



بهرام رمضان زاده

دانشیار

پژوهشکده: پوشش های سطح و فناوری های نوین

گروه پژوهشی: پوشش های سطح و خوردگی



### مقالات در نشریات

1. Navid Keshmiri , Parisa Najmi, Bahram Ramezanzadeh\*, Ghasem Bahlakeh, Superior thermal-mechanical properties of the epoxy composite reinforced with rGO-ATMP; Combined DFT-D theoretical modeling/ experimental studies, Journal of Molecular Liquids Volume 331, 1 June 2021, 115800, Vol. 331, pp. 115800, 2021
2. Parisa Naghadian Moghaddam, Reza Amini, Pooneh Kardar , Bahram Ramezanzadeh, Synergistic corrosion inhibition effects of the non-hazardous cerium nitrate and tannic acid polyphenolic molecules on the surface of mild-steel in chloride-containing solution: Detailed surface and electrochemical explorations, Journal of Molecular Liquids Volume 322, 15 January 2021, 114510, Vol. 322, pp. 114510, 2021
3. Seyed Mohammad Lashgari, Hossain Yari, Mohammad Mahdavian, Bahram Ramezanzadeh\*, Ghasem Bahlakeh, Mohammad Ramezanzadeh, Unique 2-methylimidazole based Inorganic Building Brick nano-particles (NPs) functionalized with 3-aminopropyltriethoxysilane with excellent controlled corrosion inhibitors delivery performance; Experimental coupled with molecular/DFT-D simulations, Journal of the Taiwan Institute of Chemical Engineers Volume 117, December 2020, Pages 209-222, Vol. 117, pp. 209-222, 2021
4. M.H. Shahini, Bahram Ramezanzadeh\*, H. Eivaz Mohammadloo, Recent advances in biopolymers/carbohydrate polymers as effective corrosion inhibitive macro-molecules: A review study from experimental and theoretical views, Journal of Molecular Liquids Volume 325, 1 March 2021, 115110, Vol. 325, pp. 115110, 2021
5. Mohammad Ebrahim Haji Naghi Tehrani, Mohammad Ramezanzadeh, Bahram Ramezanzadeh\*, A highly-effective/durable metal-organic anti-corrosion film deposition on mild steel utilizing Malva sylvestris (M.S) phytoextract-divalent zinc cations, Journal of Industrial and Engineering Chemistry Volume 95, 25 March 2021, Pages 292-304, Vol. 95, pp. 292-304, 2021
6. Parisa Najmi, Navid Keshmiri, Mohammad Ramezanzadeh, Bahram Ramezanzadeh\*, Synthesis and application of Zn-doped polyaniline modified multi-walled carbon nanotubes as stimuli-responsive nanocarrier in the epoxy matrix for achieving excellent barrier-self-healing corrosion protection potency, Chemical Engineering Journal Volume 412, 15 May 2021, 128637, Vol. 412, pp. 128637, 2021
7. Nariman Alipanah , Hossein Yari, Mohammad Mahdavian, Bahram Ramezanzadeh\*, Ghasem Bahlakeh, MIL-88A (Fe) filler with duplicate corrosion inhibitive/barrier effect for epoxy coatings: Electrochemical, molecular simulation, and cathodic delamination studies, Journal of Industrial and Engineering Chemistry Volume 97, 25 May 2021, Pages 200-215, Vol. 97, pp. 200-215, 2021
8. Parisa Najmi, Navid Keshmiri, Mohammad Ramezanzadeh , Bahram Ramezanzadeh, Highly

- improving the mechanical-responses/thermal-stability of the epoxy nano-composite using novel highly-oxidized multi-walled carbon nanotubes (OMWCNT) functionalized by Zinc-doped Polyaniline (PANI) nanofibers, *Journal of the Taiwan Institute of Chemical Engineers* Volume 119, February 2021, Pages 245-258, Vol. 119, pp. 245-258, 2021
- Parisa Najmi, Navid Keshmiri, Mohammad Ramezanzadeh, Bahram Ramezanzadeh, Highly .9 improving the mechanical-responses/thermal-stability of the epoxy nano-composite using novel highly-oxidized multi-walled carbon nanotubes (OMWCNT) functionalized by Zinc-doped Polyaniline (PANI) nanofibers, *Journal of the Taiwan Institute of Chemical Engineers* Volume 119, February 2021, Pages 245-258, Vol. 119, pp. 245-258, 2021
- Ali Hosseinpour, Majid Rezaei Abadchi, Majid Mirzaee, Fatemeh Ahmadi Tabar, Bahram .10 Ramezanzadeh, Recent advances and future perspectives for carbon nanostructures reinforced organic coating for anti-corrosion application, *Surfaces and Interfaces* Volume 23, April 2021, .100994, Vol. 23, pp. 100994, 2021
- M.H. Shahini, Mohammad Ramezanzadeh, Bahram Ramezanzadeh\*, Ghasem Bahlakeh, The .11 role of ethanolic extract of *Stachys byzantina*'s leaves for effective decreasing the mild-steel (MS) degradation in the acidic solution; coupled theoretical/experimental assessments, *Journal of Molecular Liquids* Volume 329, 1 May 2021, 115571, Vol. 329, pp. 115571, 2021
- Mohammad Ebrahim Haji Naghi Tehrani, Pantea Ghahremani, Mohammad Ramezanzadeh, .12 Ghasem Bahlakeh, Bahram Ramezanzadeh\*, Theoretical and experimental assessment of a green corrosion inhibitor extracted from *Malva sylvestris*, *Journal of Environmental Chemical Engineering* Volume 9, Issue 3, June 2021, 105256, Vol. 9, pp. 105256, 2021
- Amir Hossein Mostafatabar, Ghasem Bahlakeh, Bahram Ramezanzadeh, Ali Dehghani, .13 Mohammad Ramezanzadeh, A comprehensive electronic-scale DFT modeling, atomic-level MC/MD simulation, and electrochemical/surface exploration of active nature-inspired phytochemicals based on *Heracleum persicum* seeds phytoextract for effective retardation of the acidic-induced c, *Journal of Molecular Liquids* Volume 331, 1 June 2021, 115764, Vol. 331, pp. .115764, 2021
- Seyed Mohammad Lashgari, Hossain Yari, Mohammad Mahdavian, Bahram Ramezanzadeh\*, .14 Ghasem Bahlakeh, Mohammad Ramezanzadeh, Application of nanoporous cobalt-based ZIF-67 metal-organic framework (MOF) for construction of an epoxy-composite coating with superior anti-corrosion properties, *Corrosion Science* Volume 178, January 2021, 109099, Vol. 178, pp. .109099, 2021
- M.H. Shahini, Mohammad Ramezanzadeh, Ghasem Bahlakeh, Bahram .15 Ramezanzadeh\*, Superior inhibition action of the *Mish Gush* (MG) leaves extract toward mild steel corrosion in HCl solution: Theoretical and electrochemical studies, *Journal of Molecular Liquids* Volume 332, 15 June 2021, 115876, Vol. 332, pp. 115876, 2021
- Mohammad Ebrahim Haji Naghi Tehrani, Mohammad Ramezanzadeh, Bahram .16 Ramezanzadeh\*, Highly-effective/durable method of mild-steel corrosion mitigation in the chloride-based solution via fabrication of hybrid metal-organic film (MOF) generated between the active *Trachyspermum Ammi* bio-molecules-divalent zinc cations, *Corrosion Science* Volume 184, .15 May 2021, 109383, Vol. 184, pp. 109383, 2021
- Seyed Mohammad Lashgari, Ghasem Bahlakeh, Bahram Ramezanzadeh\*, Detailed theoretical .17 DFT computation/molecular simulation and electrochemical explorations of *Thymus vulgaris* leave extract for effective mild-steel corrosion retardation in HCl solution, *Journal of Molecular Liquids* Volume 335, 1 August 2021, 115897, Vol. 335, pp. 115897, 2021
- Ali Dehghani, Ghasem Bahlakeh, Bahram Ramezanzadeh\*, Amir Hossein Jafari .18 Mofidabadi, Cyclodextrin-based nano-carrier for intelligent delivery of dopamine in a self-healable anti-corrosion coating, *Journal of Environmental Chemical Engineering* Volume 9, Issue 4, August .2021, 105457, Vol. 9, pp. 105457, 2021
- Ali Dehghani, Ghasem Bahlakeh, Bahram Ramezanzadeh\*, Amir Hossein Jafari .19

Mofidabadi,Improvement of the anti-corrosion ability of a silane film with  $\beta$ -cyclodextrin-based nanocontainer loaded with L-histidine: Coupled experimental and simulations studies,Progress in .Organic Coatings Volume 157, August 2021, 106288,Vol. 157,pp. 106288,2021

Amir Hossein Mostafatabar , Ghasem Bahlakeh, Mohammad Ramezanzadeh, Bahram .20 Ramezanzadeh\*,Eco-friendly protocol for zinc-doped amorphous carbon-based film construction over steel surface using nature-inspired phytochemicals: Coupled experimental and classical atomic/molecular and electronic-level theoretical explorations,Journal of Environmental .Chemical Engineering Volume 9, Issue 4, August 2021, 105487,Vol. 9,pp. 105487,2021

A.R. Shahmoradi, M. Ranjbarghanei, A.A. Javidparvar, L. Guo d,e, E. Berdimurodov , Bahram .21 Ramezanzadeh\*,Theoretical and surface/electrochemical investigations of walnut fruit green husk extract as effective inhibitor for mild-steel corrosion in 1M HCl electrolyte,Journal of .Molecular Liquids Volume 338, 15 September 2021, 116550,Vol. 338,pp. 116550,2021

Asma Moradi , Zahra Ranjbar, Lei Guo, Sirous Javadpour, Bahram Ramezanzadeh\*,Molecular .22 dynamic (MD) simulation and electrochemical assessments of the Satureja Hortensis extract for the construction of effective zinc-based protective film on carbon steel,Journal of Molecular .Liquids Volume 338, 15 September 2021, 116606,Vol. 338,pp. 116606,2021

M.H. Shahini, Maryam Mousavi, Amir Masoud Arabi, Mohammad Mahdavian, Bahram .23 Ramezanzadeh,Ce-oxide quantum dots decorated graphene oxide (CeO-QDs-GO) nano-platforms synthesis and application in epoxy matrix for efficient anti-corrosion ability,Journal of Industrial and Engineering Chemistry Volume 101, 25 September 2021, Pages 51-65,Vol. 101,pp. .51-65,2021

M.H. Shahini , N. Taheri , H. Eivaz Mohammadloo, Bahram Ramezanzadeh,A comprehensive .24 overview of nano and micro carriers aiming at curtailing corrosion progression Journal of the Taiwan Institute of Chemical Engineers,Journal of the Taiwan Institute of Chemical Engineers .Volume 126, September 2021, Pages 252-269,Vol. 126,pp. 252-269,2021

Zahra Haeri , Mohammad Ramezanzadeh , Bahram Ramezanzadeh,Ce-TA MOF assembled .25 GO nanosheets reinforced epoxy composite for superior thermo-mechanical properties Journal of the Taiwan Institute of Chemical Engineers,Journal of the Taiwan Institute of Chemical .Engineers Volume 126, September 2021, Pages 313-323,Vol. 126,pp. 313-323,2021

M. Razizadeh, M. Mahdavian, B. Ramezanzadeh\*, E. Alibakhshi, S. Jamali,Synthesis of hybrid .26 organic–inorganic inhibitive pigment based on basil extract and zinc cation for application in protective construction coatings,Construction and Building Materials Volume 287, 14 June 2021, .123034,pp. 123034,2021

Seyed Mohammad Lashgari , Hossain Yari, Mohammad Mahdavian, Bahram Ramezanzadeh\* , .27 Ghasem Bahlakeh, Mohammad Ramezanzadeh,Application of nanoporous cobalt-based ZIF-67 metal-organic framework (MOF) for construction of an epoxy-composite coating with superior anti-corrosion properties,Corrosion Science Volume 178, January 2021, 109099,Vol. 178,pp. .109099,2021

Farshad Bahremand, Taghi Shahrabi, Bahram Ramezanzadeh\*,Epoxy coating anti-corrosion .28 properties enhancement via the steel surface treatment by nanostructured samarium oxide-poly-dopamine film,Journal of Hazardous Materials Volume 403, 5 February 2021, 123722,Vol. .403,pp. 123722,2021

Farshad Bahremand, TaghiShahrabi, Bahram Ramezanzadeh\*,Synthesis of a novel metal- .29 organic nanocomposite film (MONF) with superior corrosion protection performance based on the biomimetic polydopamine (PDA)-based molecules and Sm<sub>2</sub>O<sub>3</sub> particles on the steel surface,Journal of Molecular Liquids Volume 319, 1 December 2020, 114143,Vol. 319,pp. .114143,2021

Amir Hossein Jafari Mofidabadi , Ghasem Bahlakeh, Bahram Ramezanzadeh\*,Fabrication of .30 a novel hydrophobic anti-corrosion film based on Eu<sub>2</sub>O<sub>3</sub>/stearic acid on steel surface; Experimental and detailed computer modeling studies,Journal of the Taiwan Institute of

- .Chemical Engineers Volume 114, September 2020, Pages 228-240,Vol. 114,pp. 228-240,2021  
Amir Hossein Jafari Mofidabadi , Ghasem Bahlakeh, Bahram Ramezanzadeh\*,Fabrication of .31  
a novel hydrophobic anti-corrosion film based on Eu2O3/stearic acid on steel surface;  
Experimental and detailed computer modeling studies,Journal of the Taiwan Institute of  
.Chemical Engineers Volume 114, September 2020, Pages 228-240,Vol. 114,pp. 228-240,2021  
Mohammad Ramezanzadeh, Ghasem Bahlakeh, Bahram Ramezanzadeh\*,Construction of an .32  
epoxy composite with excellent thermal/mechanical properties using graphene oxide nanosheets  
reduced/functionalized by Tamarindus indica extract/zinc ions; detailed experimental and DFT-  
D computer modeling explorations,Results in Physics Volume 19, December 2020, 103400,Vol.  
.19,pp. 103400,2021
- Sajjad Akbarzade, Mohammad Ramezanzadeh, Bahram Ramezanzadeh\*, Ghasem .33  
Bahlakeh,Detailed atomic/molecular-level/electronic-scale computer modelingand  
electrochemical explorations of the adsorption and anti-corrosioneffectiveness of the green  
nitrogen-based phytochemicals on the mildsteel surface in the saline solution,Journal of  
.Molecular Liquids Volume 319, 1 December 2020, 114312,Vol. 319,pp. 114312,2021
- Laleh Kaghazchi, Reza Naderi, Bahram Ramezanzadeh\*,Construction of a high-performance .34  
anti-corrosion film based on the green tannic acid molecules and zinc cations on steel:  
Electrochemical/ Surface investigations,Construction and Building Materials Volume 262, 30  
.November 2020, 120861,Vol. 262,pp. 120861,2021
- Seyed Mohammad Lashgari , Hossain Yari, Mohammad Mahdavian, Bahram Ramezanzadeh\*, .35  
Ghasem Bahlakeh, Mohammad Ramezanzadeh,Synthesis of graphene oxide nanosheets  
decorated by nanoporous zeolite-imidazole (ZIF-67) based metal-organic framework with  
controlled-release corrosion inhibitor performance: Experimental and detailed DFT-D theoretical  
explorations,Journal of Hazardous Materials Volume 404, Part A, 15 February 2021, 124068,Vol.  
.404,pp. 124068,2021
- Amir Hossein Jafari Mofidabadi, Ghasem Bahlakeh, Bahram Ramezanzadeh\*,Anti-corrosion .36  
performance of the mild steel substrate treated by a novel nanostructure europium oxide-based  
conversion coating: Electrochemical and surface studies,Colloids and Surfaces A:  
Physicochemical and Engineering Aspects Volume 609, 20 January 2021, 125689,Vol. 609,pp.  
.125689,2021
- Mohammad Ramezanzadeh , Ali Tati , Ghasem Bahlakeh, Bahram .37  
Ramezanzadeh\*,Construction of an epoxy composite coating with exceptional thermo-  
mechanical properties using Zr-based NH<sub>2</sub>-UiO-66 metal-organic framework (MOF): Experimental  
and DFT-D theoretical explorations,Chemical Engineering Journal Volume 408, 15 March 2021,  
.127366,Vol. 408,pp. 127366,2021
- Laleh Kaghazchi, Reza Naderi, Bahram Ramezanzadeh\*,Synergistic mild steel corrosion .38  
mitigation in sodium chloride-containing solution utilizing various mixtures of phytic acid  
molecules and Zn<sup>2+</sup> ions,Journal of Molecular Liquids Volume 323, 1 February 2021,  
.114589,Vol. 323,pp. 114589,2021
- Motahhare Keramatinia , Mohammad Ramezanzadeh, Ghasem Bahlakeh, Bahram .39  
Ramezanzadeh\*,Synthesis of a multi-functional zinc-centered nitrogen-rich graphene-like thin film  
from natural sources on the steel surface for achieving superior anti-corrosion  
properties,Corrosion Science Volume 178, January 2021, 109077,Vol. 178,pp. 109077,2021
- Ali Dehghani, Ghasem Bahlakeh, Bahram Ramezanzadeh\*, Amir Hossein Jafari .40  
Mofidabadi,Construction of a high-potency anti-corrosive metal-organic film based on europium  
(III)-benzimidazole: Theoretical and electrochemical investigations,Construction and Building  
.Materials Volume 269, 1 February 2021, 121271,Vol. 269,pp. 121271,2021
- Laleh Kaghazchi, Reza Naderi, Bahram Ramezanzadeh\*,Construction of a high-performance .41  
anti-corrosion film based on the green tannic acid molecules and zinc cations on steel:  
Electrochemical/ Surface investigations,Construction and Building Materials Volume 262, 30

- .November 2020, 120861,Vol. 262,pp. 120861,2021
- Rahman Mohammadkhani, Mohammad Ramezanzadeh, Sajjad Akbarzadeh, Ghasem .42  
Bahlakeh, Bahram Ramezanzadeh\*, Graphene oxide nanoplateforms reduction by green plant-  
sourced organic compounds for construction of an active anti-corrosion coating;  
experimental/electronic-scale DFT-D modeling studies, Chemical Engineering Journal, Vol. 397, pp.  
.125061, 2020
- Ali Asghar Javidparvar, Reza Naderi, Bahram Ramezanzadeh\*, Non-covalently surface .43  
modification of graphene oxide nanosheets and its role in the enhancement of the epoxy-based  
coatings` physical properties, Colloids and Surfaces A: Physicochemical and Engineering  
.Aspects, pp. 602, 2020
- Ali Dehghani, Ghasem Bahlakeh, Bahram Ramezanzadeh, Designing a novel targeted-release .44  
nano-container based on the silanized graphene oxide decorated with cerium acetylacetonate  
loaded betacyclodextrin ( $\beta$ -CD-CeA-MGO) for epoxy anti-corrosion coating, Chemical Engineering  
.Journal Volume 400, 15 November 2020, 125860, Vol. 400, pp. 125860, 2020
- Ali Dehghani, Ghasem Bahlakeh, Bahram Ramezanzadeh, Construction of a .45  
sustainable/controlled-release nano-container of non-toxic corrosion inhibitors for the water-  
based siliconized film: Estimating the host-guest interactions/desorption of inclusion complexes  
of cerium acetylacetonate (CeA) with beta-cycl, Journal of Hazardous Materials Volume 399, 15  
.November 2020, 123046, Vol. 399, pp. 123046, 2020
- Reza Samiee , Bahram Ramezanzadeh\*, Mohammad Mahdavian, Eiman Alibakhshi , Ghasem .46  
Bahlakeh, Designing a non-hazardous nano-carrier based on graphene oxide@Polyaniline-  
Praseodymium (III) for fabrication of the Active/Passive anti-corrosion coating, Journal of  
.Hazardous Materials Volume 398, 5 November 2020, 123136, Vol. 398, pp. 123136, 2020
- Ali Dehghani, Ghasem Bahlakeh, Bahram Ramezanzadeh\*, Amir hossein Mostafatabar, .47  
Mohammad Ramezanzadeh, Estimating the synergistic corrosion inhibition potency of (2-(3,4-  
)-3,5,7-trihydroxy-4H-chromen-4-one) and trivalent-cerium ions on mild steel in NaCl  
solution, Construction and Building Materials Volume 261, 20 November 2020, 119923, Vol.  
.261, pp. 119923, 2020
- Ali Dehghani, Bahram Ramezanzadeh, Fatemeh Poshtiban, Ghasem Bahlakeh, Construction of .48  
a highly-effective/sustainable corrosion protective composite nanofilm based on  
Aminotris(methylphosphonic acid) and trivalent cerium ions on mild steel against chloride  
solution, Construction and Building Materials Volume 261, 20 November 2020, 119838, Vol.  
.261, pp. 119838, 2020
- Ali Dehghani, Amir Hossein Mostafatabar, Ghasem Bahlakeh, Bahram Ramezanzadeh\*, A .49  
detailed study on the synergistic corrosion inhibition impact of the Quercetin molecules and  
trivalent europium salt on mild steel; electrochemical/surface studies, DFT modeling, and  
MC/MD computer simulation, Journal of Molecular Liquids Volume 316, 10 October 2020,  
.113914, Vol. 316, pp. 113914, 2020
- Sara Khamseh, Eiman Alibakhshi, Bahram Ramezanzadeh, Morteza Ganjaee Sari, A tailored .50  
pulsed substrate bias voltage deposited (a-C: Nb) thin-film coating on GTD-450 stainless steel:  
Enhancing mechanical and corrosion protection characteristics, Chemical Engineering Journal  
.Volume 404, 15 January 2021, 126490, Vol. 404, pp. 126490, 2020
- Farshad Bahremand, Taghi Shahrabi, Bahram Ramezanzadeh\*, Development of a .51  
nanostructured film based on samarium (III)/polydopamine on the steel surface with superior  
anti-corrosion and water-repellency properties, Journal of Colloid and Interface Science Volume  
.582, Part A, 15 January 2021, Pages 342-352, Vol. 582, pp. 342-352, 2020
- Ali Dehghani, Ghasem Bahlakeh, Bahram Ramezanzadeh, Synthesis of a non-hazardous/smart .52  
anti-corrosion nano-carrier based on beta-cyclodextrin-zinc acetylacetonate inclusion complex  
decorated graphene oxide ( $\beta$ -CD-ZnA-MGO), Journal of Hazardous Materials, Vol. 398, pp.  
.122962, 2020