Design of optically active nanoclusters of gold particles with mesostructured silica coating

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Supporting Information

Materials characterization

X-ray diffraction

Figure S1. XRD patterns of as-synthesized GMSN obtained by pseudomorphic transformation of the parent GSN at 100 °C: (a) effect of the synthesis time; (b) effect of the gold nanocluster size.
Nitrogen adsorption isotherms

Figure S2. Effect of the synthesis time in textural properties of the mesoporous coating of calcined GMSN: (a) BET nitrogen adsorption isotherms and (b) pore size distribution.

Figure S3. Effect of the alkali concentration (NaOH:SiO₂ molar ratio) in the starting gel on the pore size distribution of the mesoporous coating of calcined GMSN (as determined from nitrogen adsorption isotherms).
Figure S4. Effect of gold nanocluster size in the textural properties of calcined GMSN: (a) BET nitrogen adsorption isotherms and (b) pore size distribution.