



Zahra Ranjbar

Professor

Faculty: Surface Coating and Novel Technologies
Faculty

Department: Department of Surface Coating and
Corrosion

Prof. Zahra Ranjbar is currently director of the Institute for Color Science and Technology (ICST). She is Prof. in Coatings Science and Technology. She earned a PhD in polymer engineering at the University of Amirkabir, Tehran in 2003. He has had 21 years of experience in research and development in the coatings industry at ICST. Her fields of interest include automotive coatings, coatings for energy saving and electrochemistry applied to the study of corrosion mechanisms and protective coatings, polymer chemistry and mechanical properties, adhesion and stresses in coatings. She has been Director of Surface Coatings and novel technologies Department from 2008 till 2013. She has two published books named paint defects and automotive paint and coatings. She published more than 65 international scientific papers in the field of coatings.

Education

Degree	Graduated in	Major	University
BSc	1992	Textile engineering	Amirkabir University of Technology (Polytechnic of Tehran)
MSc	1995	Polyme and Coatings engineering	Amirkabir University of Technology (Polytechnic of Tehran)
Ph.D	2003	Polyme and Coatings engineering	Amirkabir University of Technology (Polytechnic of Tehran)

Employment Information

Faculty/Department	Position/Rank	Employment Type	Cooperation Type	Grade
Institute for Color Science and Technology	Institute Director	Tenured	Full Time	24

Work Experience

- 2015-Present- Director of Institute for Color Science and Technology, Tehran- Iran
- 2013- 2015- chair of center of excellence in color science and technology, Institute for Color science and technology(ICST), Tehran- Iran
- 2013- present - full Professor in polymer Engineering- Coatings science and technology at ICST
- 2009-2017- Director of coatings and novel technology faculty, Institute for Color science and technology(ICST), Tehran- Iran
- 2006-2015- Chair of the Surface Coatings and Corrosion Department, Institute for Color science and technology, Tehran- Iran
- 2007- Chairperson of first international conference on automotive paints and coatings, Tehran-Iran
- 1996- present – Member of scientific board at ICST

Awards

- Excellence awards for Women scientist, 2017
- National Excellence Awards for university professors, 2014
- Institute Excellence Awards for academic staffs, ICST, 2018, 2017, 2007 and 2008
- National award researchers, 2007

Subjects Taught

- Advances in corrosion protection by paints and coatings(Graduate Course), Fall 2008-2009-present
- Degradation and failure analysis of paints and Coatings (Graduate Course), Fall 2010

Executions And Scientific Activities

- Senior Researcher of the Paint and organic Coatings at ICST
- Member of the editorial board of journal of [progress](#) in color, colorants and coatings, 2008-present.
- Member of the editorial board of the journal of color science and technology, 2007-present
- Associate Editor of Baspar magazine(1996- present)
- Chairperson of first international conference on automotive paints and coatings, Tehran-Iran,2007
- Frequent referee of journal papers
- Peer reviewer of research proposals to the National Science Foundation, Iranian Environmental Protection Agency; Strategic Research & Development Program
- Frequent referee of research graduate thesis

- Member of board of Selection and Formation of Coatings and Related Terms, Persian academy, Tehran-Iran (2004-2009).
- Frequent Workshop presenter on the automotive and protective coatings (2000-present)
- Key note lecturer for the 5th National Conference on Traffic paint and Road Safety, Tehran, Iran, 2018
- Key note lecturer for the ICC2017. International conference on colour, colourant and coatings, Tehran-Iran, 2017
- Key note lecturer for the IPST2016. International conference on polymer science and technology, Tehran-Iran, 2016
- Key note lecturer for the ICTC2014. International conference on transport coatings, Tehran-Iran, 2014
- Key note lecturer for the ICC2013. International conference on color science and technology, Esfahan-Iran, 2013
- Key note lecturer for the 1st conference on Electrophoresis, Tehran-Iran, 2012
- Key note lecturer for the 2nd. International conference on automotive paints and coatings, Tehran-Iran, 2009
- Key note lecturer for the 2nd. national seminar on Traffic paints and markings, Tehran-Iran, 2008
- Iran Color Industry Association, Tehran-Iran (1997-present).
- Oil & Color Chemists Association (OCCA), England (1999-2003).
- Federation of Societies for Coatings Technology (FSCT), USA (1999-2001).

Journal Membership

PCCC

JCST

Papers in Conferences

1. شادی منتظری , زهرا رنجبر , سعید رستگار, بررسی تاثیر دوام چسبندگی بر رفتار ضد خوردگی پوششهای اپوکسی به نوزدهمین کنگره ملی خوردگی, ۲۵ و ۱۳۹۹, (EIS) روش طیف سنجی امپدانس الکتروشیمیایی.
2. معرفی روش سنتز ساده نقاط کربنی فلوروسنت و بررسی سمیت آنها, همایش ملی مواد رنگزا, محیط زیست و توسعه. پایدار, ۲۰۱۸, ۱۲ ۵۵.
3. استخراج ماده رنگزای فلوروسنت از پیش ماده فنولی گیاهی, همایش ملی مواد رنگزا, محیط زیست و توسعه. پایدار, ۲۰۱۸, ۱۲ ۵۵.
4. زهرا رنجبر, پوشش های ترافیکی و محیط زیست, پنجمین همایش ملی رنگ های ترافیکی, خط کشی و ایمنی راهها و معابر, ۲۰۱۸, ۱۲ ۴۰.
5. M. Bakhtiari , Z. Ranjbar , H. Yari ,Hydrophobicity of the Modified Cerium Oxide Nanoparticles ,The 8th Internatinal Color & CoatingCongress (ICCC2021) ,Oct2021.
6. Ra'na Rafiei, Zahra Ranjbar , Hossein Yari ,Highly Durable Superhydrophobicity by Tuning Coating Preparation process ,The 8th Internatinal Color & CoatingCongress (ICCC2021) ,Oct2021.

7. M. Haghi, Z. Ranjbar, H. Kazemian, Electrodeposition behavior and Yellowing resistance of silanol modified acrylic electrocoating, The 8th International Color & Coating Congress (ICCC2021), Oct 2021.
8. M. Bakhtiari, Z. Ranjbar, H. Yari, Durability enhancement of superhydrophobic silica coating by Ethylurea, The 8th International Color & Coating Congress (ICCC2021), Oct 2021.
9. D. Pourhadadi, & Z. Ranjbar, Lead toxicity in architectural paints, The 8th International Color & Coating Congress (ICCC2021), Oct 2021.
10. Ranjbar, Z., Montazeri, Sh., and Kaviani, M, Thermal behavior of a Hollow Glass Microspheres Composite Coating, The 7th International Conference on Composites: Characterization, Fabrication and Application (CCFA-7), 7 12 2020.
11. Zahra Ashrafi Tafreshi, Neda Esfandiari, Zahra Ranjbar, Optimization of the synthesis chitosan fluorescent carbon dots for cellular imaging, 21th National & 9th International Congress on Biology, 2020.
12. Ra'na Rafiei Hashjin, Zahra Ranjbar, Hossein Yari, Theoretical and Experimental Investigation of Electrical Conductivity Behavior of Epoxy/ Graphene Coatings, European Technical Coatings Congress (ETCC 2018), 2018 06 26.
13. European Technical Coatings Congress (ETCC 2018), Evaluating The Effect of Graphene Dispersion on Thermal Conductivity of Waterborne Acrylic Coats B. Nazari, Z. Ranjbar, European Technical Coatings Congress (ETCC 2018), 2018 06 26.
14. Amir Rezvani Moghaddam, Milad Kamkar, Zahra Ranjbar, Uttandaraman Sundararaj, Ali Jannesari, Effect of low-functionalized graphene oxide on the rheological and electrical properties of water-based epoxy coatings, 13th International Seminar on Polymer Science and Technology (ISPST2018), 2018 06 26.
15. Zahra Ranjbar, Antiviral Coatings, 14th International Seminar on Polymer Science and Technology (ISPST 2020), 12 11 2020.

Papers in Journals

1. Elham Pakzad, Zahra Ranjbar, Mehdi Ghahari, Synthesis of octahedral copper chromite spinel for spectrally selective absorber (SSA) coatings, Progress in Organic Coatings, 2019 03 13.
2. Ra'Na Rafiei Hashjin, Zahra Ranjbar, Hossein Yari, Modeling of electrical conductive graphene filled epoxy coatings, Progress in Organic Coatings, 125, 2018, مجلد.
3. azdani و Ahmadabadi H, Rastegar S, Ranjbar Z, Modeling physico-mechanical properties of an individual photopolymerization-induced urethane-based microgel particle, Polymer, 2015 05 01.
4. امیررضا نامور آقمقانی ۱ امیر رضوانی مقدم ۱، ۲ مهدی سلامی کلجاهی ۱، ۲ زهرا رنجبر، مطالعه تأثیر تشکیل ناحیه میانفازی بر روی خواص الکتریکی پوششهای اپوکسی حاوی نانوصفحات اکسید گرافن احیا شده JCST, 02 02 1402.
5. Zahra Fatahi, Neda Esfandiari, Zahra Ranjbar, A New Anti-counterfeiting Feature Relying on Invisible Non-toxic Fluorescent Carbon Dots, Journal of Analysis and Testing, 4 11 2020.
6. M. Khodadadi Yazdi, B. Noorbakhsh, B. Nazari, Z. Ranjbar, Preparation and EMI shielding performance of epoxy non-metallic conductive fillers nano-composite, Progress in Organic Coatings, Vol. 145, 25 03 2020.
7. Designing of a pH-activatable carbon dots as a luminescent nanoprobe for recognizing folate receptor-positive cancer cells, Nanotechnology, 24 12 2021.
8. Z. Ranjbar a b, D. Pourhadadi a, Sh. Montazeri a, M. Roshanzamir Modaberi, Lead compounds in paint and coatings: A review of regulations and latest updates, Progress in Organic Coatings, 2022.
9. Amir Rezvani, & Moghaddam a, Zahra Ranjbar b, Uttandaraman Sundararaj c, Ali Jannesari b, Amir Dashtdar a, Edge and basal functionalized graphene oxide nanosheets: Two different behavior in improving electrical conductivity of epoxy nanocomposite coatings, Progress in Organic Coatings, 2022.
10. Ra'na Rafiei Hashjin a, Zahra Ranjbar a b, Hossein Yari a, Gelareh Momen, Tuning up sol-gel process to achieve highly durable superhydrophobic coating, Progress in Organic Coatings, 2022.
11. Khosro Emamgholi a, Shahram Moradi Dehaghi a, Zahra Ranjbar b, Fereshteh motiee, Amine

functionalization of graphene oxide (AFGO) and corrosion behavior of epoxy-AFGO nanocomposites, *Materials Chemistry and Physics*, 2022.

12. Elham Rashidi, Neda Esfandiari, Zahra Ranjbar, Nikta Alvandi¹ and Zahra Fatahi, Designing of a pH-activatable carbon dots as a luminescent nanoprobe for recognizing folate receptor-positive, *Nanotechnology* 33 (2022) 075103, 2022.
13. Sanaz Seraj, & Shohre Rouhani, Zahra Ranjbar, Sepehr Lajevardi Esfahani, Fructose recognition using novel solid-state electro-optical nanosensor based on boronate-tagged fluorophore modified graphene oxide, *Material chemistry and physics*, Vol 270, 2021, *Materials Chemistry and Physics*, 2021 06 12.
14. S. Roauhani et al., Investigating of the Effects of rGO TiO₂ on Photovoltaic Performance of DSSCs Devices, *Progress in Color, Colorant and Coatings*, 2021 05 20.
15. Sh. Montazer, Z. Ranjbar, S. Rastegar, F. Deflorian, A new approach to estimate the adhesion durability of an epoxy coating through wet and dry cycle using creep-recovery modeling, *Progress in Organic Coatings*, 2021.
16. Z. Ranjbar, Sh. Montazer, M. Ostai, Preparation and characterization of a thermal barrier heat-resistant silicone coating, *Color, Colorant and Coatings Progress in*, 2020.
17. Sepehr Lajevardi Esfehiani, Shohre Rouhani, Zahra Ranjbar, Layer-by-Layer Assembly of Electroactive Dye/LDHs Nanoplatelet Matrix Film for Advanced Dual Electro-optical Sensing Applications, *Nanoscale Research Letters*, 2020.
18. babak Nazari, Zahra Ranjbar, Ra'na Rafiei Hashjin, Amir Rezvani Moghaddam, Gelareh Momeni, Behnaz Ranjbar, Dispersing graphene in aqueous media Investigating the effect of different surfactants, *J. Colloids and Surfaces A*, 2019 10 05.
19. Amir Rezvani Moghaddam, Zahra Ranjbar, Uttandaraman Sundararaj, Ali Jannesari, Milad Kammar, A novel electrically conductive water borne epoxy nanocomposite coating based on graphene facile method and high efficient graphene dispersion, *Progress in Organic Coatings*, 2019 07 05.
20. Zahra Fatahi et al., Physicochemical and Cytotoxicity Analysis of Green Synthesis Carbon Dots for Cell Imaging, *EXCLI Journal*, pp. 454-466, 2019 05 23.
21. Fatemeh Irani, Zahra Ranjbar, Ali Jannesari, Siamak Moradian, Fabrication and characterization of microencapsulated n-heptadecane with graphene/starch composite shell for thermal energy storage, *Progress in Organic Coatings*, 2019 02 22.
22. Sepehr Lajevardi Esfahani, Shohre Rouhai, Zahra Ranjbar, Electrochemical solid-state nanosensor based on a dual amplification strategy for sensitive detection of (Fe²⁺-dopamine), *Electrochimica Acta*, Vol. 132, 2019 01 11.
23. Ra'na Rafiei Hashjin, Zahra Ranjbar, Hossein Yari, Modeling of electrical conductive graphene filled epoxy coatings, *Progress in Organic Coatings*, 2018 09 26.
24. Michel Ferriol et al., Short-Lasting Fire in Partially and Completely Cured Epoxy Coatings Containing Expandable Graphite and Halloysite Nanotube Additives, *Progress in Organic Coatings*, 2018 07 08.
25. M. Bhanrami, Z. Ranjbar, R.A. Khosroshahi, Sh. Ashhari, (12) Investigating corrosion protection properties of epoxy thermal insulators through cyclic corrosion test, *Progress in Organic Coatings*, 2017 07 29.
26. Sh. Montazeri, Z. Ranjbar, S. Rastegar, A study on effects of viscoelastic properties on protective performance of epoxy coatings using EIS, *Progress in Organic Coatings*, 2017 06 06.
27. Sh. Montazeri, Z. Ranjbar, S. Rastegar, The correlation between adhesion durability and viscoelastic creep-recovery behavior in epoxy coatings, *Progress in Organic Coatings*, 2017 06 03.
28. Fateme Irani, Zahra Ranjbar, Siamak Moradian, Ali Jannesari, Microencapsulation of n-heptadecane phase change material with starch shell, *Progress in Organic Coatings*, 2017 05 13.
29. Marzieh Bakhtiary, Noodeh, Siamak Moradian, Zahra Ranjbar, Edge protection improvement of automotive electrocoatings in the presence of silica nanoparticles, *J. Surface & Coatings Technology*, 2017 03 18.
30. Marzieh Bakhtiary, Noodeh, Siamak Moradian, Zahra Ranjbar, Improvement of the edge protection

- of an automotive electrocoating in presence of a prepared epoxy-amine microgel, *Progress in Organic Coatings*, 2016 11 22.
31. A. Allahdini, H. Yazdani Ahmadabadi, S. Rastegar, Z. Ranjbar, Capillary condensation-induced anomalous water sorption in urethane-based coatings exposed to high humidity conditions, *J. Coat. Technol. Res.*, 2016 10 20.
 32. S. L. Esfahani, Z. Ranjbar, S. Rastegar, Comparison of corrosion protection of normal and galvanised steel coated by cathodic electrocoatings using EIS and salt spray tests, *J. Corrosion Engineering, Science and Technology*, 2016 04 29.
 33. Heydarian S, Ranjbar Z, Rastegar S, Electrophoretic Deposition Behavior of Chitosan Biopolymer as a Function of Solvent Type, *Polymer-Plastics Technology and Engineering*, 2015 09 29.
 34. Hadi Gholamiyan, Asghar Tarmian, Zahra Ranjbar, Ali Abdolkhani, Mohammad Azadfallah and Carsten Mai, Silane nanofilm formation by sol-gel processes for promoting adhesion of waterborne and solvent-borne coatings to wood surface, *Holzforschung*, 2015 07 21.
 35. Yazdani, & Ahmadabadi H, Rastegar S, Ranjbar Z, A modified De-Gennes's trumpet model for the prediction of practical adhesion of dynamically and structurally heterogeneous polymeric networks on solid surfaces, *RSC Advances*, 2015 06 02.
 36. M. Zabet, S. Moradian, Z. Ranjbar, N. Zanganeh, Effect of carbon nanotubes on electrical and mechanical properties of multiwalled carbon nanotubes/epoxy coatings, *J. Coat. Technol. Res.*, 2015 05 25.
 37. Samaneh Heydarian, Zahra Ranjbar, Saeed Rastegar, Chitosan biopolymer as an antimicrobial agent in automotive electro coatings: The effect of solid content, *Progress in Organic Coatings*, 2015 04 04.
 38. S. Rastegar, Z. Ranjbar and H. Y. Ahmadabadi, Diffusion limited behaviour of hydrophobised thin UV-curable nanocomposite coatings against model electrolyte, *The International Journal of Corrosion Processes and Corrosion Control*, 2014 12 30.
 39. H. Yari, M. Mohseni, M. Messori, Z. Ranjbar, Tribological properties and scratch healing of a typical automotive nano clearcoat modified by a polyhedral Oligomeric Silsesquioxane compound, *European Polymer Journal*, 2014 09 07.
 40. Sanaz Seraj, Zahra Ranjbar, Ali Jannesari, Synthesis and characterization of an ant cratering agent based on APTES for Cathodic electro coatings, *Progress in Organic Coatings*, 2014 05 19.
 41. H. Yazdani Ahmadabadi, S. Rastegar, Z. Ranjbar, A. Allahdini, The impact of baking conditions on physico-chemical characteristics influencing topography and appearance aspects of polyurethane coating, *Progress in Organic Coatings*, 2014 05 12.
 42. Sepehr Lajevardi Esfahani, Zahra Ranjbar, Saeed Rastegar, An electrochemical and mechanical approach to the corrosion resistance of Cathodic electro coatings under combined cyclic and DC polarization conditions, *Progress in Organic Coatings*, 2014 03 29.
 43. Ehsan Bakhshandeh, Ali Jannesari, Zahra Ranjbar, Sarah Sobhani, Mohammad Reza Saeb, Anti-corrosion hybrid coatings based on epoxy-silica nano-composites: Toward relationship between the morphology and EIS data, *Progress in Organic Coatings*, 2014 03 17.
 44. M. Mohammad Raei Nayini, S. Bastani, Z. Ranjbar, Synthesis and characterization of functionalized carbon nanotubes with different wetting behaviors and their influence on the wetting properties of carbon nanotubes/polymethylmethacrylate coatings, *Progress in Organic Coatings*, 2013 11 25.
 45. Vakili Tahami SH, Ranjbar Z, Bastani S, Aggregation and Charging Behavior of Polydisperse and Monodisperse Colloidal Epoxy-Amine Adducts, *Soft Materials*, 2013 07 01.
 46. M. Rashvand, Z. Ranjbar, Effect of nano-ZnO particles on the corrosion resistance of polyurethane-based waterborne coatings immersed in sodium chloride solution via EIS technique, *Progress in Organic Coatings*, 2013 04 26.
 47. Yari H, Mohseni M, Ranjbar Z, Messori M, Naimi, & Jamal MR, Novel toughened automotive clear coats modified by a polyester-amide hyper branched polymer: structural and mechanical aspects, *Polymers for Advanced Technologies*, 2013 02 12.
 48. Yari H, Mohseni M, Ranjbar Z, Thermo mechanical and Chemo rheology Properties of a

Thermosetting Acrylic/Melamine Clear coat Modified with a Hyper branched Polymer, *Journal of Applied Polymer Science*, 2012 12 25.

49. Pazokifard S, Esfandeh M, Mirabedini SM, Mohseni M, Ranjbar Z, Investigating the role of surface treated titanium dioxide nanoparticles on self-cleaning behavior of an acrylic facade coating, *J Coat Technol Res.*, 2012 07 03.
50. Rashvand M, Ranjbar Z., Degradation and stabilization of an aromatic polyurethane coating during an artificial aging test via FTIR spectroscopy, *Materials and Corrosion*, 2012 06 06.
51. Azadeh Kaffashi , Ali Jannesari & Zahra Ranjbar, Silicone fouling-release coatings: effects of the molecular weight of poly(dimethylsiloxane) and tetraethyl orthosilicate on the magnitude of pseudo barnacle adhesion strength, *The Journal of Bioadhesion and Biofilm Research*, 2012 05 07.
52. Najafi F, Ranjbar Z, Shirkavand Hadavand B, Montazeri S., Synthesis and Characterization of Comb Polycarboxylic Acid Dispersants for Coatings, *Journal of Applied Polymer Science*, 2012 04 15.
53. Rashvand M, Ranjbar Z, Rastegar S., Preserving Anti-Corrosion Properties of Epoxy Based Coatings Simultaneously Exposed to Humidity and UV-Radiation Using Nano Zinc Oxide, *Journal of The Electrochemical Society*, 2012 01 12.
54. M. Rostami, M. Mohseni, Z. Ranjbar, An attempt to quantitatively predict the interfacial adhesion of differently surface treated nanosilicas in a polyurethane coating matrix using tensile strength and DMTA analysis, *International Journal of Adhesion and Adhesives*, 2011 12 13.
55. Rostami M, Mohseni M, Ranjbar Z, Investigating the effect of pH on the surface chemistry of an amino silane treated nano silica, *Pigment & Resin Technology*, 2011 05 06.
56. M. Rashvand, Z. Ranjbar, S. Rastegar, Nano zinc oxide as a UV-stabilizer for aromatic polyurethane coatings, *Progress in Organic Coatings*, 2011 04 07.
57. Pazokifard, Sh., Mirabedini, S. M., Esfandeh, M., Mohseni, M. and Ranjbar, Z, Silane grafting of TiO₂ nanoparticles: dispersibility and photoactivity in aqueous solutions, *Surf. Interface Anal*, 2011 04 13.
58. S.H. Vakili Tahami, Z. Ranjbar, S. Bastani, Preparation and stability behavior of the colloidal epoxy-1,1-iminodi-2-propanol adducts, *Progress in Organic Coatings*, 2011 02 25.
59. M. Rostami, Z. Ranjbar, M. Mohseni, Investigating the interfacial interaction of different amino silane treated nano silicas with a polyurethane coating, *Applied Surface Science*, 2010 11 15.
60. Zahra Ranjbar, Saeed Rastegar, Nano mechanical properties of an automotive clear-coats containing nano silica particles with different surface chemistries, *Progress in Organic Coatings*, 2010 11 02.
61. Z. Ranjbar, Sh. Montazeri, M. Mohammad Raei Nayini, A. Jannesari, Synthesis and characterization of diethylene glycol monobutyl ether–Blocked diisocyanate crosslinkers, *Progress in Organic Coatings*, 2010 05 10.
62. Ranjbar Z, Rastegar S, Two- and three-dimensional fractal dimensions of electro-deposited carbon-black-epoxy composite films, *Analytical Letters*, 2010 01 05.
63. Z. Ranjbar, A. Jannesari, S. Rastegar, Sh. Montazeri, Study of the influence of nano-silica particles on the curing reactions of acrylic-melamine clear-coats, *Progress in Organic Coatings*, 2009 05 11.
64. Z. Ranjbar, S. Rastegar, Evaluation of mar/scratch resistance of a two component automotive clear coat via nano-indenter, *Progress in Organic Coatings*, 2008 05 01.
65. Saeed Rastegar ,& Zahra Ranjabr, DC and AC electrical conductivity of electro-deposited carbon-black–epoxy composite films, *Progress in Organic Coatings*, 2008.
66. Zahra Ranjbar ,& Saeed Rastegar, Morphology and electrical conductivity behavior of electro-deposited conductive carbon black-filled epoxy dispersions near the insulator–conductor transition point, *Colloids and Surfaces A Physicochemical and Engineering Aspects*, 2006.
67. Zahra Ranjbar, Saeed Rastegar, The influence of surface chemistry of nano-silica on microstructure, optical and mechanical properties of the nano-silica containing clear-coats, *Progress in Organic Coatings*, 200 10 28.
68. M. Haghi 1 Z. Ranjbar 1, 2 H. Kazemian 3 M. Aghili 4, Synthesis, Characterization and Corrosion Resistance Behavior of Waterborne Cationic Acrylic Resins, *PCCC*, 16 01 2023.

69. Amir Rezvani Moghaddam et al., Tuning the Network Structure of Graphene/Epoxy Nanocomposites by Controlling Edge/Basal Localization of Functional Groups, *I & EC research*, 14 12 2019.
70. Mozghan Hosseinnezhad, Zahra Ranjbar, A review on flexible dye-sensitized solar cells as new sustainable energy resources, *Pigment & Resin Technology*, 05.04.2023.
71. F. Raoufi 1 Sh. Montazeri 1 S. Rastegar 2 S. Asadi 3 Z. Ranjbar, Dispersion of Silica Aerogel Particles in Thermal Insulating Waterborne Coating, *PCCC*, 03.06.2023.
72. Hossein Kazemian Mehdi Haghi¹, Zahra Ranjbar¹, Improvement of the corrosion resistance of acrylic electrocoating in the presence of acid-modified montmorillonite nano clay, *Progress in Organic Coatings*, Vol. 182, pp. 107689, 01.10.2023.
73. Maryam Aghili , Mohsen Khodadadi Yazdi , Zahra Ranjbar , Seyed Hasan Jafari, Anticorrosion performance of electro-deposited epoxy amine functionalized graphene oxide nanocomposite coatings, *Corrosion Science*, 01 01 2021.

Books

1. *Inspection of Protective Coatings according to ASTM D3276*
2. One chapter of *Eco-friendly and Smart Polymer Systems*
3. Two chapters of *Handbook of Waterborne Coatings*