

Correction to Highly Sensitive NH₃ Detection Based on Organic Field-Effect Transistors with Tris(pentafluorophenyl)borane as Receptor

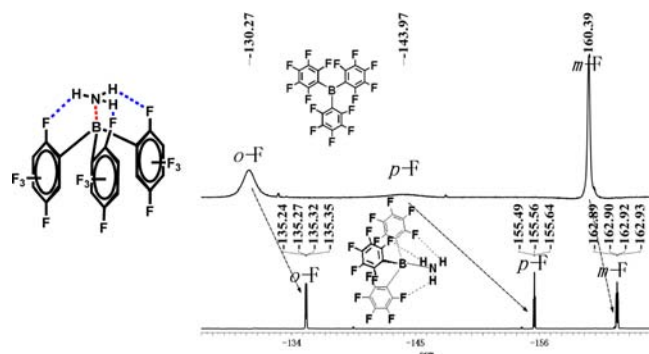
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Page 14651. The chemical shift in the ¹⁹F NMR spectrum of free tris(pentafluorophenyl)borane (top ¹⁹F NMR spectrum in corrected Scheme 1) was influenced by the water (about 640 ppm) in ordinary C₆D₆. Therefore, we would like to offer corrected spectra, taken in anhydrous C₆D₆ (<10 ppm water).

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Scheme 1. NH₃–TPFB Interaction and ¹⁹F NMR Spectra of TPFB and the TPFB–NH₃ Complex Synthesized and Isolated from Toluene–Chloroform Solution^a



^aBlue denotes hydrogen bonding, and red denotes B–N interaction.

The tris(pentafluorophenyl)borane purity is nominally 95% (from Sigma Aldrich) and was handled in a glovebag filled with dry nitrogen and stored in dynamic vacuum. Due to the possibility that the 5% impurity may be water–borane or other adduct and may be exchanging in solution, the peaks in the tris(pentafluorophenyl)borane ¹⁹F NMR spectrum appear broad and slightly shifted. The ¹⁹F NMR peaks for 100% pure tris(pentafluorophenyl)borane in C₆D₆ are available in the references given below: δ –129.1 (*o*-F), –142.0 (*p*-F), –160.3 (*m*-F). The conclusions originally presented regarding response of devices to ammonia are unaffected by this revision; in fact, the spectra provide additional confirmation that the compound used in the published study was indeed anhydrous.

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