Retraction: *s*-wave superconductivity in barium-doped phenanthrene as revealed by specific-heat measurements [Phys. Rev. B 85, 180511(R) (2012)]

Jianjun Ying, Xiangfeng Wang, Yajun Yan, Ziji Xiang, Xigang Luo, Zhe Sun, and Xianhui Chen

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We recently published a paper entitled "*s*-wave superconductivity in Ba-doped phenanthrene as revealed by specific-heat measurements." The sample studied in that paper as $Ba_{1.5}$-doped phenanthrene is now found to be La-doped phenanthrene. This error was caused by mislabeling the La-doped phenanthrene sample as $Ba_{1.5}$-doped phenanthrene. During our experiment, we synthesized La- and Ba-doped phenanthrene in the same furnace because both of them have the same sintering temperatures and procedures. The mislabeling occurred when the samples were taken out of the furnace with incorrect records. In addition, it is now found that both Ba- and La-doped phenanthrene show similar superconducting transition temperatures.

In an earlier paper,[1] we reported superconductivity in Ba-doped phenanthrene. At that time, we had not yet begun synthesizing La-doped phenanthrene samples, so it was impossible to have made a similar mislabeling error. Furthermore, we burned the superconducting Sr-doped and Ba-doped phenanthrene samples reported in the earlier paper at 750 °C in air for 2 h and found that the final products were $SrCO_3$ and $BaCO_3$, respectively, which definitely proves that the samples in the earlier paper, indeed, have the composition reported there.

We are sorry for this error, and we ask that the paper not be regarded as part of the scientific literature. The data in the retracted paper with the correct reanalysis may be reported in a different paper, and the conclusions could be considered valid for La-doped phenanthrene.

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[1] X. F. Wang, Y. J. Yan, Z. Gui, R. H. Liu, J. J. Ying, X. G. Luo, and X. H. Chen, Phys. Rev. B **84**, 214523 (2011).

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