

Supplementary Materials

Progressive Applications of Hyperbranched Polymer Based on Diarylamine: Antimicrobial, Anti-Biofilm and Anti-Aerobic Corrosion

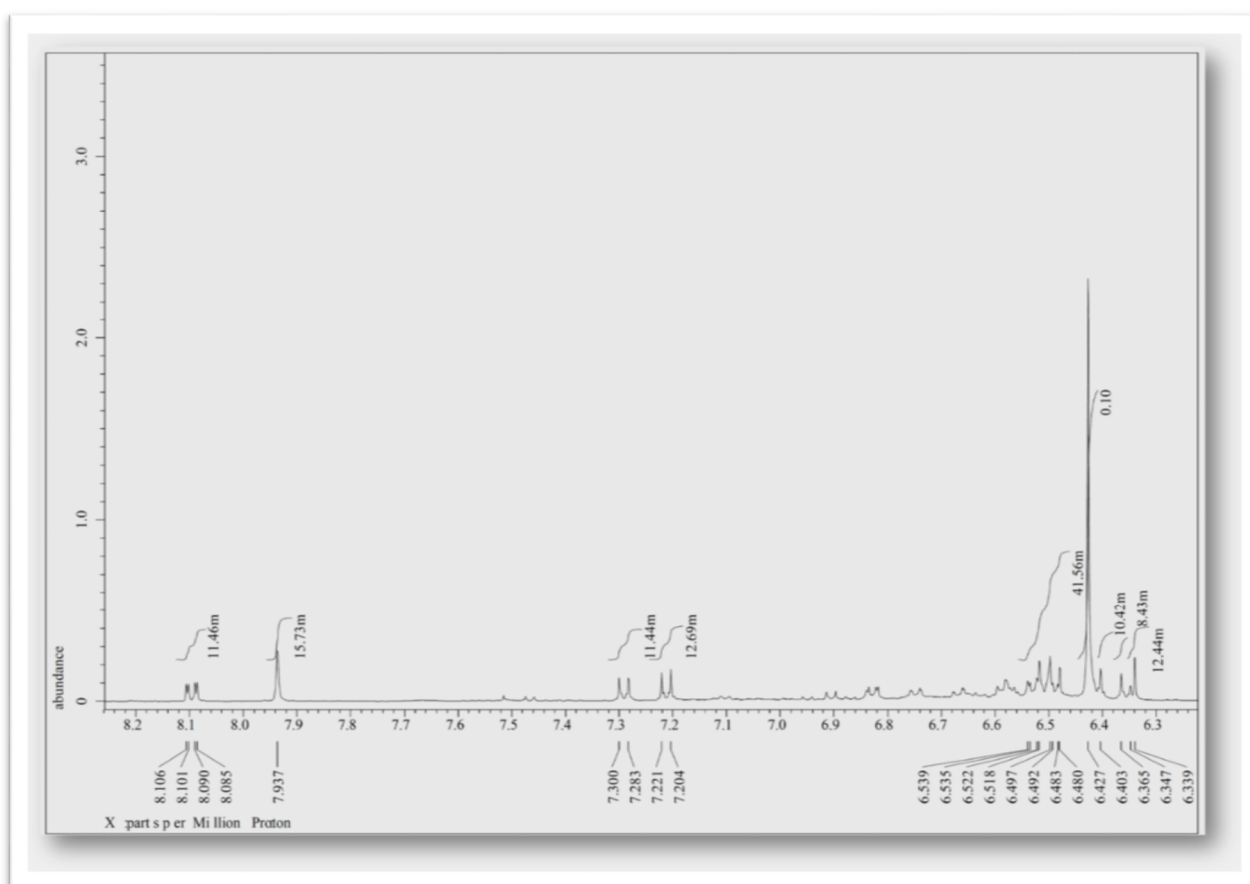


Figure S1. ¹H NMR spectrum left shift of the synthesized HB(PDMA)G₃.

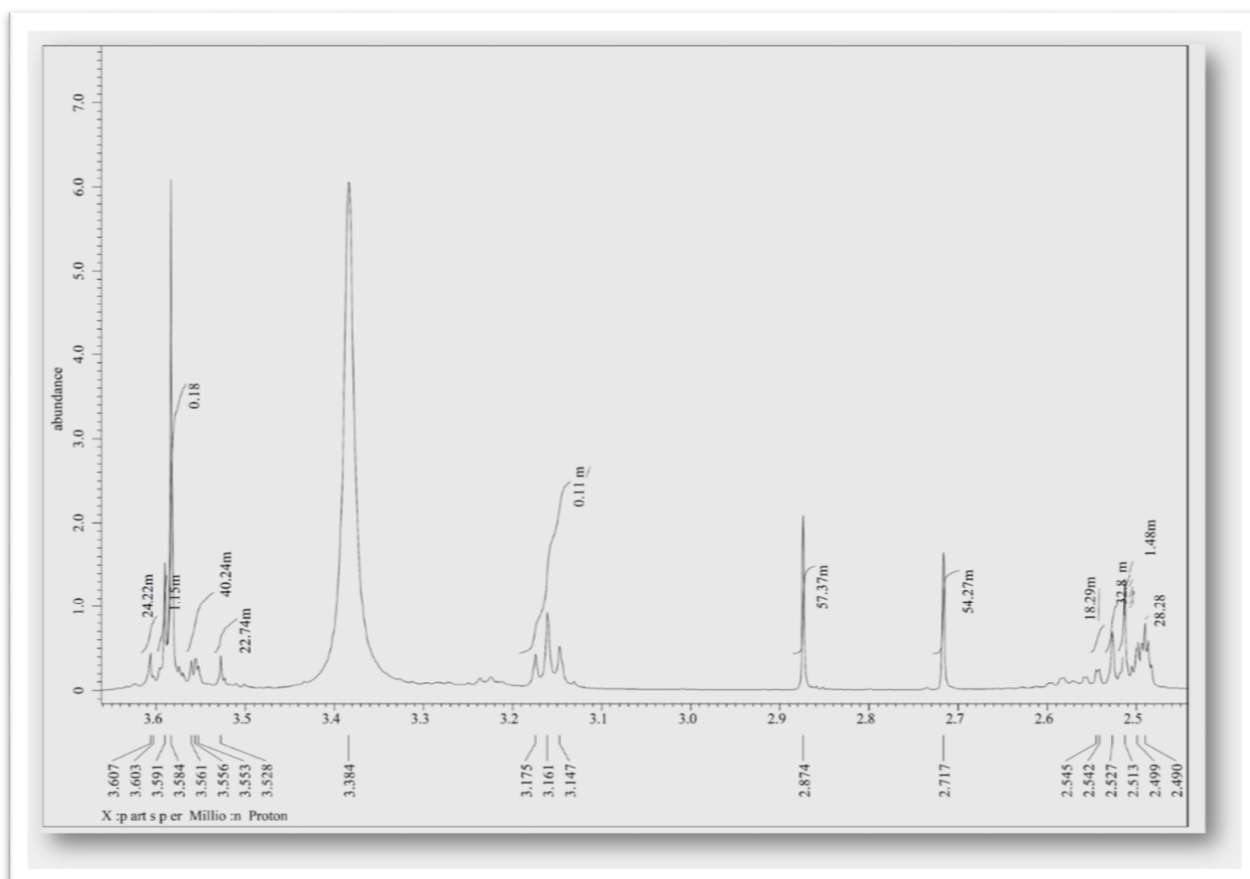


Figure S2. ^1H NMR spectrum right shift of the synthesized HB(PDMA)G₃.

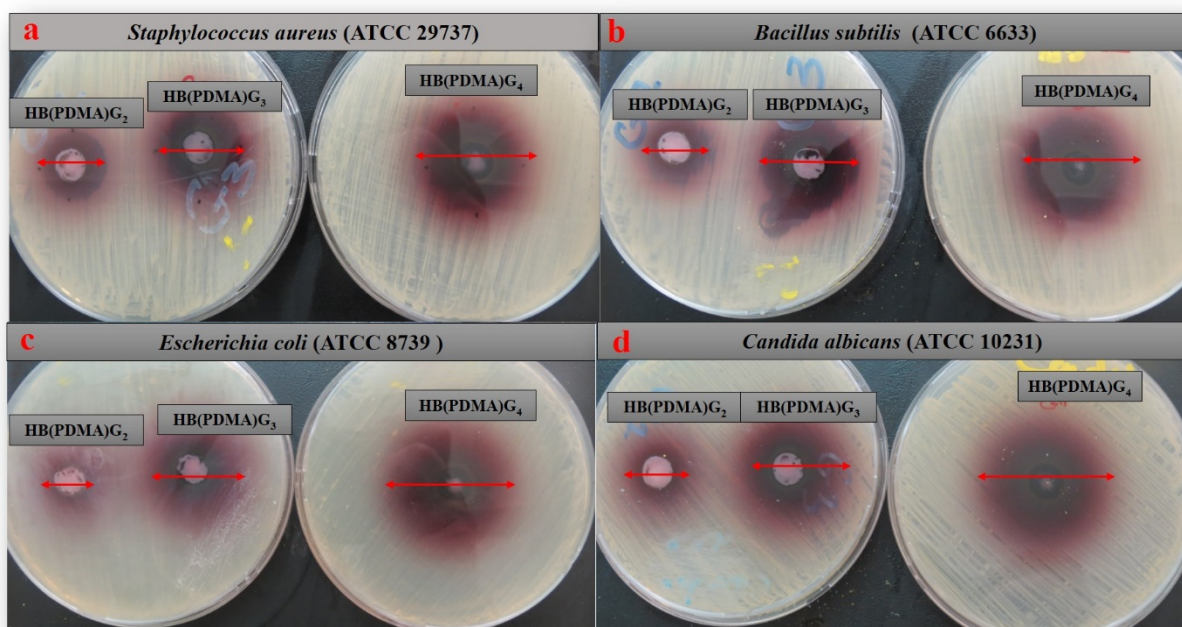


Figure S3. Photos show antimicrobial activity of the HB(PDMA)s at different generations (G₂, G₃, G₄) against different standard microbial strains, (a) *Staphylococcus aureus* (ATCC 29737), (b) *Bacillus subtilis* (ATCC 6633), (c) *Escherichia coli* (ATCC 8739) and (d) *Candida albicans* (ATCC 10231) using a modified agar well diffusion method.

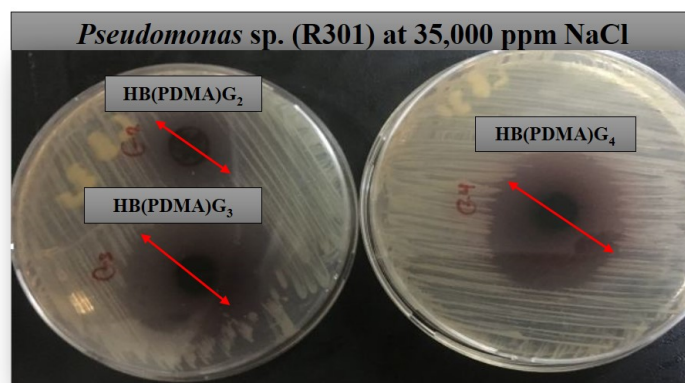


Figure S4. Photos display antimicrobial activity of the synthesized HB(PDMA)s against the isolated and enriched *Pseudomonas* sp. (R301) at a salinity of 35,000 ppm (NaCl).

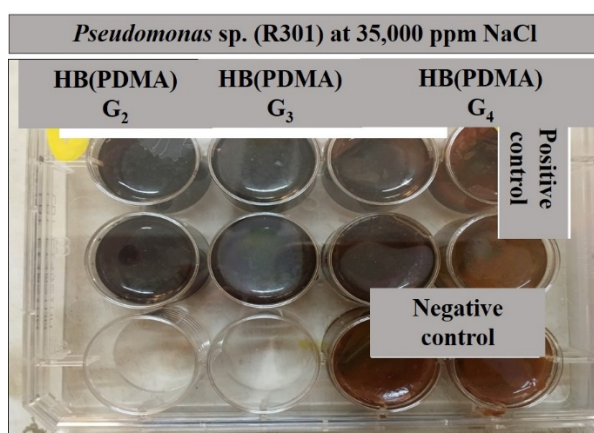


Figure S5. Photo documenting the anti-corrosion activity of the synthesized HB(PDMA)s against the isolated and enriched *Pseudomonas* sp. (R301) at a salinity of 35,000 ppm (NaCl).