

Erratum: Cold Neutron Energy Dependent Production of Ultracold Neutrons in Solid Deuterium [Phys. Rev. Lett. 99, 262502 (2007)]

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(Received 29 September 2008; published 27 October 2008)

DOI: [10.1103/PhysRevLett.101.189902](https://doi.org/10.1103/PhysRevLett.101.189902)

PACS numbers: 28.20.Cz, 29.25.Dz, 61.05.fg, 99.10.Cd

A mistake occurred in the equations after Eq. (1) of [1], explaining in more detail the functions and parameters of Eq. (1). The proper formulas have been applied in the analysis but were typed incorrectly in the Letter manuscript.

The normalized phonon density of states (see [2])

$$Z(\varepsilon) = \frac{3\varepsilon^2}{\varepsilon_D^3} \quad (1)$$

was confusingly named g , whereas g is given by

$$g(\varepsilon) = \frac{Z(\varepsilon)}{\varepsilon\{1 - \exp[-\varepsilon/(k_B T)]\}}. \quad (2)$$

The mistake appears in the function γ which contains the normalized phonon density of states Z and reads correctly

$$\gamma = \frac{\hbar^2}{2m_d} \int_0^\infty \frac{1}{\varepsilon} \coth\left(\frac{\varepsilon}{2k_B T}\right) Z(\varepsilon) d\varepsilon. \quad (3)$$

The recurrence formulas for g apply as given in [1]: $g_1(\varepsilon) \equiv g(\varepsilon)$ and $g_n(\varepsilon) = \int_{-\infty}^\infty g_{n-1}(\varepsilon') g(\varepsilon - \varepsilon') d\varepsilon'$.

We thank E. Gutmiedl (TU München) for informing us of this error.

[1] F. Atchison *et al.*, Phys. Rev. Lett. **99**, 262502 (2007).

[2] F. Atchison *et al.*, Phys. Rev. Lett. **95**, 182502 (2005).