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Publications

Journals

- Issa Sardivand-chegini, Saeed Zakavi, Mohammad Ali Rezvani, "Keggin-type polyoxometalates/Amberlite nanocomposites as efficient catalysts for the aqueous oxidation of sulfides: Crucial roles of mono-iron and mono-manganese substituents", Inorganic Chemistry Communications, Vol. 169, NO. 1, pp. 113076-113088, 9, 2024, doi: <https://doi.org/10.1016/j.inoche.2024.113076>
- Khaledian, Arash; Zakavi, Saeed, "Porphyrin photosensitizers compatible with both aqueous and non-aqueous conditions: Acid dependent spectral, solubility and photocatalytic properties of meso-tetra(pyridyl)porphyrins", Inorganic Chemistry Communications, Vol. 167, NO. 1, pp. 112727-112737, 6, 2024, doi: <https://doi.org/10.1016/j.inoche.2024.112727>
- Nasrin Ghanbari, Saeed Zakavi, "Photosensitizing activity of phthalocyanine derivatives dispersed on nanostructured amberlyst 15: Free base vs. metal complexes", Dyes and Pigments, Vol. 224, NO. 1, pp. 111999-112010, 3, 2024, doi: <https://doi.org/10.1016/j.dyepig.2024.111999>
- Saeed Zakavi, Narges Nazari, Issa Sardivand-chegini, Farzaneh Qodrati-nasrabadi, "A porphyrin derivative with highly red shifted and intensified absorption bands immobilized into the mesopores of nanostructured amberlite: Synthesis,



characterization and photocatalytic activity", Journal of Photochemistry & Photobiology, A: Chemistry, Vol. 442, NO. 1, pp. 114751-114761, 2023, doi:

<https://doi.org/10.1016/j.jphotochem.2023.114751>

- S. Mohaddeseh Hosseini, Vahideh Lamepour-giglou, Saeed Zakavi, "Synthesis, characterization and application of a highly dispersed and reactive hypervalent iodine(V)/polyvinylpyrrolidone dendrimer nanocomposite: Hetero- vs. homo-intermolecular secondary O---I bonds", Journal of Molecular Liquids, Vol. 383, NO. 1, pp. 122141-122153, 5, 2023, doi:
<https://doi.org/10.1016/j.molliq.2023.122141>
- Ali Mohammadi, Saeed Zakavi, Hamid Rashidzadeh, Neda Adibpour, Jaleh Karimi Moghadam, Behrooz Johari, Hossein Danafar, "The fabrication of albumin- Tetraphenylporphyrin -metronidazole nanosystem as potential photosensitizers/radiosensitizers for radiation-induced cancer therapy", Inorganic Chemistry Communications, Vol. 153, NO. 1, pp. 110841-110848, 5, 2023, doi:
<https://doi.org/10.1016/j.inoche.2023.110841>
- Issa Sardivand-chegini, Saeed Zakavi,* and Mohammad Ali Rezvani, "Periodate-Mediated Aerobic Oxidation of Sulfides over a Bifunctional Porphyrin-polyoxometalate Catalyst: Photosensitized Singlet Oxygen Oxidation of Iodate to Periodate", Inorganic Chemistry, Vol. 62, NO. 33, pp. 13387-13399, 8, 2023, doi:
<https://doi.org/10.1021/acs.inorgchem.3c01740>
- Ghanbari, Nasrin and Zakavi, Saeed, "A hypervalent iodine secondary oxidant synthesized by photosensitized singlet oxygen: Synthesis, characterization and oxidative reactivity", Journal of Catalysis, Vol. 405, NO. 3, 2022
- Mostafa Malek-mohammadi, Akram Heydari-turkmani, Saeed Zakavi, Nasser Nikfarjam, "Manganese porphyrins/mesoporous amberlyst 15 nanocomposites: Robust biomimetic catalysts for



aqueous oxidation of olefins", Applied Organometallic Chemistry, 10, 2022, doi: https://doi.org/10.1002/aoc.692710990739_0, Downloaded from <https://onlinelibrary.wiley.com/doi/10.1002/aoc.6927> by Kwame Nkrumah Univ of Sci & Te, Wiley Online Library on [25/10/2022]. See the Term

- Nasrin Ghanbari, Saeed Zakavi, "A hypervalent iodine secondary oxidant synthesized by photosensitized singlet oxygen: Synthesis, characterization and oxidative reactivity", Journal of Catalysis, 12, 2021, doi: <https://doi.org/10.1016/j.jcat.2021.11.015>
- Fozeieh Nami, Aida G. Mojarrad, Saeed Zakavi , "Short time biomimetic oxidation of styrene with aqueous hydrogen peroxide: Crucial roles played by acetic acid", Polyhedron, Vol. 207, 10, 2021, doi: <https://doi.org/10.1016/j.poly.2021.115377>
- Aida G. Mojarrad and Saeed Zakavi , "Lewis acid induced spectral changes of sterically hindered and unhindered meso-tetra(aryl)porphyrins: fluorescence emission spectra", New J. Chem., Vol. 44, 1, 2020, doi: <https://doi.org/10.1039/C9NJ06040E>
- Mojarrad, Aida G and Zakavi, Saeed, "Significantly Increased Stability of Donor--Acceptor Molecular Complexes under Heterogeneous Conditions: Synthesis, Characterization, and Photosensitizing Activity of a Nanostructured Porphyrin--Lewis Acid Adduct", ACS Applied Materials & Interfaces, Vol. 12, NO. 41, 2020
- Saeed Zakavi, Hadi Yavari, Akram Heydari-turkmani, Leila Alghooneh, "Effect of degree of b-chlorination on photocatalytic activity of meso-tetraphenylporphyrin under homogeneous and nanoscale heterogeneous conditions: Chlorination vs. bromination", Journal of Catalysis, Vol. 387, 4, 2020, doi: <https://doi.org/10.1016/j.jcat.2020.04.018>
- Aida G. Mojarrad and Saeed Zakavi, "Significantly Increased



Stability of Donor–Acceptor Molecular Complexes under Heterogeneous Conditions: Synthesis, Characterization, and Photosensitizing Activity of a Nanostructured Porphyrin–Lewis Acid Adduct", ACS Appl. Mater. Interfaces, Vol. 12, NO. 41, 10, 2020, doi: <https://dx.doi.org/10.1021/acsami.0c13598>

- Zakavi, Saeed and Yavari, Hadi and Heydari-turkmani, Akram and Alghooneh, Leila, "Effect of degree of β -chlorination on photocatalytic activity of meso-tetraphenylporphyrin under homogeneous and nanoscale heterogeneous conditions: Chlorination vs. bromination", Journal of catalysis, Vol. 387, NO. 7, 2020
- Mojarrad, Aida G and Zakavi, Saeed, "Lewis acid induced spectral changes of sterically hindered and unhindered meso-tetra (aryl) porphyrins: fluorescence emission spectra", New Journal of Chemistry, Vol. 44, NO. 7, 2020
- Rahele Nasrollahi, Akram Heydari-turkmani and Saeed Zakavi, "Kinetic and mechanistic aspects of solid state, nanostructured porphyrin diacid photosensitizers in photooxidation of sulfides", Catalysis Science & Technology, Vol. 2019, NO. 5, 2, 2019, doi: [10.1039/C8CY02433B](https://doi.org/10.1039/C8CY02433B)
- Nasrollahi, Rahele and Heydari-turkmani, Akram and Zakavi, Saeed, "Electronic Supplementary Information for Kinetic and mechanistic aspects of solid state, nanostructured porphyrin diacid photosensitizers in photooxidation of sulfides", Journal of Catalysis, Vol. 380, NO. 23, 2019
- Zakavi, Saeed and Naderloo, Mortaza and Heydari-turkmani, Akram and Alghooneh, Leila and Eskandari, Mortaza, "Effects of β -bromine substitution and core protonation on photosensitizing properties of porphyrins: Long wavelength photosensitizers", Journal of Catalysis, Vol. 380, NO. 23, 2019
- Saeed Zakavi, Mortaza Naderloo, Akram Heydari-turkmani, Leila Alghooneh, Mortaza Eskandari, "Effects of β -bromine substitution and core protonation on photosensitizing



properties of porphyrins: Long wavelength photosensitizers",
Journal of Catalysis, 11, 2019, doi:
<https://doi.org/10.1016/j.jcat.2019.10.005>

- Raheleh Nasrollahi, Luis Martín-Gomis, Fernando Fernández-Lázaro, Saeed Zakavi and Ángela Sastre-Santos , "Effect of the Number of Anchoring and Electron-Donating Groups on the Efficiency of Free-Base- and Zn-Porphyrin-Sensitized Solar Cells", Materials, Vol. 12, NO. 4, 2, 2019, doi:
<https://doi.org/10.3390/ma12040650>
- Zahra Esfandiari bayat, Hajar Rahiminezhad and Saeed Zakavi, "Solvent effects on catalytic activity of manganese porphyrins with cationic, anionic and uncharged meso substituents: Indirect evidence on the nature of active oxidant species", Applied Organometallic Chemistry, Vol. 33, NO. 1, 1, 2019, doi:
<https://doi.org/10.1002/aoc.4678>
- Khazaei, Saeede and Zakavi, Saeed, "Application of UV-Vis and NMR Spectra of Porphyrin Dications to the Investigation of the Structural Flexibility of Porphyrins Under Solution Conditions", Nashrieh Shimi va Mohandesi Shimi Iran, Vol. 38, NO. 3, 2019
- Talaeizadeh, Atefeh and Tofighi, Mahdi and Zakavi, Saeed, "A comparative study on the catalytic performance of heme and non-heme catalysts: Metal porphyrins versus metal Schiff bases", Applied Organometallic Chemistry, Vol. 32, NO. 1, 2018
- Zakavi, Saeed and Hashemi-Amiri, Akbar and Asadi, Fatemeh, "Axial base-controlled catalytic activity, oxidative stability and product selectivity of water-insoluble manganese and iron porphyrins for oxidation of styrenes in water under green conditions", Applied Organometallic Chemistry, Vol. 32, NO. 3, 2018
- Zakavi, Saeed and Ebadi, Samira and Javanmard, Mohaddese, "Nanosized cationic and anionic manganese porphyrins as mesoporous catalysts for the oxidation of olefins: Nano versus bulk aggregates", Applied Organometallic Chemistry, Vol. 32,



NO. 3, 2018

- Rasouli, Saifollah and Sakha, Fereshteh and Mojarrad, Aida G and Zakavi, Saeed, "Thermal nonlinear optical response of meso-tetraphenylporphyrin under aggregation conditions versus that in the absence of aggregation", *Journal of Modern Optics*, Vol. 65, NO. 8, 2018
- Choudhary, VR and Jha, R and Jana, P and Huh, SH and Shin, DG and Riu, DH and Jin, EJ and Kong, EB and Cho, KY and Kim, CY and others, "CATALYSIS COMMUNICATIONS VOLUME 10, NO. 2", *Catalysis Communications*, Vol. 10, NO. 2, 2018
- Sakha, Fereshteh and Mojarrad, Aida Ghanbelani and Yeganeh, Mohammad and Zakavi, Saeed and Rasouli, Saifollah, "Nonlinear refractive index measuring of the dication of meso-tetraphenylporphyrin with trifluoroacetic acid using double gratings interferometer and triple gratings moiré technique in pump-probe configuration", *Catalysis Communications*, Vol. 10, NO. 2, 2018
- Kamyabi, Mohammad Ali and Soleymani-Bonoti, Fatemeh and Zakavi, Saeed, "Determination of Stability Constants of Cadmium (II) Complexes with Diallyl Disulfide, Dimethyl Disulfide and Diallyl Sulfide Using Differential Pulse Voltammetry", *Russian Journal of Electrochemistry*, Vol. 54, NO. 1, 2018
- Alghooneh, Leila and Eskandari, Mortaza and Zakavi, Saeed and Omidyan, Reza, "Optical properties of β -brominated meso-tetraphenylporphyrins: Comparative experimental and computational studies", *Journal of Porphyrins and Phthalocyanines*, Vol. 22, NO. 1, 2018
- Khazaei, Saeede and Eskandari, Mortaza and Zakavi, Saeed, "Computational and experimental insights into the oxidative stability of iron porphyrins: A mono-ortho-substituted iron porphyrin with unusually high oxidative stability", *Journal of Physical Organic Chemistry*, Vol. 22, NO. 1, 2018



- Mojarrad, Aida G and Zakavi, Saeed and Kazemi, S Habib, "Weak correlation between the redox properties of a series of manganese (III) porphyrins and their catalytic activity for oxidation of olefins with periodate", journal of physical organic chemistry, Vol. 22, NO. 1, 2018
- Zakavi, Saeed and others, "Synthesis, characterization and oxidizing strength of a nano-structured hypervalent iodine (v) compound: iodylbenzene nanofibers", New Journal of Chemistry, Vol. 42, NO. 23, 2018
- Esfandiari bayat, Zahra and Rahiminezhad, H and Zakavi, Saeed, "Solvent effects on catalytic activity of manganese porphyrins with cationic, anionic and uncharged meso substituents: Indirect evidence on the nature of active oxidant species", Applied Organometallic Chemistry, Vol. 42, NO. 23, 2018
- Rahele Nasrollahi and Saeed Zakavi, "Kinetics and mechanistic studies on the formation and reactivity of high valent MnO porphyrin species: mono-ortho or para-substituted porphyrins versus a di-ortho-substituted one", New Journal of Chemistry, Vol. 42, NO. 3, 2, 2018, doi: [10.1039/C7NJ04233G](https://doi.org/10.1039/C7NJ04233G)
- Reza Jafari motlagh and Saeed Zakavi, "Synthesis, characterization and oxidizing strength of a nano-structured hypervalent iodine(V) compound: iodylbenzene nanofibers", New Journal of Chemistry, Vol. 42, NO. 23, 10, 2018, doi: [10.1039/C8NJ04759F](https://doi.org/10.1039/C8NJ04759F)
- Aida G. Mojarrad and Saeed Zakavi, "Simple low cost porphyrinic photosensitizers for large scale chemoselective oxidation of sulfides to sulfoxides under green conditions: targeted protonation of porphyrins", Catalysis Science & Technology, Vol. 8, NO. 3, 2, 2018, doi: [10.1039/C7CY02308A](https://doi.org/10.1039/C7CY02308A)
- Akram Heydari-turkmani and Saeed Zakavi, "The first solid state porphyrin-weak acid molecular complex: A novel metal



free, nanosized and porous photocatalyst for large scale aerobic oxidations in water", *Journal of Catalysis*, Vol. 364, 8, 2018, doi: <https://doi.org/10.1016/j.jcat.2018.06.011>

- Mojarrad, Aida Ghanbelanie and Zakavi, Saeed, "Simple low cost porphyrinic photosensitizers for large scale chemoselective oxidation of sulfides to sulfoxides under green conditions: Targeted protonation of porphyrins", *Catalysis Science & technology*, Vol. 32, NO. 3, 2017
- Zakavi, Saeed and Hoseini, Saiedeh and Mojarrad, Aida G, "New insights into the influence of weak and strong acids on the oxidative stability and photocatalytic activity of porphyrins", *New Journal of Chemistry*, Vol. 41, NO. 19, 2017
- Heydari-Turkmani, Akram and Zakavi, Saeed and Nikfarjam, Nasser, "Novel metal free porphyrinic photosensitizers supported on solvent-induced Amberlyst-15 nanoparticles with a porous structure", *New Journal of Chemistry*, Vol. 41, NO. 12, 2017
- Mojarrad, Aida G and Zakavi, Saeed, "Photocatalytic Activity of the Molecular Complexes of meso-Tetraarylporphyrins with Lewis Acids for the Oxidation of Olefins: Significant Effects of Lewis Acids and meso Substituents", *European Journal of Inorganic Chemistry*, Vol. 2017, NO. 21, 2017
- Nasrollahi, Rahele and Zakavi, Saeed, "Evidence on the Nature of the Active Oxidants Involved in the Oxidation of Alcohols with Oxone Catalyzed by an Electron-Deficient Manganese Porphyrin: A Combined Kinetic and Mechanistic Study", *European Journal of Inorganic Chemistry*, Vol. 2017, NO. 13, 2017
- Kamyabi, Mohammad Ali and SOLEYMANI, BONOTI FATEMEH and Zakavi, Saeed, "Voltammetric Study of Cd²⁺ Complexation with some Compounds of Garlic", *ChemistrySelect*, Vol. 1, NO. 20, 2017



- Zakavi, Saeed and Hoseini, Saiedeh, "Solvent Tuning of the Optical Absorption and Fluorescence Properties of Meso--tetra (aryl) porphyrins and Their Dications With Weak and Strong Carboxylic Acids", *ChemistrySelect*, Vol. 1, NO. 20, 2016
- Mojarrad, Aida G and Zakavi, Saeed, "A novel porphyrinic photosensitizer based on the molecular complex of meso-tetraphenylporphyrin with 2, 3-dichloro-5, 6-dicyano-1, 4-benzoquinone: higher photocatalytic activity, photooxidative stability and solubility in non-chlorinated solvents", *RSC advances*, Vol. 6, NO. 103, 2016
- Zakavi, Saeed and Motlagh, Reza Jafari, "Synthesis, Characterization and Reactivity of Iodosylbenzene Nanoparticles as a New Nano--reagent", *ChemistrySelect*, Vol. 1, NO. 15, 2016
- Zakavi, Saeed and Omidyan, Reza and Talebzadeh, Sadegh, "The influence of protonation on the structure and spectral properties of porphine: UV-vis, ^1H NMR and ab initio studies", *RSC advances*, Vol. 6, NO. 85, 2016
- Rayati, Saeed and Bohloulbandi, Elaheh and Zakavi, Saeed, "Manganese (III) porphyrin anchored onto multiwall carbon nanotubes: An efficient and reusable catalyst for the heterogeneous reduction of aldehydes and ketones", *Journal of Coordination Chemistry*, Vol. 69, NO. 4, 2016
- Kamyabi, Mohammad Ali and Soleymani-Bonoti, Fatemeh and Zakavi, Saeed, "Voltammetric determination of stability constants of lead complexes with diallyl disulfide, dimethyl disulfide, and diallyl sulfide", *Chinese Chemical Letters*, Vol. 27, NO. 1, 2016
- Zakavi, Saeed and Hoseini, Saiedeh, "The absorption and fluorescence emission spectra of meso-tetra (aryl) porphyrin dications with weak and strong carboxylic acids: a comparative study", *RSC advances*, Vol. 5, NO. 129, 2015



- Rayati, Saeed and Bohloulbandi, Elaheh and Zakavi, Saeed, "Sodium borohydride reduction of aldehydes catalyzed by an oxovanadium (IV) Schiff base complex encapsulated in the nanocavity of zeolite-Y", *Inorganic Chemistry Communications*, Vol. 54, NO. 9, 2015
- Shahroosvand, Hashem and Zakavi, Saeed and Sousaraei, Ahmad and Mohajerani, Ezeddin and Mahmoudi, Malek, "Unusual near-white electroluminescence of light emitting diodes based on saddle-shaped porphyrins", *Dalton Transactions*, Vol. 44, NO. 18, 2015
- Shahroosvand, Hashem and Zakavi, Saeed and Sousaraei, Ahmad and Eskandari, Mortaza, "Saddle-shaped porphyrins for dye-sensitized solar cells: new insight into the relationship between nonplanarity and photovoltaic properties", *Physical Chemistry Chemical Physics*, Vol. 17, NO. 9, 2015
- Kazemi, SH and Hosseinzadeh, B and Zakavi, S, "Electrochemical fabrication of conducting polymer of Ni-porphyrin as nano-structured electrocatalyst for hydrazine oxidation", *Sensors and Actuators B: Chemical*, Vol. 210, NO. 7, 2015
- Rayati, Saeed and Bohloulbandi, Elaheh and Zakavi, Saeed and Jafarian, Majid and Rashvand Avei, Mehdi, "Partial and Full β -Chlorination of Meso-Tetraphenylporphyrin: Effects on the Catalytic Activity of the Manganese Complexes for Oxidation of Organic Compounds with Periodate", *Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry*, Vol. 45, NO. 7, 2015
- Zakavi, Saeed and Kayhomayoon, Zohreh and Rayati, Saeed, "Substrate-dependent order of catalytic activity for a series of Fe (III) and Mn (III) porphyrins in the oxidation of organic sulfides and olefins with periodate", *Journal of the Iranian Chemical Society*, Vol. 12, NO. 5, 2015
- Rayati, Saeed and Zakavi, Saeed and Valinejad, Hossein,



- "Oxidation of hydrocarbons with tetra-n-butylammonium peroxy monosulfate catalyzed by β -tetrabromo-meso-tetrakis (4-methoxyphenyl)- and β -tetrabromo-meso-tetraphenylporphyrinatomanganese (III)", Turkish Journal of Chemistry, Vol. 38, NO. 4, 2014
- Mohammadi, Masoomeh and Zakavi, Saeed and Poorheravi, Mohmmad Reza and Jamehbozorgi, Saeed, "Preparation of CuO nanostructure by direct thermolyses of a metal-organic framework (MOF)", journal of physical organic chemistry, Vol. 22, NO. 1, 2014
 - Rayati, Saeed and Nejabat, Fatemeh and Zakavi, Saeed, "Chemoselective oxidation of sulfides to sulfoxides with urea hydrogen peroxide (UHP) catalyzed by non-, partially and fully β -brominated meso-tetraphenylporphyrinatomanganese (III) acetate", Inorganic Chemistry Communications, Vol. 40, NO. 6, 2014
 - Mohammadi, Masoomeh and Zakavi, Saeed and Poorheravi, Mohmmad Reza and Jamehbozorgi, Saeed, "Synthesis, characterization, and an Ab initio and DFT study of a Copper with Benzoic acide derivatives", journal of physical organic chemistry, Vol. 22, NO. 1, 2014
 - Hoseini, Saiedeh and Zakavi, Saeed, "Effect of core protonation on the intensity of the Soret and Q (0, 0) bands of meso-tetraarylporphyrins", journal of physical organic chemistry, Vol. 22, NO. 1, 2014
 - Zakavi, Saeed and Fathi, Mahdieh, "Oxidation of olefins and sulfides with different oxidants catalyzed by meso-tetra (n-propyl) porphyrinatomanganese (III) acetate: comparison with meso-tetra (phenyl) porphyrinatomanganese (III) acetate", Journal of the Iranian Chemical Society, Vol. 11, NO. 6, 2014
 - Zakavi, Saeed and Yazdeli, Tahereh Mokary, "Stereo-electronic effects of the meso-substituents on the catalytic performance of iron (III) meso-tetraarylporphyrins: Pyridyl and N-methylated



pyridyl groups compared to phenyl, 4-methoxyphenyl and 4-sulfonatophenyl ones", *Journal of Molecular Catalysis A: Chemical*, Vol. 367, NO. 2, 2013

- Zakavi, Saeed and Omidyan, Reza and Talebzadeh, Sadegh, "Porphine core saddling: Effects on the HOMO/LUMO gap and the macrocycle bond lengths and bond angles", *Polyhedron*, Vol. 49, NO. 1, 2013
- Rayati, Saeed and Jafarzadeh, Parisa and Zakavi, Saeed, "Catalytic activity of carbon nanotube supported iron (III) and manganese (III) porphyrins in oxidation of olefins with tert-butyl hydroperoxide: Higher activity of the iron (III) porphyrin", *Inorganic Chemistry Communications*, Vol. 29, NO. 3, 2013
- Zakavi, Saeed and Ragheb, Mahshad Najafi, "Interaction of meso-tetraarylporphyrins with formic acid: A variable temperature ¹H NMR study", *Inorganic Chemistry Communications*, Vol. 36, NO. 6, 2013
- Zakavi, Saeed and Rahiminezhad, Hajar and Mojarrad, Aida Ghanbelanie and Yazdeli, Tahereh Mokary and Alizadeh, Robabeh, "Research Article Effects of Core and/or Peripheral Protonation of meso-Tetra (2-, 3-, and 4-pyridyl) Porphyrin and meso-Tetra (3-methylpyridyl) Porphyrin on Their UV-vis Spectra", *Inorganic Chemistry Communications*, Vol. 36, NO. 6, 2013
- Zakavi, Saeed and Rahiminezhad, Hajar and Ghanbelanie Mojarrad, Aida and Mokary Yazdeli, Tahereh and Alizadeh, Robabeh, "Effects of Core and/or Peripheral Protonation of meso-Tetra (2-, 3-, and 4-pyridyl) Porphyrin and meso-Tetra (3-methylpyridyl) Porphyrin on Their UV-vis Spectra", *Journal of Spectroscopy*, Vol. 2013, NO. 6, 2013
- Zakavi, Saeed and Abasi, Azam and Pournali, Ali Reza and Talebzadeh, Sadegh, "Metalloporphyrin-Catalyzed Chemoselective Oxidation of Sulfides with Polyvinylpyrrolidone-Supported Hydrogen Peroxide: Simple Catalytic System for



Selective Oxidation of Sulfides to Sulfoxides", Bulletin of the Korean Chemical Society, Vol. 33, NO. 1, 2012

- Rayati, Saeed and Zakavi, Saeed and Bohloulbandi, Elaheh and Jafarian, Majid and others, "Comparative study of the catalytic activity of a series of β -brominated Mn--porphyrins in the oxidation of olefins and organic sulfides: Better catalytic performance of the partially brominated ones", Polyhedron, Vol. 34, NO. 1, 2012
- Rayati, Saeed and Zakavi, Saeed and Jafarzadeh, Parisa and Sadeghi, Omid and Amini, Mostafa M, "Manganese meso-tetra-4-carboxyphenylporphyrin immobilized on MCM-41 as catalyst for oxidation of olefins with different oxygen donors in stoichiometric conditions", Journal of Porphyrins and Phthalocyanines, Vol. 16, NO. 3, 2012
- Zakavi, Saeed and Ragheb, Mahshad Najafi and Rafiee, Mohammad, "Electrochemical study of the dication of porphyrins with carboxylic acids: Shift of the absorption bands compared to that of the redox potentials", Inorganic Chemistry Communications, Vol. 22, NO. 2, 2012
- Zakavi, Saeed and Mojarrad, Aida Ghanbelanie and Yazdely, Tahere Mokary, "Facile Purification of meso-Tetra (pyridyl) porphyrins and Detection of Unreacted Porphyrin upon Metallation of meso-Tetra (aryl) porphyrins", Macroheterocycles, Vol. 5, NO. 1, 2012
- Zakavi, Saeed and Mojarrad, Aida Ghanbelanie and Rayati, Saeed, "Substituent effects on the catalytic activity of a series of manganese meso-tetra (aryl) porphyrins:(2-, 3-, 4)-Pyridyl, 4-sulfonatophenyl and 3-sulfonato-4-methoxyphenyl groups compared to phenyl and 4-methoxyphenyl ones", Journal of Molecular Catalysis A: Chemical, Vol. 363, NO. 3, 2012
- Zakavi, Saeed and Talebzadeh, Sadegh and Rayati, Saeed, "Catalytic activity of Mn (III) and Fe (III) complexes of meso-tetra (n-propyl) porphyrin in oxidation of olefins: Meso-alkyl



substituent in comparison with the alkenyl and aryl ones", *Polyhedron*, Vol. 31, NO. 1, 2012

- Rayati, Saeed and Zakavi, Saeed and Kalantari, Hossein, "Factors influencing the catalytic activity of β -tetrabrominated meso-tetra (para-tolyl) porphyrinatomanganese (III) for oxidation of sulfides and olefins with Oxone", *Journal of Porphyrins and Phthalocyanines*, Vol. 15, NO. 2, 2011
- Ajloo, Davood and Hajipour, Samaneh and Saboury, Ali Akbar and Zakavi, Saeed, "Effect of cationic and anionic porphyrins on the structure and activity of adenosine deaminase", *Bulletin of the Korean Chemical Society*, Vol. 32, NO. 9, 2011
- Zakavi, Saeed and Omidyan, Reza and Ebrahimi, Leila and Heidarizadi, Fatemeh, "Substitution effects on the UV-vis and ^1H NMR spectra of the dications of meso and/or β substituted porphyrins with trifluoroacetic acid: Electron-deficient porphyrins compared to the electron-rich ones", *Inorganic Chemistry Communications*, Vol. 14, NO. 11, 2011
- Zakavi, Saeed and Heidarizadi, Fatemeh and Rayati, Saeed, "Comparative study of catalytic activity of some biomimetic models of cytochrome P450 in oxidation of olefins with tetra-n-butylammonium periodate: electron-rich Mn-porphyrins versus the electron-deficient ones", *Inorganic Chemistry Communications*, Vol. 14, NO. 6, 2011
- Zakavi, Saeed and Ebrahimi, Leila, "Substitution effects on the catalytic activity of Mn (III)-porphyrins in epoxidation of alkenes with iodosylbenzene: a comparison between the electron-rich and electron-deficient porphyrins", *Polyhedron*, Vol. 30, NO. 10, 2011
- Zakavi, Saeed and Rahiminezhad, Hajar and Alizadeh, Robabeh, "Hydrogen bond controlled adduct formation of meso-tetra (4-sulfonatophenyl) porphyrin with protic acids: A UV-vis spectroscopic study", *Spectrochimica Acta Part A: Molecular*



and Biomolecular Spectroscopy, Vol. 77, NO. 5, 2010

- Rayati, Saeed and Zakavi, Saeed and Koliaei, Marjan and Wojtczak, Andrzej and Kozakiewicz, Anna, "Electron-rich salen-type Schiff base complexes of Cu (II) as catalysts for oxidation of cyclooctene and styrene with tert-butylhydroperoxide: A comparison with electron-deficient ones", Inorganic Chemistry Communications, Vol. 13, NO. 1, 2010
- Zakavi, Saeed and Ashtiani, Amir Salami and Rayati, Saeed, "Meso-tetracinnamylporphyrin: Synthesis, characterization and the catalytic activity of its Mn (III) complex in olefin epoxidation with tetra-n-butylammonium hydrogen monopersulfate", Polyhedron, Vol. 29, NO. 5, 2010
- Rayati, Saeed and Zakavi, Saeed and Noroozi, Vahid, "Nitrogen donor-controlled chemoselectivity of reaction in oxidation of sulfides with tetra-n-butylammonium hydrogen monopersulfate catalyzed by a partially β -brominated meso-tetraphenylporphyrinatomanganese (III) acetate: a clue to the nature of active oxidant", Journal of Sulfur Chemistry, Vol. 31, NO. 2, 2010
- Ghaemi, Akbar and Rayati, Saeed and Zakavi, Saeed and Safari, Nasser, "Highly efficient oxidation of sulfides to sulfones with tetra-n-butylammonium hydrogen monopersulfate catalyzed by β -tri- and tetra-brominated meso-tetraphenylporphyrinatomanganese (III) acetate", Applied Catalysis A: General, Vol. 353, NO. 2, 2009
- Zakavi, Saeed and Karimipour, Gholam Reza and Gharab, Nasrin Gholami, "Meso-tetraarylporphyrin catalyzed highly regioselective ring opening of epoxides with acetic acid", Catalysis Communications, Vol. 10, NO. 4, 2009
- Rayati, Saeed and Zakavi, Saeed and Noroozi, Vahid and Motlagh, Somayeh H, "Electron-deficient Mn (III)-porphyrin catalyzed oxidation of hydrocarbons with tetra-n-butylammonium hydrogen monopersulfate: effect of counter



ions and nitrogen donors", *Catalysis Communications*, Vol. 10, NO. 2, 2008

- Zakavi, Saeed and Abasi, Azam and Pourali, Ali Reza and Rayati, Saeed, "Mn-prophyrin Catalyzed Epoxidation of Alkenes with Polyvinylpyrrolidone-Supported H₂O₂", *Bulletin of the Korean Chemical Society*, Vol. 29, NO. 4, 2008
- Rayati, Saeed and Zakavi, Saeed and Ghaemi, Akbar and Carroll, Patrick J, "Core protonation of meso-tetraphenylporphyrin with tetrafluoroboric acid: unusual water-mediated hydrogen bonding of H₄tpp²⁺ to the counterion", *Tetrahedron Letters*, Vol. 49, NO. 4, 2008
- Rayati, Saeed and Zakavi, Saeed and Motlagh, Somayeh H and Noroozi, Vahid and Razmjoo, Maryam and Wojtczak, Andrzej and Kozakiewicz, Anna, " β -Tetra-brominated meso-tetraphenylporphyrin: a conformational study and application to the Mn-porphyrin catalyzed epoxidation of olefins with tetrabutylammonium oxone", *Polyhedron*, Vol. 27, NO. 11, 2008
- Mohajer, Daryoush and Sakhtemanian, Elham and Rayati, Saeed and Zakavi, Saeed, "A UV-vis spectroscopic study of 1: 2 adduct formation of some free-base meso-tetraaryl-and meso-tetraalkylporphyrins with PhSnCl₃ and (CH₃)₂SnCl₂", *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, Vol. 69, NO. 3, 2008
- Karimipour, Gholam Reza and Karami, Bahador and MONTAZEROZOHORI, Morteza and Zakavi, Saeed, "Oxidative decarboxylation of carboxylic acids with tetrabutylammonium periodate catalyzed by manganese (III) meso-tetraarylporphyrins: effect of metals, meso-substituents, and anionic axial ligands", *Chinese Journal of Catalysis*, Vol. 28, NO. 11, 2007
- Trolley, Zuid-Amerikaanse Stijl Supermarkt Winkelwagen and Karimipour, G and Karami, B and Montazerozohori, M and Zakavi, S, "Oxidative decarboxylation of carboxylic acids with



- tetrabutylammonium periodate catalyzed by manganese (III) meso-tetraarylporphyrins: effect of metals, meso-substituents, and anionic axial ligands", *Chin J Catal*, Vol. 28, NO. 11, 2007
- Zakavi, Saeed and Gharab, Nasrin Gholami, "Interaction of para-substituted meso-tetraphenylporphyrins and meso-tetra (n-propyl) porphyrin with weak and strong carboxylic acids: A UV-Vis spectroscopic study", *Polyhedron*, Vol. 26, NO. 12, 2007
 - Rayati, Saeed and Mohajer, Daryoush and Zakavi, Saeed, "POSTER PRESENTATIONS-A UV-vis spectroscopic study of 1: 2 adduct formation of some free-base meso-tetraaryl- and meso-tetraalkylporphyrins with PhSnCl_3 and $(\text{CH}_3)_2\text{SnCl}_2$ versus CF_3COOH ", *Journal of Porphyrins and Phthalocyanines*, Vol. 10, NO. 4, 2006
 - Mohajer, Daryoush and Zakavi, Saeed and Rayati, Saeed and Zahedi, Mansour and Safari, Nasser and Khavasi, Hamid Reza and Shahbazian, Shant, "Unique 1: 2 adduct formation of meso-tetraarylporphyrins and meso-tetraalkylporphyrins with BF_3 : a spectroscopic and ab initio study", *New Journal of Chemistry*, Vol. 28, NO. 12, 2004

Conferences

- Arash Khaledian and Saeed Zakavi*, "Photocatalytic activity of alumina supported meso-tetra(3-pyridyl)porphyrin", 22nd Iranian Inorganic Chemistry Conference, University of Kurdistan, Sanandaj, Iran., 8, 2023
- Issa Sardivand-chegini, a Farzaneh Qodrati-nasrabadib and Saeed Zakavi*, "The effect of light on manganese porphyrin catalyzed oxidation of olefins with periodate under different conditions", 22nd Iranian Inorganic Chemistry Conference, University of Kurdistan, Sanandaj, Iran., 8, 2023
- Elham Kharrati and Saeed Zakavi*, "Aerobic photooxidation of 1,3-diphenylisobenzofuran in the presence of manganese and



iron porphyrins", 22nd Iranian Inorganic Chemistry Conference, University of Kurdistan, Sanandaj, Iran., 8, 2023

- Vahideh Lamepour-giglouand Saeed Zakavi*, "Oxidation of organic compounds with nanostructured iodosylbenzene catalyzed by manganese porphyrins", 22nd Iranian Inorganic Chemistry Conference, University of Kurdistan, Sanandaj, Iran., 8, 2023
- S. Mohaddeseh Hosseini, Saeed Zakavi, "Efficient Non-catalytic Oxidation of 1,5-Dihydroxynaphthalene with Iodosylbenzene in Water and the Presence of Polyvinylpyrrolidone", 10th National Seminar of Chemistry and Environment (Webinar), pp. 1-1, 11, 2021
- S. Farzaneh Qodrati-Nasrabadi, Akram Heydari-turkmani, Saeed Zakavi, "Aqueous Photooxidation of 1,5-Dihydroxynaphthalene to Juglone Under Heterogeneous Conditions", 10th National Seminar of Chemistry and Environment (Webinar), pp. 1-1, 11, 2021
- Saeed Zakavi, "Transition Metal-based Catalysts: An Overview", 1st Iranian Catalyst Conference (Invited Speaker), pp. 1-1, 9, 2018
- Saeed Zakavi, "Biomimetic Oxidation of Organic Compounds: History and Applications", 19th Iranian Inorganic Chemistry Conference (Invited Speaker), pp. 1-1, 9, 2017