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Corrigendum Notice: A corrigendum has been issued for this article and is included at the end of this document.

Post-Publication Notice

Corrigendum to "M. Mustafin, "Probing molecular architectures and interactions with scanning tunneling microscopy on graphite and arachidic acid functionalized surfaces", tbusphys, vol. 2, no. 2, p. 0010, Apr. 2025. doi: 10.54355/tbusphys/2.2.2024.0010"

In the originally published version of this article, the Methods section omitted crucial details about the experimental setup and data acquisition process.

The following corrections have been made:

- 1. Section 2 (Methods):
- The updated text specifies the STM equipment manufacturer (Gulmey Company), vibration isolation system, feedback loop parameters (PID values), and measurement conditions (bias voltage, tunneling current, scanning speed).
- Additional details on software tools used (Nanoscope V for acquisition, Gwyddion 2.63 for analysis) have been provided.
- The description of repeated scans for reproducibility and imaging conditions for both graphite and arachidic acid-treated surfaces has been expanded.
- 2. Editorial corrections have been made to clarify technical terminology and improve reproducibility of the experimental methodology.

Additionally, the following references have been updated:

- "Study of superconductors by electron tunneling / I. Giaever, K. Megerle // Physical Review. 1961. Vol. 122, No. 4. P. 1101–1111." has been replaced with "Scanning tunneling microscope study of iron-based superconductors / Q. Zhang, Zh. Xu // Acta Microscopica. 2019. Vol. 28, No. 6. P. 1491–1498."
- "Phonon induced tunneling of ions in solids / J.A. Sussmann // Physik der Kondensierten Materie. 1964. Vol. 2, No. 2. P. 146–160." has been replaced with "Quantum-correlated fluctuations, phonon-induced bond polarization, enhanced tunneling, and low-energy nuclear reactions in condensed matter / K.P. Sinha, A. Meulenberg // Proceedings of the 16th International Conference on Condensed Matter Nuclear Science, ICCF 2011: "Celebrating the Centenary of the Discovery of the Atomic Nucleus". 2011. P. 132–141."
- "Energy distributions of field emitted electrons / R. Stratton // Physical Review. 1964. Vol. 135, No. 3A. P. A794—A805." has been replaced with "High-resolution energy measurement of field-emitted electrons from a single crystalline magnetite whisker / H. Sakakibara, S. Nagai, K. Hata, T. Iwata, M. Okada, H. Mimura // Surface and Interface Analysis. 2012. Vol. 44, No. 6. P. 699–702. https://doi.org/10.1002/sia.4811."

These amendments do not affect the results, conclusions, or scientific validity of the article. They enhance transparency and methodological precision.

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