# Corrigendum to "Mean-Squared Energy Difference for Exploring Potential Energy Landscapes of Supercooled Liquids"

D. M. Zhang(张点墨)[1], D. Y. Sun(孙得彦)[2*], and X. G. Gong(龚新高)[1*]

[1]*Key Laboratory for Computational Physical Sciences (MOE), Institute of Computational Physics, Fudan University, Shanghai 200433, China*
[2]*School of Physics and Electronic Science, East China Normal University, Shanghai 200241, China*

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Equations (2) and (6) and the corresponding discussion in the paper [*Chin. Phys. Lett.* 42, 056301 (2025)] have been corrected. These modifications do not affect the results derived in the paper.

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In the article,[1] it is necessary to correct Eqs. (2) and (6) and the corresponding discussion on the excess specific heat and entropy. The revised Eqs. (2) and (6) and discussion are presented below.

$$\lim_{t\to\infty}\langle\Delta E^2(t)\rangle = 2N^{-1}k_{\rm B}T^2C. \tag{2}$$

Considering the excess specific heat $C_{\rm ex} = \frac{N\langle\Delta E^2\rangle}{2k_{\rm B}T^2}$, where the specific heat only reflects contributions from potential energies, we can obtain the excess entropy $S_{\rm ex}$ using $S_{\rm ex} = \int \frac{C_{\rm ex}}{T}{\rm d}T$. According to Eq. (5), for sufficiently long time, the MSED can be expressed as the sum of two components: $\langle\Delta E^2(t)\rangle = U_0^2 + U_{\rm m}^2$. Therefore, the excess specific heat and entropy can be written as: $C_{\rm ex} = \frac{NU_0^2}{2k_{\rm B}T^2} + \frac{NU_{\rm m}^2}{2k_{\rm B}T^2}$, and $S_{\rm ex} = S_1 + S_2$, where

$$S_1 = \int \frac{NU_0^2}{2k_{\rm B}T^2}{\rm d}T, \quad S_2 = \int \frac{NU_{\rm m}^2}{2k_{\rm B}T^2}{\rm d}T. \tag{6}$$

# References

[1] Zhang D M, Sun D Q, and Gong X G 2025 *Chin. Phys. Lett.* **42** 056301

*Corresponding author. Email: dysun@phy.ecnu.edu.cn; xggong@fudan.edu.cn
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