

Supporting Information

Calixarene Assisted Rapid Synthesis of Silver-Graphene

Nanocomposites with Enhanced Antibacterial Activity

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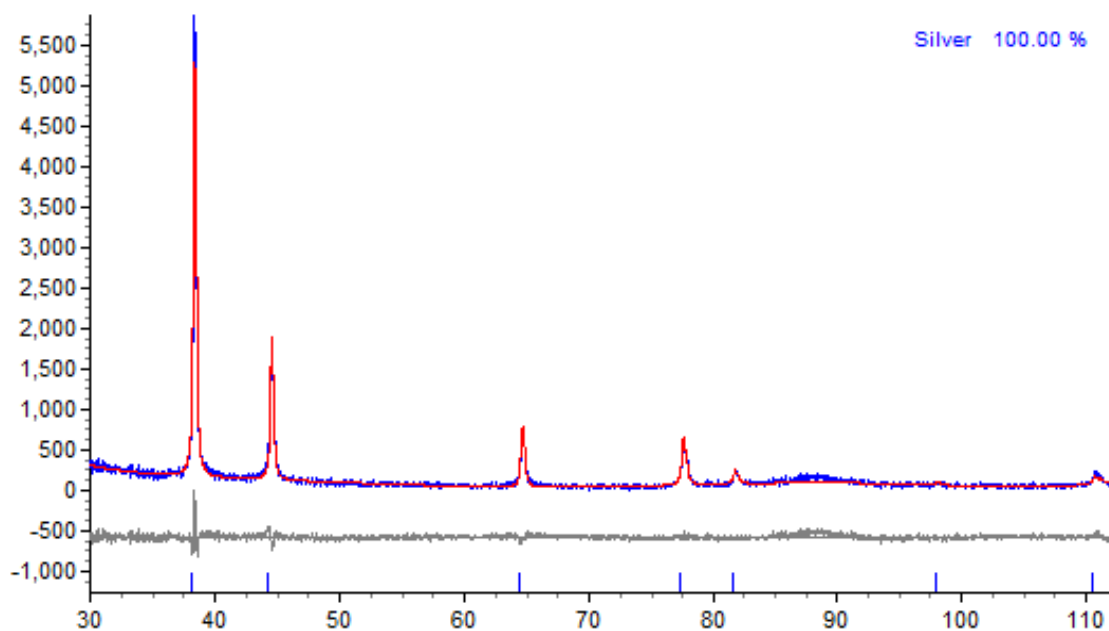


Figure S1. Rietveld refinement plot sample AgS-XC6: experimental, calculated and difference curve are in blue, red and grey respectively.

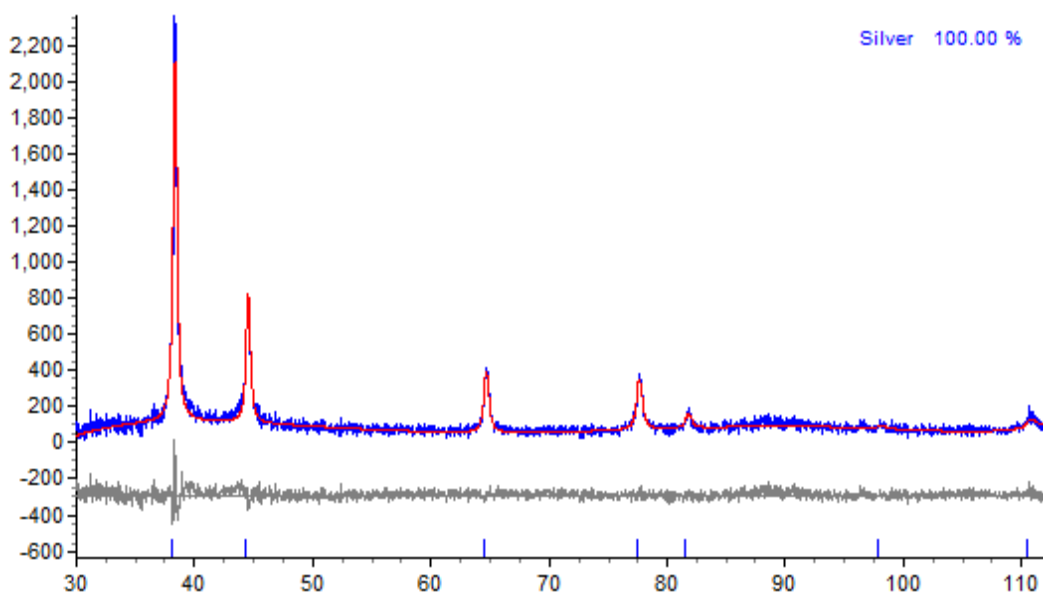


Figure S2. Rietveld refinement plot sample Ag-SCX6:GO (1:1): experimental, calculated and difference curve are in blue, red and grey respectively.

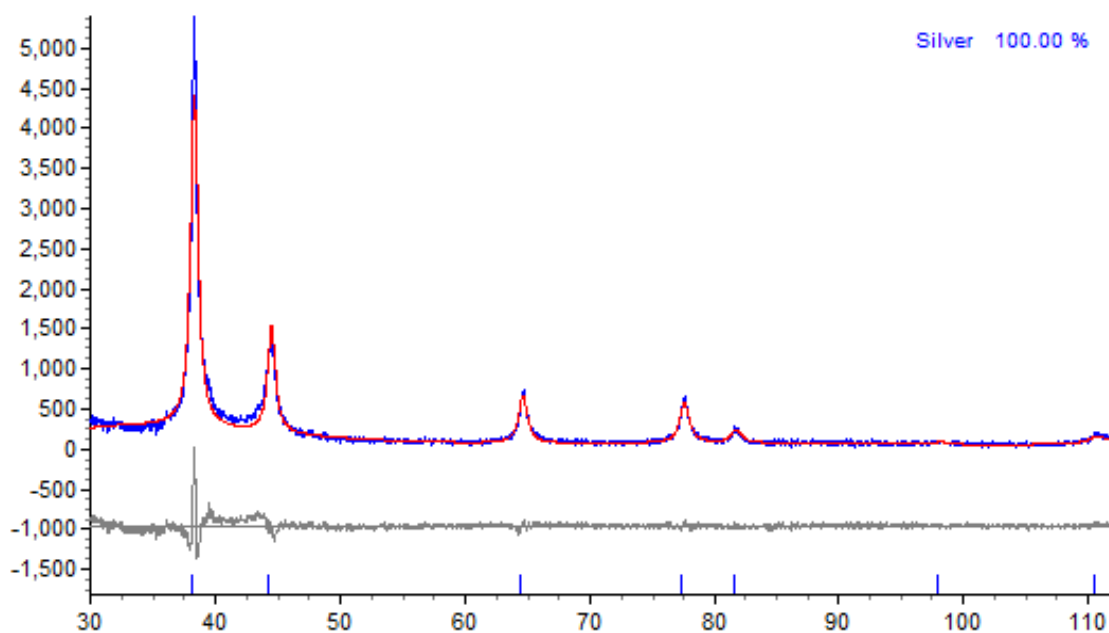


Figure S3 Rietveld refinement plot sample Ag-SCX6:GO (1:2): experimental, calculated and difference curve are in blue, red and grey respectively.

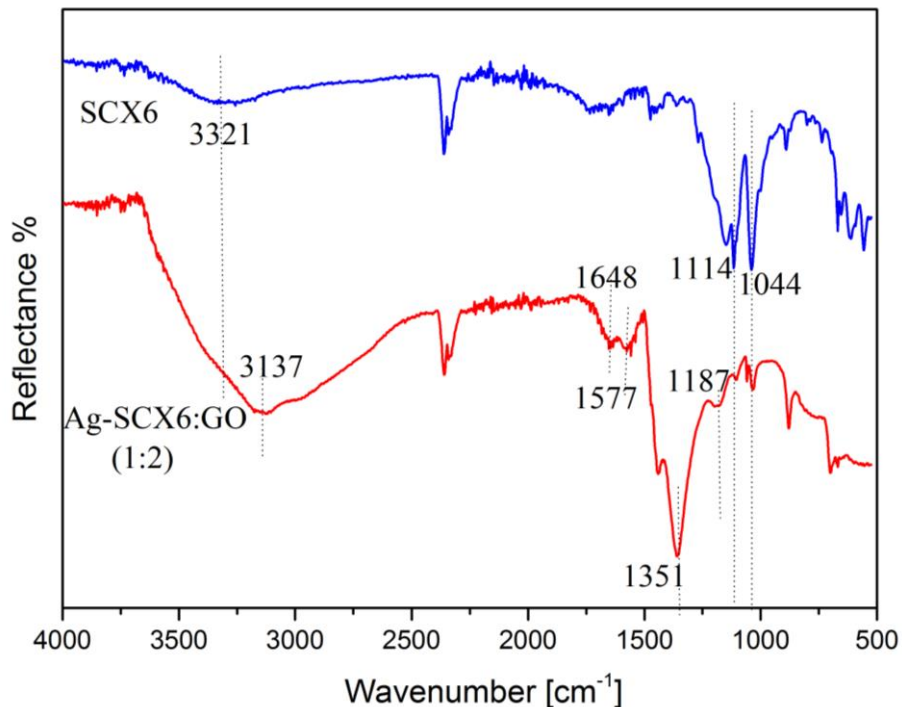


Figure S4. Representative FT-IR spectra of SCX6 and AG-SCX6:GO (1:2) revealing the presence of bands located at 1164 and 1047 cm^{-1} which can be assigned to the SO₃ groups of SCX6, also found in pure SXC6.^{1,2} Additional bands located at 1351 cm^{-1} (>COO- symmetric

stretch), 1577 cm^{-1} ($>\text{C}=\text{C}$, skeletal vibrations of graphitic domain), 1187 cm^{-1} (symmetric stretching of epoxy groups) and the broad absorption band at 3390 cm^{-1} (O–H stretching vibration and the absorbed water molecules) are also evident.^{3,4}

References:

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- (4) Oh, J.; Lee, J.; Koo, J. C.; Choi, H. R.; Lee, Y.; Kim, T.; Luong N. D.; Nam, J. Graphene Oxide Porous Paper from Amine-Functionalized Poly(glycidyl methacrylate)/Graphene Oxide Core-Shell Microsphere. *J. Mater. Chem.*, **2010**, 20, 9200–9204 |