CV of Dr Ahmad Hosseini Bandegharaei

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Name: Ahmad
Surname: Hosseini-Bandegharaei
Birth day: September 23, 1978
Last Academic degree: *Ph.D in analytical chemistry (University of Semnan).*
M.Sc. Thesis: Determination of trace levels of some heavy metal ions in aqueous samples by FAAS after their flow preconcentration using a column packed with quinizarin-impregnated XAD-16 resin**.**
Ph.D. Thesis: Applications of metal-organic frameworks (MOFs)-based composites in preconcentration and determination of drugs and environmental pollutants
Current Affiliation: Research director in *Faculty of Chemistry, Semnan University, Semnan, Iran; Department of Engineering, Sabzevar University of Medical Sciences, Sabzevar, Iran;*
Current H-index: 45 (Scopus)
Current address (home): ***, Kashmar, Iran |**ahoseinib@yahoo.com**| Mobile**:** **+989357637687**
Sound experience of leading a team of researchers working in removal of harmful contaminants from waters and wastewaters or solid-phase extraction and determination of trace amount of targeted analytes using suitable solid supports

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Professional summary; academic and technical accomplishments:

- B.Sc. in pure chemistry from Ferdowsi university, Mashhad, Iran
- M.SC. under the guidance of Dr Mohammad Saeid Hosseini (Ex associate professor of analytical chemistry and director of chemistry group at University of Birjand, Birjand, Iran).
- Ph.D. thesis of "Applications of metal-organic frameworks (MOFs)-based composites in preconcentration and determination of drugs and environmental pollutants", under the guidance of Prof. Maryam Rajabi, (Full professor of analytical chemistry at University of Semnan, Semnan, Iran).
- Over 15 years of experience in application of solid supports to environmental monitoring and protections.
- Led several teams of researchers for (a) trace and ultra-trace analysis of several harmful contaminants in different environmental samples using solid-phase extraction technique, (b) designing batch and continuous adsorption systems for removal of contaminates from waters and wastewaters, and (c) photocatalytic degradation of different organic contaminants in air streams and aqueous solutions.
- Fascination for institutional/departmental collaborations with subject experts and resource mobilization.
- Expertise in remediation of hazardous industrial effluents using novel nanomaterials, functional materials and modified activated carbons.
- Exposure to wide range of analytical instruments for qualitative and quantitative analysis like and HPLC-MS, atomic absorption instruments, UV-Visible spectrometer, fluorimeter, etc.

- Served as a research director and/or faculty member at several institutes, like (I) Kashmar Branch of Islamic Azad University, Kashmar, Iran, (II) Sabzevar University of Medical Sciences, Sabzevar, Iran, (III) Gonabad University of Medical Sciences, Gonabad, Iran, (IV) Birjand University of Medical Sciences, Birjand, Iran, (V) Torbat-e Heydarrieh Branch of Islamic Azad University, Torbat-e Heydarrieh, Iran, and (VI) Semnan University, Semnan, Iran.
- Excellent communication skill in writing projects, research and review articles, progress reports, and other activities.
- Published over 120 papers (h-index = 45 and over 7k citations) in international journals, presented more than 50 papers in international and national conferences.
- Directing and conducting more than 50 research projects in different universities of Iran.
- Active consultant to several academic institutes for doing research projects.
- Managed operation of laboratory facilities in several academic institutes.
- Delivered several invited lectures in different universities.

Awards:

→ Ranked in the top 1% scientist list in 2021 by Clarivate Analytics.

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→ Ranked in the top 1% scientist list in 2021 by Clarivate Analytics.

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→ Featured in Stanford's world's top 2% scientists 2020 list.
https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/3
→AZAD award of best researcher of Sabzevar University of Medical Sciences in 2016.
→ Award of eminent researcher of Kashmar branch of Islamic Azad University in 2015.
→ Award of eminent researcher of Kashmar branch of Islamic Azad University in 2013.
→ Award of eminent researcher of Kashmar branch of Islamic Azad University in 2012.
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Ph.D. ***in analytical chemistry, supervisor: Professor Dr Maryam Rajabi***
M.Sc. ***in analytical chemistry under the guidance of Dr. Mohammad Said Hosseini*** *on "****Solvent Impregnated Resins; column mode separation and preconcentration of some several heavy metals in different samples before their determination by FAAS"*** *in* ***University of Birjand, Birjand, Iran.***
B.Sc. ***in pure chemistry in Ferdowsi University of Mashhad, Mashhad, Iran***

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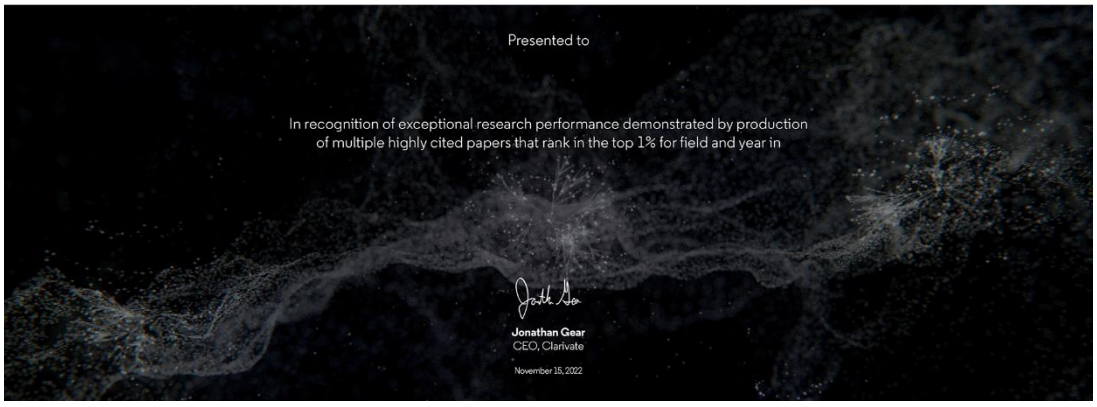

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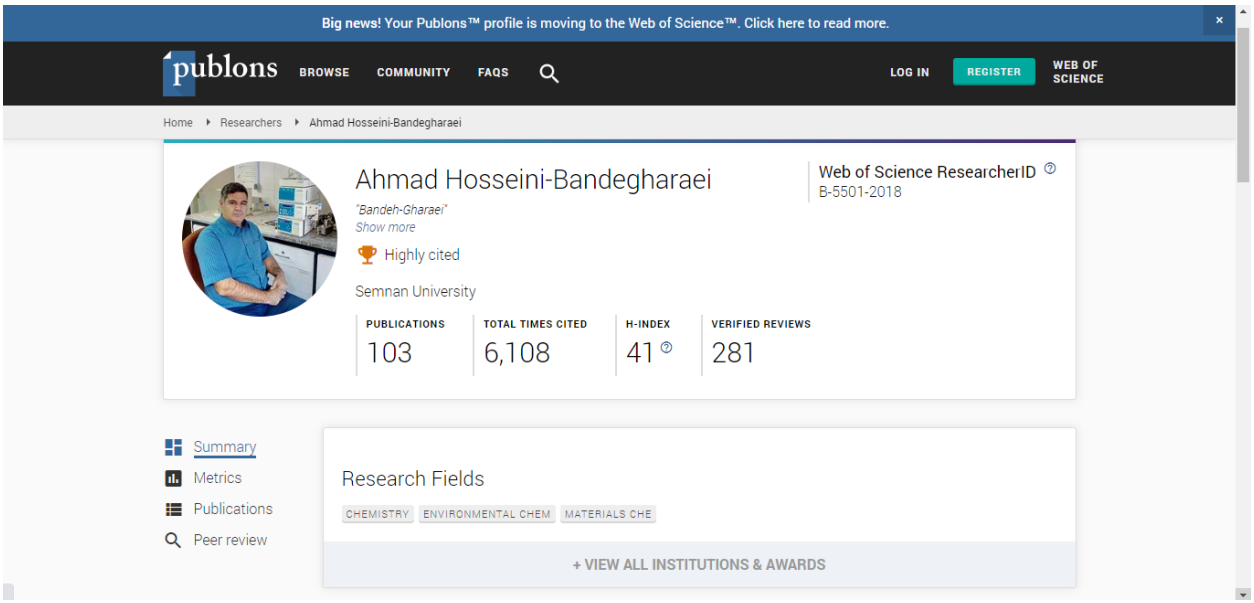

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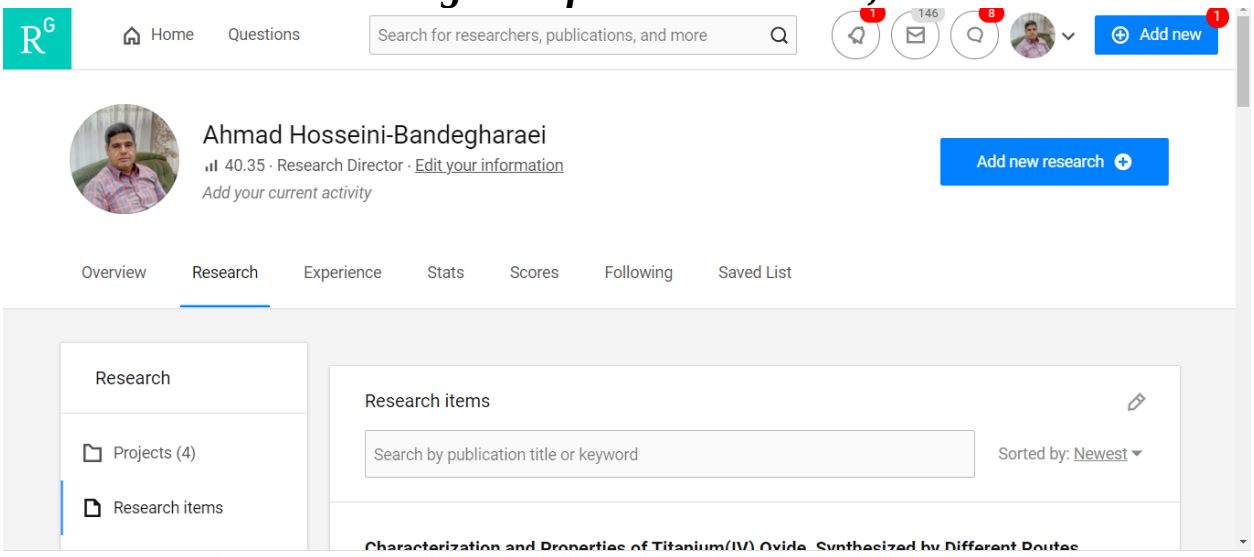

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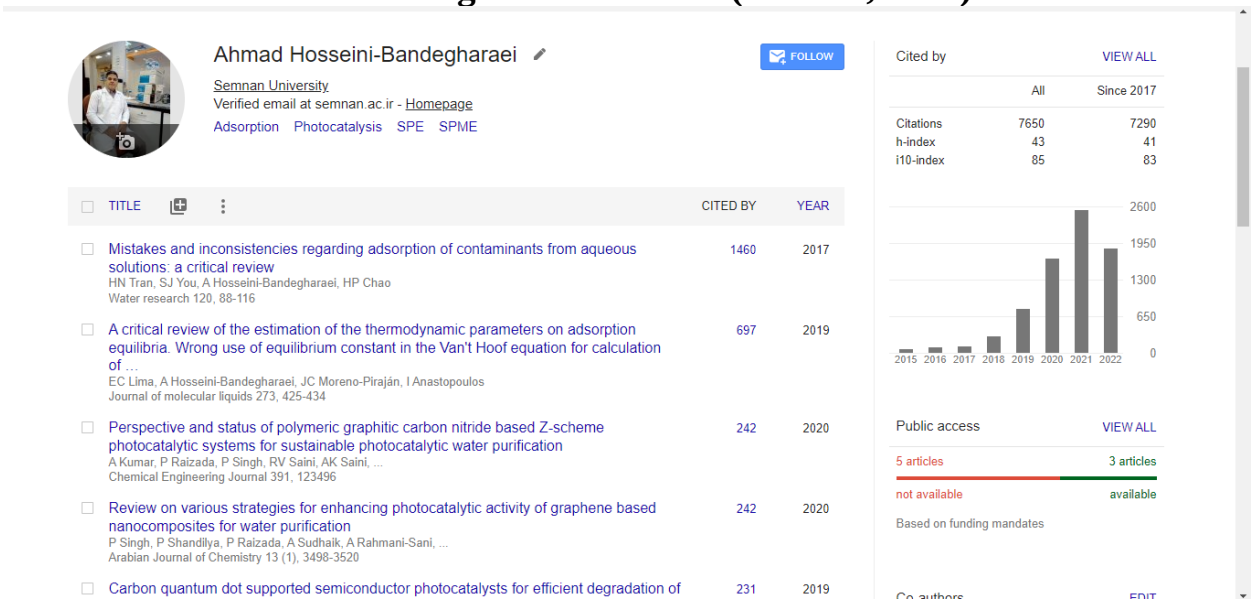

Ahmad Hosseini-Bandegharaei

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A critical review of the estimation of the thermodynamic parameters on adsorption equilibria. Wrong use of equilibrium constant in the Van't Hoof equation for calculation of ... EC Lima, A Hosseini-Bandegharaei, JC Moreno-Piraján, I Anastopoulos Journal of molecular liquids 273, 425-434	697	2019
Perspective and status of polymeric graphitic carbon nitride based Z-scheme photocatalytic systems for sustainable photocatalytic water purification A Kumar, P Raizada, P Singh, RV Saini, AK Saini, ... Chemical Engineering Journal 391, 123496	242	2020
Review on various strategies for enhancing photocatalytic activity of graphene based nanocomposites for water purification P Singh, P Shandilya, P Raizada, A Sudhaik, A Rahmani-Sani, ... Arabian Journal of Chemistry 13 (1), 3498-3520	242	2020
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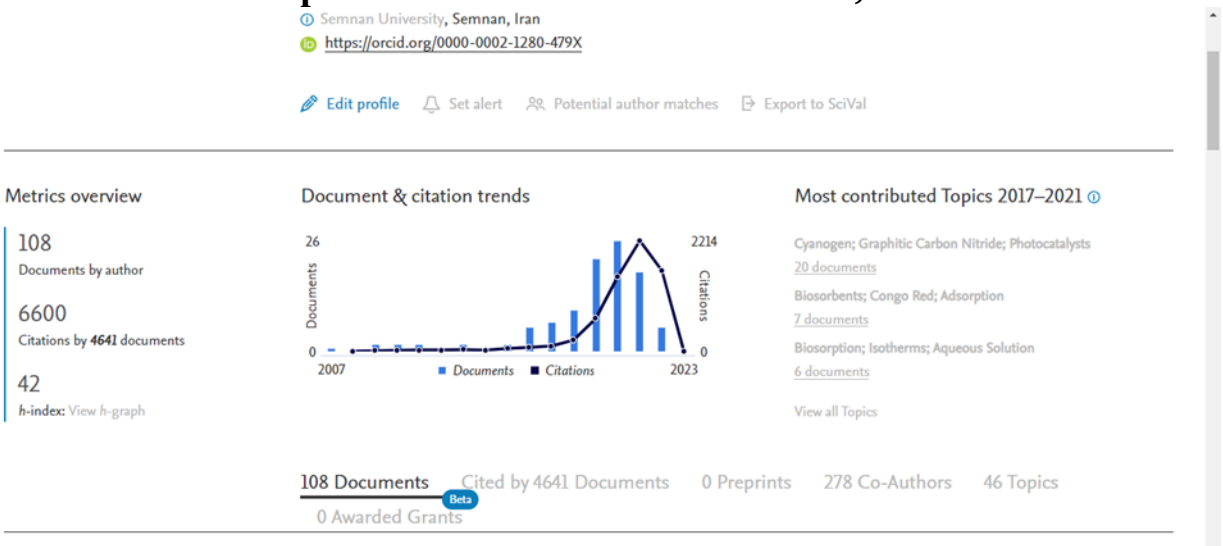

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Research Interest:

→ Separation & recovery of heavy metals from aqueous streams using novel functional material.

→ Surface-engineered activated carbons and application of novel modified solid supports for removal of different pollutants from waters and wastewaters.

→ Application of novel adsorbents for solid-phase extraction and determination of trace and ultra-trace amounts of harmful contaminants in various samples.

→ Photo-catalytic degradation of different contaminants in industrial effluents, using novel nanocomposite materials.

Book chapters and articles published in the peer-reviewed scientific journals

No.	Title
1	Hosseini MS, Hosseini M, Hosseini-Bandegharaei A. Solvent Impregnated Resins containing Quinizarin: Preparation and Application to Batch-mode Separation of Cd (II), Cu (II), Ni (II), and Zn (II) in Aqueous Media Prior to the Determination by Flame Atomic Absorption Spectrometry. Separation Science and Technology. 2007; 42: 3465-80.
2	Hosseini MS, Hosseini-Bandegharaei A, Raissi H, Belador F. Sorption of Cr (VI) by Amberlite XAD-7 resin impregnated with brilliant green and its determination by quercetin as a selective spectrophotometric reagent. Journal of Hazardous Materials. 2009; 169: 52-7.
3	Hosseini M, Hosseini-Bandegharaei A. Selective extraction of Th (IV) over U (VI) and other co-existing ions using eosin B-impregnated Amberlite IRA-410 resin beads. Journal of Radioanalytical and Nuclear Chemistry. 2009; 283: 23-30.
4	Hosseini MS, Hosseini-Bandegharaei A, Hosseini M. Column-mode separation and pre-concentration of some heavy metal ions by solvent-impregnated resins containing quinizarin before the determination by flame atomic absorption spectrometry. International Journal of Environmental and Analytical Chemistry. 2009; 89: 35-48.
5	Hosseini-Bandegharaei A, Hosseini MS, Sarw-Ghadi M, Zowghi S, Hosseini E, Hosseini-Bandegharaei H. Kinetics, equilibrium and thermodynamic study of Cr (VI) sorption into toluidine blue o-impregnated XAD-7 resin beads and its application for the treatment of wastewaters containing Cr (VI). Chemical Engineering Journal. 2010; 160: 190-8.
6	Hosseini-Bandegharaei A, Hosseini MS, Jalalabadi Y, Sarwghadi M, Nedaie M, Taherian A, Ghaznavi A, Eftekhari A. Removal of Hg (II) from aqueous solutions using a novel impregnated resin containing 1-(2-thiazolylazo)-2-naphthol (TAN). Chemical Engineering Journal. 2011; 168: 1163-73.
7	Hosseini MS, Hosseini-Bandegharaei A. Comparison of sorption behavior of Th (IV) and U (VI) on modified impregnated resin containing quinizarin with that conventional prepared impregnated resin. Journal of Hazardous Materials. 2011; 190: 755-65.
8	Hosseini-Bandegharaei A, Sarwghadi M, Heydarbeigi A, Hosseini SH, Nedaie M. Solid-phase extraction of trace amounts of uranium (VI) in environmental water samples using an extractant-impregnated resin followed by detection with UV-Vis spectrophotometry. Journal of Chemistry. 2013; 2013: Article ID: 671564.
9	Hosseini-Bandegharaei A, Hosseini MS, Jalalabadi Y, Nedaie M, Sarwghadi M, Taherian A, Hosseini E. A novel extractant-impregnated resin containing carminic acid for selective separation and pre-concentration of uranium (VI) and thorium (IV). International Journal of Environmental Analytical Chemistry. 2013; 93: 108-24.
10	Hosseini-Bandegharaei A, Karimzadeh M, Sarwghadi M, Heydarbeigi A, Hosseini SH, Nedaie M, Shoghi H. Use of a selective extractant-impregnated resin for removal of Pb (II) ion from waters and wastewaters: Kinetics, equilibrium and thermodynamic study. Chemical Engineering Research and Design. 2014; 92: 581-91.
11	Hosseini SH, Rahmani-Sani A, Jalalabadi Y, Karimzadeh M, Hosseini-Bandegharaei A, Kharghani K, Allahabadi A. Preconcentration and determination of ultra-trace amounts of U (VI) and Th (IV) using titan yellow-impregnated Amberlite XAD-7 resin. International Journal of Environmental Analytical Chemistry. 2015; 95: 277-90.

12 Rahmani-Sani A, Hosseini-Bandegharaei A, Hosseini SH, Kharghani K, Zarei H, Rastegar A. Kinetic, equilibrium and thermodynamic studies on sorption of uranium and thorium from aqueous solutions by a selective impregnated resin containing carminic acid. Journal of Hazardous Materials. 2015; 286: 152-63.
13 Hosseini-Bandegharaei A, Allahabadi A, Rahmani-Sani A, Rastegar A, Khamirchi R, Mehrpouyan M, Hekmat-Shoar R, Pajohankia Z. Thorium removal from weakly acidic solutions using titan yellow-impregnated XAD-7 resin beads: kinetics, equilibrium and thermodynamic studies. Journal of Radioanalytical and Nuclear Chemistry. 2016; 309: 761-76.
14 Hosseini MS, Bazrafshan AA, Hosseini-Bandegharaei A. A novel solvent-impregnated resin containing 3-hydroxy-2-naphthoic acid for stepwise extraction of Th (IV) and U (VI) over other coexistence ions. Separation Science and Technology. 2016; 51: 1328-35.
15 Hosseini-Bandegharaei A, Khamirchi R, Hekmat-Shoar R, Rahmani-Sani A, Rastegar A, Pajohankia Z, Fattahi E. Sorption efficiency of three novel extractant-impregnated resins containing vesuvin towards Pb (II) ion: Effect of nitrate and amine functionalization of resin backbone. Colloids and Surfaces A: Physicochemical and Engineering Aspects. 2016; 504: 62-74.
16 Hosseini-Bandegharaei A, Alahabadi A, Rahmani-Sani A, Rastegar A, Khamirchi R, Mehrpouyan M, Agah J, Pajohankia Z. Effect of nitrate and amine functionalization on the adsorption properties of a macroporous resin towards tetracycline antibiotic. Journal of the Taiwan Institute of Chemical Engineers. 2016; 66: 143-53.
17 Alahabadi A, Rezai Z, Rahmani-Sani A, Rastegar A, Hosseini-Bandegharaei A, Gholizadeh A. Efficacy evaluation of NH_4Cl-induced activated carbon in removal of aniline from aqueous solutions and comparing its performance with commercial activated carbon. Desalination and Water Treatment. 2016; 57: 23779-89.
18 Rastegar A, Alahabadi A, Esrafili A, Rezai Z, Hosseini-Bandegharaei A, Nazari S. Application of supramolecular solvent-based dispersive liquid–liquid microextraction for trace monitoring of lead in food samples. Analytical Methods. 2016; 8: 5533-9.
19 Tran HN, You SJ, Hosseini-Bandegharaei A, Chao HP. Mistakes and inconsistencies regarding adsorption of contaminants from aqueous solutions: a critical review. Water research. 2017; 120: 88-116.
20 Alahabadi A, Ehrampoush MH, Miri M, Aval HE, Yousefzadeh S, Ghaffari HR, Ahmadi E, Talebi P, Fathabadi ZA, Babai F, Nikoonahad A. A comparative study on capability of different tree species in accumulating heavy metals from soil and ambient air. Chemosphere. 2017; 172: 459-67.
21 Rahmani-Sani A, Shan RR, Yan LG, Hosseini-Bandegharaei A. Response to" Letter to Editor: Minor correction to the thermodynamic calculation using the distribution constant by Shan et al. and Rahmani-Sani et al.". Journal of Hazardous Materials. 2017; 325: 367-8.
22 Alahabadi A, Rastegar A, Esrafili A, Rezai Z, Bandegharaei AH, Farzadkia M. Solidified floating organic drop microextraction for pre-concentration and trace monitoring of cadmium ions in environmental food and water samples. Journal of the Iranian Chemical Society. 2017; 14:1725-33.
23 Pajohanfar NS, Mohebbi E, Hosseini-Bandegharaei A, Amin M, Vaseghi G, Amin B. Simvastatin prevents morphine-induced tolerance and dependence in mice. Biomedicine & Pharmacotherapy. 2017; 93: 406-11.

24 Salmani MH, Miri M, Ehrampoush MH, Alahabadi A, Hosseini-Bandegharaei A. Comparing cadmium removal efficiency of a magnetized biochar based on orange peel with those of conventional orange peel and unmodified biochar. Desalination and water treatment. 2017: 82: 157-69.

25 Fallahzadeh RA, Miri M, Taghavi M, Gholizadeh A, Anbarani R, Hosseini-Bandegharaei A, Ferrante M, Conti GO. Spatial variation and probabilistic risk assessment of exposure to fluoride in drinking water. Food and Chemical Toxicology. 2018; 113: 314-21.

26 Peres EC, Slaviero JC, Cunha AM, Hosseini–Bandegharaei A, Dotto GL. Microwave synthesis of silica nanoparticles and its application for methylene blue adsorption. Journal of Environmental Chemical Engineering. 2018; 6: 649-59.

27 Sajjadi SA, Mohammadzadeh A, Tran HN, Anastopoulos I, Dotto GL, Lopičić ZR, Sivamani S, Rahmani-Sani A, Ivanets A, Hosseini-Bandegharaei A. Efficient mercury removal from wastewater by pistachio wood wastes-derived activated carbon prepared by chemical activation using a novel activating agent. Journal of Environmental Management. 2018; 223: 1001-9

28 Anastopoulos I, Robalds A, Tran HN, Mitrogiannis D, Giannakoudakis DA, Hosseini-Bandegharaei A, Dotto GL. Leaf Biosorbents for the Removal of Heavy Metals. In Green Adsorbents for Pollutant Removal 2018 (pp. 87-126). Springer, Cham.

29 Sivamani S, Chandrasekaran AP, Balajii M, Shanmugaprakash M, Hosseini-Bandegharaei A, Baskar R. Evaluation of the potential of cassava-based residues for biofuels production. Reviews in Environmental Science and Bio/Technology. 2018; 17: 553-70.

30 Giannakoudakis DA, Hosseini-Bandegharaei A, Tsafrakidou P, Triantafyllidis KS, Kornaros M, Anastopoulos I. Aloe vera waste biomass-based adsorbents for the removal of aquatic pollutants: A review. Journal of Environmental Management. 2018; 227: 354-64.

31 Fallahzadeh RA, Khosravi R, Dehdashti B, Ghahramani E, Omidi F, Adli A, Miri M. Spatial distribution variation and probabilistic risk assessment of exposure to chromium in ground water supplies; a case study in the east of Iran. Food and Chemical Toxicology. 2018; 115: 260-6.

32 Shandilya P, Mittal D, Soni M, Raizada P, Hosseini-Bandegharaei A, Saini AK, et al. Fabrication of fluorine doped graphene and $SmVO_4$ based dispersed and adsorptive photocatalyst for abatement of phenolic compounds from water and bacterial disinfection. Journal of Cleaner Production. 2018; 203: 386-99.

33 Al-Shahrani H, Alakhras F, Al-Abbad E, AL-Mazaideh G, Hosseini-Bandegharaei A, Ouerfelli N. Sorption of Cobalt (II) Ions from Aqueous Solutions Using Chemically Modified Chitosan. 2018; Journal of Global Nest. 2018; 20: 620-627

34 Lima EC, Hosseini-Bandegharaei A, Moreno-Piraján JC, Anastopoulos I. A critical review of the estimation of the thermodynamic parameters on adsorption equilibria. Wrong use of equilibrium constant in the Van't Hoof equation for calculation of thermodynamic parameters of adsorption. Journal of Molecular Liquids. 2019; 273: 425-34.

35 Tran HN, Nguyen HC, Woo SH, Nguyen TV, Vigneswaran S, Juang R-S, Hosseini-Bandegharaei A, Ivanets A, Dotto GL, Chao H-P. Removal of various contaminants from water by renewable lignocellulose-derived biosorbents: a comprehensive and critical review. Critical Reviews in Environmental Science and Technology, 2019; 49: 2155-2219

36 Singh P, Shandilya P, Raizada P, Sudhaik A, Rahmani-Sani A, Hosseini-Bandegharaei A. Review on various strategies for enhancing photocatalytic activity of graphene based nanocomposites for water purification. Arabian Journal of Chemistry. 2018, DOI: 10.1016/j.arabjc.2018.12.001.
37 Qasemi M, Hosseini-Bandegharaei A, Afsharnia M, Najafpoor AA, Ivanets A, López-Delgado A, Alakhras F, and Shams M. Thermally treated aluminium waste-filings, a low cost and efficient adsorbent for phosphorus removal from water. Global NEST Journal, 2018; 20: 50-58
38 Raizada P, Sudhaik A, Singh P, Shandilya P, Saini AK, Gupta VK, et al. Fabrication of Ag_3VO_4 decorated phosphorus and sulphur co-doped graphitic carbon nitride as a high-dispersed photocatalyst for phenol mineralization and E. coli disinfection. Separation and Purification Technology. 2019; 212: 887-900.
39 Anastopoulos I, Robalds A, Tran HN, Mitrogiannis D, Giannakoudakis DA, Hosseini-Bandegharaei A, Dotto GL. Removal of heavy metals by leaves-derived biosorbents. Environmental Chemistry Letters. 2019; 17: 755-66.
40 Pankaj R, Anita S, Pardeep S, Hosseini-Bandegharaei A, Gupta VK, Shilpi A. Silver-mediated Bi2O3 and graphitic carbon nitride nanocomposite as all solid state Z scheme photocatalyst for imidacloprid pesticide abatement from water. Desalination and water treatment. 2019; 171: 344-55.
41 Singh P, Sudhaik A, Raizada P, Shandilya P, Sharma R, Hosseini-Bandegharaei A. Photocatalytic performance and quick recovery of BiOI/Fe_3O_4@ graphene oxide ternary photocatalyst for photodegradation of 2, 4-dintirophenol under visible light. Materials Today Chemistry. 2019; 12: 85-95.
42 Sajjadi SA, Meknati A, Lima EC, Dotto GL, Mendoza-Castillo DI, Anastopoulos I, Alakhras F, Unuabonah EI, Singh P, Hosseini-Bandegharaei A. A novel route for preparation of chemically activated carbon from pistachio wood for highly efficient Pb (II) sorption. Journal of environmental management. 2019; 236: 34-44.
43 Lima EC, Hosseini-Bandegharaei A, Anastopoulos I. Response to "Some remarks on a critical review of the estimation of the thermodynamic parameters on adsorption equilibria. Wrong use of equilibrium constant in the van't Hoff equation for calculation of thermodynamic parameters of adsorption-Journal of Molecular Liquids 273 (2019) 425–434.". Journal of Molecular Liquids. 2019; 280: 298-300.
44 Ivanets A, Roshchina M, Srivastava V, Prozorovich V, Dontsova T, Nahirniak S, Pankov V, Hosseini-Bandegharaei A, Tran HN, Sillanpää M. Effect of metal ions adsorption on the efficiency of methylene blue degradation onto $MgFe_2O_4$ as Fenton-like catalysts. Colloids and Surfaces A: Physicochemical and Engineering Aspects. 2019; 571:17-26.
45 Raizada P, Sudhaik A, Singh P, Shandilya P, Gupta VK, Hosseini-Bandegharaei A, Agrawal S. Ag_3PO_4 modified phosphorus and sulphur co-doped graphitic carbon nitride as a direct Z-scheme photocatalyst for 2, 4-dimethyl phenol degradation. Journal of Photochemistry and Photobiology A: Chemistry. 2019; 374: 22-35.
46 Raizada P, Sudhaik A, Singh VP, Gupta VK, Hosseini-Bandegharaei A, Kumar R, Singh P. Solar light assisted degradation of oxytetracycline from water using Bi_2O_3/Fe_3O_4 supported graphitic carbon nitride photocatalyst. Desalination and Water Treatment. 2019; 148: 138-150

47 Sharma S, Dutta V, Singh P, Raizada P, Rahmani-Sani A, Hosseini-Bandegharaei A, Thakur VK. Carbon quantum dot supported semiconductor photocatalysts for efficient degradation of organic pollutants in water: A review. Journal of Cleaner Production. 2019.
48 Dutta V, Singh P, Shandilya P, Sharma S, Raizada P, Saini AK, Gupta VK, Hosseini-Bandegharaei A, Agarwal S, Rahmani-Sani A. Review on advances in photocatalytic water disinfection utilizing graphene and graphene derivatives-based nanocomposites. Journal of Environmental Chemical Engineering. 2019; 7(3): 103132.
49 Raizada P, Sudhaik A, Singh P, Hosseini-Bandegharaei A, Thakur P. Converting type II AgBr/VO into ternary Z scheme photocatalyst via coupling with phosphorus doped g-C_3N_4 for enhanced photocatalytic activity. Separation and Purification Technology. 2019: 115692.
50 Sharma K, Dutta V, Sharma S, Raizada P, Hosseini-Bandegharaei A, Thakur P, Singh P. Recent advances in enhanced photocatalytic activity of bismuth oxyhalides for efficient photocatalysis of organic pollutants in water: A review. Journal of Industrial and Engineering Chemistry. 2019; 78: 1-20
51 Jafaria AJ, Alahabadic A, Saghic MH, Rezaic Z, Rastegara A, Zamanid MS, Singhe P, Hosseini-Bandegharaeic A. Adsorptive removal of phenol from aqueous solutions using chemically activated rice husk ash: equilibrium, kinetic, and thermodynamic studies. Desalination and Water Treatment. 2019; 158: 233-244.
52 Hasija V, Sudhaik A, Raizada P, Hosseini-Bandegharaei A, Singh P. Carbon quantum dots supported AgI/ZnO/phosphorus doped graphitic carbon nitride as Z-scheme photocatalyst for efficient photodegradation of 2, 4-dinitrophenol. Journal of Environmental Chemical Engineering. 2019; 7: 103272.
53 Dutta V, Sharma S, Raizada P, Hosseini-Bandegharaei A, Gupta VK, Singh P. Review on augmentation in photocatalytic activity of $CoFe_2O_4$ via heterojunction formation for photocatalysis of organic pollutants in water. Journal of Saudi Chemical Society. 2019; doi: 10.1016/j.jscs.2019.07.003
54 Jafari AJ, Kermani M, Hosseini-Bandegharaei A, Rastegar A, Gholami M, Alahabadi A, Farzi G. Synthesis and characterization of Ag/TiO_2/composite aerogel for enhanced adsorption and photo-catalytic degradation of toluene from the gas phase. Chemical Engineering Research and Design. 2019; 150: 1-13.
55 Kampouraki ZC, Giannakoudakis DA, Nair V, Hosseini-Bandegharaei A, Colmenares JC, Deliyanni EA. Metal organic frameworks as desulfurization adsorbents of DBT and 4, 6-DMDBT from fuels. Molecules. 2019; 24(24): 4525.
56 Anastopoulos I, Pashalidis I, Hosseini-Bandegharaei A, Giannakoudakis DA, Robalds A, Usman M, Escudero LB, Zhou Y, Colmenares JC, Núñez-Delgado A, Lima ÉC. Agricultural biomass/waste as adsorbents for toxic metal decontamination of aqueous solutions. Journal of Molecular Liquids. 2019: 295: 111684.
57 Lima DR, Hosseini-Bandegharaei A, Thue PS, Lima EC, de Albuquerque YR, dos Reis GS, Umpierres CS, Dias SL, Tran HN. Efficient acetaminophen removal from water and hospital effluents treatment by activated carbons derived from Brazil nutshells. Colloids and Surfaces A: Physicochemical and Engineering Aspects. 2019; 583: 123966.
58 Singh P, Sharma K, Hasija V, Sharma V, Sharma S, Raizada P, Singh M, Saini AK, Hosseini-Bandegharaei A, Thakur VK. Systematic review on applicability of magnetic iron oxides–integrated photocatalysts for degradation of organic pollutants in water. Materials Today Chemistry. 2019; 14: 100186.

59 Raizada P, Thakur P, Sudhaik A, Singh P, Khan AA, Thakur VK, Hosseini-Bandegharaei A. Fabrication of dual Z-scheme photocatalyst via coupling of BiOBr/Ag/AgCl heterojunction with P and S co-doped g-C_3N_4 for efficient phenol degradation. Arabian Journal of Chemistry. 2019; 10.1016/j.arabjc.2019.10.001

60 Lopičić Z, Šoštarić T, Hosseini-Bandegharaei A, Milojković J, Petrović M, Spajić KP, Avdalović J. The Investigation of Characteristics and Thermal Behaviour of Lignocellulosic Waste Biomass Using Thermogravimetric Analysis. Journal of Engineering & Processing Management. 2019; 11: 18-23.

61 Pankaj R, Anita S, Singh VP, Gupta VK, Hosseini-Bandegharaei A, Rajesh K, Pardeep S. Solar light assisted degradation of oxytetracycline from water using Bi2O3/Fe3O4 supported graphitic carbon nitride photocatalyst. Desalination and Water Treatment. 2019; 148: 338-50.

62 Tran HN, Nguyen HC, Woo SH, Nguyen TV, Vigneswaran S, Hosseini-Bandegharaei A, Rinklebe J, Kumar Sarmah A, Ivanets A, Dotto GL, Bui TT. Removal of various contaminants from water by renewable lignocellulose-derived biosorbents: a comprehensive and critical review. Critical Reviews in Environmental Science and Technology. 2019; 49(23): 2155-219.

63 Chandel N, Sharma K, Sudhaik A, Raizada P, Hosseini-Bandegharaei A, Thakur VK, Singh P. Magnetically separable ZnO/ZnFe2O4 and ZnO/CoFe2O4 photocatalysts supported onto nitrogen doped graphene for photocatalytic degradation of toxic dyes. Arabian Journal of Chemistry. 2020;13(2): 4324-40.

64 Al-Abbad E, Alakhras F, Anastopoulos I, Das D, Ahlam AA, Ouerfelli N, Hosseini-Bandegharaei A. Chitosan-Based Materials for the Removal of Nickel Ions from Aqueous Solutions. Russian Journal of Physical Chemistry A. 2020; 94(4): 748-55.

65 Riaz Q, Ahmed M, Zafar MN, Zubair M, Nazar MF, Sumrra SH, Ahmad I, Hosseini-Bandegharaei A. NiO nanoparticles for enhanced removal of methyl orange: equilibrium, kinetics, thermodynamic and desorption studies. International Journal of Environmental Analytical Chemistry. 2020, 24:1-20.

66 Kumar A, Raizada P, Singh P, Saini RV, Saini AK, Hosseini-Bandegharaei A. Perspective and status of polymeric graphitic carbon nitride based Z-scheme photocatalytic systems for sustainable photocatalytic water purification. Chemical Engineering Journal. 2020; 391: 123496.

67 Dutta V, Sharma S, Raizada P, Hosseini-Bandegharaei A, Kaushal J, Singh P. Fabrication of visible light active BiFeO3/CuS/SiO2 Z-scheme photocatalyst for efficient dye degradation. Materials Letters. 2020; 270: 127693.

68 Dalla Nora FB, Lima VV, Oliveira ML, Hosseini-Bandegharaei A, de Lima Burgo TA, Meili L, Dotto GL. Adsorptive potential of Zn–Al and Mg–Fe layered double hydroxides for the removal of 2–nitrophenol from aqueous solutions. Journal of Environmental Chemical Engineering. 2020; 8(4): 103913.

69 Kumar A, Raizada P, Singh P, Hosseini-Bandegharaei A, Thakur VK. Facile synthesis and extended visible light activity of oxygen and sulphur co-doped carbon nitride quantum dots modified Bi2MoO6 for phenol degradation. Journal of Photochemistry and Photobiology A: Chemistry. 2020; 397: 112588.

70 Navya A, Nandhini S, Sivamani S, Vasu G, Sivarajasekar N, Hosseini-Bandegharaei A. Preparation and characterization of cassava stem biochar for mixed reactive dyes removal from simulated effluent. Desalination and Water Treatment. 2020; 189: 440-51.

71 Chandel N, Sharma Sh, Dutta V, Raizada P, Hosseini-Bandegharaei A, Kumar R, Gupta V K, Agarwal Sh, Singh P. Adsorption and photocatalysis compiled toxic dyes mineralization using graphitic carbon nitride modified ZnFe2O4 and CoFe2O4 photocatalysts supported onto N-doped graphene. Desalination and Water Treatment. 2020; 191: 381-399.
72 Chnadel N, Dutta V, Sharma S, Raizada P, Hosseini-Bandegharaei A, Kumar R, Singh P, Thakur VK. Z-scheme photocatalytic dye degradation on AgBr/Zn (Co) Fe2O4 photocatalysts supported on nitrogen-doped graphene. Materials Today Sustainability. 2020; 9: 100043.
73 Sudhaik A, Raizada P, Thakur S, Saini AK, Singh P, Hosseini-Bandegharaei A. Metal-free photo-activation of peroxymonosulfate using graphene supported graphitic carbon nitride for enhancing photocatalytic activity. Materials Letters. 2020; 277:128277.
74 Munir M, Nazar MF, Zafar MN, Zubair M, Ashfaq M, Hosseini-Bandegharaei A, Khan SU, Ahmad A. Effective adsorptive removal of methylene blue from water by didodecyldimethylammonium bromide-modified Brown clay. ACS omega. 2020; 5(27): 16711-21.
75 Nguyen DT, Tran HN, Juang RS, Dat ND, Tomul F, Ivanets A, Woo SH, Hosseini-Bandegharaei A, Chao HP. Adsorption process and mechanism of acetaminophen onto commercial activated carbon. Journal of Environmental Chemical Engineering. 2020; 8(6): 104408.
76 Kumar R, Sudhaik A, Raizada P, Hosseini-Bandegharaei A, Thakur VK, Saini A, Saini V, Singh P. An overview on bismuth molybdate based photocatalytic systems: Controlled morphology and enhancement strategies for photocatalytic water purification. Journal of Environmental Chemical Engineering. 2020; 8(5): 104291.
77 Sudhaik A, Raizada P, Thakur S, Saini AK, Singh P, Hosseini-Bandegharaei A, Lim JH, Jeong DY, Nguyen VH. Peroxymonosulphate-mediated metal-free pesticide photodegradation and bacterial disinfection using well-dispersed graphene oxide supported phosphorus-doped graphitic carbon nitride. Applied Nanoscience. 2020; 10(11): 4115-37.
78 Sharma S, Dutta V, Raizada P, Hosseini-Bandegharaei A, Singh P, Nguyen VH. Tailoring cadmium sulfide-based photocatalytic nanomaterials for water decontamination: a review. Environmental Chemistry Letters. 2021; 19(1): 271-306.
79 Kouznetsova T, Ivanets A, Prozorovich V, Hosseini-Bandegharaei A, Tran HN, Srivastava V, Sillanpää M. Sorption and mechanism studies of Cu2+, Sr2+ and Pb2+ ions on mesoporous aluminosilicates/zeolite composite sorbents. Water Science and Technology. 2020; 82(5): 984-97.
80 Sharma K, Raizada P, Hosseini-Bandegharaei A, Thakur P, Kumar R, Thakur VK, Nguyen VH, Pardeep S. Fabrication of efficient CuO/graphitic carbon nitride based heterogeneous photo-Fenton like catalyst for degradation of 2, 4 dimethyl phenol. Process Safety and Environmental Protection. 2020; 142: 63-75.
81 Hasija V, Raizada P, Hosseini-Bandegharaei A, Singh P, Nguyen VH. Synthesis and photocatalytic activity of Ni–Fe Layered double hydroxide modified sulphur doped graphitic carbon nitride (SGCN/Ni–Fe LDH) photocatalyst for 2, 4-dinitrophenol degradation. Topics in Catalysis. 2020; 63(11): 1030-45.
82 Sudhaik A, Raizada P, Singh P, Hosseini-Bandegharaei A, Thakur VK, Nguyen VH. Highly effective degradation of imidacloprid by H2O2/fullerene decorated P-doped g-

C3N4 photocatalyst. Journal of Environmental Chemical Engineering. 2020; 8(6): 104483.
83 Alahabadi A, Singh P, Raizada P, Anastopoulos I, Sivamani S, Dotto GL, Landarani M, Ivanets A, Kyzas GZ, Hosseini-Bandegharaei A. Activated carbon from wood wastes for the removal of uranium and thorium ions through modification with mineral acid. Colloids and Surfaces A: Physicochemical and Engineering Aspects. 2020; 607: 125516.
84 Moallaei H, Bouchara JP, Rad A, Singh P, Raizada P, Tran HN, Zafar MN, Giannakoudakis DA, Hosseini-Bandegharaei A. Application of Fusarium sp. immobilized on multi-walled carbon nanotubes for solid-phase extraction and trace analysis of heavy metal cations. Food chemistry. 2020; 322: 126757.
85 Shandilya P, Sudhaik A, Raizada P, Hosseini-Bandegharaei A, Singh P, Rahmani-Sani A, Thakur V, Saini AK. Synthesis of eu3+− doped zno/bi2o3 heterojunction photocatalyst on graphene oxide sheets for visible light-assisted degradation of 2, 4-dimethyl phenol and bacteria killing. Solid State Sciences. 2020; 102: 106164.
86 Rastegar A, Gholami M, Jafari AJ, Hosseini-Bandegharaei A, Kermani M, Hashemi YK. Use of NH 4 Cl for activation of carbon xerogel to prepare a novel efficacious adsorbent for benzene removal from contaminated air streams in a fixed-bed column. Journal of Environmental Health Science and Engineering. 2020; 18(2): 1141-9.
87 Rahmani-Sani A, Singh P, Raizada P, Lima EC, Anastopoulos I, Giannakoudakis DA, Sivamani S, Dontsova TA, Hosseini-Bandegharaei A. Use of chicken feather and eggshell to synthesize a novel magnetized activated carbon for sorption of heavy metal ions. Bioresource Technology. 2020; 297: 122452.
88 Karbalaie B, Rajabi M, Fahimirad B. Dopamine-modified magnetic graphene oxide as a recoverable sorbent for the preconcentration of metal ions by an effervescence-assisted dispersive micro solid-phase extraction procedure. Analytical Methods. 2020; 12(18): 2338-46.
89 Rajabi M, Abolhosseini M, Hosseini-Bandegharaei A, Hemmati M, Ghassab N. Magnetic dispersive micro-solid phase extraction merged with micro-sampling flame atomic absorption spectrometry using (Zn-Al LDH)-(PTh/DBSNa)-Fe3O4 nanosorbent for effective trace determination of nickel (II) and cadmium (II) in food samples. Microchemical Journal. 2020; 159: 105450.
90 Lima EC, Sher F, Guleria A, Saeb MR, Anastopoulos I, Tran HN, Hosseini-Bandegharaei A. Is one performing the treatment data of adsorption kinetics correctly?. Journal of Environmental Chemical Engineering. 2021; 9(2): 104813.
91 Kumar A, Raizada P, Hosseini-Bandegharaei A, Thakur VK, Nguyen VH, Singh P. C-, N-Vacancy defect engineered polymeric carbon nitride towards photocatalysis: viewpoints and challenges. Journal of Materials Chemistry A. 2021; 9(1): 111-53.
92 Meez E, Hosseini-Bandegharaei A, Rahdar A, Thysiadou A, Matis KA, Kyzas GZ. Synthetic Oil-Spills Decontamination by Using Sawdust and Activated Carbon from Aloe vera as Absorbents. Biointerface Research in Applied Chemistry. 2021; 11(4): 11778-11796
93 Ivanets A, Prozorovich V, Kouznetsova T, Dontsova T, Yanushevska O, Hosseini-Bandegharaei A, Srivastava V, Sillanpää M. Effect of Mg2+ ions on competitive metal ions adsorption/desorption on magnesium ferrite: Mechanism, reusability and stability studies. Journal of Hazardous Materials. 2021; 411: 124902.

94 Ivanets A, Prozorovich V, Roshchina M, Kouznetsova T, Budeiko N, Kulbitskaya L, Hosseini-Bandegharaei A, Masindi V, Pankov V. A comparative study on the synthesis of magnesium ferrite for the adsorption of metal ions: Insights into the essential role of crystallite size and surface hydroxyl groups. Chemical Engineering Journal. 2021; 411: 128523.
95 Soni V, Raizada P, Kumar A, Hasija V, Singal S, Singh P, Hosseini-Bandegharaei A, Thakur VK, Nguyen VH. Indium sulfide-based photocatalysts for hydrogen production and water cleaning: a review. Environmental Chemistry Letters. 2021; 4: 1-31.
96 Sharma S, Dutta V, Raizada P, Hosseini-Bandegharaei A, Thakur VK, Kalia S, Nguyen VH, Singh P. Recent advances in silver bromide-based Z-scheme photocatalytic systems for environmental and energy applications: A review. Journal of Environmental Chemical Engineering. 2021; 9(2): 105157.
97 Kumar R, Raizada P, Verma N, Hosseini-Bandegharaei A, Thakur VK, Nguyen VH, Singh P. Recent advances on water disinfection using bismuth based modified photocatalysts: Strategies and challenges. Journal of Cleaner Production. 2021; 297: 126617.
98 Udayakumar GP, Muthusamy S, Selvaganesh B, Sivarajasekar N, Rambabu K, Banat F, Sivamani S, Sivakumar N, Hosseini-Bandegharaei A, Show PL. Biopolymers and composites: Properties, characterization and their applications in food, medical and pharmaceutical industries. Journal of Environmental Chemical Engineering. 2021; 9(4): 105322.
99 Hasija V, Raizada P, Hosseini-Bandegharaei A, Thakur VK, Van Le Q, Nguyen VH, Singh P. A strategy to develop efficient Ag3PO4-based photocatalytic materials toward water splitting: Perspectives and challenges. ChemCatChem. 2021; 13: 1-24.
100 Kumar JA, Krithiga T, Anand KV, Sathish S, Namasivayam SK, Renita AA, Hosseini-Bandegharaei A, Praveenkumar TR, Rajasimman M, Bhat NS, Dutta S. Kinetics and regression analysis of phenanthrene adsorption on the nanocomposite of CaO and activated carbon: Characterization, regeneration, and mechanistic approach. Journal of Molecular Liquids. 2021; 334: 116080.
101 Sharma S, Dutta V, Raizada P, Hosseini-Bandegharaei A, Thakur VK, Singh A, Van Le Q, Nguyen VH, Singh P. Constructing a novel all-solid-state Z-scheme BiVO4/CQDs/FeVO4 photocatalyst and its enhancement to the photocatalytic activity. Materials Letters. 2021; 297: 129940.
102 Sivamani S, Prasad BN, Nithya K, Sivarajasekar N, Hosseini-Bandegharaei A. Back-propagation neural network: Box–Behnken design modelling for optimization of copper adsorption on orange zest biochar. International Journal of Environmental Science and Technology. 2021; https://doi.org/10.1007/s13762-021-03411-1
103 Sharma S, Dutta V, Raizada P, Hosseini-Bandegharaei A, Thakur V, Nguyen VH, VanLe Q, Singh P. An overview of heterojunctioned ZnFe2O4 photocatalyst for enhanced oxidative water purification. Journal of Environmental Chemical Engineering. 2021; 9(5): 105812.
104 Kumar JA, Kumar PS, Krithiga T, Prabu D, Amarnath DJ, Sathish S, Venkatesan D, Hosseini-Bandegharaei A, Prashant P. Acenaphthene adsorption onto ultrasonic assisted fatty acid mediated porous activated carbon-characterization, isotherm and kinetic studies. Chemosphere. 2021; 284: 131249.

105 Udayakumar GP, Muthusamy S, Selvaganesh B, Sivarajasekar N, Rambabu K, Sivamani S, Sivakumar N, Maran JP, Hosseini-Bandegharaei A. Ecofriendly biopolymers and composites: Preparation and their applications in water-treatment. Biotechnology Advances. 2021; 13: 107815.

106 Dontsova Tetiana, Kutuzova Anastasiya, Hosseini-Bandegharaei A. Characterization and Properties of Titanium(IV) Oxide, Synthesized by Different Routes. Chemistry and Chemical Technology. 2021; 15: 465-474

107 Kumar JA, Krithiga T, Manigandan S, Sathish S, Renita AA, Prakash P, Prasad BN, Kumar TP, Rajasimman M, Bandhegrahei AH, Prabu D. A focus to green synthesis of metal/metal based oxide nanoparticles: Various mechanisms and applications towards ecological approach. Journal of Cleaner Production. 2021; 30: 129198.

108 Alfred MO, Koko DT, Hosseini-Bandegharaei A, Motheo AJ, Unuabonah EI. The Halogen-Oxyanion Derivatives as Contaminants of Concern in Water. In Progress and Prospects in the Management of Oxyanion Polluted Aqua Systems 2021 (pp. 263-291). Springer, Cham.

109 Khalesi S, Fahimirad B, Rajabi M, Hosseini-Bandegharaei A. Coating of porous graphitic carbon nitride modified with titanium dioxide (OH-g-C3N4/TiO2) on Ag wire as an SPME fiber for extraction of lead. Journal of Sol-Gel Science and Technology. 2022; 1-5. https://doi.org/10.1007/s10971-022-05812-1

110 Khalesi S, Fahimirad B, Rajabi M, Baigenzhenov O, Hosseini-Bandegharaei A. Synthesis and comparison of two different morphologies of graphitic carbon nitride as adsorbent for preconcentration of heavy metal ions by effervescent salt-assisted dispersive micro solid phase extraction method. Journal of Dispersion Science and Technology. 2022;1-10. https://doi.org/10.1080/01932691.2022.2059507

111 Shahryari T, Singh P, Raizada P, Davidyants A, Thangavelu L, Sivamani S, Naseri A, Vahidipour F, Ivanets A, Hosseini-Bandegharaei A. Adsorption properties of Danthron-impregnated carbon nanotubes and their usage for solid phase extraction of heavy metal ions. Colloids and Surfaces A: Physicochemical and Engineering Aspects. 2022; 641:128528.

112 Dontsova T, Kutuzova A, Hosseini-Bandegharaei A. Characterization and Properties of Titanium(IV) Oxide, Synthesized by Different Routes. Chemistry and Chemical Technology. 2022;15(4):465-74.

113 Goudarzi M, Fahimirad B, Rajabi M, Baigenzhenov O, Hosseini-Bandegharaei A. Recruiting chemical grafting method for surface modification of stainless steel to fabricate a selective sorbent for solid phase microextraction of mercury metal ion. Environmental Science and Pollution Research. ACCEPTED

Articles delivered in international and national symposia as *lecture*

No.	Title
1	A. Hosseini-Bandegharaei, M.S. Hosseini, Using quinizarin- impregnated XAD-16 for preconcentration of some heavy metals from different samples and their determination by FAAS, 15th Iranian seminar of analytical chemistry, Shiraz university, Shiraz, Iran, February 2007
2	Y. jalalabadi, A. Hosseini-Bandegharaei, E. Hosseini, et al., Selective separation and pre-concentration of U(VI) and Th(IV) in various samples by embonic acid-impregnated XAD-16 resin beads and and their determination by arsenazo III spectrophotometric method, 4th National Seminar on Chemistry and Environment, Persian gulf and Oman sea ecological research institute, Bandar Abbas, Iran, 27 & 28 April 2010.
3	A. Hosseini-Bandegharaei, M.S. Hosseini, Column packed with titan yellow-impregnated XAD-7 resin beads and its application to separation and pre-concentration of U(VI) and Th(IV) in various samples and their determination by arsenazo III spectrophotometric method, 4th National Seminar on Chemistry and Environment, Persian gulf and Oman sea ecological research institute, Bandar Abbas, Iran, 27 & 28 April 2010.
4	A. Hosseini-Bandegharaei, M.S. Hosseini, M. Sarwghad et al., Kinetics and equilibrium study of Cr(VI) sorption into toluidine blue o-impregnated XAD-7 resin beads and its possible application for treatment of wastewaters containing Cr(VI), 4th National Seminar on Chemistry and Environment, Persian gulf and Oman sea ecological research institute, Bandar Abbas, Iran, 27 & 28 April 2010.
5	A. Hosseini-Bandegharaei, A. Taherian, F. Nowrrozi et al., Preconcentration of Cd(II) existing in some biological and environmental samples by a micro-column packed with calcon-impregnated IRA-420 resin beads for online determination by flame atomic

absorption spectrometry, 4th National Seminar on Chemistry and Environment, Persian gulf and Oman sea ecological research institute, Bandar Abbas, Iran, 27 & 28 April 2010.

6 A. Hosseini-Bandegharaei, M.S. Hosseini, Selective extraction and pre-concentration of uranium (VI) and thorium (IV) by using carmine-impregnated IRA-410 resin beads, 17th Iranian Seminar of Analytical Chemistry, University of Kashan, Kashan, Iran, 12-14 September 2010.

7 A.A. Heidarbeigi, Ahmad Hosseini-Bandegharei, Application of polystyrene resins impregnated with 4-(2pyridilazo) resorcinol to treatment of lead-contaminated waters, Kashan branch, Islamic Azad University, Kashan, Iran, National conference on water and wastewater, 23 & 24 May 2012.

8 M. Nedaie, A. Hosseini-Bandegharaei, M.S. Hosseini, et al., Speciation and determination of chromium in various cement samples and their precursors for the purpose of investigation of effect of precursors matrix on the transformation of different species of chromium into one another, Kashan branch, Islamic Azad University, Kashan, Iran, National conference on water and wastewater, 23 & 24 May 2012.

9 Y. Jalalabadi, A. Hosseini-Bandegharaei, Removal and recovery of uranium and thorium from contaminated industrial wastewaters using carmine-impregnated XAD-16 resin, 2nd international Conference on Application of Chemistry in Novel Technology, Jami Institute of Higher Education, Isfahan, Iran, 15 November 2012.

10 M. Sarwghadi, A. Hosseini-Bandegharaei, B. Behboodian, Use of Staphylococcus aureus-loaded XAD-1180 resin for the removal of Cd(II) ions from industrial wastewaters containing Cd(II), 1st National Conference on Industrial Water and Wastewater Treatment, Islamic Azad University, Mahshahr, Iran, 29 & 30 November 2012.

11 A. Heydarbeigi, A. Hosseini-Bandegharaei, Chrome Azurol B (CAB)-impregnated XAD-2010 resin as an excellent adsorbent for uranium removal from industrial wastewaters: Kinetics and equilibrium studies, 1st National Conference on Industrial Water and Wastewater Treatment, Islamic Azad University, Mahshahr, Iran, 29 & 30 November 2012.

12 S.H. Hosseini, A. Hosseini-Bandegharaei, M. Sarwghadi, Study of kinetic, equilibrium, and thermodynamic aspects of lead ion sorption and recover from industrial wastewaters using a vesuvin-impregnated resin, 7th International Symposium on Advances in Science and Technology (7thSASTech), Khavaran Institute of Higher Education, Mashhad, Iran, 14 & 15 February 2013.

13 M. Sarwghadi, B. Behbodian A. Hosseini-Bandegharaei, Assessment of a continuous system for cadmium adsorption from aqueous solutions by staphylococcus aureus-modified XAD-1180, 7th International Symposium on Advances in Science and Technology (7thSASTech), Khavaran Institute of Higher Education, Mashhad, Iran, 14 & 15 February 2013.

14 M. Sarwghadi, B. Behbodian A. Hosseini-Bandegharaei, Assessment of a continuous system for cadmium adsorption from aqueous solutions by staphylococcus aureus-modified XAD-1180, 7th International Symposium on Advances in Science and Technology (7thSASTech), Khavaran Institute of Higher Education, Mashhad, Iran, 14 & 15 February 2013. (7thSASTech), Khavaran Institute of Higher Education, Mashhad, Iran, 14 & 15 February 2013.

15 M. Sarwghadi, Bita Behbodian A. Hosseini-Bandegharaei, Assessment of a continuous system for cadmium adsorption from aqueous solutions by staphylococcus aureus-modified XAD-1180, 7th International Symposium on Advances in Science and Technology (7thSASTech), Khavaran Institute of Higher Education, Mashhad, Iran, 14 & 15 February 2013.

16 A.A. Heidarbeigi, S.H. Hosseini, Ahmad Hosseini-Bandegharei, A review of the factors affecting the discharge of deep and semi-deep wells used in the supply of municipal drinking water or agricultural water and the investigation of new technologies and appropriate scientific and practical solutions for their recovery, First National Conference on Architecture, Restoration, Urban Environment and Sustainable Development, Shahid Mofatteh University of Hamedan, Hamedan, Iran, 9 September 2013.

17 H. Zarei, A. Hosseini-Bandegharaei, Determination of low levels of toxic metals in the surface of tall building by AAS method after using solid-phase extraction technique, Shahid Mofatteh University of Hamedan, Hamedan, Iran, The Second National Conference on environmental Research, 7 & 8 August 2014.

18 M.R. Javadi, A. Hosseini-Bandegharaei, Treatment of industrial wastewaters containing Pb(II) ion in both batch an continuous system using a modified, selective macroporous resin, Shahid Mofatteh University of Hamedan, Hamedan, Iran, The Second National Conference on environmental Research, 7 & 8 August 2014.

19 S.H. Hosseini, F. Najjar, A. Hosseini-Bandegharaei, Application of pomegranate peels to treating wastewaters containing heavy metal ions, Shahid Mofatteh University of Hamedan, Hamedan, Iran, The Second National Conference on environmental Research, 7 & 8 August 2014.

20 S.H. Raeesosadati, A. Hosseini-Bandegharaei, A. Taherian, Examination of MWCNTs for removal of water hardness, 2nd National Conference on Health, Environment and Sustainable Development, Shahid Mofatteh University of Hamedan, Hamedan, Iran, 11 & 12 June, 2015.

21 H. Shoghi, W. Abtahi, A. Hosseini-Bandegharaei et al., Effect of nanoferrite addition on the compressive strength of concrete, 9th National Congress on Civil Engineering. Ferdowsi University, Mashahad, Iran, 10 & 11 May 2016.

22 A. Hosseini-Bandegharaei, Application of some explosive materials in production of surface-engineered activated carbons from agricultural wastes, using a single- or two-stage activation process, and studding the performance of the prepared adsorbents for removal of pollutants from aqueous media, 26th Iranian seminar of analytical chemistry, Semnan University, Semnan, Iran, 25-27 August 2019

Research projects in which I have had the role of *director*

No.	Title
1	Separation and preconcentration of uranium and thorium by nitrated XAD-16 particles impregnated with embonic acid.
2	Separation of uranium and thorium from heavy metal ions using carmine-impregnated IR-410.
3	Usage of carmine-impregnated XAD-16 for removal of uranium and thorium from aqueous solutions: equilibrium, kinetic and thermodynamic modeling.
4	Equilibrium, kinetic, and thermodynamic modeling of uranium removal from aqueous solutions by chrome azurol B-impregnated XAD-2010.
5	Determination of soluble Cr(VI) amounts of various cements and assessing the long-term environmental effects of their usage in buildings.
6	Kinetic, thermodynamic, and equilibrium studies of treatment of wastewaters containing Cr(VI), using a macroporous resin impregnated with crystal violet.
7	Application of polystyrene resins impregnated with 4-(2pyridilazo) resorcinol to treatment of lead-contaminated waters.
8	Preconcentration of Cr(VI) ion by brilliant green-impregnated macroporous resin and its determination by a spectrophotometric procedure.
9	Modelling cadmium adsorption from aqueous solutions in a batch system by staphylococcus aureus-modified XAD-1180.
10	Cadmium preconcentration in urine and other biological samples by calcon-impregnated IRA-420 and on-line determination by ICP-AAS.
11	Assessing the feasibility of preparation of a color strip for visual determination of uranium

12 Designing a continuous system for cadmium adsorption from aqueous solutions by staphylococcus aureus-modified XAD-1180.
13 Study of equilibrium, kinetic, and thermodynamic properties of adsorption and recovery of uranium and thorium by the beads of a ligand-impregnated macroporous resin.
14 Assessing and modeling of lead ion sorption from aqueous solutions in a bath system using a vesuvin-impregnated resin.
15 Application of polystyrene and non-polystyrene resins impregnated with thiazolylazo ligands in treating wastewaters containing heavy metal ions before their reuse for agricultural purposes.
16 Designing and assessing a continuous sorption system for lead ion using a vesuvin-impregnated XAD-1160 resin beads.
17 Application of pomegranate peels to treating wastewaters containing heavy metal ions
18 Assessment of feasibility of resolving the obstruction of filters applied in the pumps of deep well and semi-deep wells without having to raise them from the wells.
19 Determination of arsenic soluble amounts of various building materials and assessing the long-term environmental effects of their use in buildings.
20 Design and assessment of a continuous system for the sorption of lead ions from contaminated waters by 4-(2-pyridyazo) resorcinol.
21 Effect of simultaneous addition of used tire and oxidized carbon nanotube on the compressive strength of concrete.
22 Determination of low levels of toxic metals in the surface of tall building by AAS method after using solid-phase extraction technique.
23 Review of nanomaterials addition to concrete and effect of nanoferrite addition on its compressive strength.
24 Treatment of industrial wastewaters containing Pb(II) ion in both batch an continuous system using a modified, selective macroporous resin.
25 Studding of equilibrium, kinetic and thermodynamic properties of uranium and thorium recovery from aqueous solutions utilizing titan yellow-impregnated macroporous resin beads.
26 Using a thiazolylazo dye for modifying the surface of activated carbon and studding its interaction with metal ions in aqueous solutions.
27 Activation of activated carbon obtained from chicken feather by eggshell and its usage for removal of heavy metal ions from contaminated water resources.
28 Exploiting dihydroxy-antraquinones for modifying carbon nanotube surface and preconcentration and determination of heavy metal ions in food samples.
29 Removal of thorium from weakly acidic wastewaters using eosin scarlet- fluorescein-impregnated resins.
30 Utilization of dihydroxyantaquinone compounds for modification of granular activated carbon and removal of mercury, lead, cadmium, zinc, copper, and nickel from polluted water resources.
31 Solid phase extraction of mercury and cadmium from man hair and other samples using polymers modified with azo ligands and FAAS technique.
32 Modification of the surface of macropourous polystyrene polymers with gram-positive bacteria and their application to removal of some heavy metals from polluted sources.
33 Kinetics, equilibrium and thermodynamic study and comparing removal performance of sulfamethoxazole, tylosin, chlorotetracycline, ciprofloxacin and tetracycline antibiotics

from different waters and wastewaters using conventional and modified polystyrene resin, carbon nanotubes and modified carbon nanotubes.

34 Use of carmine -impregnated XAD -7 resin for removal and recovery of uranium and thorium from acidic industrial wastewaters: thermodynamic, equilibrium and kinetic modeling.

35 Use of ammonium nitrate for preparation of a highly-ordered mesoporous activated carbon and its application to fabrication of an amorphous oral drug delivery system for a model low-soluble drug (simvastatin).

36 Chemical modification of bulrush wastes using different acids and its application to adsorption of dangerous heavy metals ions.

37 Survey of absorptive interaction of some filamentous fungi with uranium and thorium radio nuclides in aqueous media.

38 Preparation of porous hydrochar and biochar microspheres from bulrush and applying them to adsorption of lead, copper, methylene green, phenol and chlortetracycline from aqueous solutions.

39 Two-stage modification of activated carbon prepared from sycamore wood wastes by ammonium chloride and an oxidative composition and its application to removal of U(VI) and Th(IV) ions from aqueous solutions.

40 Sorption of radionuclides uranium and thorium from aqueous solutions by MWCNTs modified with carminic acid and Br-PADAP.

41 Survey of ability of acremonium fungus for adsorption of copper from solid wastes, wastewaters and environmental samples.

42 Introducing a novel method for surface engineering of activated carbon prepared from agriculture wastes by mutual modification with ammonium nitrate and nano zinc oxide, and comparing its performance with that of traditional activated carbon in the removal of Hg(II) ion from synthetic aqueous solutions.

43 Removal of lead from synthetic aqueous solutions by carbon produced from pistachio wood, after its two-stage activation using ammonium nitrate and alkali agents.

44 Investigation of phenol removal from synthetic solutions and hospital wastewaters using an activated carbon prepared from agriculture wastes by modification with ammonium nitrate.

45 Use of three different bacteria (Bacillus cereus, Enterobacter cloacae, and staphylococcus epidermidis) for biosorption of uranium and thorium radionuclides from aqueous media.

46 Determination of trace levels of heavy metals in environmental samples after their preconcentration using carbon nanotubes modified with Dantron.

47 Design of a fluorescent nanosensor designed by carbon quantum dots embedded silica molecularly imprinted polymer for determination of diazepam in blood serum and urine.

48 Synthesis of a novel photocatalyst by immobilization of Eu^{3+}-doped ZnO and Bi_2O_3 nanoparticles on the graphene oxide sheets and its application to solar light-assisted degradation of three phenolic compounds (phenol, 2,4dimethylphenol, and 2,4 dinitrophenol).

49 Synthesis and evaluation aerogel nanocomposit (Si-C) and surface modifying by chemical activation method and doping with TiO_2 and Ag for the photocatalytic removal of benzene and toluene from polluted air streams in fluidized bed photo reactor.

50 Preparation of bio polymeric aerogels based catalytic filters for bioaerosel removing from contaminated air.

51 Examination of carbon nanotubes and their modification for removal of water hardness.