Supplementary Materials: Synthesis, Characterization and Antibacterial Studies of \(N\)-(Benzothiazol-2-yl)-4-chlorobenzenesulphonamide and Its Neodymium(III) and Thallium(III) Complexes

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Figure S1 FTIR Spectrum of NBTCs.

Figure S2 FTIR Spectrum of [Nd(NBTCs)\(_2\)(H\(_2\)O)\(_2\)]NO\(_3\).

Figure S3 FTIR Spectrum of [Tl(NBTCs)\(_3\)]CH\(_3\)COO.
Figure S4. $^1$H-NMR Spectrum of NBTCs.

Figure S5. $^1$H-NMR Spectrum of [Nd(NBTC)$_2$(H$_2$O)$_2$]NO$_3$.

Figure S6. $^1$H-NMR Spectrum of [Tl(NBTC)$_2$]CH$_3$COO.
Figure S7. $^{13}$C-NMR Spectrum of NBTCS.

Figure S8. $^{13}$C-NMR Spectrum of [Nd(NBTCS)$_2$(H$_2$O)$_2$]NO$_3$.

Figure S9. $^{13}$C-NMR Spectrum of [Tl(NBTCS)$_2$]CH$_3$COO.
Figure S10. UV-Visible Spectrum of NBTCS.
Figure S11. UV-Visible Spectrum of [Nd(NBTC$_2$)(H$_2$O)$_2$]NO$_3$. 

| λ (nm) | Absorbance | Plot |
|--------|------------|------|
| 472.00 | 0.368      | 1    |
| 397.50 | 0.380      | 2    |
| 299.50 | 2.120      | 3    |
| 280.50 | 2.028      | 4    |
| 250.00 | 5.000      | 5    |
| 237.00 | 5.000      | 6    |
| 230.50 | 4.942      | 7    |
| 224.50 | 4.923      | 8    |
| 218.50 | 4.8110     | 9    |
| 211.50 | 4.808      | 10   |
Figure S12. UV-Visible Spectrum of [Tl(NBTC5)$_2$]CH$_3$COO.

| $\lambda$ (nm) | Absorbance | Plot |
|----------------|------------|------|
| 734.00         | 0.060      | 1    |
| 441.00         | 0.078      | 2    |
| 424.50         | 0.081      | 3    |
| 296.00         | 2.297      | 4    |
| 261.00         | 5.000      | 5    |
| 255.50         | 4.081      | 6    |
| 248.00         | 5.000      | 7    |
| 240.50         | 5.000      | 8    |
| 235.50         | 5.000      | 9    |
| 223.50         | 4.923      | 10   |
| 217.00         | 4.883      | 11   |
| 206.00         | 4.844      | 12   |