

Erratum: Strongly Interacting, Two-Dimensional, Dipolar Spin Ensembles in (111)-Oriented Diamond [Phys. Rev. X **15**, 021035 (2025)]

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Since publication, we became aware of errors in Appendix D, Table I. The errors include mistakes in the listed NV densities, volume, number of NVs, and some prefactors, which resulted in changes to the readout efficiency, $\rho * T_2$, and volume-normalized sensitivities. Additionally, we have updated the sensing time to be chosen as the optimal τ which minimizes sensitivity. The corrected, best sensitivity we measured is $\eta_{AC} = 3.1 \text{ nT } \mu\text{m}^{3/2} \text{ Hz}^{-1/2}$ for a TEM-irradiated spot on sample A instead of the originally reported $\eta_{AC} = 810 \text{ pT } \mu\text{m}^{3/2} \text{ Hz}^{-1/2}$ for a TEM-irradiated spot on sample B. A corrected table of parameters used to estimate sensitivity is given below.

TABLE I. Corrected Table I.

	Sample A	Sample A	Sample B	Sample B	Sample B
NV ensemble type	As-grown + annealed	TEM ($4 \times 10^{19} e^-/\text{cm}^2$)	As-grown + annealed	TEM ($7 \times 10^{18} e^-/\text{cm}^2$)	Projected
Sequence type	Hahn echo	XY-8	Hahn echo	Hahn echo	Hahn echo
T_2 (μs)	2.7	48	4.9	65	65
Sensing time τ (μs)	4.3	53	7.3	59	59
Overhead time t_m (μs)	20.4	41	20.4	20.4	4.4
Readout efficiency C_{eff}	0.0042	0.0037	0.0017	0.0019	0.040
Number of NVs	290	350	42	250	250
Volume V (μm^3)	0.0021	0.0021	0.0012	0.0012	0.0012
NV density ρ (ppm)	0.78	0.95	0.2	1.2	1.2
$\rho \times T_2$ (ppm μs)	2.1	46	1.0	78	78
Volume-normalized sensitivity η_{AC} ($\text{nT } \mu\text{m}^{3/2} \text{ Hz}^{-1/2}$)	26	3.1	75	4.0	0.17

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