

Nowotny Chimney Ladder Phases with Group 5 Metals: Crystal and Electronic Structure and Relations to the CrSi₂ Structure Type

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Supplementary Materials

Table S1. EDX analysis results for VAl_{2-x}Ge_x, NbGa_{2-x}Ge_x, and NbAl_{2-x}Ge_x samples.

Nominal composition	EDX results, at. %	Measured composition
VAl _{0.7} Ge _{1.3}	V – 34, Al – 24, Ge – 42	V _{1.02(3)} Al _{0.72(3)} Ge _{1.26(3)}
NbGa _{0.8} Ge _{1.2}	Nb – 33, Ga – 27, Ge – 40	Nb _{0.99(3)} Ga _{0.81(3)} Ge _{1.20(3)}
NbAlGe	1: Nb – 37, Al – 19, Ge – 44, 2: Nb – 26, Al – 71, Ge – 3	Nb _{1.11(3)} Al _{0.57(6)} Ge _{1.32(3)} Nb _{1.04(6)} Al _{2.84(3)} Ge _{0.12(10)}

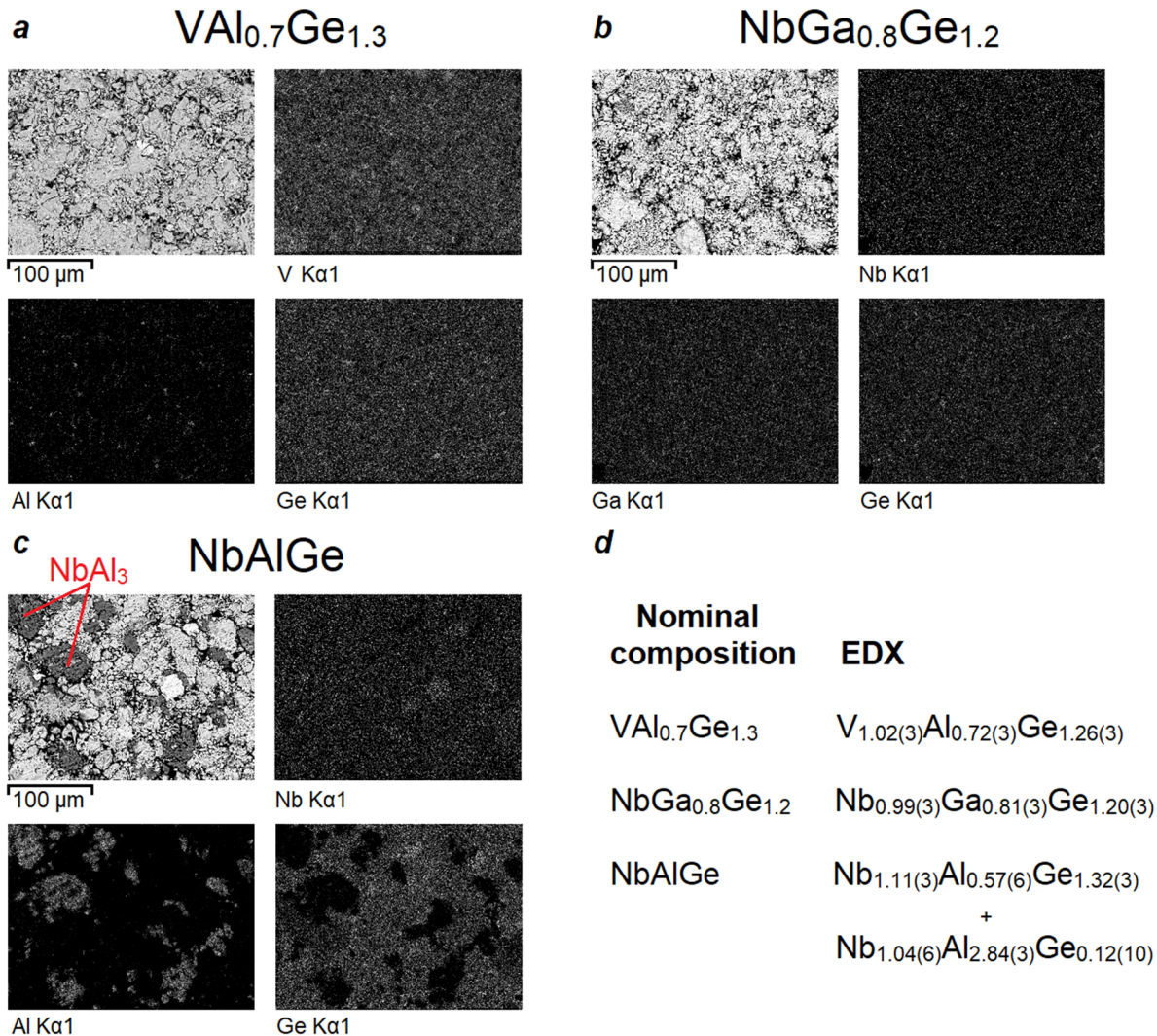


Figure S1. EDX mapping of the samples with the nominal composition VAl_{0.7}Ge_{1.3} (**a**), NbGa_{0.8}Ge_{1.2} (**b**), and NbAlGe (**c**). (**d**) comparison of the nominal composition with measured one.

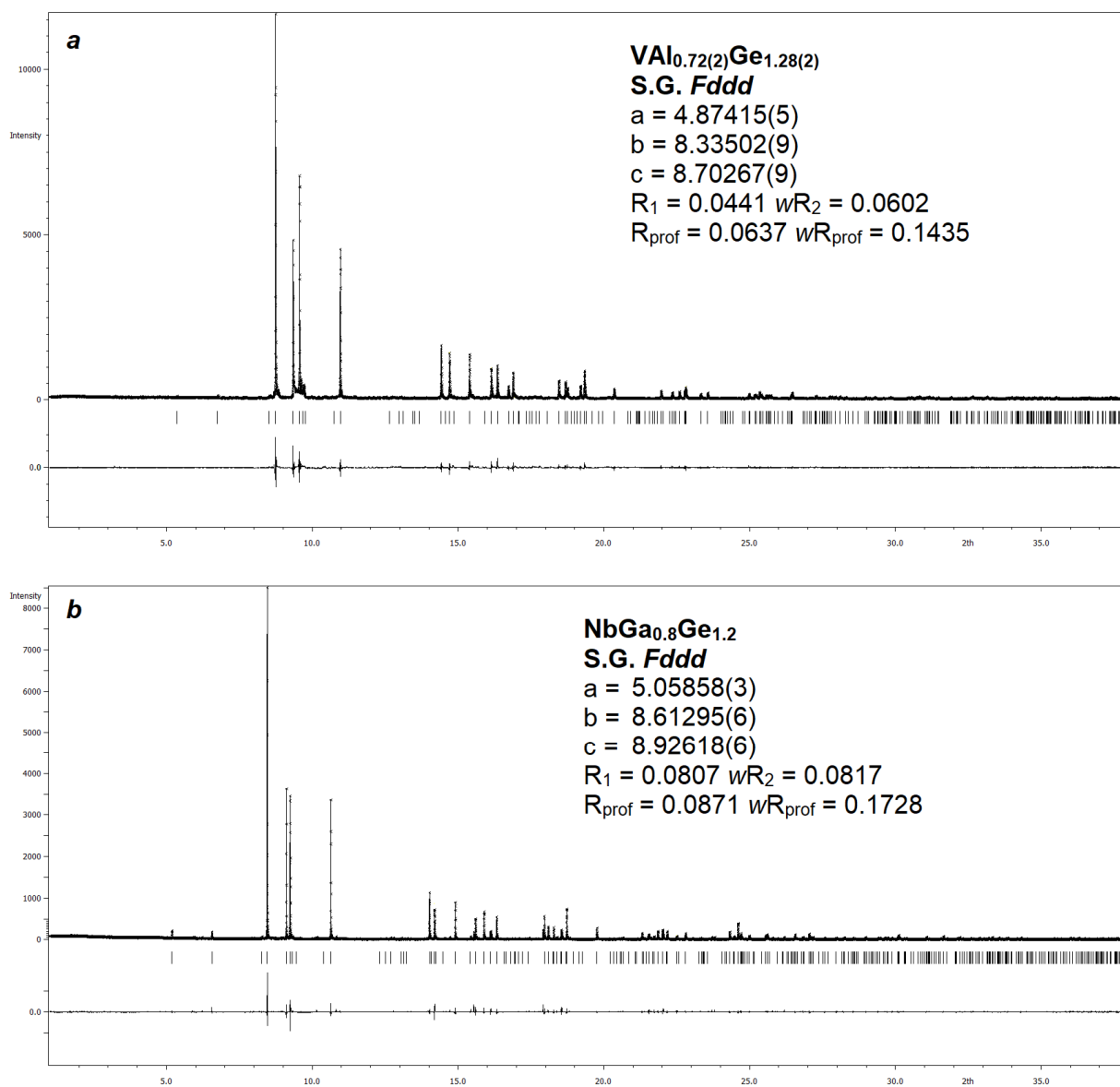


Figure S2. Powder X-ray diffraction pattern of VAl_{0.72(2)}Ge_{1.28(2)} (**a**) and NbGa_{0.8}Ge_{1.2} (**b**). The upper black line represents the experimental diffraction pattern, the black ticks show peak positions, and the lower black line is the difference between the experimental and calculated patterns.