

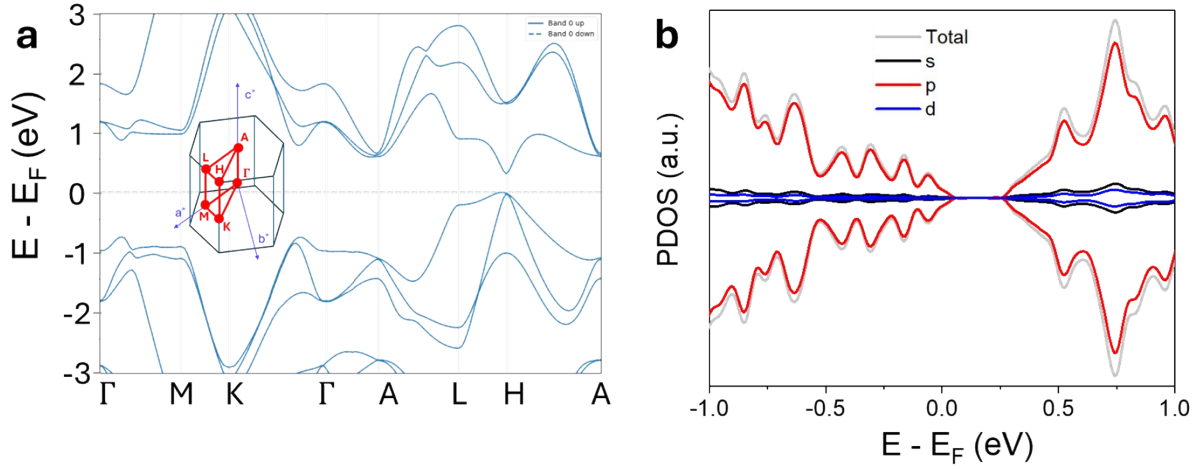
# Supplementary Information for “Intrinsic Magnetism in Semiconducting Bulk Amorphous Tellurium”

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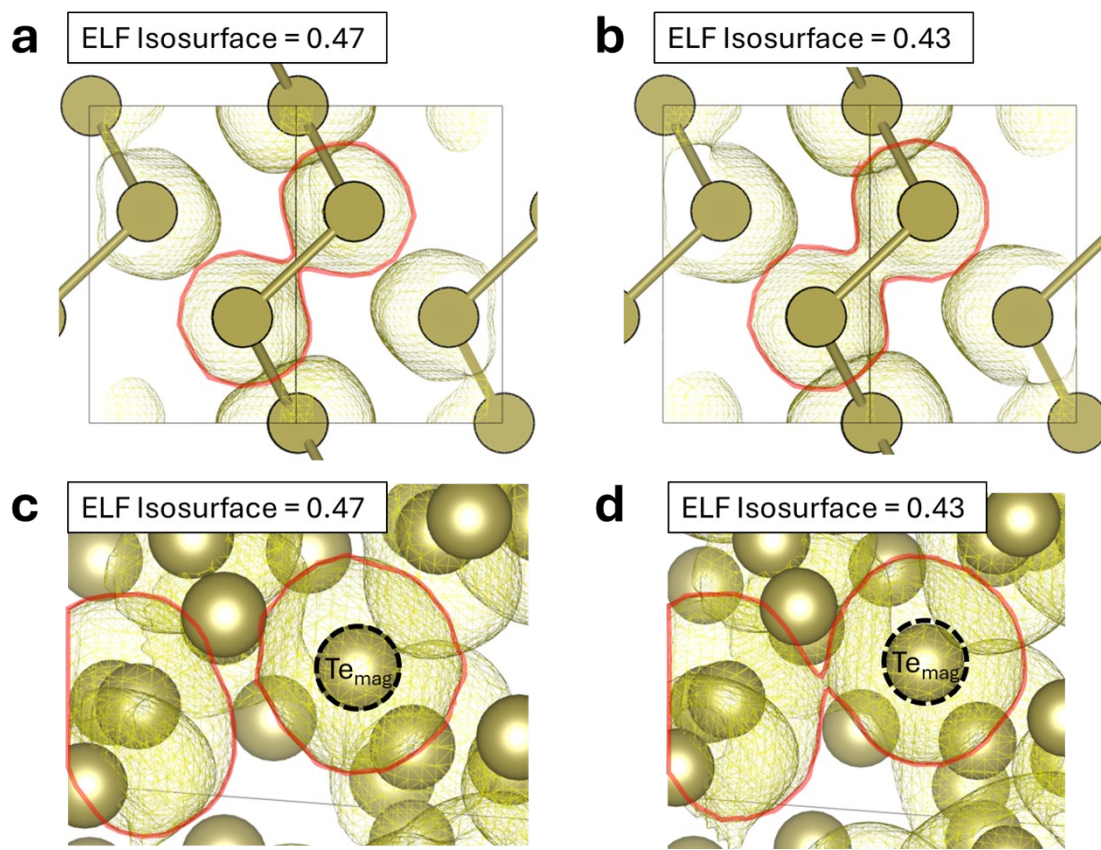
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**Figure S1.** Band structure and orbital-resolved projected density states (PDOS) of crystalline Te. The inset in (a) represents the high-symmetric  $k$ -points within the first Brillouin zone of crystalline Te.



**Figure S2. Electron localization function (ELF) distribution.** (a,b) In crystalline Te (c-Te), ELF distributions overlap at an isosurface level of 0.47 (a) and intensify at 0.43 (b). (c,d) In amorphous Te (a-Te), no overlap is observed at 0.47 (c), but overlap occurs at the lower ELF level of 0.43 (d), indicating localized behavior and partial bond breaking in a-Te.