Last updated: 1394/02, 2015/04

Resume

Nima Taghavinia
Professor

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Lab: ncl.sharif.edu

Research topics:

A list of current and performed research projects are found in the web page of the lab (Nanoparticles and Coatings Lab: ncl.sharif.edu). The activities in the lab fall in the following categories:

►**Technologies for low cost/flexible dye solar cells**

Manufactureable deposition methods, metal based DSCs, Module fabrication technologies, Monolithic cells

►**Solution processed CIGS and CdTe solar cells**

Materials and methods for solution based CIGS cell fabrication

►**Solar Cells based on organic-inorganic perovskite absorbers**

Pb based perovskite absorbers, Perovskites as carrier transport materials

►**Photon management in solar cells**

Plasmonics, Controlled light scattering, down conversion of solar light

►**Organic and hybrid LEDs**

Luminescent QDs as emissive layer in LEDs

Inorganic electron transport and hole transport layers

Last updated: 1394/02, 2015/04

Teaching:

- Physics of Thin Films (M.S.-B.S. course), 2nd semester 1392-1393
- Nanostructured Solar Cells (Ph.D. course), 2nd semester 1392-1393
- Nanostructured Solar Cells (Ph.D. course), 1st semester 1392-1393
- Electron Transfer Phenomena in Optoelectronic Devices (PhD course), 2nd semester 1391-1392
- Nanostructured Solar Cells (Ph.D. course), 1st semester 1391-1392
- General Physics 3 (B.S. course), 2nd semester 1390-1391
- General Physics 2 (B.S. course), 2nd semester 1390-1391
- Nanotechnology 1 (Ph.D. course), 1st semester 1390-1391
- Nanostructured Solar Cells (Ph.D. course), 1st semester 1390-1391
- Electronics 1 lab (B.S. course), 1st semester 1389-1390
- Spectroscopy (B.S. course), 1st semester 1389-90
- Nanotechnology 1 (Ph.D. course), 1st semester 1389-1390
- Surface Physics (M.S. course), 1st semester 1389-1390
- Electronics 1 lab (B.S. course), 2nd semester 1388-1389
- Solid State Physics 2 (B.S. course), 2nd semester 1388-1389
- Electronics 1 lab (B.S. course), 1st semester 1388-1389
- Solid State Physics 1 (B.S. course), 1st semester 1388-1389
- Electronics 1 lab (B.S. course), 2nd semester 1387-1388
- Solid State Physics 2 (B.S. course), 2nd semester 1387-1388
- Nanotechnology 1 (Ph.D. course), 1st semester 1387-1388
- Solid State Physics 1 (B.S. course), 1st semester 1387-1388
- Electronics I lab, (B.S. course), 2nd semester, 1386-1387
- Methods of Nanosynthesis (Ph.D. course), 2nd semester, 1386-1387
- Advanced Lab II, (MS. Course), 1st semester, 1386-1387
- Colloidal Nanoparticles (Ph.D. course), 1st semester, 1386-1387
- General Physics 2 (B.S. course), 2nd semester 1385-1386
- General Physics 1 (B.S. course), 1st semester 1385-1386
- Methods of Nanomaterials Synthesis (Ph.D. course), 1st semester 1385-1386
- Methods of Nanosynthesis (Ph.D. course) , 2nd semester 1384-85
- Spectroscopy (B.S. course), 1st semester 1384-85
- Nanotechnology I (Ph.D. course), 1st semester 1384-85
- Methods of Nanosynthesis (Ph.D. course) , 2nd semester 1383-84
- Nanotechnology (Ph.D. course), 1st semester 1383-84
- Methods of Nanosynthesis (Ph.D. course) , 2nd semester 1382-83
- Nanotechnology (Ph.D. course), 1st semester 1382-83
- Nanotechnology (Ph.D. course), 2nd semester 1381-82

Last updated: 1394/02, 2015/04

Education background:

Ph.D.	Materials Science April 2000 ~ September 2002 Institute for Materials Research, Tohoku University, Sendai, Japan
Research student	October 1998 ~ April 2000 Institute for Materials Research, Tohoku University, Sendai, Japan
M.S.	Physics September 1994 ~ September 1996, Physics Department, Sharif University of Technology, Tehran, Iran
B.S.	Physics September 1990 ~ September 1994, Physics Department, Sharif University of Technology, Tehran, Iran

Awards:

- Selected highly cited researcher of Sharif University of Technology in teaching, 2014
- Selected faculty member of Sharif University of Technology in teaching, 2014
- Selected researcher of Sharif University of Technology, 2011
- Rank 9 in top 10 of Nanotechnolgy in 2008 by Iranian Nano-Initiative
- Rank 3 in top 10 of Nanotechnolgy in 2007 by Iranian Nano-Initiative
- Rank 10 in top 10 of Nanotechnolgy in 2006 by Iranian Nano-Initiative
- Top business plan in Nanotechnology field (2005)
- Japanese government fellowship for Ph.D. study (1998)
- Rank 1 MS graduate of physics in Sharif University(1996)
- Rank 2 in the nationwide entrance exam for physics MS (1994)
- Rank 22 in the nationwide university entrance exam (1990)
- Selected student for national physics olympiad (1989)
- One of the top 24 in nationwide math Olympiad (1989)

Organization of Conferences:

- 4rd Conference on Nanostructured Solar Cells, 22nd Aban 1393 (November 13th 2014), Sharif University of Technology, Tehran
- 3rd Conference on Nanostructured Solar Cells, 16th Aban 1392 (November 7th 2013), Sharif University of Technology, Tehran
- 2nd Conference on Nanostructured Solar Cells, 27th Mehr 1391 (October 18th 2012), Sharif University of Technology, Tehran
- 1st Conference on Nanostructured Solar Cells, 24th Shahrivar 1390 (September 15th 2011), Sharif University of Technology, Tehran
- 3rd Conference on Nanostructures, 21-23 Esfand 1388 (12-14 March 2010), Sharif University of Technology, International Campus, Kish Island
- One-day Workshop on Nanostructured Photocatalysts, 5th Bahman 1384, Sharif University of Technology, Tehran

Last updated: 1394/02, 2015/04

Journal Publications:

Title	Year
Hydrothermal synthesis of TiO 2 nanocrystals in different basic pHs and their applications in dye sensitized solar cells Z Anajafi, M Marandi, N Taghavinia Physica E: Low-dimensional Systems and Nanostructures 70, 113-120	2015
Totally solution-processed CuInS2 solar cells based on chloride inks: reduced metastable phases and improved current density M Dehghani, A Behjat, F Tajabadi, N Taghavinia Journal of Physics D: Applied Physics 48 (11), 115304	2015
Influence of cathode roughness on the performance of F8BT based organic–inorganic light emitting diodes H Alehdaghi, M Marandi, A Irajizad, N Taghavinia Organic Electronics 16, 87-94	2015
Photonic design of embedded dielectric scatterers for dye sensitized solar cells MM Byranvand, A Dabirian, AN Kharat, N Taghavinia RSC Advances 5 (42), 33098-33104	2015
High-efficiency CdTe/CdS core-shell nanocrystals in water enabled by photo-induced colloidal hetero-epitaxy of CdS shelling at room temperature H Zare, M Marandi, S Fardindoost, VK Sharma, A Yeltik, O Akhavan, ...	2015
Morphological dependence of light backscattering from metallic back reflector films: Application in dye-sensitized solar cells N Sharifi, N Ghazyani, N Taghavinia physica status solidi (a)	2015
Light management in nanostructured solar cells by designing hollow fibers M Rahman, N Taghavinia, P Sasanpour, R Vidu, P Stroeve ARA Annual Congress Proceedings, 101-105	2014
Recent Developments in Dye-Sensitized Solar Cells N Sharifi, F Tajabadi, N Taghavinia ChemPhysChem 15 (18), 3902-3927	2014
Assessment of Luminescent Downshifting Layers for the Improvement of Light-Harvesting Efficiency in Dye-Sensitized Solar Cells Z Hosseini, EWG Diau, K Mehrany, N Taghavinia ChemPhysChem 15 (17), 3791-3799	2014
High-performance/low-temperature-processed dye solar cell counter electrodes based on chromium substrates with cube-like morphology F Behrouznejad, N Taghavinia Journal of Power Sources 260, 299-306	2014
Utilizing Chromium as the Photoanode Substrate in Dye-Sensitized Solar Cells	2014

F Behrouznejad, N Taghavinia ChemElectroChem 1 (5), 944-950	
Super-hydrophilic characteristic of thermochemically prepared CdS nanocrystals M Marandi, N Taghavinia, A Babaei Physica E: Low-dimensional Systems and Nanostructures 58, 146-152	2014
Facile synthesis of gradient alloyed ZnxCd 1− xS nanocrystals using a microwave-assisted method H Alehdaghi, M Marandi, M Molaei, A Irajizad, N Taghavinia Journal of Alloys and Compounds 586, 380-384	2014
Mesoporous TiO2 Microbead Electrodes for Cobalt-Mediator-Based Dye-Sensitized Solar Cells M Pazoki, N Taghavinia, A Hagfeldt, G Boschloo The Journal of Physical Chemistry C 118 (30), 16472-16478	2014
Synthesis of TiO 2 hollow spheres using titanium tetraisopropoxide: fabrication of high efficiency dye sensitized solar cells with photoanodes of different nanocrystalline TiO 2 sub-layers M Marandi, S Feshki, MNS Sabet, Z Anajafi, N Taghavinia RSC Advances 4 (101), 58064-58076	2014
Nanosheet arrays of TiO 2 synthesized by one step conversion of ZnO nanosheets: boosting of electron transport rate and application in dye solar cells S Alimirsalari, F Tajabadi, SM Salehkoutahi, R Ghahary, N Taghavinia RSC Advances 4 (85), 45174-45179	2014
The effect of dye coverage on the performance of dye-sensitized solar cells with a cobalt-based electrolyte M Pazoki, PW Lohse, N Taghavinia, A Hagfeldt, G Boschloo Physical Chemistry Chemical Physics 16 (18), 8503-8508	2014
Ab initio study of electronic effects in the ZnO/TiO 2 core/shell interface: application in dye sensitized solar cells M Pazoki, N Nafari, N Taghavinia RSC Advances 4 (1), 301-307	2014
Dielectric core–shells with enhanced scattering efficiency as back-reflectors in dye sensitized solar cells N Ghazyani, MHM Ara, F Tajabadi, A Dabirian, R Mohammadpour, ... RSC Advances 4 (7), 3621-3626	2014
Monolithic quantum dot sensitized solar cells M Samadpour, Z Ghane, N Ghazyani, F Tajabadi, N Taghavinia Journal of Physics D: Applied Physics 46 (48), 485101	2013
Enhanced Light Harvesting with a Reflective Luminescent Down-Shifting Layer for Dye-Sensitized Solar Cells Z Hosseini, WK Huang, CM Tsai, TM Chen, N Taghavinia, EWG Diau ACS applied materials & interfaces 5 (12), 5397-5402	2013
Improved charge collection efficiency of hollow sphere/nanoparticle composite TiO 2 electrodes for solid state dye sensitized solar cells	2013

G Sadoughi, R Mohammadpour, A Irajizad, N Taghavinia, S Dadgostar, ... Current Applied Physics 13 (2), 371-376	
Freestanding light scattering hollow silver spheres prepared by a facile sacrificial templating method and their application in dye-sensitized solar cells N Sharifi, S Dadgostar, N Taghavinia Journal of Power Sources 225, 46-50	2013
Resonant-size spherical bottom scatterers for dye-sensitized solar cells A Dabirian, N Taghavinia RSC Advances 3 (47), 25417-25422	2013
Fabrication of Silver Microspheres as Metallic Scattering Centers in Dye-sensitized Solar Cells: Light Harvesting N Taghavinia Energy Engineering Management 2 (2), 21-27	2012
Effect of nanostructured electrode architecture and semiconductor deposition strategy on the photovoltaic performance of quantum dot sensitized solar cells M Samadpour, S Giménez, PP Boix, Q Shen, ME Calvo, N Taghavinia, ... Electrochimica Acta 75, 139-147	2012
Mesoporous submicrometer TiO2 hollow spheres as scatterers in dye-sensitized solar cells S Dadgostar, F Tajabadi, N Taghavinia ACS applied materials & interfaces 4 (6), 2964-2968	2012
Ultraviolet photodetectors based on ZnO sheets: the effect of sheet size on photoresponse properties AG Ardakani, M Pazoki, SM Mahdavi, AR Bahrampour, N Taghavinia Applied Surface Science 258 (14), 5405-5411	2012
Near-white emitting QD-LED based on hydrophilic CdS nanocrystals M Molaei, M Marandi, E Saievar-Iranizad, N Taghavinia, B Liu, HD Sun, ... Journal of Luminescence 132 (2), 467-473	2012
Charge transport properties in nanocomposite photoanodes of DSSCs: crucial role of electronic structure M Samadpour, N Taghavinia, A Iraji-Zad, M Marandi, F Tajabadi The European Physical Journal Applied Physics 57 (02), 20401	2012
Photo-induced growth of silver nanoparticles using UV sensitivity of cellulose fibers AA Omrani, N Taghavinia Applied Surface Science 258 (7), 2373-2377	2012
Photon management in dye-sensitized solar cell using light scattering layers: Silver or Titanium dioxide N Sharif, N Taghavinia	2012
CVD-grown TiO 2 particles as light scattering structures in dye-sensitized solar cells M Pazoki, N Taghavinia, Y Abdi, F Tajabadi, G Boschloo, A Hagfeldt RSC Advances 2 (32), 12278-12285	2012

Last updated: 1394/02, 2015/04

Easily manufactured TiO 2 hollow fibers for quantum dot sensitized solar cells M Samadpour, S Giménez, AI Zad, N Taghavinia, I Mora-Seró Physical Chemistry Chemical Physics 14 (2), 522-528	2012
Interstitial sulfur photoluminescence in thermochemically synthesized CdS nanocrystals (NCs) M Molaei, E Saievar Iranizad, M Marandi, N Taghavinia The European Physical Journal Applied Physics 56 (01), 10401	2011
Surface chemistry of atmospheric plasma modified polycarbonate substrates H Yaghoubi, N Taghavinia Applied Surface Science 257 (23), 9836-9839	2011
Synthesis of CdS nanocrystals by a microwave activated method and investigation of the photoluminescence and electroluminescence properties M Molaei, ES Iranizad, M Marandi, N Taghavinia, R Amrollahi Applied Surface Science 257 (23), 9796-9801	2011
Fluorine treatment of TiO2 for enhancing quantum dot sensitized solar cell performance M Samadpour, PP Boix, S Giménez, A Iraji Zad, N Taghavinia, ... The Journal of Physical Chemistry C 115 (29), 14400-14407	2011
Single-sided dye-sensitized solar cells having a vertical patterned structure F Tajabadi, N Taghavinia US Patent App. 13/113,052	2011
Fast two-step microwave-activated synthesis of Mn doped ZnS nanocrystals: Comparison of the luminescence and doping process with thermochemical approach M Marandi, G Hajisalem, N Taghavinia, M Houshiar Journal of Luminescence 131 (4), 721-726	2011
Nanoparticulate Hollow TiO2 Fibers as Light Scatterers in Dye-Sensitized Solar Cells: Layer-by-Layer Self-Assembly Parameters and Mechanism M Rahman, F Tajabadi, L Shooshtari, N Taghavinia ChemPhysChem 12 (5), 966-973	2011
Investigation of the photoluminescence properties of thermochemically synthesized CdS nanocrystals M Molaei, ES Iranizad, M Marandi, N Taghavinia AIP Advances 1 (1), 012113	2011
Investigation of the Photoluminescence Properties and Nonlinear Optical Responses of Thermochemically Synthesized CdS Nanoparticles M Molaei, E Saievar Iranizad, Z Dehghani, N Taghavinia, MH Majlesara Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal ...	2011
TiO2 Fibers Enhance Film Integrity and Photovoltaic Performance for Electrophoretically Deposited Dye Solar Cell Photoanodes L Shooshtari, M Rahman, F Tajabadi, N Taghavinia ACS applied materials & interfaces 3 (3), 638-641	2011
A new structure to increase the photostability of CdTe quantum dot sensitized	2011

solar cells M Samadpour, A Irajizad, N Taghavinia, M Molaei Journal of Physics D: Applied Physics 44 (4), 045103	
Nano-TiO2: An eco-friendly and re-usable catalyst for the synthesis of 14-Aryl or alkyl-14H-dibenzo [a, j] xanthenes BF Mirjalili, A Bamoniri, A Akbari, N Taghavinia Journal of the Iranian Chemical Society 8 (1), S129-S134	2011
Easily manufactured TiO2 hollow fibers for quantum dot sensitized solar cells M Samadpour, S Giménez Juliá, AI Zad, N Taghavinia, I Mora Seró Royal Society of Chemistry	2011
Determination of Ascorbic Acid in the Presence of Uric Acid and Folic Acid by a Nanostructured Electrochemical Sensor Based on a TiO2 Nanoparticle Carbon Paste Electrode M Mazloum-Ardakani, A Talebi, H Beitollahi, H Naeimi, N Taghavinia Analytical Letters 43 (16), 2618-2630	2010
Nanomechanical properties of TiO2 granular thin films H Yaghoubi, N Taghavinia, EK Alamdari, AA Volinsky ACS applied materials & interfaces 2 (9), 2629-2636	2010
Rapid growth of hydroxyapatite nanoparticles using ultrasonic irradiation P Rouhani, N Taghavinia, S Rouhani Ultrasonics sonochemistry 17 (5), 853-856	2010
Electrochemically Assisted Photocatalytic Oxidation of Methanol on TiO 2 Nanotube Arrays R Mohammadpour, A Irajizad, N Taghavinia, M Rahman, MM Ahadian Journal of Materials Science & Technology 26 (6), 535-541	2010
Selective voltammetric determination of d-penicillamine in the presence of tryptophan at a modified carbon paste electrode incorporating TiO 2 nanoparticles and quinizarine M Mazloum-Ardakani, H Beitollahi, Z Taleat, H Naeimi, N Taghavinia Journal of Electroanalytical Chemistry 644 (1), 1-6	2010
TiO2 nanotubular fibers sensitized with CdS nanoparticles E Ghadiri, N Taghavinia, HR Aghabozorg The European Physical Journal Applied Physics 50 (02), 20601	2010
Nanostructured silver fibers: Facile synthesis based on natural cellulose and application to graphite composite electrode for oxygen reduction N Sharifi, F Tajabadi, N Taghavinia International Journal of hydrogen energy 35 (8), 3258-3262	2010
Novel nanostructure electrochemical sensor for electrocatalytic determination of norepinephrine in the presence of high concentrations of acetaminophene and folic acid M Mazloum-Ardakani, H Beitollahi, MA Sheikh-Mohseni, H Naeimi, ... Applied Catalysis A: General 378 (2), 195-201	2010
Enhanced electron collection efficiency in dye-sensitized solar cells based on	2010

Last updated: 1394/02, 2015/04

nanostructured TiO2 hollow fibers E Ghadiri, N Taghavinia, SM Zakeeruddin, M Grätzel, JE Moser Nano letters 10 (5), 1632-1638	
Simultaneous determination of epinephrine and acetaminophen concentrations using a novel carbon paste electrode prepared with 2, 2′-[1, 2 butanediylbis (nitriloethylidyne)]-bis-hydroquinone and TiO 2 nanoparticles M Mazloum-Ardakani, H Beitollahi, MAS Mohseni, A Benvidi, H Naeimi, ... Colloids and Surfaces B: Biointerfaces 76 (1), 82-87	2010
Controlled nucleation and growth of CdS nanoparticles by turbulent dispersion F Shayeganfar, L Javidpour, N Taghavinia, MRR Tabar, M Sahimi, ... Physical Review E 81 (2), 026304	2010
Self cleaning TiO 2 coating on polycarbonate: surface treatment, photocatalytic and nanomechanical properties H Yaghoubi, N Taghavinia, EK Alamdari Surface and coatings technology 204 (9), 1562-1568	2010
Fabrication of self-organised highly ordered titanium oxide nanotube arrays by anodic oxidation and characterisation R Mohammadpour, MM Ahadian, AI zad, N Taghavinia International Journal of Nanomanufacturing 5 (3), 297-309	2010
Comparison of the Optical Effect of Gold and Silver Nano-islands on the Sensitizer for Application in Dye-sensitized Solar Cells N Sharifi, N Taghavinia, A Irajizad Abstracts of the 18th International of Vacuum Congress	2010
Voltammetric determination of dopamine at the surface of TiO2 nanoparticles modified carbon paste electrode M Mazloum-Ardakani, H Rajabi, H Beitollahi, BBF Mirjalili, A Akbari, ... Int. J. Electrochem. Sci 5, 147-157	2010
Layer-by-layer self assembly deposition and characterization of TiO2 nanoparticles by using a short chain polycation M Rahman, N Taghavinia European physical journal. Applied physics 48 (1), 1232	2009
Fabrication of modified TiO2 nanoparticle carbon paste electrode for simultaneous determination of dopamine, uric acid, and l-cysteine MM Ardakani, A Talebi, H Naeimi, MN Barzoky, N Taghavinia Journal of Solid State Electrochemistry 13 (9), 1433-1440	2009
Photocatalytic decomposition of direct red 16 and kinetics analysis in a conic body packed bed reactor with nanostructure titania coated Raschig rings J Saien, M Asgari, AR Soleymani, N Taghavinia Chemical Engineering Journal 151 (1), 295-301	2009
Comparison of various anodization and annealing conditions of titanium dioxide nanotubular film on MB degradation R Mohammadpour, MM Ahadian, N Taghavinia, A Dolati The European Physical Journal Applied Physics 47 (01), 10601	2009

Two-dimensional clustering of nanoparticles on the surface of cellulose fibers MK Aminian, N Taghavinia, A Irajizad, SM Mahdavi, J Ye, M Chavoshi, ... The Journal of Physical Chemistry C 113 (28), 12022-12027	2009
The two-step thermochemical growth of ZnS: Mn nanocrystals and a study of luminescence evolution G Hajisalem, M Marandi, N Taghavinia, M Houshiar Nanotechnology 20 (9), 095706	2009
TiO2 nanofibre assisted photocatalytic degradation of reactive blue 19 dye from aqueous solution A Rezaee, MT Ghaneian, N Taghavinia, MK Aminian, SJ Hashemian Environmental technology 30 (3), 233-239	2009
Silver nano-islands on glass fibers using heat segregation method N Sharifi, N Taghavinia Materials Chemistry and Physics 113 (1), 63-66	2009
Self-assembled one-pot synthesis of red luminescent CdS: Mn/Mn (OH) 2 nanoparticles M Marandi, N Taghavinia, SM Mahdavi Journal of Luminescence 128 (12), 1980-1984	2008
Electrocatalytic oxidation and nanomolar determination of guanine at the surface of a molybdenum (VI) complex–TiO 2 nanoparticle modified carbon paste electrode MM Ardakani, Z Taleat, H Beitollahi, M Salavati-Niasari, BBF Mirjalili, ... Journal of Electroanalytical Chemistry 624 (1), 73-78	2008
Fabrication of high conductivity TiO2/Ag fibrous electrode by the electrophoretic deposition method Z Hosseini, N Taghavinia, N Sharifi, M Chavoshi, M Rahman The Journal of Physical Chemistry C 112 (47), 18686-18689	2008
GROWTH OF TiO 2 NANOPARTICLES BY PULSED LASER ABLATION (PLA) IN LIQUID MEDIA AND STUDY OF PHOTOCATALYTIC PROPERTIES S Shadmehr, SM Mahdavi, N Taghavinia, A Azarian International Journal of Modern Physics B 22 (18n19), 3193-3200	2008
Thermochemical growth of Mn-doped CdS nanoparticles and study of luminescence evolution M Marandi, N Taghavinia, Z Sedaghat, SM Mahdavi Nanotechnology 19 (22), 225705	2008
Photocatalytic degradation of phenol in aqueous phase with TiO 2 immobilized on three different supports with a simple method SN Hosseini, M Borghei, M Vossoughi, N Taghavinia Proceedings of the 3rd IASME/WSEAS international conference on Energy ...	2008
TiO 2 nanostructured films on mica using liquid phase deposition M Pourmand, N Taghavinia Materials Chemistry and Physics 107 (2), 449-455	2008
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Last updated: 1394/02, 2015/04

Synthesis of Titania Nanofibers for Photocatalytic Applications MK Aminian, N Taghavinia, A Iraji zad, SM Mahdavi, M Chavoshi Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal ...	2007
Adsorption of TiO2 nanoparticles on glass fibers MK Aminian, N Taghavinia, A Irajizad, SM Mahdavi The Journal of Physical Chemistry C 111 (27), 9794-9798	2007
Immobilization of TiO 2 on perlite granules for photocatalytic degradation of phenol SN Hosseini, SM Borghei, M Vossoughi, N Taghavinia Applied Catalysis B: Environmental 74 (1), 53-62	2007
Thermochemical Synthesis of CdS Nanoparticles and Investigation on Luminescence Properties Z Sedaghat, N Taghavinia, G Rastegarzadeh, M Marandi Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal ...	2007
Thermal control of the size and crystalline phase of CdS nanoparticles Z Sedaghat, N Taghavinia, M Marandi Nanotechnology 17 (15), 3812	2006
Blue-and red-emitting phosphor nanoparticles embedded in a porous matrix N Taghavinia, G Lerondel, H Makino, T Yao Thin Solid Films 503 (1), 190-195	2006
Fine tuning of the size of CdS nanoparticles synthesized by a photochemical method M Marandi, N Taghavinia, SM Mahdavi Nanotechnology 17 (5), 1230	2006
Highly porous TiO2 nanofibres with a fractal structure MK Aminian, N Taghavinia, A Iraji-Zad, SM Mahdavi, M Chavoshi, ... Nanotechnology 17 (2), 520	2006
Synthesis of TiO 2 nano fibres with fractal structure for photo catalytic application M Khajeh Aminian, N Taghavinia, M Chavoshi, A Irajizad, M Mahdavi	2006
Thermochemical growth and studying of crystalline phase of CdS nanoparticles Z Sedaghat, N Taghavinia, G Rastegarzadeh, M Marandi	2006
TiO 2 thin films and their hydrophilicity by chemical vapor deposition method R Ahmadi, N Taghavinia	2006
Photo-induced CdS nanoparticles growth N Taghavinia, A Iraji-Zad, SM Mahdavi, M Reza-Esmaili Physica E: Low-dimensional Systems and Nanostructures 30 (1), 114-119	2005
Evolution of roughness and photo-crystallization effect in ZnS–SiO2 nanocomposite films N Taghavinia, HY Lee, H Makino, T Yao Nanotechnology 16 (6), 944	2005
Two-scale Kirchhoff theory: comparison of experimental observations with	2005

Last updated: 1394/02, 2015/04

theoretical prediction GR Jafari, P Kaghazchi, RS Dariani, SM Mahdavi, MRR Tabar, ... Journal of Statistical Mechanics: Theory and Experiment 2005 (04), P04013	
A photochemical method for controlling the size of CdS nanoparticles M Marandi, N Taghavinia, SM Mahdavi Nanotechnology 16 (2), 334	2005
Europium-doped yttrium silicate nanoparticles embedded in a porous SiO2 matrix N Taghavinia, G Lerondel, H Makino, T Yao Nanotechnology 15 (11), 1549	2004
ZnS nanocrystals embedded in SiO 2 matrix N Taghavinia, T Yao Physica E: Low-dimensional Systems and Nanostructures 21 (1), 96-102	2004
Enhancement of Mn luminescence in ZnS: Mn multi-quantum-well structures N Taghavinia, H Makino, T Yao Applied physics letters 83 (22), 4616-4618	2003
Growth of luminescent Zn 2 SiO 4: Mn 2+ particles inside oxidized porous silicon: emergence of yellow luminescence N Taghavinia, G Lerondel, H Makino, A Yamamoto, T Yao, Y Kawazoe, ... Journal of crystal growth 237, 869-873	2002
Structural and optical properties of oxidized porous silicon layers activated by Zn2SiO4: Mn2+ N Taghavinia, G Lerondel, H Makino, A Parisini, A Yamamoto, T Yao, ... Journal of The Electrochemical Society 149 (4), G251-G256	2002
Activation of porous silicon layers using Zn 2 SiO 4: Mn 2+ phosphor particles N Taghavinia, G Lerondel, H Makino, A Parisini, A Yamamoto, T Yao, ... Journal of luminescence 96 (2), 171-175	2002
Nanocrystalline Zn2SiO4: Mn2+ grown in oxidized porous silicon N Taghavinia, G Lerondel, H Makino, A Yamamoto, T Yao, Y Kawazoe, ... Nanotechnology 12 (4), 547	2001
Zn2SiO4: Mn 2+ nano-particles grown in porous silicon N Taghavinia, G Lerondel, H Makino, A Yamamoto, T Yao, Y Kawazoe, ... Proceedings of the 9 th International Symposium on Nanostructures: Physics ...	2001
Thermal desorption of ultrathin silicon oxide layers on Si (111) A Iraji-zad, N Taghavinia, M Ahadian, A Mashaei Semiconductor science and technology 15 (2), 160	2000
The initial stage of oxidation of Si (III) 7x7 AI Zad, N Taghavinia Advanced Materials-97	1997

International Patents:

Fariba Tajabadi, Nima Taghavinia, “Single Sided Dye Sensitized Solar Cells Having A Vertical Patterned Structure”, US Patent, US20110220192, 2011