In this issue

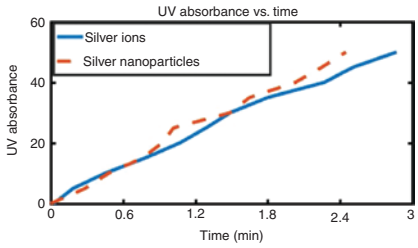
Kuo-Hsiung Tseng, Chih-Ju Chou, To-Cheng Liu, Der-Chi Tien, Chun Yung Chang and Leszek Stobinski

Relationship between Ag nanoparticles and Ag ions prepared by arc discharge method

https://doi.org/10.1515/ntrev-2017-0167
Nanotechnol Rev 2018; 7(1): 1–9

Regular article: Silver ions and nanoparticles demonstrate an interdependence between each other.

Keywords: colorimetry; nano silver colloid; silver ions; submerged arc discharge method.



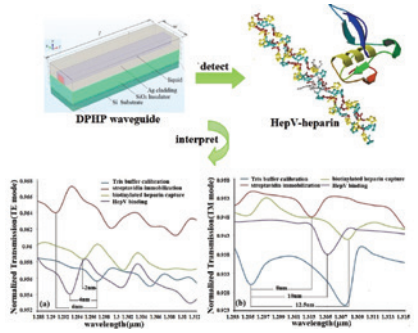
Chen Chen, Xun Hou and Jinhai Si

Carbohydrate-protein interactions characterized by dual polarization hybrid plasmonic waveguide

https://doi.org/10.1515/ntrev-2017-0165
Nanotechnol Rev 2018; 7(1): 11–18

Regular article: A novel structure of dual polarization hybrid plasmonic waveguide is performed in monitoring HepV-heparin interaction and characterizing HepV conformation.

Keywords: biosensing; conformational change; dual polarization; hybrid plasmonic; waveguide.



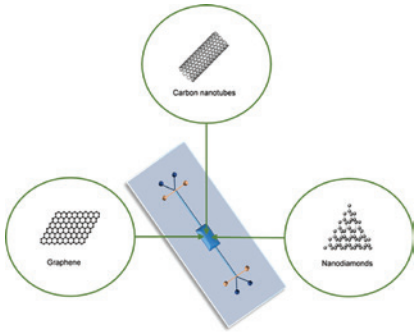
Aoife C. Power, Brian Gorey, Shaneel Chandra and James Chapman

Carbon nanomaterials and their application to electrochemical sensors: a review

https://doi.org/10.1515/ntrev-2017-0160
Nanotechnol Rev 2018; 7(1): 19–41

Review: A review of the current application of carbon nanomaterials in electrochemical sensors.

Keywords: bio sensors; carbon nanomaterials; carbon nanotubes; electrochemical sensing; synthetic diamond.



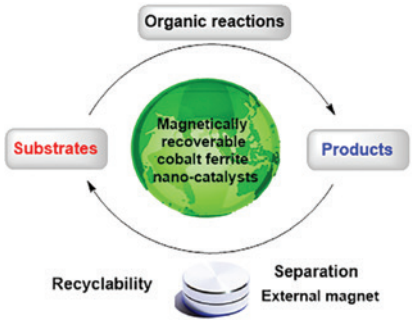
Mosstafa Kazemi, Massoud Ghobadi and Ali Mirzaie

Cobalt ferrite nanoparticles ($CoFe_2O_4$ MNPs) as catalyst and support: magnetically recoverable nanocatalysts in organic synthesis

https://doi.org/10.1515/ntrev-2017-0138
Nanotechnol Rev 2018; 7(1): 43–68

Review: In this paper, we summarize the breakthroughs published in the arena of organic reactions catalyzed by magnetically recoverable cobalt ferrite ($CoFe_2O_4$ MNPs) nanocatalysts with the goal of stimulating further progress in this field.

Keywords: characterization; cobalt ferrite nanoparticles ($CoFe_2O_4$ MNPs); fabrication; magnetic separation; organic synthesis.



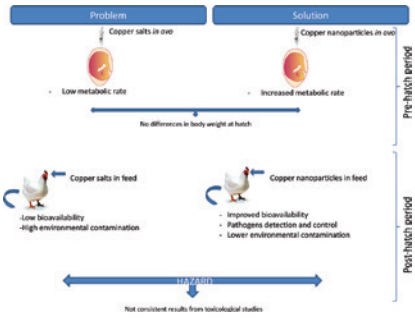
Abdullah Scott, Krishna Prasad Vadalasetty, André Chwalibog and Ewa Sawosz

Copper nanoparticles as an alternative feed additive in poultry diet: a review

https://doi.org/10.1515/ntrev-2017-0159
Nanotechnol Rev 2018; 7(1): 69–93

Review: In order to answer the question, "Can copper nanoparticles be a new feed additive promoting growth and health of the poultry?" we reviewed the up-to-date state of knowledge regarding the achievements and concerns associated with broad potential applications of copper nanoparticles in animals, particularly in poultry.

Keywords: copper; growth; immunity; nanoparticles; toxicity.



Parham Sahandi Zangabad, Soroush Mirkiani, Shayan Shahsavari, Behrad Masoudi, Maryam Masroor, Hamid Hamed, Zahra Jafari, Yasamin Davatgaran Taghipour, Hura Hashemi, Mahdi Karimi and Michael R. Hamblin

Stimulus-responsive liposomes as smart nanoplatforms for drug delivery applications

https://doi.org/10.1515/ntrev-2017-0154
Nanotechnol Rev 2018; 7(1): 95–122

Review: Smart liposomes can release their contents in response to a stimulus, which can either be internal or external. The figure shows an example of the latter, whereby a beam of light can polymerize a chemical group on the outside of the liposome, thus, disrupting the lipid bilayer and releasing the cargo.

Keywords: drug delivery; external/internal stimuli; liposomes; nanocarriers; smart stimulus responsive.