

## Supporting Information

### **<sup>1</sup>H NMR and elemental analysis data for synthesized polyhexamethylene guanidine salts**

#### ***PHMG-Cl***

<sup>1</sup>H NMR (300 MHz; DMSO-D<sub>6</sub>): δ = 1.32 (m, 4H, CH<sub>2</sub>), 1.47 (m, 4H, NCH<sub>2</sub>CH<sub>2</sub>), 3.16 (m, 4H, NCH<sub>2</sub>), 7.1-8.1 (br s, 4H, NH).

Elemental analysis found: C, 46.4; H, 8.6; N, 24.1; Cl 20.4. Calc. for (C<sub>7</sub>H<sub>16</sub>N<sub>3</sub>Cl)<sub>x</sub>: C, 47.3; H, 9.0; N, 23.6; Cl, 20.0.

#### ***PHMG-NS***

<sup>1</sup>HNMR (300 MHz; DMSO-D<sub>6</sub>): δ = 1.39 (m, 4H, CH<sub>2</sub>), 1.21 (m, 4H, NCH<sub>2</sub>CH<sub>2</sub>), 3.07 (m, 4H, NCH<sub>2</sub>), 7.18-7.46 (br s, 4H, NH), 7.54 (m, 2H, H-6, H-7), 7.75 (d, 1H, H-3), 7.88-7.97 (m, 3H, H-4, H-8, H-5), 8.19 (s, 1H, H-1).

Elemental analysis: Found, C, 56.4; H, 6.3; N, 9.9; S, 9.1. Calc. for (C<sub>16</sub>H<sub>23</sub>N<sub>3</sub>O<sub>3</sub>S)<sub>x</sub>: C, 56.9; H, 6.8; N, 12.4; S, 9.5.