

Kaykhosrow Khojier

Associate Professor of Surface and Thin Films Physics.

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Academic records:

- Ph. D. Solid State Physics (Thin Film and Surface Physics), 2009, Science and Research Branch, Islamic Azad University, Tehran, Iran.
- M. Sc. Solid State Physics (Thin Film and Surface Physics), 2004, Science and Research Branch, Islamic Azad University, Tehran, Iran.
- B. Sc. Solid State Physics, 2002, Chalous Branch, Islamic Azad University, Chalous, Iran.

Work experience:

- Faculty member
Department of Physics, Chalous branch, Islamic Azad University, Chalous, Iran.
June 2006-present.
- Visiting Professor
Department of Electrical and Computer Engineering, Higher Education Institute of Puyandegan Danesh, Chalous, Iran.
September 2009-February 2017.

Research Interests/Fields:

Nano-structured Electronic Materials
Nano-sensors
Nano-biosensors
Nano-structured Materials (synthesize and different Properties)
Hard Coatings
Protective Coatings

Academic courses:

Electromagnetism I, II and advanced, Electronic I and II, Solid State physics I, II and advanced, Surface and Thin Film Physics, General Physics, Semiconductor Physics I and II, Crystallography.

Awards:

Selected researcher in Chalous branch of I. A. University, 2012.

Selected researcher in Chalous branch of I. A. University, 2013.

Selected researcher in region of three of I. A. University, 2013.

Technical/Scientific Board of Conferences:**Member of technical committee of the 3rd International Conference on Materials Engineering and Nanotechnology (ICMEN 2018)**

Will take place in Tokyo, Japan, July 19-21, 2018.

Member of technical committee of the International Conference on Functional Materials and Chemical Engineering (ICFMCE 2017)

Dubai, UAE, November 24-26, 2017.

Member of technical committee of the 2nd International Conference on Materials Engineering and Nanotechnology (ICMEN 2017)

Kuala Lumpur, Malaysia, May 12-14, 2017.

Member of technical committee of the 2nd International Conference on Frontiers of Sensors Technologies (ICFST 2017)

Shenzhen, China, April 14-16, 2017.

Member of technical committee of National Conference on Nanostructure, Nanoscience and Nanoengineering,

Kashan, Iran, February 15, 2017.

Member of technical committee of the 1st International Conference on Frontiers of Sensors Technologies (ICFST 2016)

Hong Kong, 15 January, 2016.

Member of technical committee of the International Conference on Computer Engineering and Information System

Shanghai, China, November 12-13, 2016.

Member of technical/scientific committee of the 10th International Conference on MEMS Nano, and Smart systems (ICMENS 2014)

Bahrain during November 5-7, 2014.

Member of technical committee of the 2nd International Conference on Mechatronics and Mechanical Design (ICMMD 2015)

United Arab Emirates, during December 6-8, 2015.

Member of technical committee of the 4th International Conference on Nanostructures, Nanomaterials and Nanoengineering (ICNNN 2015)

United Arab Emirates, December 6-8, 2015.

Publications (Peer-reviewed Journals and Proceeding):

E. Amani, **K. Khojier**, S. Zoriasatain, Study of nanostructure and ethanol vapor sensing performance of WO₃ thin films deposited by e-beam evaporation method under different deposition angles: application in breath analysis devices, Applied Physics A, 124 (2018) 1.

E. Amani, **K. Khojier**, S. Zoriasatain, Improving the hydrogen gas sensitivity of WO₃ thin films by modifying the deposition angle and thickness of different promoter layers, International Journal of Hydrogen Energy, 42 (2017) 29620-2962.

S. Zolghadr, **K. Khojier**, S. Kimiagar, Nanostructure and volatile organic compounds sensing properties of α -Fe₂O₃/reduced graphene oxide nanocomposite derived by spray method, Journal of Electronic materials, 46 (2017) 6834-6842.

K. Khojier, Investigation of ZnO Thin Film Synthesized by Spray Pyrolysis Method as a Toxic Gases Sensor, Journal of Electronic materials, 46 (2017) 5889-5894.

F. Teimoori, **K. Khojier**, N.Z. Dehnavi, Investigation of sensitivity and selectivity of ZnO thin film to volatile organic compounds, Journal of Theoretical and Applied Physics, 11 (2017) 157-163.

K. Khojier, Sol-gel spin coating derived ZnO thin film to sense the acetic acid vapor, International Journal of Nano Dimension, 8 (2017) 107-113.

S. Zolghadr, **K. Khojier**, S. Kimiagar, Study of sensitivity and selectivity of α -Fe₂O₃ thin films for different toxic gases and alcohols, Materials Science in Semiconductor Processing, 54 (2016) 6-13.

F. Teimoori, **K. Khojier**, N.Z. Dehnavi, Investigation on the Electrical and Methane Gas-Sensing Properties of ZnO Thin Films Produced by Different Methods, Journal of Electronic materials, 45 (2016) 4881-4889.

K. Khojier, H. Savaloni, N. Habashi, M.H. Sadi, On the influence of temperature gradient of annealing process on the nano-structure and sensing properties of WO₃ thin films to NO₂ gas and relative humidity, Materials Science in Semiconductor Processing, 41 (2016) 177-183.

K. Khojier, H. Savaloni, Improvement of sensing properties of ZnO Thin Films for H₂ gas detection by modifying of annealing conditions, Journal of Electronic materials, 44 (10) (2015) 3458-3464.

F. Teimoori, **K. Khojier**, N.Z. Dehnavi, On the Dependence of H₂ Gas Sensitivity of ZnO Thin Films on Film Thickness, Procedia Materials Science, 11 (2015) 474 – 479.

S. Zolghadr, **K. Khojier**, S. Kimiagar, Ammonia Sensing Properties of α -Fe₂O₃ Thin Films During Post-Annealing Process, Procedia Materials Science, 11 (2015) 469 – 473.

K. Khojier, H. Savaloni, S. Zolghadr, E. Amani, Study of electrical, mechanical and tribological properties of CrN_x thin films as a function of sputtering conditions, Journal of Materials engineering and Performance, 23 (10) (2014) 3444-3448.

K. Khojier, H. Savaloni, S. Zolghadr, On the Dependence of Structural and Sensing Properties of Sputtered MoO₃ Thin Films on Argon Gas Flow, Applied Surface Science, 320 (2014) 315-321.

K. Khojier, L.Ahmadkhani, The Effect of Substrate Temperature and Biasing on Physical Properties and Corrosion Resistance of CrN/Al 5083 Coatings, International Journal of Bio-Inorganic Hybrid Nano Material, 3 (2) (2014) 81-88.

K. Khojier, H. Savaloni, Z. Sadeghi, A Comparative Investigation on Growth, Nanostructure and Electrical Properties of Copper Oxide Thin Films as a Function of Annealing Conditions, Journal of theoretical and applied physics, 8 (116) (2014).

K. Khojier, M. Fasih Nikoutalab, Ghazal moradi, Oxygen Partial Pressure Effect on Nano-Structure and NO gas detection sensitivity of Sputtered MoO₃ Thin Films, Applied Mechanics and Materials **446-447** (2014) 185-190.

M. Jafarzadeh, **K. Khojier**, H. Savaloni, Influence of Nitrogen gas flow on mechanical and tribological properties of sputtered chromium nitride thin films, Advanced Materials research, **829** (2014) 497-501.

S. Goodarzi, **K. Khojier**, H. Savaloni, E. Zalnezhad, On the dependence of mechanical and tribological properties of sputtered chromium nitride thin films on deposition power, Advanced Materials research, **829** (2014) 352-356.

K. Khojier, H. Savaloni, E. Amani, Influence of Annealing Conditions on the Crystallographic structure, Chemical Composition and Luminescence of ZnO Thin Film, Applied surface science, **289** (2014) 564-570.

K. Khojier, H. Savaloni, F. Jafari, Structural, electrical and decorative properties of sputtered zirconium thin films during post-annealing process, Journal of theoretical and applied physics, **7** (55) (2013).

K. Khojier, H. Savaloni, Z. Ashkabusi, N. Zare, Structural, Mechanical and Tribological Characterization of Chromium Oxide Thin Films Prepared by Post-annealing of Cr Thin Film, Applied surface science, **284** (2013) 489-496.

K. Khojier, H. Savaloni, E. Shokrai, Z. Dehghani, N. Z. Dehnavi, Influence of Argon Gas Flow on Mechanical and Electrical properties of Sputtered Titanium Nitride Thin Films, Journal of theoretical and applied physics, **7** (37) (2013).

E. Amani, **K. Khojier**, N. Zare, Nano-structural characteristics of post-annealed ZnO thin films by X-ray diffraction and Field Emission Scanning Electron Microscopy, International Journal of Bio-Inorganic Hybrid Nano Material, **4** (1) (2013) 265-270.

K. Khojier, M. R. Karami Mehr, H. Savaloni, Annealing temperature effect on the mechanical and tribological properties of molybdenum nitride thin films, Journal of Nanostructure in Chemistry, **3** (5) (2013).

K. Khojier, H. Savaloni, On the dependence of DC electrical properties and nanostructure on thickness of copper thin films, International Journal of Nano Dimension, **3** (3) (2013) 217-226.

K. Khojier, M. M. Karami mehr, M. Habibi, A Study of Hall Effect and Nanostructure of Cu₃N Thin Films as a Function of Nitrogen Partial Pressure, Caspian Journal of Applied Sciences Research, **2** (1) (2013) 31-36.

K. Khojier, S. Zolghadr, N. Zare, Structural, Electrical and Optical Properties of Molybdenum Oxide Thin Films Prepared by Post-annealing of Mo Thin Films, International Journal of Bio-Inorganic Hybrid Nano Material, **1** (3) (2012) 199-207.

K. Khojier, A. Behju, Annealing temperature effect on nanostructure and phase transition of copper oxide thin films, International Journal of Nano Dimension, **2** (3) (2012) 185-190.

K. Khojier, M. M. Pourpasha, Statistical and Mathematical Modeling of DC Electrical Properties of Titanium Oxide thin Films as a Function of Film Thickness and Temperature, Journal of Basic and Applied Scientific Research, **2** (3) (2012) 2105-2109.

K. Khojier, A. Behju, An investigation of annealing temperature effect on titanium Oxide band gap for use in environmental pollutants removal in sea water, Iranian Journal of Marine Science and Technology, **57** (2012) 22-27.

Z. Sadeghi, **K. Khojier**, Correlation between optical band gap, resistivity and post-annealing temperature of copper oxide thin films, Trends in Electrical and Computer Engineering, **2** (1) (2012) 33-38.

K. Khojier, A. A. Banimahd, H. Savaloni, Nanostructure characterization and hardness of TiN thin films produced at different annealing temperature, Journal of theoretical and applied physics, **5** (1) (2011) 25-28.

K. Khojier, H. Savaloni, On the annealing temperature, penetration depth of oxygen and film thickness on the DC and AC electrical properties and nano-structure of Ti thin films, Vacuum, **84**(6) (2010) 770-777.

H. Savaloni, **K. Khojier**, S. Torabi, Influence of N⁺ ion implantation on the corrosion and nano-structure of Ti samples, Corrosion Science, **52** (2010) 1263-1267.

K. Khojier, H. Savaloni, Nano-structure and Electrical Properties of N⁺ Ion Implanted Titanium Thin films As a Function of N⁺ Ion Flux, Journal of theoretical and applied physics, **3** (3) (2009) 15-19.

K. Khojier, H. Savaloni, Influence of annealing temperature on nanostructure of Ti -oxide thin films, Iranian Physical Journal, **3**-1 (2009) 9-13.

K. Khojier, H. Savaloni, M. Ghoranneviss, Nanostructure and Electrical Properties of Titanium Thin Film as a Function of Substrate Temperature , Iranian Physical Journal, **2**-2 (2008) 37-41.

K. Khojier, H. Savaloni, H. Kangarloo, M. Ghoranneviss, M. Yari, Influence of annealing temperature on the nanostructure and crrosivity of Ti/stainless steel substrates, Applied Surface Science, **254** (2008) 2528-2533.

H. Savaloni, **K. Khojier**, M. Ghoranneviss, Synthesis, Nano-structure and Electrical Properties of TiO₂ by Annealing of Ti Thin Films, Iranian Physical Journal, **1**-3 (2007) 5-10.

K. Khojier, H. Savaloni, M. Ghoranneviss, Nano structure and electrical properties of annealed Ti thin films, Iranian Physical Journal, **2**-1 (2007) 39-43.

H. Savaloni, **K. Khojier**, M. S. Alaei, Characteristics of nanostructure and electrical properties of Ti thin film as a function of substrate temperature, Journal of Material Science, **42** (2007) 2603-2611.

Presented paper in conferences:

F. Teimoori, K. Khojier, N.Z. Dehnavi, An investigation of methane gas sensing properties of Sol-gel spin coating derived ZnO thin films, National Conference of Nanostructures, Nanoscience and Nanoengineering, Kashan, Iran, February 2017.

F. Teimoori, **K. Khojier**, N.Z. Dehnavi, On the Dependence of H₂ Gas Sensitivity of ZnO Thin Films on Film Thickness, 5th International Biennial Conference on Ultrafine Grained and Nanostructured Materials (UFGNSM15), Tehran, Iran, November 2015. (Oral)

S. Zolghadr, **K. Khojier**, S. Kimiagar, Ammonia Sensing Properties of α -Fe₂O₃ Thin Films During Post-Annealing Process, 5th International Biennial Conference on Ultrafine Grained and Nanostructured Materials (UFGNSM15), Tehran, Iran, November 2015. (Poster)

F. Mahbubi, **K. Khojier**, N. Z. Dehnavi, A study of chemical composition and mechanical properties of Zirconium oxide thin films as a function of oxygen partial pressure, 1st National Conference of Nanotechnology, Advantages and Applications, Hamedan, Iran, 2014. (Poster)

M. Jafarzadeh, **K. Khojier**, H. Savaloni, Influence of Nitrogen gas flow on mechanical and tribological properties of sputtered chromium nitride thin films, 4th International Biennial Conference on Ultrafine Grained and Nanostructured Materials, Tehran, Iran, 5 and 6 November 2013. (Poster)

S. Goodarzi, **K. Khojier**, H. Savaloni, E. Zalnezhad, On the dependence of mechanical and tribological properties of sputtered chromium nitride thin films on deposition power, 4th International Biennial Conference on Ultrafine Grained and Nanostructured Materials, Tehran, Iran, 5 and 6 November 2013. (Poster)

K. Khojier, E. Amani, S. Zolghadr, Study of influence of chemical composition on electrical and mechanical properties of chromium nitride thin films: application to cryogenic temperature sensor, 14th national seminar on surface engineering, Esfahan, Iran, October 2013. (Oral)

F. Jafari, **K. Khojier**, N. Z. Dehnavi, Investigation of annealing temperature effect On nanostructure and electrical and decorative properties of zirconium oxide thin films, 14th national seminar on surface engineering, Esfahan, Iran, October 2013. (Oral)

K. Khojier, M. Fasih Nikoutalab, Ghazal moradi, Oxygen Partial Pressure Effect on Nano-Structure and NO gas detection sensitivity of Sputtered MoO₃ Thin Films, 3rd International Conference on Nanomaterials and Electronics Engineering - ICNEE 2013, Melaka, Malaysia, 5 and 6 October 2013. (Oral)

K. Khojier, S. Sarshar, F. Jafari, A. Borzou, Nano-structural, Electrical and Mechanical Characterization of Zirconium Oxide Thin Films as a Function of Annealing Temperature and Time, Nanomaterials: Application & Properties, Crimea, Ukraine, 16-21 September 2013. (Oral)

K. Khojier, Production and characterization of MoO₃ thin films as Co gas sensor, National Conference of Applied Research in Sciences and Engineering, Takestan, Iran, April 2013. (Oral)

E. Shokrai, Z. Dehghani, **K. Khojier**, N. Z. Dehnavi, Influence of argon gas flow on mechanical and electrical properties of sputtered titanium nitride thin films, National Conference of Applied Research in Sciences and Engineering, Takestan, Iran, April 2013. (Oral)

E. Amani, **K. Khojier**, N. Z. Dehnavi, A study of annealing temperature effect on nanostructure, surface morphology and luminescence spectrum of zinc oxide thin films, National Conference of Nanotechnology: From Theory to Application, Esfehan, Iran, May 2013. (Oral)

Z. Ashkabusi, **K. Khojier**, N. Zare, On the dependence of structural and electrical properties of chromium oxide nano layers on annealing temperatures, National Conference on Nanotechnology and Green Chemistry-NCNG, Tehran, Iran, March 2013. (Poster)

K. Khojier, H. Savaloni, Study of Corrosion Resistance and Nanostructure of Titanium Nitride Thin Films Prepared at Different Annealing Temperatures, 4th International Congress on Nanoscience and Nanotechnology, Kashan, Iran, 8-10 September 2012. (Oral)

Z. Sadeghi, **K. Khojier**, Correlation Between Thickness, Nanostructure and DC Electrical Properties of Copper Thin, 4th International Congress on Nanoscience and Nanotechnology, Kashan, Iran, 8-10 September 2012. (Poster)

S. Roudbaraki, S. Zolghadr, **K. Khojier**, Study of Corrosion Behaviour and Nanostructure of Molybdenum Trioxide Thin Films on SS(304) Substrate, 4th International Congress on Nanoscience and Nanotechnology, Kashan, Iran, 8-10 September 2012. (Poster)

K. Khojier, Nitrogen partial pressure effect on structural and electrical properties of Copper nitride thin films produced by DC magnetron sputtering, 8th International Conference on Diffusion in Solids and Liquids (DSL), Istanbul, Turkey, 25-29 June 2012. (Oral)

M. R. Karami mehr, **K. Khojier**, N. Zare, Study of nanostructure and surface morphology of molybdenum nitride thin films as a function of annealing temperature, 8th International Conference on Diffusion in Solids and Liquids (DSL), Istanbul, Turkey, 25-29 June 2012. (Poster)

S. Zolghadr, **K. Khojier**, N. Zare, An investigation of nanostructure and electrical properties of molybdenum oxide thin films produced at different annealing temperature, 8th International Conference on Diffusion in Solids and Liquids (DSL), Istanbul, Turkey, 25-29 June 2012. (Poster)

S. Gudazi, **K. Khojier**, M. R. Hantehzadeh, Study of Nanostructure and Optical Properties of Ti₂AlN Thin Films Prepared Using DC Magnetron Sputtering in Different Thickness, 4th international Conference on Nanostructures (ICNS), Kish Island, Iran, 12-14th March 2012. (Poster)

F. Haghayeghi, A. R. Hojabri, **K. Khojier**, An investigation of nanostructure of Molybdenum Nitride thin films as function of annealing temperature, 1st National conference on Nano material and Nanotechnology, Shahrud, Iran 2012. (Poster)

K. Khojier, H. Savaloni, Resistivity, optical band gap and nanostructure of copper oxide thin film as function of annealing temperature, 6th International conference on surface, coating and Nanostructured Material (NANOSMAT), Krakow, Poland, 17-20th October 2011. (Poster)

A. Behjou, **K. Khojier**, An Investigation of Photocatalytic Activity of Titanium Dioxide Thin Films, National Conference of Chemistry, Shahr reza, Iran, 2010. (Poster)

K. Khojier, A. A. Banimahd, Influence of annealing temperature on band gap of Titanium Oxide thin films, 1st National conference on Nano Science and Technology, Yazd, Iran 2010. (Poster)

K. Khojier, H. Savaloni, An Investigation of the Nano-structure and Electrical Properties of Annealed Ti Thin Films as a Function of Film Thickness, Regional Conference of physics, chalous, Iran, 2009. (Oral)

K. Khojier, M. M. Pourpasha, Mathematical modeling of DC electrical properties of Titanium Oxide thin films, Regional Conference of physics, chalous, Iran, 2009. (Oral)

K. Khojier, Mathematic model of electrical properties of titanium thin film as function of thickness, Regional Conference of Mathematic and Applications, Rasht, Iran, 2008. (Poster)

Research proposal (Performed):

Improvement of sensing properties of ZnO Thin Films for H₂ gas detection by modifying of annealing conditions, Islamic Azad University, 2015.

An investigation of mechanical properties and Corrosion resistance of sputtered ZrO₂ nano-coatings: Application in dentistry, Chalous branch, Islamic Azad University, 2014.

Preparation and investigation of chromium nitride nano-structures as cryogenic temperature sensors, Chalous branch, Islamic Azad University, 2013.

Production and investigation of molybdenum oxide nano-structures as gas sensors, Chalous branch, Islamic Azad University, 2013.

Growth and investigation of properties of Zinc oxide quantum wire (nano wire), Chalous branch, Islamic Azad University, 2012.

Investigation of temperature effect on Cu₃N nanostructures stability for used in optical memory and integrated circuit, Chalous branch, Islamic Azad University, 2012.

Investigation of Influence of thickness on nanostructure and electrical properties of copper thin films, Chalous branch, Islamic Azad University, 2011.

Investigation and growth of Zinc oxide nanowire, Chalous branch, Islamic Azad University, 2011.

Investigation of annealing temperature effect on band gap of titanium oxide thin films, Chalous branch, Islamic Azad University, 2011.

An investigation of nanostructure and corrosion resistance of titanium nitride thin films, Chalous branch, Islamic Azad University, 2010.

Investigation of Influence of Deposition Factors in photocatalysis response of Titanium Oxide Thin Film, Chalous branch, Islamic Azad University, 2010.

Influence of annealing temperature on nanostructure of Titanium oxide thin films, Chalous branch, Islamic Azad University, 2009.

Influence of energy and dose of implanted nitrogen ion in electrical properties of titanium thin films, Chalous branch, Islamic Azad University, 2009.

An investigation of nanostructure and electrical properties of titanium thin films as function of substrate temperature, Chalous branch, Islamic Azad University, 2008.

Supervision:

Ph.D.

Investigation of Sensing Properties of α -Fe₂O₃ Thin Films to Toxic Gases and Alcohols, Central Tehran branch, Islamic Azad University, Iran, September 2017.

Study of Preparation Method Effect on Electrical and Methane and Hydrogen Gases Sensing Properties of ZnO thin films, Central Tehran branch, Islamic Azad University, Iran, September 2017.

A Study of the Influence of Deposition Angle and Activator Layer on Sensing Properties of WO₃ Thin Films, Shomal branch, Islamic Azad University, Iran, In process.

M. SC.

A review study on Biosensors, Chalous branch, Islamic Azad University, Iran, 2016.

A review study on Metal oxide semiconductor gas sensors, Chalous branch, Islamic Azad University, Iran, 2016.

An investigation of influence of nanostructure and surface morphology on humidity sensitivity of WO₃ thin films, Central Tehran branch, Islamic Azad University, Iran, 2015.

A Study of the effect of time-temperature gradient annealing on Porosity and NO₂ sensitivity of WO₃ thin films, Central Tehran branch, Islamic Azad University, Iran, 2015.

A Study of Nano-structure, Mechanical and Tribological Properties of Sputtered CrN/Cr/Al 5083 Thin Films as a Function of Substrate Temperature and Biasing, Central Tehran branch, Islamic Azad University, Iran, 2014.

A study of influence of oxygen partial pressure on nanostructure and NO gas detection sensitivity of molybdenum oxide thin films, Central Tehran branch, Islamic Azad University, Iran, 2014.

A Study of Nano-structure and Mechanical Properties of Chromium Nitride Thin Films as a Function of Sputtering Conditions, Central Tehran branch, Islamic Azad University, Iran, 2013.

A study of nanostructure and morphology of Zirconium oxide thin films prepared by post-annealing of Zr thin films, Central Tehran branch, Islamic Azad University, Iran, 2013.

A study of electrical and optical properties of Zirconium oxide thin films as a function of annealing temperature, Central Tehran branch, Islamic Azad University, Iran, 2013.

An investigation of mechanical properties of titanium nitride thin films prepared by DC magnetron sputtering method as a function of argon gas flow, Central Tehran branch, Islamic Azad University, Iran, 2013.

An investigation of electrical properties of titanium nitride thin films prepared by DC magnetron sputtering method as a function of argon gas flow, Central Tehran branch, Islamic Azad University, Iran, 2013.

A Study of zinc oxide nanowires as function of growth and annealing conditions, Central Tehran branch, Islamic Azad University, Iran, 2013.

An Investigation of annealing temperature effect on nanostructure and mechanical properties of molybdenum nitride thin films, Central Tehran branch, Islamic Azad University, Iran, 2012.

An Investigation of annealing temperature effect on nanostructure of molybdenum oxide thin films, Central Tehran branch, Islamic Azad University, Iran, 2012.

A Study of nano structure and mechanical properties of chromium Oxide thin films as function of preparation conditions, Central Tehran branch, Islamic Azad University, Iran, 2012.

Annealing conditions effect on nanostructure and electrical properties of Copper oxide thin films, Central Tehran branch, Islamic Azad University, Iran, 2011.

and

B. SC.

Contact between Solid surfaces, Chalous branch, Islamic Azad University, Iran, 2007.

Measurement methods of wear and firiction, Chalous branch, Islamic Azad University, Iran, 2007.

Modeling of electrical properties of Ti thin films, Chalous branch, Islamic Azad University, Iran, 2007.

and

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