Electronic Supplementary Material (ESI) for Dalton Transactions.
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Supplementary Material

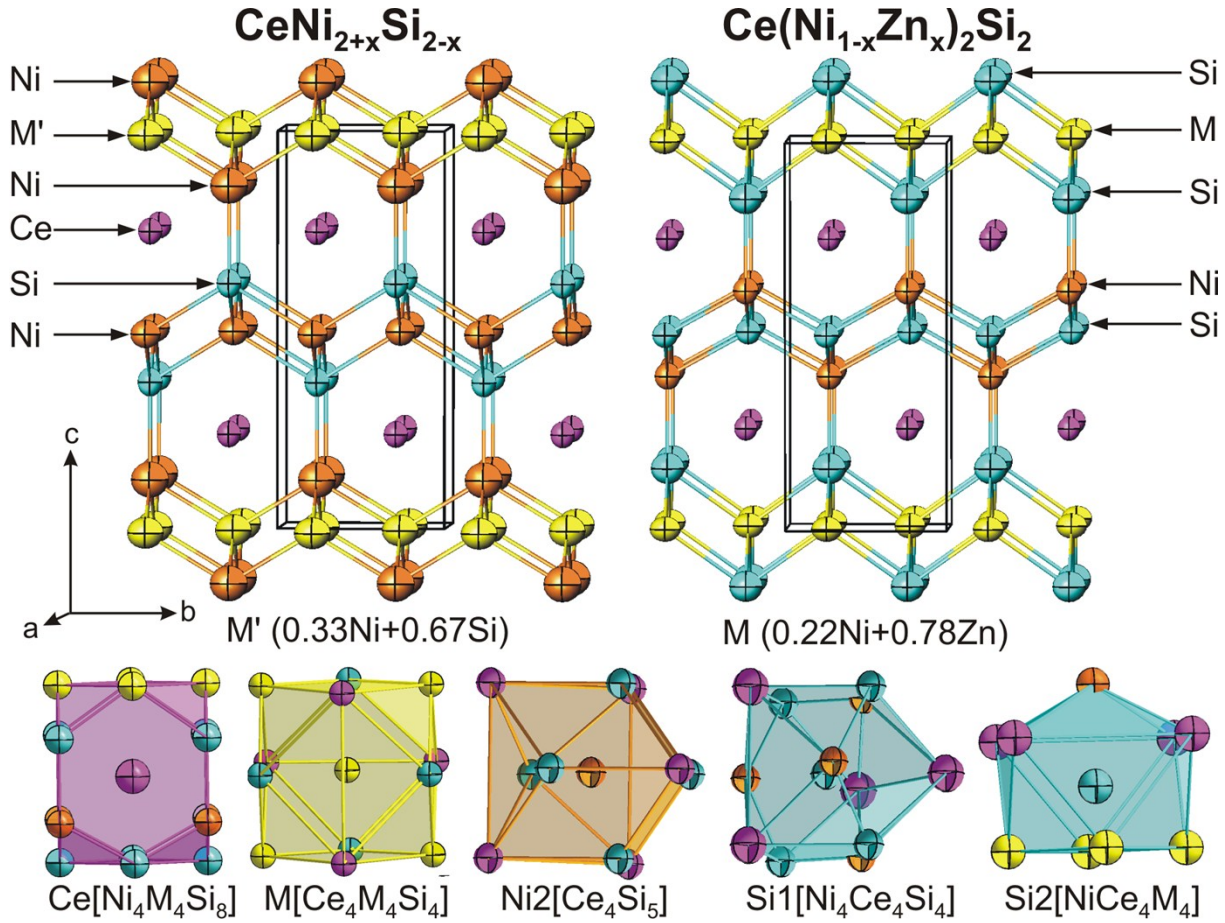

Figure I of Supplementary Material: Atom site distribution for ternary $CeNi_{2+x}Si_{2-x}$ ($CaBe_2Ge_2$-type; left) and atom site exchange arrangement in isopointal quaternary $Ce(Ni_{1-x}Zn_x)_2Si_2$ ($CaBe_2Ge_2$-type; right). Coordination polyhedra are presented for quaternary $Ce(Ni_{1-x}Zn_x)_2Si_2$. Atoms in blue are presented with ADPs from single crystal refinement.

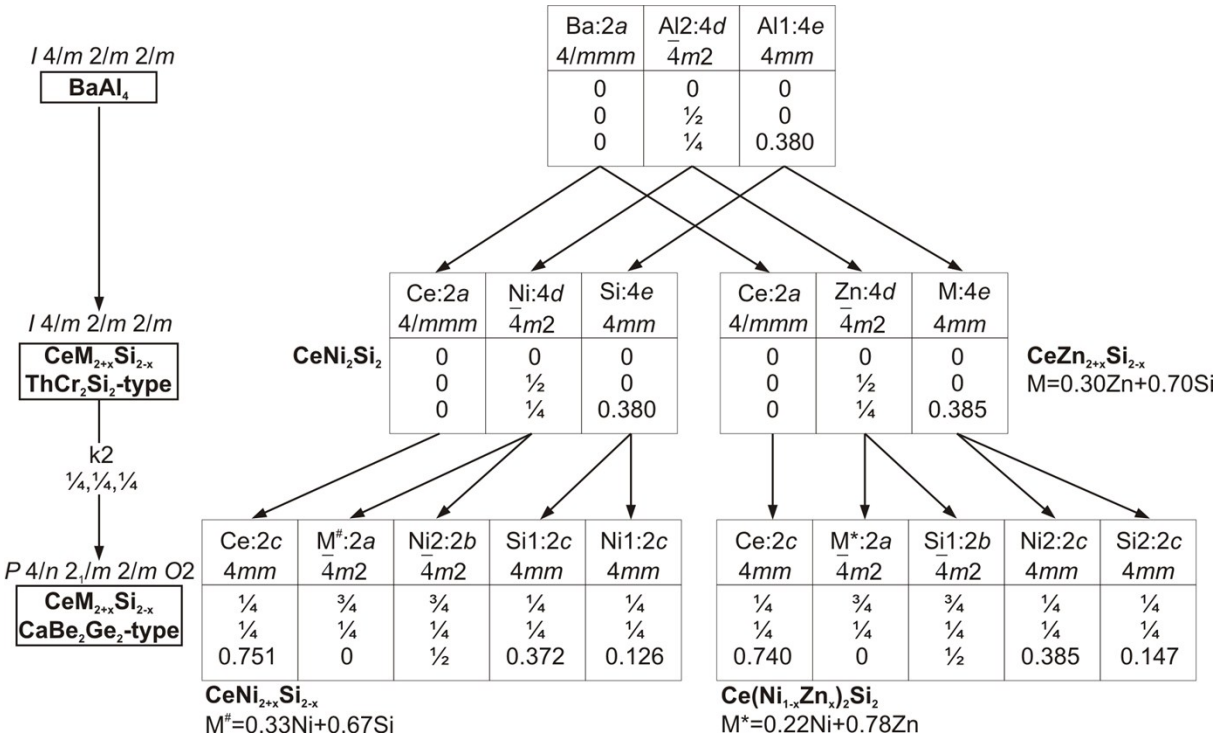

Figure II of Supplementary Material: Bärnighausen tree for the group-subgroup relation in the $BaAl_4$ family emphasizing on the various atom site occupation modes in the corresponding phases of the system Ce-Ni-Zn-Si.

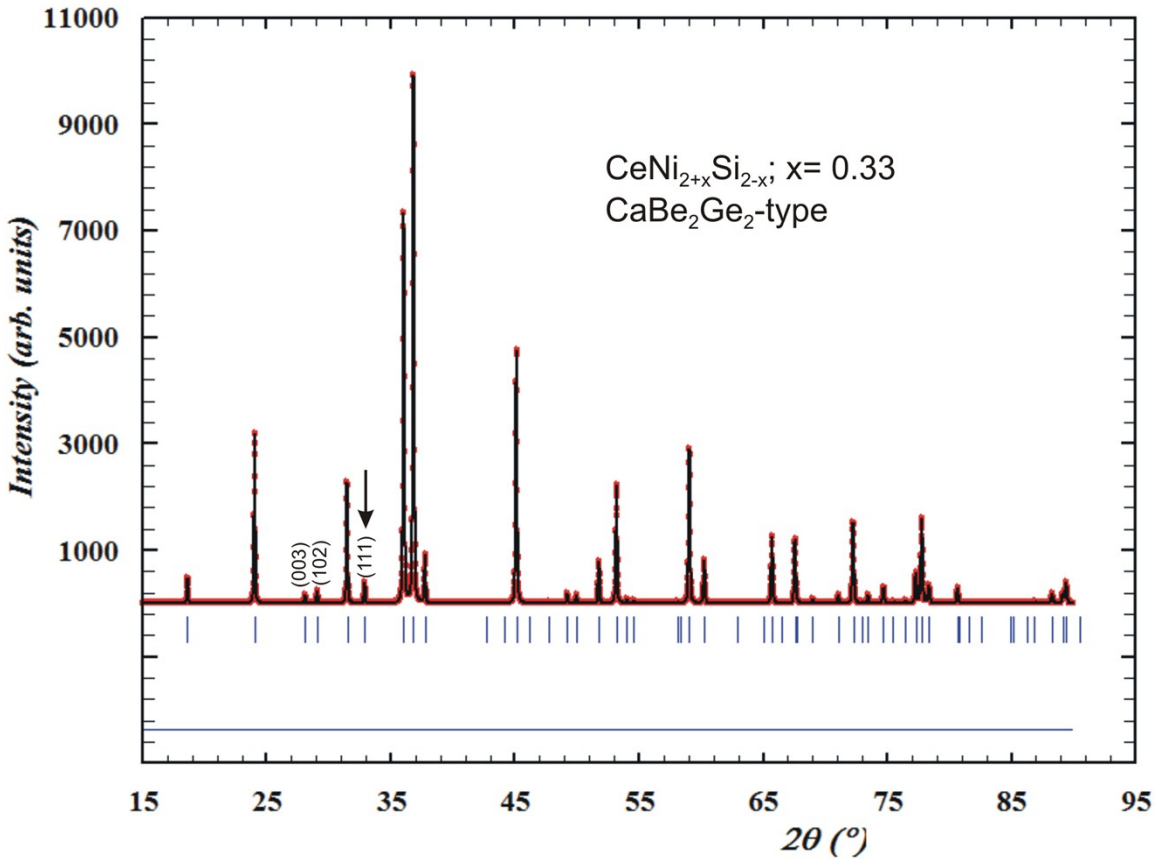

Figure III of Supplementary Material: Simulated powder diffraction pattern of the $CaBe_2Ge_2$-type $CeNi_{2+x}Si_{2-x}$; x=0.33 based on the single crystal data. The strongest primitive reflection (111) is marked with arrow.