



Şcoala Doctorală Interdisciplinară
(SDI)

Domeniul de doctorat:
Ingineria Materialelor
Conducător doctorat:
Prof.Univ.Em.Dr.Ing. Cornel Samoila

TEME (TEMATICĂ) PENTRU CONCURS

TEMA 1: *“Materiale electroactive (carbonice) utilizate la functionalizarea electrozilor interdigitati si utilizarea lor ca element de detectie”*

Bibliografie recomandată:

1. „Functionalisation of nanoparticles for biomedical applications” in Nano Today (2010) vol.5, pp.213—230, www.elsevier.com/locate/nanotoday;
2. „Surface Functionalization and Bioconjugation of Nanoparticles for Biomedical Applications” (2014).Electronic Thesis and Dissertation Repository. 1903. <https://ir.lib.uwo.ca/etd/1903>
3. Functionalized carbon nanotubes: biomedical applications” Vardharajula,S., Ali,Sk.Z., Tiwari, P.T., Eroğlu,E., Vig,K., Dennis,V.A., R Singh, S.R. Int J Nanomedicine. 2012; 7: 5361–5374. Published online 2012 Oct 9. doi: 10.2147/IJN.S35832
PMCID: PMC3471599

TEMA 2: *“Electrozi de nichel acoperiti cu diamant dopat cu bor utilizati pentru solutii de decontaminare a apei”.*

Bibliografie recomandată:

1. Kuvarega AT, Mamba BB, TiO₂-based photocatalysis: Toward visible light-responsive photocatalysts through doping and fabrication of carbon-based nanocomposites, Crit Rev Solid State Mater Sci 42(4) (2017) 295-346
2. Choi W, Termin A, Hoffmann MR, The role of metal ion dopants in quantum-sized TiO₂: Correlation between photoreactivity and charge carrier recombination dynamics, J Phys Chem 98 (1994) 13669-13679.
3. Turchi CS, Ollis DF, Photocatalytic degradation of organic water contaminants: Mechanisms involving hydroxyl radical attack, J Catalysis 122 (1990) 178-192.

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