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Correction: Character angle effects on dissociated dislocation core energy in aluminum†

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Correction for 'Character angle effects on dissociated dislocation core energy in aluminum' by X. W. Zhou et al., *Phys. Chem. Chem. Phys.*, 2021, 23, 3290–3299, DOI: <https://doi.org/10.1039/D0CP05333C>.

The published version of this article contained errors in eqn (1). The corrected equation is:

$$\Gamma = \begin{cases} E_c + \frac{Gb^2 \sin^2 \beta}{4\pi(1-\nu)} \left(\ln \frac{1}{r_0} + 1 \right) + \frac{Gb^2 \sin^2 \beta}{4\pi(1-\nu)} [c_{ue0}(d) + c_{ue}(d)] + \\ \frac{Gb^2 \cos^2 \beta}{4\pi} \ln \frac{1}{r_0} + \frac{Gb^2 \cos^2 \beta}{4\pi} [c_{us0}(d) + c_{us}(d)] + \Delta E_{\text{dis}} \end{cases}$$

Compared with the published version of the paper, a $\frac{Gb^2 \sin^2 \beta}{4\pi(1-\nu)}$ term is added to eqn (1) so that it is consistent with that of Hirth and Lothe.¹ This modification only changes the definition of the core energy: the old expression defines the core energy as the one when the vertical dipole is separated by r_0 , whereas Hirth and Lothe's expression defines the core energy as the one when the horizontal dipole is separated by r_0 . Both expressions can be used equivalently; however, since the parameters in the published article were fitted to the modified expression, readers will need to apply the modified eqn (1) when using the parameters within this article to calculate dislocation energies.

The Royal Society of Chemistry apologises for these errors and any consequent inconvenience to authors and readers.

References

- 1 J. P. Hirth and J. Lothe, *Theory of Dislocations*, McGraw-Hill, New York, 1968.

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