

Selected Publications

1. Wang, Y., Han, S., Briseno, A.L., Sanedrin, R.J.G., and Zhou, F., A modified nanosphere lithography for the fabrication of aminosilane/polystyrene nanoring arrays and the subsequent attachment of gold or DNA-capped gold nanoparticles. *Journal of Materials Chemistry*, 2004: in press.
2. Zhu, M., Han, S., Zhou, F., Carter, S.A., and Fink, A.L., Annular Oligomeric Amyloid Intermediates Observed by in Situ Atomic Force Microscopy. *Journal of Biological Chemistry*, 2004. 279(23): p. 24452.
3. Zhu, M., Rajamani, S., Kaylor, J., Han, S., Zhou, F., and Fink, A.L., The flavonoid baicalein inhibits fibrillation of alpha-synuclein and disaggregates existing fibrils. *Journal of Biological Chemistry*, 2004. 279(26): p. 26846-57.
4. Briseno, A.L., Han, S., Rauda, I.E., Zhou, F., Toh, C.-S., Nemanick, E.J., and Lewis, N.S., Electrochemical Polymerization of Aniline Monomers Infiltrated into Well-Ordered Truncated Eggshell Structures of Polyelectrolyte Multilayers. *Langmuir*, 2004. 20(1): p. 219 -226.
5. Sun, X.Z., Vinci, C., Makmura, L., Han, S., Tran, D., Nguyen, J., Hamann, M., Grazziani, S., Sheppard, S., Gutova, M., Zhou, F., Thomas, J., and Momand, J., Formation of Disulfide Bond in p53 Correlates with Inhibition of DNA Binding and Tetramerization. *Antioxidants & Redox Signaling*, 2003. 5(5): p. 655-665.
6. Han, S., Sun, X.Z., Wang, J., Li, X., Zhou, F.M., and Momand, J., AFM studies of interactions of proteins with surface-confined ds DNA. *Biophysical Journal*, 2003. 84(2): p. 471A-471A.
7. Han, S., Ralin, D., Wang, J., Li, X., and Zhou, F., Attachment of Monoclonal Antibody Molecules to Surface-Confined DNA Duplexes Imaged by Atomic Force Microscopy. *Langmuir*, 2003. 19(21): p. 8943-8950.
8. Chickneyan, Z.S., Briseno, A.L., Shi, X., Han, S., Huang, J., and Zhou, F., Polyelectrolyte-Mediated Assembly of Copper Phthalocyanine Tetrasulfonate Multilayers and the Subsequent Production of Nanoparticulate Copper Oxide Thin Films. *Journal of Nanoscience and Nanotechnology*, 2003. 4: p. 1-7.
9. Shi, X., Han, S., Sanedrin, R.J., Galvez, C., Ho, D.G., Hernandez, B., Zhou, F., and Selke, M., Formation of Cobalt Oxide Nanotubes: Effect of Intermolecular Hydrogen Bonding between Co(III) Complex Precursors Incorporated onto Colloidal Templates. *Nano Letters*, 2002. 2(4): p. 289-293.
10. Shi, X., Han, S., Sanedrin, R.J., Zhou, F., and Selke, M., Synthesis of Cobalt Oxide Nanotubes from Colloidal Particles Modified with a Co(III)-Cysteinato Precursor. *Chemistry of Materials*, 2002. 14(4): p. 1897-1902.
11. Han, S., Shi, X., and Zhou, F., Polyelectrolyte Hollow Sphere Lithographic Patterning of Surfaces: Construction of 2-Dimensional Well-Ordered Metal Arrays. *Nano Letters*, 2002. 2(2): p. 97-100.
12. Han, S., Briseno, A.L., Shi, X., Mah, D.A., and Zhou, F., Polyelectrolyte-coated nanosphere lithographic patterning of surfaces: Fabrication and characterization of electropolymerized thin polyaniline honeycomb films. *Journal of Physical Chemistry B*, 2002. 106(25): p. 6465-6472.
13. Huang, E., Satjapipat, M., Han, S., and Zhou, F., Surface Structure and Coverage of an Oligonucleotide Probe Tethered onto a Gold Substrate and Its Hybridization Efficiency for a Polynucleotide Target. *Langmuir*, 2001. 17(4): p. 1215-1224.

14. Han, S., Zhu, M., Yuan, Z., and Li, X., A methylene blue-mediated enzyme electrode for the determination of trace mercury(II), mercury(I), methylmercury, and mercury-glutathione complex. *Biosensors & Bioelectronics*, 2001. 16(1-2): p. 9-16.
15. Han, S., Lin, J., Satjapipat, M., Baca, A.J., and Zhou, F., A three-dimensional heterogeneous DNA sensing surface formed by attaching oligodeoxynucleotide-capped gold nanoparticles onto a gold-coated quartz crystal. *Chemical Communications* (Cambridge, United Kingdom), 2001(7): p. 609-610.
16. Zhu, M., Han, S.B., and Yuan, Z.B., beta-cyclodextrin polymer as the immobilization matrix for peroxidase and mediator in the fabrication of a sensor for hydrogen peroxide. *Journal of Electroanalytical Chemistry*, 2000. 480(1-2): p. 255-261.
17. Han, S., Li, X., Guo, G., Sun, Y., and Yuan, Z., Voltammetric measurement of microorganism populations. *Analytica Chimica Acta*, 2000. 405(1-2): p. 115-121.
18. Han, S., Lin, J., Zhou, F., and Vellanoweth, R.L., Oligonucleotide-Capped Gold Nanoparticles for Improved Atomic Force Microscopic Imaging and Enhanced Selectivity in Polynucleotide Detection. *Biochemical and Biophysical Research Communications*, 2000. 279: p. 265-269.
19. Yuan, Z., Zhu, M., and Han, S., Supramolecular inclusion complex formation and application of b-cyclodextrin with heteroanthracene ring cationic dyes. *Analytica Chimica Acta*, 1999. 389(1-3): p. 291-298.

Patent

Rassman, W., Ralin, D., Zhou, F., and Han, S., Method and apparatus for recognizing molecular compounds, in U.S. Pat. Appl. Publ. 2003, (USA). Us. p. 17 pp.