

## Supporting Information

### Copper ferrite-graphene hybrid: a highly efficient magnetic catalyst for chemoselective reduction of nitroarenes

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#### Spectroscopic Data of the Products

**1. 4-Aminophenol:**  $^1\text{H}$  NMR (400MHz, DMSO-  $d_6$ ):  $\delta$  (ppm) 8.36 (s, 1H); 6.48 (d, 2H); 6.43 (d, 2H); 4.36 (s, 2H). IR (KBr,  $\text{cm}^{-1}$ ): 3341, 3160, 2964, 2920, 2814, 2695, 2495, 1612, 1470, 1256, 1093, 947, 827, 707, 615.

**2. 2-Aminophenol:**  $^1\text{H}$  NMR (400MHz, DMSO-  $d_6$ ):  $\delta$  (ppm) 8.90 (s, 1H); 6.64~6.54 (m, 3H); 6.40 (t, 1H); 4.40 (s, 2H). IR (KBr,  $\text{cm}^{-1}$ ): 3376, 3305, 3056, 3022, 2976, 2902, 2863, 2741, 2655, 2492, 1513, 1433, 1229, 1085, 898, 799, 726.

**3. 4-Phenylenediamine:**  $^1\text{H}$  NMR (400MHz, DMSO-  $d_6$ ):  $\delta$  (ppm) 6.57 (s, 4H); 3.30 (br, 4H). IR (KBr,  $\text{cm}^{-1}$ ): 3385, 3376, 3327, 3306, 3011, 1631, 1516, 1452, 1267, 1130, 834, 729, 516.

**4. 4-Methylaniline:**  $^1\text{H}$  NMR (400MHz, DMSO-  $d_6$ ):  $\delta$  (ppm) 6.95 (d, 2H); 6.59 (d, 2H); 3.49 (s, 2H); 2.23 (s, 3H). IR (KBr,  $\text{cm}^{-1}$ ): 3421, 3338, 3012, 2918, 1625, 1281, 1270, 815, 506.

**5. 2-Methylaniline:**  $^1\text{H}$  NMR (400MHz, DMSO-  $d_6$ ):  $\delta$  (ppm) 7.01 (m, 2H); 6.68 (t, 1H); 6.59 (d, 1H); 3.49 (s, 2H); 2.09 (s, 3H). IR (KBr,  $\text{cm}^{-1}$ ): 3451, 3367, 3021, 2975, 1623, 1585, 1499, 1469, 1303, 1273, 1144, 1035, 752.

**6. 4-Methoxyaniline:**  $^1\text{H}$  NMR (400MHz, DMSO-  $d_6$ ):  $\delta$  (ppm) 6.71 (d, 2H); 6.65 (m, 2H); 3.72 (s, 3H); 3.41 (s, 2H). IR (KBr,  $\text{cm}^{-1}$ ): 3423, 3349, 2966, 2973, 1631, 1611, 1466, 1236, 1181, 1032, 827, 519.

**7. 1-Naphthalenamine:**  $^1\text{H}$  NMR (400MHz, DMSO-  $d_6$ ):  $\delta$  (ppm) 7.79 (d, 1H); 7.75 (d, 1H); 7.43~7.40 (m, 2H); 7.29~7.26 (m, 2H); 6.71 (d, 1H); 4.05 (s, 2H); IR (KBr,  $\text{cm}^{-1}$ ): 3413, 3345, 3229, 3045, 1626, 1575, 1460, 1407, 1377, 1290, 793, 772

cm<sup>-1</sup>.

**8. 4-Chloroaniline:** <sup>1</sup>H NMR (400MHz, DMSO- *d*<sub>6</sub>): δ (ppm) 7.07 (d, *J* = 8.8 Hz, 2H); 6.58 (d, *J* = 8.8 Hz, 2H); 3.57 (s, 2H). IR (KBr, cm<sup>-1</sup>): 3473, 3385, 2963, 1617, 1484, 1288, 1181, 1089, 821, 641, 507.

**9. Aniline:** <sup>1</sup>H NMR (400MHz, DMSO- *d*<sub>6</sub>): δ (ppm) 7.13 (m, 2H); 6.73 (m, 1H); 6.65 (m, 2H); 3.55 (s, 2H). IR (KBr, cm<sup>-1</sup>): 3430, 3354, 3215, 3036, 1621, 1602, 1495, 1467, 1276, 1176, 881, 754, 695, 504.