

Erratum: “Columnar [001]-oriented nitrogen order in Ga(NAs) and (GaIn)(NAs) alloys” [Appl. Phys. Lett. 85, 5908 (2004)]

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We realized that the contribution from bond bending to the strain energy functional $E_{\text{strain}}(\mathbf{R}_i)$ in Eq. (1) of our letter was overestimated by a factor of two. Although it did not affect conclusions of the letter, we found it necessary to correct the corresponding values of the strain energy in Table II. The authors apologize for possible confusion to the readers that may have arisen from such an error.

TABLE II. Strain, chemical and interaction energies (eV) of various N and In substitutional configurations in GaAs host crystal.

Local configuration	E_{strain}	ΔE_{strain}	ΔE_{chem}	ΔE
Ga(NAs): isolated N	1.69 ^a
2N-[110]	3.75	0.37	0.	0.37 ^b
2N-[001]	3.28	-0.10	0.	-0.10 ^c
3N-[001]	4.85	-0.22	0.	-0.22
6N-[001]	9.57	-0.57	0.	-0.57
(GaIn)(NAs):				
isolated In	0.14
N-Ga ₃ In ₁	1.28	-0.55	0.23	-0.32
N-Ga ₂ In ₂	0.92	-1.05	0.46	-0.59
N-Ga ₁ In ₃	0.61	-1.50	0.69	-0.81
N-Ga ₀ In ₄	0.39	-1.86	0.92	-0.94

^aPrevious studies: 1.70 eV (VFF) [1]; 1.78 eV (*ab initio*) (Ref. [2]).

^b0.38 eV (VFF) (Ref. [3]).

^c-0.1 eV (VFF) (Ref. [3]).

¹S. B. Zhang and A. Zunger, Appl. Phys. Lett. **71**, 677 (1997).

²K. Kim, W. R. Lambrecht, and S. Segall, Phys. Rev. B **53**, 16310 (1996).

³P. R. C. Kent and A. Zunger, Phys. Rev. B **64**, 115208 (2001).

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