

The synthesis, and crystal and magnetic structure of the iron selenide BaFe_2Se_3 with possible superconductivity at $T_c = 11$ K

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Corrigendum: The synthesis, and crystal and magnetic structure of the iron selenide BaFe₂Se₃ with possible superconductivity at $T_c = 11$ K

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Owing to a technical mistake, we erroneously used the wrong computer file for plotting the magnetic structure of the solution that we found for the irreducible representation (irrep) τ_2 , which was shown in figure 4(b) in the original article. Table 3, showing also the details of the magnetic structure refinements for τ_2 , and figure 4(a) were correct. The corrected figure 4 is shown in this corrigendum. The structure in (b) looks similar to that in (a), but the geometries of the Fe plaquettes forming ferromagnetic four-spin blocks are slightly different for the (a) and (b) cases of different (τ_1 and τ_2) symmetry. For completeness, we explicitly list the symmetry operators, coordinates and spin directions $+1$ or -1 along the a -axis for all eight Fe atoms in the zeroth cell for the (a) and (b) structures.

Symmetry operator	x, y, z	Spin direction for a, b
x, y, z	0.494, 0.001, 0.353	$+1, +1$
$-x + 1/2, -y, z + 1/2$	0.006, 0.999, 0.853	$-1, +1$
$-x, y + 1/2, -z$	0.506, 0.501, 0.647	$-1, +1$
$x + 1/2, -y + 1/2, -z + 1/2$	0.994, 0.499, 0.147	$-1, -1$
$-x, -y, -z$	0.506, 0.999, 0.647	$-1, -1$
$x + 1/2, y, -z + 1/2$	0.994, 0.001, 0.147	$+1, -1$
$x, -y + 1/2, z$	0.494, 0.499, 0.353	$-1, +1$
$-x + 1/2, y + 1/2, z + 1/2$	0.006, 0.501, 0.853	$-1, -1$

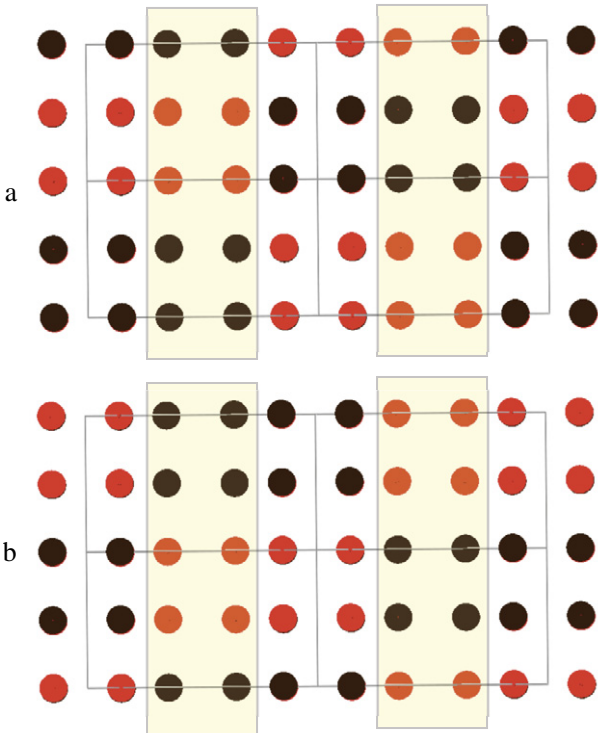


Figure 4. Refined magnetic structure models ((a) and (b)) for Ba123. The magnetic structures for τ_1 (a) and τ_2 (b) are shown in the projection on the bc -plane. The black and red circles correspond to the up and down spin directions. The Se_2Fe_3 double chains separated by a distance of approximately $a/2$ along the a -axis are shown with a different background color.