

Supplementary information:

For X-ray powder diffraction a Huber imaging plate system equipped with a monochromator (CuK_{α1}-radiation) was used. Detailed evaluation of the powder patterns was performed via Rietveld refinements employing the FullProf program [Roisnel T, Rodriguez-Carvajal, J. Mater Sci Forum (2001) 118, pp. 378-381].

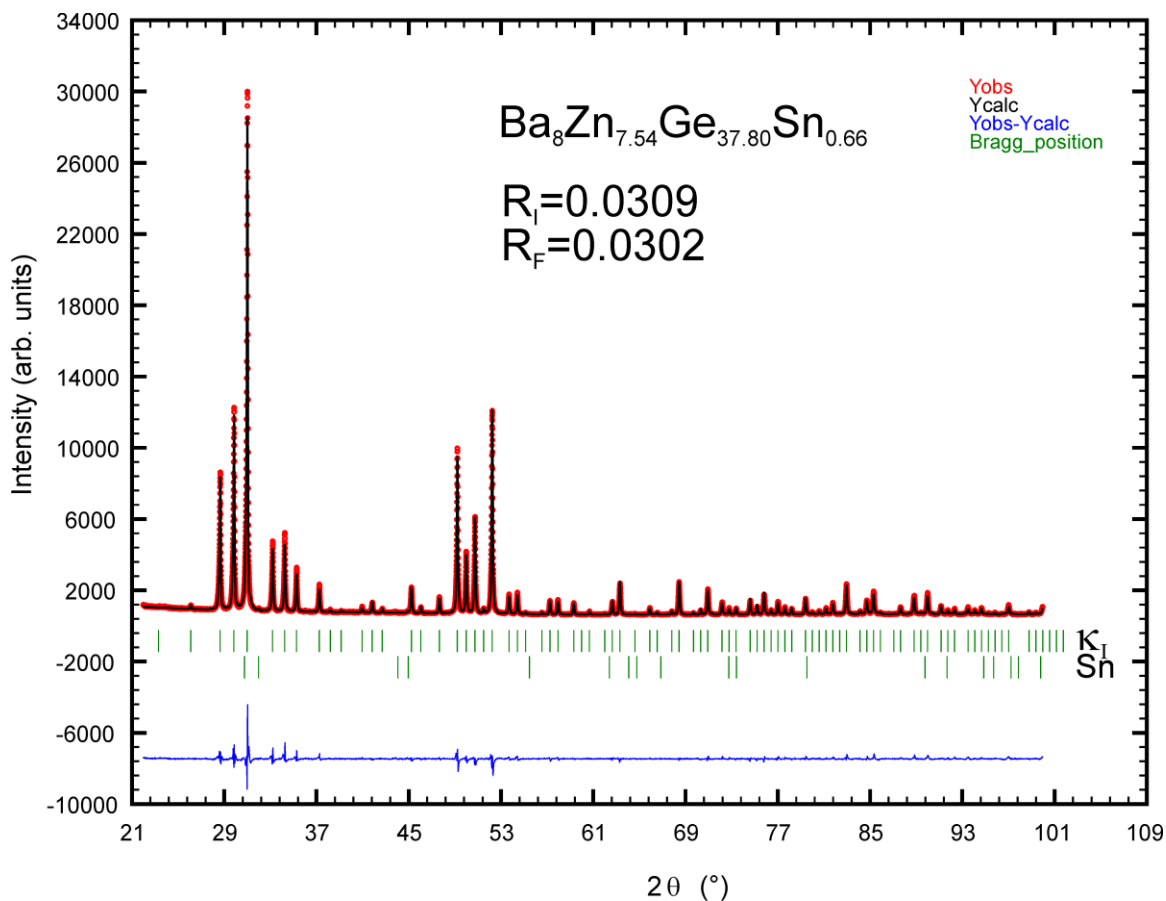


Fig. S1: Rietveld refinement of the sample $\text{Ba}_8\text{Zn}_{7.54}\text{Ge}_{37.80}\text{Sn}_{0.66}$. A minor content of less than 1 weight% Sn is detected.

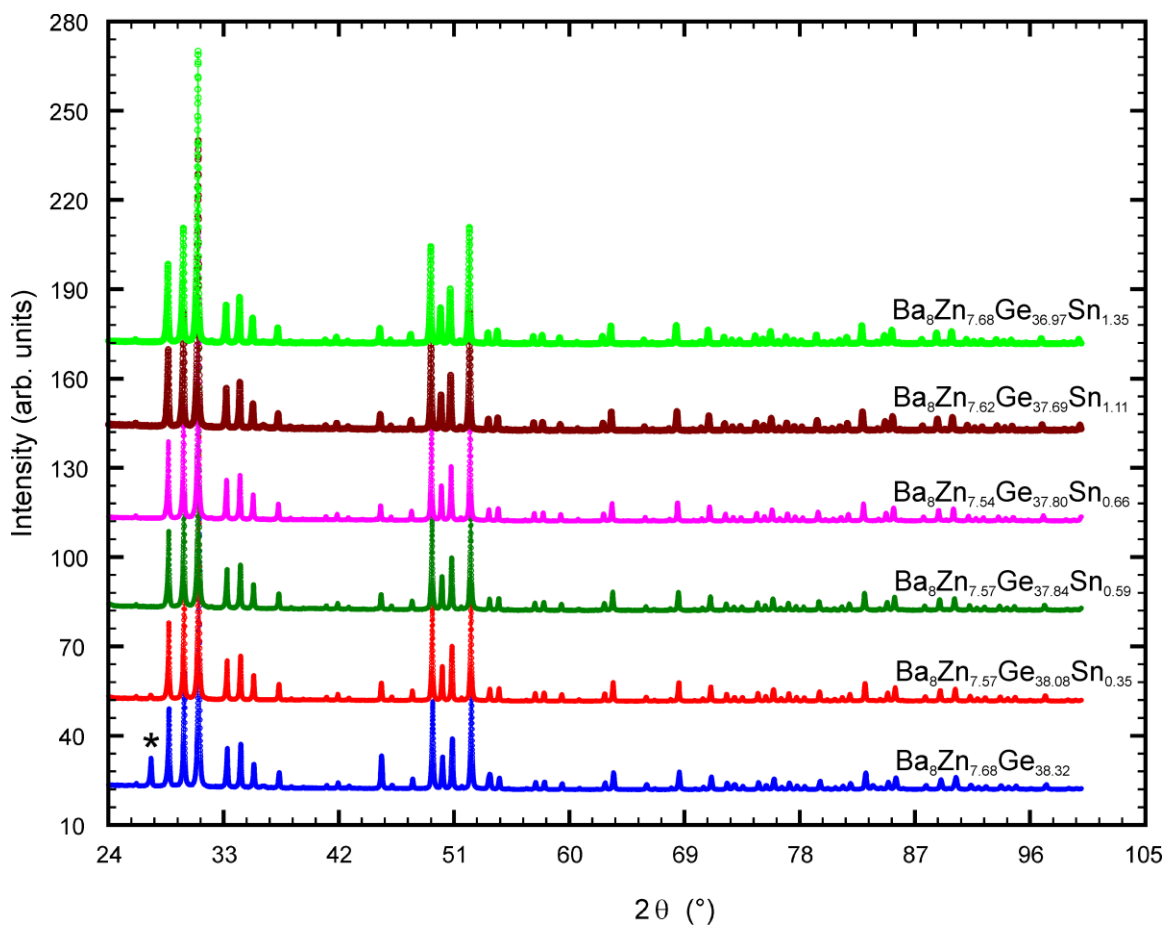


Fig. S2: X-ray powder diffraction patterns of all samples of series 1 (see Table I in the publication). The asterisk marks the (111)-reflection of Ge.

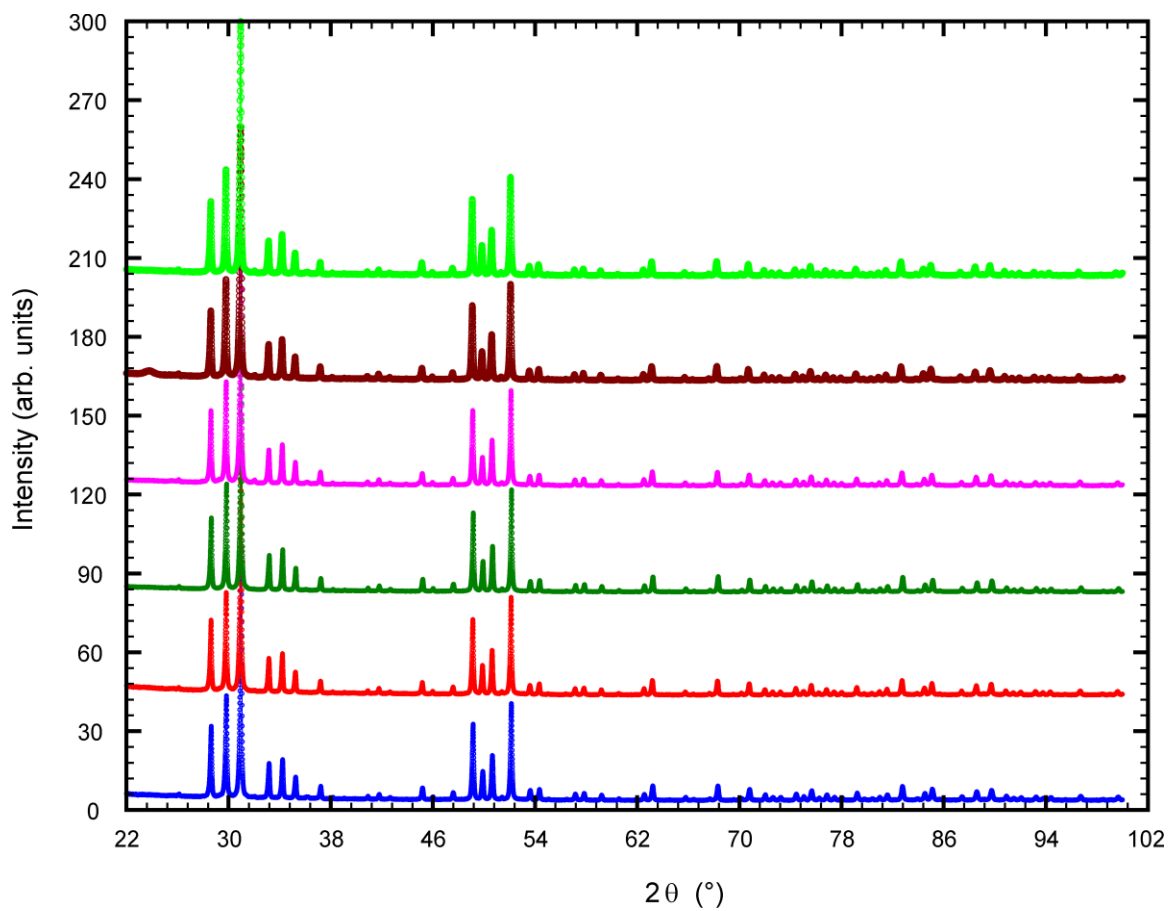


Fig. S3: X-ray powder diffraction patterns of all samples of series 2 (see Table I in the publication).