

Structural and Magnetic Characteristics of $\text{Gd}_5\text{Ga}_x\text{Si}_{4-x}$

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Supporting Information

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Table S1. Selected interatomic distances in the two cases, $\text{Gd}_5\text{Ga}_{0.63}\text{Si}_{3.37}$ and $\text{Gd}_5\text{Ga}_{0.81}\text{Si}_{3.18}$. The dashed lines within the T1-Gd# and Gd1-Gd# distances separate intraslab (above) from interslab (below) contacts (see Figure 2 for illustration of the structure with respect to slabs).

Atom Pairs	$\text{Gd}_5\text{Ga}_{0.63}\text{Si}_{3.37}$ (Å)	$\text{Gd}_5\text{Ga}_{0.81}\text{Si}_{3.18}$ (Å)	Atom Pairs	$\text{Gd}_5\text{Ga}_{0.63}\text{Si}_{3.37}$ (Å)	$\text{Gd}_5\text{Ga}_{0.81}\text{Si}_{3.18}$ (Å)
T1-T1(×4)	2.567(3)	2.588(4)	T3-Gd1(×8)	3.167(2)	3.172(2)
			Gd1(×8)	3.168(2)	3.178(2)
T2-T3(×4)	2.503(3)	2.509(4)	Gd2(×8)	3.059(2)	3.065(2)
			Gd3(×4)	2.955(2)	2.949(3)
T1-Gd1(×8)	3.057(2)	3.052(2)	Gd3(×4)	3.019(2)	3.021(3)
Gd1(×8)	3.119(2)	3.125(2)			
Gd2(×8)	2.883(2)	2.885(2)	Gd1-Gd1(×8)	3.890(1)	3.890(1)
Gd2(×8)	3.000(2)	3.005(2)	Gd2(×8)	3.836(1)	3.834(1)
Gd1(×8)	3.169(2)	3.180(2)	Gd2(×8)	4.072(1)	4.081(1)
Gd1(×8)	3.667(2)	3.651(2)	Gd2(×8)	4.118(1)	4.127(1)
Gd2(×8)	2.915(2)	2.919(2)	Gd3(×8)	3.542(1)	3.549(1)
Gd3(×8)	3.132(2)	3.137(2)	Gd3(×8)	3.592(1)	3.592(1)
			Gd1(×4)	4.046(1)	4.041(1)
T2-Gd1(×8)	3.194(2)	3.207(2)	Gd2(×8)	3.754(1)	3.752(1)
Gd2(×8)	2.973(2)	2.971(2)	Gd2(×8)	3.915(1)	3.921(1)
Gd2(×8)	2.982(2)	2.987(2)			
Gd3(×4)	2.942(2)	2.943(3)	Gd2-Gd2(×4)	3.784(1)	3.793(1)
Gd3(×4)	3.359(2)	3.369(3)	Gd2(×8)	3.903(1)	3.903(1)
			Gd3(×8)	3.456(2)	3.466(2)
			Gd3(×8)	3.467(2)	3.479(2)

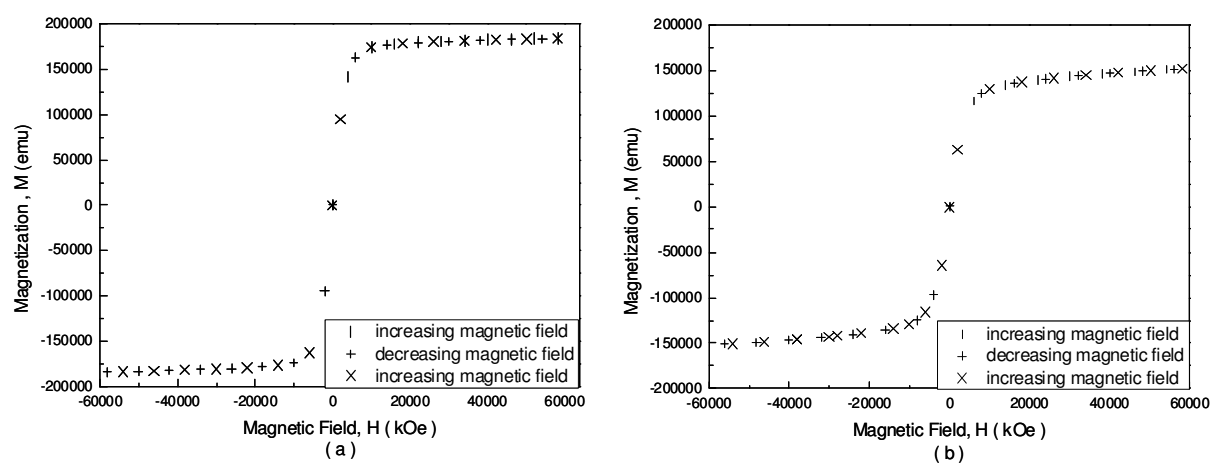


Figure S1. Magnetization isotherms measured for $H = -60$ -60 kOe at $T = 2$ K.