



Morteza Ganjaee

Associate Professor

Faculty: Surface Coating and Novel Technologies
Faculty

Department: Department of Nano Materials and Nano
Coatings

Education			
Degree	Graduated in	Major	University
BSc	2004	Polymer Engineering-Surface Coatings	Amirkabir University of Technology-Tehran Polytechnic
MSc	2006	Polymer Engineering-Surface Coatings	Amirkabir University of Technology-Tehran Polytechnic
Doctoral	2010	Polymer Engineering-Surface Coatings	Amirkabir University of Technology-Tehran Polytechnic

Work Experience

- 2011-Now

Faculty of Institute for Color Science and Technology (ICST), Department of Nanomaterials and Nanocoatings

- 2016-Now

Head of Supervision and Evaluation Office- ICST

- 2016-Now

Member of the Administration Council- ICST

- 2016-Now

Member of the Technical Committee of Detecting Research Misdeeds- ICST

- 2014-2015

Head of Public & International Relations Organization- ICST

- 2012-2016

Director of the Secretariat of "The National Coordinating Center for Color Science and Technology"

- 2012-2016

Secretary the general of "The National Coordinating Center for Color Science and Technology"

- 2009-2010

Hamburg University (Germany) Guest Scientist

Working with Prof. Dr. Norbert Striebeck on SAXS and WAXS experiments in DESY (Deutsches Elektronen-Synchrotron) and other academic activities in Hamburg University

- 2008-2009

Part-time Professor of Azad University of Iran Mahshahr Branch

Subjects Taught

- Colloids
- Surface Physical Chemistry

Executions And Scientific Activities

1. **MSc Thesis:** "Designing an inhibitor-impregnated carbon nanostructure to develop an epoxy-based nanocomposite coating with improved cathodic disbondment resistance", Supervisor, Apr 2019- Apr 2021.
2. **MSc Thesis:** "Toughening of an epoxy-nanocomposite coating using modified Silanized-PAMAM dendrimers/Graphene Oxide", Advisor, Feb 2019- Feb 2021.
3. **MSc Thesis:** "Toughening of an epoxy-nanocomposite coating using modified Silanized-PAMAM dendrimers/Nanoclay", Co-Supervisor, Feb 2019- Feb 2021.
4. **MSc Thesis:** "Chemical surface treatment of a Magnesium alloy by a nanostructure Praseodymium-based conversion coating and its enhancement on the performance

of a polyurethane coating”, Advisor, Jul 2017- July 2019.

5. **MSc Thesis:** “Surface treatment of carbon-based nanoparticles using PAMAM dendrimers and its effect on the performance of an epoxy-based nanocomposite coating”, Co-Supervisor, Oct 2018- Oct 2020.
6. **MSc Thesis:** “Developing an Epoxy-Phenolic Nanocomposite Coating based on Nano Graphene Oxide- Nanoclay: Investigating the synergistic effect on the improvement of physical-mechanical and corrosion resistance properties”, Supervisor, Jul 2017- Apr 2019.
7. **MSc Thesis:** “Charactering the physical-mechanical properties and corrosion resistance of an epoxy-based nanocomposite coating containing hyperbranched modified-graphene oxide nanoparticles”, Supervisor, Feb 2017- Feb 2019.
8. **MSc Thesis:** “The Effect of Surface Modification of Hollow Glass Sphere and Nano Silica Particles on the Final Properties of Heat Insulation Materials”, Co-Supervisor, March 2013-March 2015.
9. **MSc Thesis:** “Preparation and Properties Study of an Automotive UV-curable Pigmented Coating Containing Nano Structure Dendritic Polymers”, Co-Supervisor, March 2013-March 2015.
10. **MSc Thesis:** “The Investigation of the Properties of UV-Curable Inkjet Inks Containing Nano Structure Dendritic Polymers”, Advisor, December 2013-December 2015.
11. **MSc Thesis:** “Investigation on the effect of Nano Zinc Oxide Particles on the Physical Properties of Polyurethane Clear Coat on Wooden Surfaces”, Advisor, September 2012-September 2014.
12. **MSc Thesis:** “Investigating the Effect of Nano Dendritic Polymers on Curing Behavior and Final Properties of a UV-curable Coating Containing CNT and Graphene”, Co-Supervisor, February 2012-February 2014.
13. **MSc Thesis:** “Comparing the performance of an Anticorrosive Sol-gel Nanocoating on Various Substrates”, Co-supervisor, March 2012-March 2013.
14. **PhD Thesis:** “Designing an epoxy-silicone self-stratifying nanocomposite coatings”, Supervisor, September 2017- Now
15. **PhD Thesis:** “Designing a self-healing anti-corrosion Polyisobutylene-based field-joint coating for buried pipeline”, Co-Supervisor, Sep 2018- Now.
16. **PhD Thesis:** “Synthesis of Carbon-coated Cerium oxide nanoparticles for improving antistatic and anticorrosion properties of an epoxy nanocomposite coating”, Advisor, Sep 2018- Now

PhD Thesis: “Studying the Physical-Mechanical Behavior of PDMS-based Silicon Elastomer

Course Topics

- Physical chemistry of dispersed systems
- Surface treatment of nanoparticles
- Particles dispersion
- Adhesion
- Nanocomposite coatings and viscoelastic behavior
- Physical-mechanical properties of coatings

Workshops

- Protective coatings used in transportation lines
- Industrial coatings and inspection methods

Papers in Conferences

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1. Morteza Ganjaee ,A Novel Hyperbranched Polymer-Modified Clay/Epoxy Nanocomposite: Physical-mechanical Properties Investigation ,The 6th International Color & Coating Congress ,Tehran ,2015/11/10.
 2. Morteza Ganjaee ,The effect of hyperbranched polymer on the curing behavior of uv curable inkjet ink ,The 6th International Color & Coating Congress ,2015/11/10.
 3. Morteza Ganjaee ,Relating Performance and Structure of Advanced Nanocomposites by New Methods in Time-resolved X-Ray Scattering ,The Nineteenth International Conference on Processing and Fabrication of Advanced Materials ,Auckland ,2011/01.
 4. Morteza Ganjaee ,Functional Block Copolymers as Compatibilizers for Nanoclays in Polypropylene Nanocomposites ,Nordic Polymer Days ,Stockholm ,2011.
 5. Morteza Ganjaee ,High-throughput procedures for the study of structure and its evolution in soft materials with fiber symmetry ,VIII International Conference on X-Ray Investigations of Polymer Structure XIPS ,Wroclaw ,2010/12.
 6. Morteza Ganjaee ,In-situ monitoring the transient nanostructure of polypropylene/MWCNT nanocomposite under uniaxial load-cycling by SAXS ,VIII International Conference on X-Ray Investigations of Polymer Structure XIPS ,Wroclaw ,2010/12.
 7. Morteza Ganjaee ,Structure Gradients in injection molded PP and PP with CNT ,NANOTOUGH F2F-Meeting ,Rome ,2010/10.
 8. Morteza Ganjaee ,Structure evolution of Polypropylene/MWCNT nanocomposites under uniaxial deformation monitored by SAXS ,4th International Conference on "Polymeric Materials" ,Halle ,2010/09.
 9. Morteza Ganjaee ,Nanostructure Evolution of Thermoplastic Polyurethanes Under Uniaxial Deformation Monitored by SAXS ,PPS-26 The Polymer Processing Society 26th Annual Meeting ,Banff ,2010/040.

Papers in Journals

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1. S Khamseh , E Alibakhshi , B Ramezanzadeh , MG Sari,A tailored pulsed substrate bias voltage deposited (aC: Nb) thin-film coating on GTD-450 stainless steel: Enhancing mechanical and corrosion

protection characteristics, *Chemical Engineering Journal*, 2021 01 01.

2. Morteza Ganjaee Sari ,& Bahram Ramezanzadeh, Epoxy composite coating corrosion protection properties reinforcement through the addition of hydroxyl-terminated hyperbranched polyamide non-covalently assembled graphene oxide platforms, *Construction and Building Materials*, 2020/02/17.
3. Layaa Ghazi Moradi , Morteza Ganjaee Sari , Bahram Ramezanzadeh, Polyester-amide hyperbranched polymer as an interfacial modifier for graphene oxide nanosheets: Mechanistic approach in an epoxy nanocomposite coating, *Progress in Organic Coatings*, 2020 5 1.
4. Developing a Graphite like Carbon: Niobium thin film on GTD-450 stainless steel substrate, *Applied Surface Science*, 2020 5 1.
5. Morteza Ganjaee Sari, Mina Abdolmaleki, Mehran Rostami, Bahram Ramezanzadeh, Nanoclay dispersion and colloidal stability improvement in phenol novolac epoxy composite via graphene oxide for the achievement of superior corrosion protection performance, *Corrosion Science*, 2020 09 06.
6. Mina Abdolmaleki, Morteza Ganjaee Sari, Mehran Rostami, Bahram Ramezanzadeh, Graphene oxide nanoflakes as an efficient dispersing agent for nanoclay lamellae in an epoxy-phenolic nanocomposite coating: Mechanistic approach, *Composites Science and Technology*, Vol. 184, 2019/11/10.
7. Mahsa Saket , Reza Amini , Pooneh Kardar , Morteza Ganjaee, The chemical treatment of the AZ31-Magnesium alloy surface by a high-performance corrosion protective praseodymium (III)-based film, *Materials Chemistry and Physics*, 2021 02 15.
8. Maryam Lotfi , Alireza Azizi , Hossein Yari , Morteza Ganjaee Sari, Aminosilane-co-Graphene Oxide/Epoxy nanocomposite coating: An approach towards toughness and viscoelastic properties enhancement, *Progress in Organic Coatings*, 2021 02 01.
9. Mohammad Ramezanzadeh , Bahram Ramezanzadeh , Morteza Ganjaee Sari , Mohammad Reza Saeb, Corrosion resistance of epoxy coating on mild steel through polyamidoamine dendrimer-covalently functionalized graphene oxide nanosheets, *Journal of Industrial and Engineering Chemistry*, 2020/02/25.
10. Norbert Stribeck, Ahmad Zeinolebadi, Morteza Ganjaee Sari, Stephan Botta, Katja Jankova, Søren Hvilsted, Aleksey Drozdov, Rasmus Klitkou, Catalina ,& Gabriela Potarniche, Jesper deClaville Christiansen, Valentina Ermini, Properties and semicrystalline structure evolution of polypropylene/montmorillonite nanocomposites under mechanical load, *Macromolecules*, 2011/12/20.
11. Morteza Ganjaee Sari, Mohammadreza Shamshiri, Bahram Ramezanzadeh, Fabricating an epoxy composite coating with enhanced corrosion resistance through impregnation of functionalized graphene oxide-co-montmorillonite Nanoplatelet, *Corrosion Science*, 2017/12/1.
12. M Ganjaee Sari, Bahram Ramezanzadeh, Mohammad Shahbazi, Amir Saeid Pakdel, Influence of nanoclay particles modification by polyester-amide hyperbranched polymer on the corrosion protective performance of the epoxy nanocomposite, *Corrosion Science*, 2015/3/1.
13. Morteza Ganjaee Sari, Norbert Stribeck, Siamak Moradian, Ahmad Zeinolebadi, Saeed Bastani, Stephan Botta, Correlation of nanostructural parameters and macromechanical behaviour of hyperbranched-modified polypropylene using time-resolved small-angle X-ray scattering measurements, *Polymer International*, 2013/7/1.
14. Morteza Ganjaee Sari, Norbert Stribeck, Siamak Moradian, Ahmad Zeinolebadi, Saeed Bastani, Stephan Botta, Ehsan Bakhshandeh, Dynamic mechanical behavior and nanostructure morphology of hyperbranched-modified polypropylene blends, *Polymer International*, 2014/2/1.
15. Ahmad Zeinolebadi, Norbert Stribeck, Morteza Ganjaee-Sari, Nadya Dencheva, Zlatan Denchev, Stephan Botta, Nanostructure evolution mechanisms during slow load-cycling of oriented HDPE/PA microfibrillar blends as a function of composition, *Macromolecular Materials and Engineering*, 2012/11/01.
16. Norbert Stribeck, Ahmad Zeinolebadi, Morteza Ganjaee Sari, Achim Frick, Marzena Mikoszek, Stephan Botta, Structure and Mechanical Properties of an Injection-Molded Thermoplastic Polyurethane as a Function of Melt Temperature, *Macromolecular Chemistry and Physics*, 2011/10/17.
17. Ahmad Zeinolebadi, Norbert Stribeck, Zina Vuluga, Christoph Schloen, Stephan Botta, Morteza

- Ganjaee Sari, SAXS investigation of structure–property relationship of polypropylene/montmorillonite composites during load cycling, *Polymers for Advanced Technologies*, 2013/8/1.
18. Farbod Mirshahi, Saeed Bastani, Morteza Ganjaee Sari, Studying the effect of hyperbranched polymer modification on the kinetics of curing reactions and physical/mechanical properties of UV-curable coatings, *Progress in Organic Coatings*, 2016/1/1.
 19. Morteza Ganjaee Sari, Mohammad Shahbazi, Amir Saeid Pakdel, Developing a Novel Hyperbranched Polymer-Modified PP/Clay Nanocomposite: Characteristics Investigation, *Polymer-Plastics Technology and Engineering*, 2014/10/30.
 20. B Ramezanzadeh, M Shamshiri, M Ganjaee Sari, Designing a multi-functionalized clay lamellar-co-graphene oxide nanosheet system: An inventive approach to enhance mechanical characteristics of the corresponding epoxy-based nanocomposite coating, *Progress in Organic Coatings*, 2018/3/1.
 21. Morteza Ganjaee Sari, Siamak Moradian, Saeed Bastani, Norbert Stribeck, Modification of poly(propylene) by grafted polyester-amide-based dendritic nanostructures with the aim of improving its dyeability, *Journal of Applied Polymer Science*, 2012/5/5.
 22. Sarah Sobhani, Saeed Bastani, Ulf W Gedde, Morteza Ganjaee Sari, Bahram Ramezanzadeh, Network formation and thermal stability enhancement in evolutionary crosslinked PDMS elastomers with sol-gel-formed silica nanoparticles: Comparativeness between as-received ..., *Progress in Organic Coatings*, 2017/12/1.
 23. Morteza Ganjaee Sari, Bahram Ramezanzadeh, Amir Saeid Pakdel, Mohammad Shahbazi, A physico-mechanical investigation of a novel hyperbranched polymer-modified clay/epoxy nanocomposite coating, *Progress in Organic Coatings*, 2016/10/1.
 24. Samane Jafarifard, Saeed Bastani, Atasheh Soleimani, & Gorgani, Morteza Ganjaee Sari, The chemorheological behavior of an acrylic based UV-curable inkjet ink: Effect of surface chemistry for hyperbranched polymers, *Progress in Organic Coatings*, 2016/1/1.
 25. Mohammad Reza Derakhshandeh, Mohammad Javad Eshraghi, Mohammad Mahdi Hadavi, Masoumeh Javaheri, Sarah Khamseh, Morteza Ganjaee Sari, Payam Zarrintaj, Mohammad Reza Saeb, Masoud Mozafari, Diamond-like carbon thin films prepared by pulsed-DC PE-CVD for biomedical applications, *Surface Innovations*, 2018/3/21.
 26. Ehsan Bakhshandeh, Sarah Sobhani, Ali Jannesari, Amir Saeid Pakdel, Morteza Ganjaee Sari, Mohammad Reza Saeb, Structure–property relationship in epoxy-silica hybrid nanocomposites: The role of organic solvent in achieving silica domains, *Journal of Vinyl and Additive Technology*, 2015/12/01.
 27. Mohammad Reza Derakhshandeh, Mohammad Javad Eshraghi, Masoumeh Javaheri, Sara Khamseh, Morteza Ganjaee Sari, Payam Zarrintaj, Mohammad Reza Saeb, Masoud Mozafari, Diamond-like carbon-deposited films: a new class of biocorrosion protective coatings, *Surface Innovations*, 2018/5/15.
 28. Samira Ghiyasi, Morteza Ganjaee Sari, Meisam Shabani, Mohsen Hajibeygi, Payam Zarrintaj, Marco Rallini, Luigi Torre, Debora Puglia, Henri Vahabi, Maryam Jouyandeh, Fouad Laoutid, Seyed Mohammad Reza Paran, Mohammad Reza Saeb, Hyperbranched poly(ethyleneimine) physically attached to silica nanoparticles to facilitate curing of epoxy nanocomposite coatings, *Progress in Organic Coatings*, 2018/7/1.
 29. Morteza Ganjaee Sari, Henri Vahabi, Xavier Gabrion, Pascal Laheurte, Payam Zarrintaj, Krzysztof Formela, Mohammad Reza Saeb, An attempt to mechanistically explain the viscoelastic behavior of transparent epoxy/starch-modified ZnO nanocomposite coatings, *Progress in Organic Coatings*, 2018/6/1.
 30. Morteza Ganjaee Sari, Mohammad Reza Saeb, Meisam Shabani, Mahroo Khaleghi, Henri Vahabi, Christelle Vagner, Payam Zarrintaj, Reza Khalili, Seyed Mohammad Reza Paran, Bahram Ramezanzadeh, Masoud Mozafari, Epoxy/starch-modified nano-zinc oxide transparent nanocomposite coatings: a showcase of superior curing behavior, *Progress in Organic Coatings*, 2018/2/1.
 31. M. Ganjaee, M. Saeed Mohseni, Ezeddin Mohajerani, Y. Aghili, Siamak Moradian, Preparation of organically modified hybrid nanocomposites for optical applications, *Journal of Optoelectronics and*

Advanced Materials,2008/03/01.

32. Hadi Rastin, Mohammad Reza Saeb, Milad Nonahal, Meisam Shabanian, Henri Vahabi, Krzysztof Formela, Xavier Gabrion, Farzad Seidi, Payam Zarrintaj, Morteza Ganjaee Sari, Pascal Laheurte, Transparent nanocomposite coatings based on epoxy and layered double hydroxide: nonisothermal cure kinetics and viscoelastic behavior assessments, Progress in Organic Coatings, 2017/12/1.
33. Milad Nonahal, Hadi Rastin, Mohammad Reza Saeb, Morteza Ganjaee Sari, Mojtaba Hamedian Moghadam, Payam Zarrintaj, Bahram Ramezanzadeh, Epoxy/PAMAM dendrimer-modified graphene oxide nanocomposite coatings: Nonisothermal cure kinetics study, Progress in Organic Coatings, 2018/1/1.
34. Elham Yarahmadi, Khadijeh Didehban, Morteza Ganjaee Sari, Mohammad Reza Saeb, Meisam Shabanian, Fezzeh Aryanasab, Payam Zarrintaj, Seyed Mohammad Reza Paran, Masoud Mozafari, Marco Rallini, Debora Puglia, Development and curing potential of epoxy/starch-functionalized graphene oxide nanocomposite coatings, Progress in Organic Coatings, 2018/6/1.
35. Layaa Ghazi Morai, Morteza Ganjaee, Bahram Ramezanzadeh. Hyperbranched Polymers-Modified Epoxy-based Nanocomposite Coatings. Journal of Studies in Color World. ۲۰۱۷/۱۱/۲۲.
36. Meysam Roshan, Saeed Bastani, Morteza Ganjaee. Surface modification and characterization of polyester amide hyperbranched polymer with ۳-mercaptopropyl trimethoxysilane from sol-gel method. Journal of Color Science and Technology. ۲۰۱۷/۰۵/۲۲.
37. Samane Jafarifard, Saeed Bastani, Atasheh Soleimani Gorgani, Morteza Ganjaee Sari. Effect of Hyperbranched Polymers on Curing Behavior of UV Curable Inks in Inkjet Printing. Iranian Journal of Polymer Science and Technology. ۲۰۱۶/۰۸/۲۲.
38. Saeed Khojasteh, Mohammad Ghofrani, Morteza Ganjaee. The effect of adding zinc oxide nanoparticles on color change and adhesion strength of polyurethane coating on wood surface. Iranian Journal of Wood and Paper Science Research. ۲۰۱۶/۰۲/۲۰.
39. Samane Jafarifard, Saeed Bastani, Atasheh Soleimani Gorgani, Morteza Ganjaee Sari. Dendritic Polymers: Physical Properties and Their Application in Polymer Blends. Polymerization. ۲۰۱۵/۱۱/۲۲.
40. Farbod Mirshahi, Saeed Bastani, Morteza Ganjaee. Surface Modification of Polyesteramide-Based Hyperbranched Polymer Using Acrylic Acid and Study of its Impact on the Viscosity of TMPTA. Journal of Color Science & Technology. ۲۰۱۵/۰۲/۲۰.
41. Samane Jafarifard, Saeed Bastani, Atasheh Soleimani Gorgani, Morteza Ganjaee Sari. A Study on modifying a hyperbranched polymer with hydroxyl end-groups using saturated fatty acid and investigating its effects on the rheological behavior of epoxy di-acrylate oligomers. Journal of Advanced Materials & Novel Coatings. ۲۰۱۴/۰۸/۲۳.
42. Samane Jafarifard, Saeed Bastani, Atasheh Soleimani Gorgani, Morteza Ganjaee Sari. A Study of Radiation-curable Inks in Ink-jet Printing. Journal of Studies in Color World. ۲۰۱۴/۰۴/۲۱.
43. Morteza Ganjaee, Siamak Moradian, Saeed Bastani. Dendritic Polymers: Dye-ability Enhancers. Journal of Studies in Color World. ۲۰۱۴/۰۲/۲۰.
44. Morteza Ganjaee, Mohammad Shahbazi, Amirsaed Pakdel. Polypropylene Nanocomposite based on Nanoclay and Polyester-amide Hyperbranched Polymer: Development and Characteristics Investigation. Journal of Color Science & Technology. ۲۰۱۴/۰۲/۲۰.
45. M. Ganjaee, M. Saeed Mohseni, Ezeddin Mohajerani, Y. Aghili, Siamak Moradian. Synthesis and Characterization of Organic-Inorganic Polyacrylate-Silica Nanocomposite. Iranian Journal of Polymer Science and Technology. ۲۰۰۷/۱۱/۰۱.
46. Ali Ebrahimi Jahromi, Ahmad Arefazar, Omid Moini Jazani, Morteza Ganjaee Sari, Mohammad Reza Saeb, Mohammad Salehi, Taguchi-based analysis of polyamide 6/acrylonitrile-butadiene rubber/nanoclay nanocomposites: The role of processing variables, Journal of Applied Polymer Science, 2013/10/15.