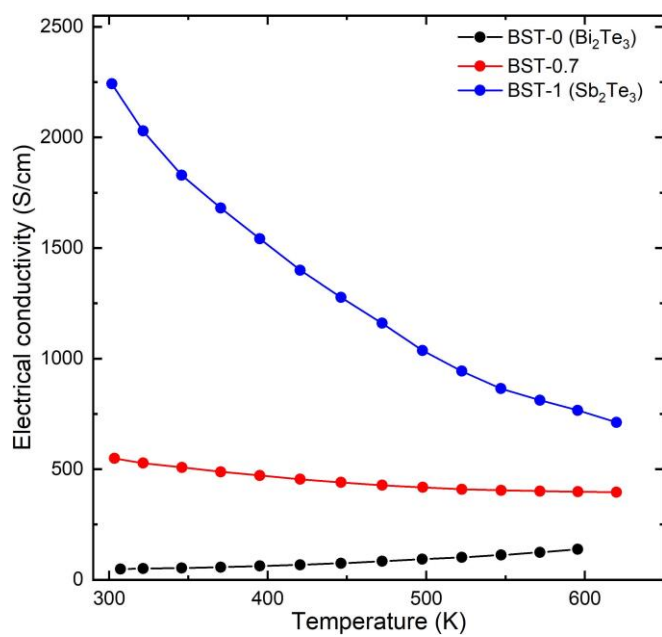


FIG. S5. Electrical conductivity as a function of temperature for Bi_2Te_3 , Sb_2Te_3 and BST-0.7, adopted from Ref. 41.