Erratum: Magnetic structure and orbital ordering in $BaCoO_3$ from first-principles calculations [Phys. Rev. B 70, 144422 (2004)]

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PACS numbers: 71.15.Ap, 71.15.Mb, 71.20.-b

The results presented in the paper are given for a structure different than the experimental one. The Ba atoms are experimentally in the 2d Wyckoff position (1/3,2/3,1/4) and the calculations presented in the paper are given for the Ba at the 2c position (2/3,1/3,1/4). All calculations are correct but they do not correspond to the experimental structure. For the correct structure, however, the main conclusions of the paper (the very small energy difference between the different possible collinear magnetic configurations and the fact that orbital ordering along the Co-chains is required to obtain an insulator) remain unchanged.

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