|  |  |  |  |
| --- | --- | --- | --- |
| Title | Characterization of metal-carbon nanotube composites prepared by electrostatic interaction | | |
| Author(s) Name | Weontae Oh, Mohammad Mahbub Rabbani, Chang Hyun Ko, Jong-Seong Bae | | |
| Contact Email(s) | [mmrabbani@aiub.edu](mailto:mmrabbani@aiub.edu); corresponding: wtoh2005@deu.ac.kr | | |
| Published Journal Name | Chemical Engineering Transactions | | |
| Type of Publication | Article | | |
| Volume | 17 | Issue |  |
| Publisher | Italian Association of Chemical Engineering | | |
| Publication Date | May, 2009 | | |
| ISSN | 1974-9791 | | |
| DOI | <https://www.aidic.it/cet/09/17/297.pdf> | | |
| URL | https://www.aidic.it/cet/09/17/programma.html | | |
| Other Related Info. | 1777-1782 | | |
|  | | | |

|  |  |
| --- | --- |
| Abstract |  |
| Nanocomposites of novel metals (gold and silver) and multi-walled carbon nanotubes (MWNTs) were prepared by electrostatic interaction. Both gold and silver nanoparticles were stabilized by sodium dodecyl sulfate (SDS), poly (sodium 4-styrene sulfonate) (PSS) and poly (4-vinylpyrrolidone) (PVP) in aqueous medium, and MWNTs were modified by poly(diallyldimethylammonium) chloride (PDDA) in water. The as-prepared nanocomposites were structurally and electrically characterized by Transmission Electron Microscopy (TEM), Field Emission Scanning Electron Microscopy (FESEM), X-ray photoelectron spectroscopy (XPS), X-ray diffraction (XRD), and UV/Vis. spectroscopy. | |