Erratum: Giant Splitting of the Hydrogen Rotational Eigenenergies in the C_2 Filled Ice [Phys. Rev. Lett. 133, 236101 (2024)]

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In the original Letter an incorrect linear shift of the spherical angles describing the H_2 orientation was applied while constructing the lattice-derived rotational potential $V(\theta, \phi)$. Such a shift is valid in Cartesian coordinates but distorts the topology of spherical configuration space, leading to an artificial amplification of anisotropy and, consequently, to a modified splitting of the $J = 1$ manifold. We have recomputed $V(\theta, \phi)$ in the original crystallographic frame, without any angular shift; the Schrödinger equation solved on this corrected surface yields revised transition energies of 10.9, 15.8, and 18.7 meV, here averaged over different proton-disordered configurations of the ice network. These results replace the results in Figs. 1 and 2 of the Letter. The Supplemental Material has been updated to correct the error described here. All qualitative conclusions remain unchanged.

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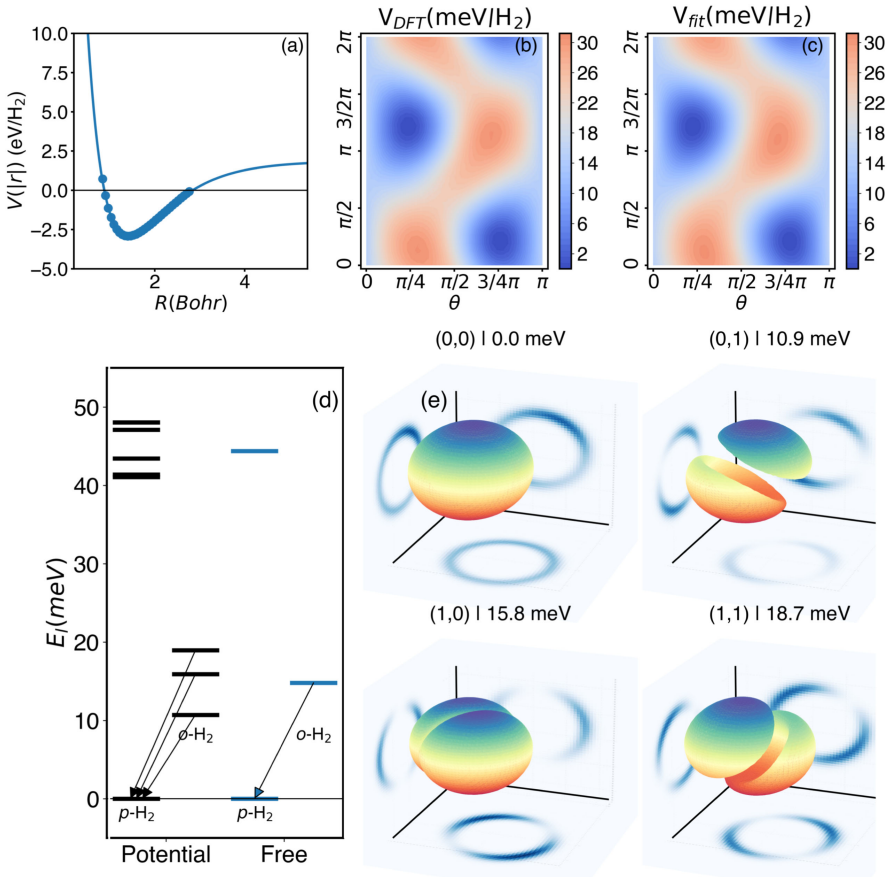

FIG. 1. Amended crystal potential and corresponding eigenvalues and eigenvectors. (a) Radial part; (b) calculated potential; (c) interpolated potential; (d) eigenvalues and energy transitions; (e) eigenfunctions for each eigenvalue. The eigenvectors are shown as probability density isosurfaces (cutoff 2×10^{-5}), surrounded by their cross section with the $x = 0$, $y = 0$, and $z = 0$ planes.

