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| Title | Comparison of some gold/carbon nanotube composites prepared by control of electrostatic interaction | | |
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| Published Journal Name | Colloids and Surfaces A: Physicochemical and Engineering Aspects | | |
| Type of Publication | Article (Short communication) | | |
| Volume | 336 | Issue | 1-3 |
| Publisher | Elsevier B.V. | | |
| Publication Date | March 20, 2009 | | |
| ISSN | 0927-7757 | | |
| DOI | <https://doi.org/10.1016/j.colsurfa.2008.11.025> | | |
| URL | https://www.sciencedirect.com/science/article/abs/pii/S0927775708008005 | | |
| Other Related Info. | Pages: 183–186 | | |
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| Abstract |  |
| Nanocomposites of gold and multi-walled carbon nanotubes (MWNTs)were prepared with gold nanoparticles and MWNTs stabilized by 4-(dimethylamino) pyridine (DMAP) and dispersion agents, respectively, and studied in detail with UV/vis spectroscopy, transmission electron microscopy (TEM) and X-ray photoelectron spectroscopy (XPS). UV/vis spectra of Au-MWNT nanocomposites showed the characteristic surface plasmon bands at ∼525 nm. There was only slight change on the band shape with change of dispersion agent for MWNTs. Through TEM images and XPS analysis, the distribution of gold nanoparticles  on the sidewalls of MWNTs was deliberately investigated on three species of Au-MWNT nanocomposites treated with different dispersion agents and compared with one another. | |