Rafik Karaman

List of Publications by Year
in descending order

122 papers	4,409 citations	136740 32 h-index	133063 59 g-index
123 all docs	123 docs citations	123 times ranked	3638 citing authors

#	Article	IF	Citations
1	The Efficacy of Cannabis on Multiple Sclerosis-Related Symptoms. Life, 2022, 12, 682.	1.1	13
2	Cannabis: A Toxin-Producing Plant with Potential Therapeutic Uses. Toxins, 2021, 13, 117.	1.5	55
3	Enzyme Modelsâ€"From Catalysis to Prodrugs. Molecules, 2021, 26, 3248.	1.7	6
4	Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopesâ€“6. Molecules, 2020, 25, 119.	1.7	8
5	Comprehensive Review on Alzheimerâ€™s Disease: Causes and Treatment. Molecules, 2020, 25, 5789.	1.7	935
6	TiO2 and Active Coated Glass Photodegradation of Ibuprofen. Catalysts, 2020, 10, 560.	1.6	23
7	Resistance of Gram-Negative Bacteria to Current Antibacterial Agents and Approaches to Resolve It. Molecules, 2020, 25, 1340.	1.7	653
8	Antibacterial Prodrugs to Overcome Bacterial Resistance. Molecules, 2020, 25, 1543.	1.7	49
9	Resistance of Gram-Positive Bacteria to Current Antibacterial Agents and Overcoming Approaches. Molecules, 2020, 25, 2888.	1.7	138
10	Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopesâ€“7. Molecules, 2020, 25, 2968.	1.7	5
11	Newly Developed Prodrugs and Prodrugs in Development; an Insight of the Recent Years. Molecules, 2020, 25, 884.	1.7	37
12	Removal of Selected Pharmaceuticals from Aqueous Solutions Using Natural Jordanian Zeolite. Arabian Journal for Science and Engineering, 2019, 44, 209-215.	1.7	28
13	Photodegradation using TiO2-activated borosilicate tubes. Environmental Science and Pollution Research, 2019, 26, 19025-19034.	2.7	9
14	Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopesâ€“5. Molecules, 2019, 24, 2415.	1.7	5
15	The Biological Activity of Natural Alkaloids against Herbivores, Cancerous Cells and Pathogens. Toxins, 2019, 11, 656.	1.5	144
16	Successes, failures, and future prospects of prodrugs and their clinical impact. Expert Opinion on Drug Discovery, 2019, 14, 199-220.	2.5	16
17	Application of the epuvalisation technology for the tertiary treatment of secondary treated effluents using geranium plants. Annals of Agricultural Sciences, 2019, 64, 237-243.	1.1	1
18	The prodrug approach in the era of drug design. Expert Opinion on Drug Delivery, 2019, 16, 1-5.	2.4	64

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19	Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopesâ€“4. Molecules, 2019, 24, 130.	1.7	4
20	Bitterless guaifenesin prodrugsâ€”design, synthesis, characterization, in vitro kinetics, and bitterness studies. Chemical Biology and Drug Design, 2019, 93, 262-271.	1.5	14
21	Rosemary (Rosmarinus officinalis) plants irrigation with secondary treated effluents using Epuvalisation technology. Net Journal of Agricultural Science, 2019, 7, 69-77.	0.1	2
22	Removal of Herbicides from Water Using Heterogeneous Photocatalysis Case Study: MCPA Sodium Monohydrate. Journal of Water Resource and Protection, 2019, 11, 1024-1035.	0.3	2
23	Modern Advances in Pharmaceutical Research Vol. 1. , 2019, , .		0
24	Modern Advances in Pharmaceutical Research Vol. 2. , 2019, , .		0
25	Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopes-3. Molecules, 2018, 23, 1596.	1.7	1
26	Dopamine and Levodopa Prodrugs for the Treatment of Parkinsonâ€™s Disease. Molecules, 2018, 23, 40.	1.7	100
27	Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopesâ€“2. Molecules, 2018, 23, 65.	1.7	2
28	Strategies for Enhancing the Permeation of CNS-Active Drugs through the Blood-Brain Barrier: A Review. Molecules, 2018, 23, 1289.	1.7	47
29	Breakthroughs in Medicinal Chemistry: New Targets and Mechanisms, New Drugs, New Hopes. Molecules, 2017, 22, 743.	1.7	3
30	Advanced Prodrug Strategies in Nucleoside and Non-Nucleoside Antiviral Agents: A Review of the Recent Five Years. Molecules, 2017, 22, 1736.	1.7	33
31	Recent Approaches to Platinum(IV) Prodrugs: A Variety of Strategies for Enhanced Delivery and Efficacy. Current Pharmaceutical Design, 2017, 23, 2366-2376.	0.9	40
32	Probing the Binding Pocket of the Broadly Tuned Human Bitter Taste Receptor TAS2R14 by Chemical Modification of Cognate Agonists. Chemical Biology and Drug Design, 2016, 88, 66-75.	1.5	53
33	Comparing Class AÂGPCRs to bitter taste receptors. Methods in Cell Biology, 2016, 132, 401-427.	0.5	80
34	Recent updates in utilizing prodrugs in drug delivery (2013â€“2015). Expert Opinion on Drug Delivery, 2016, 13, 571-591.	2.4	13
35	Paracetamol biodegradation by activated sludge and photocatalysis and its removal by a micelleâ€“clay complex, activated charcoal, and reverse osmosis membranes. Environmental Technology (United) Tj ETQq1 1 0.784314 rgBT /Overlo		
36	Removal of chlorpyrifos using micelleâ€“clay complex and advanced treatment technology. Desalination and Water Treatment, 2016, 57, 15687-15696.	1.0	6

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37	Diazepam stability in wastewater and removal by advanced membrane technology, activated carbon, and micelleâ€“clay complex. Desalination and Water Treatment, 2016, 57, 3098-3106.	1.0	13
38	X-ray Crystal Structure of COX-2 Enzyme as a Tool to Predict Active Sites of Bitter Taste Receptors. British Journal of Pharmaceutical Research, 2016, 12, 1-5.	0.4	0
39	Removal of amoxicillin and cefuroxime axetil by advanced membranes technology, activated carbon and micelleâ€“clay complex. Environmental Technology (United Kingdom), 2015, 36, 2069-2078.	1.2	17
40	Stability and removal of atorvastatin, rosuvastatin and simvastatin from wastewater. Environmental Technology (United Kingdom), 2015, 36, 3232-3242.	1.2	21
41	Stability and removal of spironolactone from wastewater. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2015, 50, 1127-1135.	0.9	6
42	Design, Synthesis, andIn VitroKinetics Study of Atenolol Prodrugs for the Use in Aqueous Formulations. Scientific World Journal, The, 2014, 2014, 1-13.	0.8	7
43	Prodrugs for Masking the Bitter Taste of Drugs. , 2014, , .		5
44	Using predrugs to optimize drug candidates. Expert Opinion on Drug Discovery, 2014, 9, 1405-1419.	2.5	8
45	Stability and removal of dexamethasone sodium phosphate from wastewater using modified clays. Environmental Technology (United Kingdom), 2014, 35, 1945-1955.	1.2	16
46	Stability and Removal of Naproxen and Its Metabolite by Advanced Membrane Wastewater Treatment Plant and Micelleâ€“<scp>C</scp>lay Complex. Clean - Soil, Air, Water, 2014, 42, 594-600.	0.7	29
47	Computationally Designed Atovaquone Prodrugs Based on Bruceâ€™s Enzyme Model. Current Computer-Aided Drug Design, 2014, 10, 15-27.	0.8	6
48	Design, synthesis and in vitro kinetic study of tranexamic acid prodrugs for the treatment of bleeding conditions. Journal of Computer-Aided Molecular Design, 2013, 27, 615-635.	1.3	14
49	The future of prodrugs â€“ design by quantum mechanics methods. Expert Opinion on Drug Delivery, 2013, 10, 713-729.	2.4	24
50	Computationally designed prodrugs of statins based on Kirbyâ€™s enzyme model. Journal of Molecular Modeling, 2013, 19, 3969-3982.	0.8	9
51	Prodrugs for masking bitter taste of antibacterial drugsâ€”a computational approach. Journal of Molecular Modeling, 2013, 19, 2399-2412.	0.8	45
52	Computationally-designed phenylephrine prodrugs â€“ a model for enhancing bioavailability. Molecular Physics, 2013, 111, 3249-3264.	0.8	10
53	Efficiency of advanced wastewater treatment plant system and laboratory-scale micelle-clay filtration for the removal of ibuprofen residues. Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes, 2013, 48, 814-821.	0.7	35
54	Prodrugs of fumarate esters for the treatment of psoriasis and multiple sclerosisâ€”a computational approach. Journal of Molecular Modeling, 2013, 19, 439-452.	0.8	15

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55	Efficiency of membrane technology, activated charcoal, and a micelle-clay complex for removal of the acidic pharmaceutical mefenamic acid. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2013, 48, 1655-1662.	0.9	12
56	Prodrugs Design Based on Interâ€•and Intramolecular Chemical Processes. Chemical Biology and Drug Design, 2013, 82, 643-668.	1.5	54
57	Inland Treatment of the Brine Generated from Reverse Osmosis Advanced Membrane Wastewater Treatment Plant Using Epuvalisation System. International Journal of Molecular Sciences, 2013, 14, 13808-13825.	1.8	11
58	Removal of Cr(VI) from Aqueous Environments Using Micelle-Clay Adsorption. Scientific World Journal, The, 2013, 2013, 1-7.	0.8	24
59	A Solution to Aversive Tasting Drugs for Pediatric and Geriatric Patients. Drug Designing: Open Access, 2013, 02, .	0.2	1
60	Prodrug Design vs. Drug Design. Drug Designing: Open Access, 2013, 02, .	0.2	4
61	http://www.omicsgroup.org/journals/insulin-as-therapeutic-agent-against-alzheimers-disease-2169-0138.1000e112.php?aid=9763. Drug Designing: Open Access, 2012, 02, .	0.2	7
62	The mechanism of the amine-catalysed isomerization of dialkyl maleate: a computational study. Molecular Physics, 2012, 110, 467-482.	0.8	5
63	Exploring the unexpected pyridine- and 4,4â€²-bipyridine-catalyzed isomerization of maleic acid: A DFT approach. Computational and Theoretical Chemistry, 2012, 988, 63-74.	1.1	5
64	Proton shuffling in acid/baseâ€catalyzed enolizations: a computational study. Journal of Physical Organic Chemistry, 2012, 25, 1336-1342.	0.9	3
65	Removal of diclofenac potassium from wastewater using clay-micelle complex. Environmental Technology (United Kingdom), 2012, 33, 1279-1287.	1.2	40
66	Computationally Designed Prodrugs for Masking the Bitter Taste of Drugs. Drug Designing: Open Access, 2012, 02, .	0.2	7
67	Targeted prodrugs in oral drug delivery: the modern molecular biopharmaceutical approach. Expert Opinion on Drug Delivery, 2012, 9, 1001-1013.	2.4	55
68	Computer-assisted design for atenolol prodrugs for the use in aqueous formulations. Journal of Molecular Modeling, 2012, 18, 1523-1540.	0.8	27
69	Prodrugs of Acyclovir â€“ A Computational Approach. Chemical Biology and Drug Design, 2012, 79, 819-834.	1.5	30
70	Computer-assisted design for paracetamol masking bitter taste prodrugs. Journal of Molecular Modeling, 2012, 18, 103-114.	0.8	44
71	The Future of Prodrugs Designed by Computational Chemistry. Drug Designing: Open Access, 2012, 1, .	0.2	8
72	Computationally Designed Enzyme Models To Replace Natural Enzymes In Prodrug Approaches. Drug Designing: Open Access, 2012, 02, .	0.2	6

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73	Analyzing the efficiency in intramolecular amide hydrolysis of Kirbyâ€™s N-alkylmaleamic acids â€“ A computational approach. Computational and Theoretical Chemistry, 2011, 974, 133-142.	1.1	25
74	Computationalâ€Aided Design for Dopamine Prodrugs Based on Novel Chemical Approach. Chemical Biology and Drug Design, 2011, 78, 853-863.	1.5	29
75	Exploring the mechanism for the amine-catalyzed isomerization of dimethyl maleate. A computational study. Tetrahedron Letters, 2011, 52, 6288-6294.	0.7	10
76	Analyzing Kempâ€™s amide cleavage: A model for amidase enzymes. Computational and Theoretical Chemistry, 2011, 963, 427-434.	1.1	5
77	The role of proximity orientation in intramolecular proton transfer reactions. Computational and Theoretical Chemistry, 2011, 966, 311-321.	1.1	17
78	Analyzing the efficiency of proton transfer to carbon in Kirbyâ€™s enzyme modelâ€”a computational approach. Tetrahedron Letters, 2011, 52, 699-704.	0.7	21
79	Effects of substitution on the effective molarity (EM) for five membered ring-closure reactions â€“ A computational approach. Computational and Theoretical Chemistry, 2010, 939, 69-74.	1.5	30
80	Prodrugs of aza nucleosides based on proton transfer reaction. Journal of Computer-Aided Molecular Design, 2010, 24, 961-970.	1.3	35
81	A Singularity Model for Chemical Reactivity. Chemistry - A European Journal, 2010, 16, 1420-1427.	1.7	18
82	The effective molarity (EM) â€“ A computational approach. Bioorganic Chemistry, 2010, 38, 165-172.	2.0	28
83	The efficiency of proton transfer in Kirbyâ€™s enzyme model, a computational approach. Tetrahedron Letters, 2010, 51, 2130-2135.	0.7	36
84	A general equation correlating intramolecular rates with â€˜attackâ€™ parameters: distance and angle. Tetrahedron Letters, 2010, 51, 5185-5190.	0.7	29
85	The effective molarity (EM) puzzle in intramolecular ring-closing reactions. Computational and Theoretical Chemistry, 2010, 940, 70-75.	1.5	29
86	Research Article: Computerâ€Assisted Design of Proâ€drugs for Antimalarial Atovaquone. Chemical Biology and Drug Design, 2010, 76, 350-360.	1.5	35
87	Proximity vs. strain in intramolecular ring-closing reactions. Molecular Physics, 2010, 108, 1723-1730.	0.8	24
88	A computational analysis of intramolecularity in proton transfer reactions. Organic and Biomolecular Chemistry, 2010, 8, 5174.	1.5	30
89	Electrostatic effects on the energetics and geometry of a cyanine dye. Computational and Theoretical Chemistry, 2010, 959, 87-91.	1.5	5
90	Accelerations in the Lactonization of Trimethyl Lock Systems Are due to Proximity Orientation and not to Strain Effects. Research Letters in Organic Chemistry, 2009, 2009, 1-5.	0.6	33

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91	The gem-disubstituent effectâ€”a computational study that exposes the relevance of existing theoretical models. Tetrahedron Letters, 2009, 50, 6083-6087.	0.7	37
92	Analyzing Kirbyâ€™s amine olefinâ€”a model for amino acid ammonia lyases. Tetrahedron Letters, 2009, 50, 7304-7309.	0.7	29
93	A new mathematical equation relating activation energy to bond angle and distance: A key for understanding the role of acceleration in lactonization of the trimethyl lock system. Bioorganic Chemistry, 2009, 37, 11-25.	2.0	36
94	The effective molarity (EM) puzzle in proton transfer reactions. Bioorganic Chemistry, 2009, 37, 106-110.	2.0	34
95	Reevaluation of Bruiceâ€™s proximity orientation. Tetrahedron Letters, 2009, 50, 452-456.	0.7	35
96	Cleavage of Mengerâ€™s aliphatic amide: A model for peptidase enzyme solely explained by proximity orientation in intramolecular proton transfer. Computational and Theoretical Chemistry, 2009, 910, 27-33.	1.5	35
97	Analysis of Mengerâ€™s â€˜spatiotemporal hypothesisâ€™. Tetrahedron Letters, 2008, 49, 5998-6002.	0.7	51
98	Symmetrical and unsymmetrical quadruply aza-bridged closely interspaced cofacial bis(5,10,15,20-tetraphenylporphyrins). 4. Structure and conformational effects on electrochemistry and the catalysis of electrochemical reduction of dioxygen by doubly, triply, and quadruply N,N-dimethylene sulfonamide bridged dimer bis(cobalt tetraphenylporphyrins). Inorganic Chemistry, 1993, 32, 2562-2569.	1.9	30
99	Opening of a cyclopropyl ring in (diphenylcyclopropyl)alkenes promoted by electron transfer from potassium 4,4'-di-tert-butylbiphenyl radical anion and x-ray and theoretical calculations of the structure of (Z)-1,2-bis(trans-2,trans-3-diphenylcyclopropyl)ethene. Journal of Organic Chemistry, 1993, 58, 438-443.	1.7	6
100	Symmetrical and unsymmetrical quadruply aza-bridged, closely interspaced, cofacial bis(5,10,15,20-tetraphenylporphyrin)s. 2. Synthesis, characterization, and conformational effects of solvents. Journal of the American Chemical Society, 1992, 114, 4889-4898.	6.6	27
101	Symmetrical and unsymmetrical quadruply aza bridged closely interspaced cofacial bis(5,10,15,20-tetraphenylporphyrins). 3. Interplanar distances, proton NMR chemical shifts, and the catalysis of the electrochemical reduction of oxygen. Journal of the American Chemical Society, 1992, 114, 4899-4905.	6.6	51
102	Design, synthesis, and characterization of a "shopping basket" bisporphyrin. The first examples of triply bridged closely interspaced cofacial porphyrin dimers. Journal of Organic Chemistry, 1992, 57, 2169-2173.	1.7	17
103	Unusual behavior of 5,10,15,20-tetraphenylporphine diacid toward oxygen Broensted bases. Inorganic Chemistry, 1992, 31, 2455-2459.	1.9	41
104	Kinetic importance of conformations of nicotinamide adenine dinucleotide in the reactions of dehydrogenase enzymes. Journal of the American Chemical Society, 1992, 114, 8702-8704.	6.6	38
105	A molecular dynamics approach to the study of symmetrical and unsymmetrical quadruply bridged, closely interspaced cofacial tetraphenylporphyrin dimers. Journal of Organic Chemistry, 1992, 57, 1555-1559.	1.7	10
106	Correlation of the hydride affinities of substituted aromatic carbocations and the proton affinities of substituted benzenes calculated by MNDO with .sigma.+ substituent constants. Journal of Organic Chemistry, 1991, 56, 188-195.	1.7	16
107	Synthesis and characterization of the first water-soluble closely interspaced cofacial porphyrin dimer. Journal of Organic Chemistry, 1991, 56, 3470-3472.	1.7	20
108	Unstable compounds. Synthesis, structure, and experimental and computational carbocation chemistry of 2-cumyladamantan-2-ol and its chromium .eta.6-Cr(CO)3 complex. Journal of Organic Chemistry, 1991, 56, 4688-4695.	1.7	8

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109	Correlation of singlet-triplet gaps for aryl carbenes calculated by MINDO/3, MNDO, AM1, and PM3 with Hammett-type substituent constants. Journal of Computational Chemistry, 1991, 12, 536-545.	1.5	15
110	A novel N-dealkylation reaction of n,N-dialkylarylcarboxamides promoted by electron transfer from alkali metals. Tetrahedron Letters, 1990, 31, 941-944.	0.7	10
111	Conversion of aromatic ketones, benzyl alcohols, and alkyl aryl ethers to aromatic hydrocarbons with lithium 4,4â€²-di-t-butylbiphenyl radical anion. Tetrahedron Letters, 1990, 31, 6155-6158.	0.7	29
112	Correlation of the acidity of substituted phenols, anilines, and benzoic acids calculated by MNDO, AM1, and PM3 with Hammett-type substituent constants. Journal of Computational Chemistry, 1990, 11, 1009-1016.	1.5	34
113	Synthesis, chemical and physical properties, x-ray crystal structure, and theoretical calculations of 9-[1-(2,4,6-cycloheptatrienylidene)]xanthene. Journal of Organic Chemistry, 1990, 55, 4327-4332.	1.7	12
114	Deoxidation/reduction of aromatic esters, Î±-diketones, acyloins, and epoxides to the corresponding bibenzyl products with lithium 4,4â€²-di-t-butylbiphenyl radical anion. Tetrahedron Letters, 1989, 30, 4931-4934.	0.7	18
115	Electron transfer reactions of aliphatic esters to the corresponding aliphatic ketones by lithium, 4,4â€²-di-t-butylbiphenyl radical anion. Tetrahedron Letters, 1989, 30, 4935-4938.	0.7	16
116	A novel synthesis of aromatic Î±-diketones from electron transfer reactions of aromatic acids with either lithium 4,4â€²-di-t-butylbiphenyl radical anion or lithium metal. Tetrahedron Letters, 1989, 30, 6267-6270.	0.7	17
117	Unstable compounds. Synthesis and experimental and computational study of the chemical behavior of 9-[1-(2,4,6-cycloheptatrienyl)]-9-xanthydrol. Journal of Organic Chemistry, 1989, 54, 4591-4596.	1.7	24
118	Facile decomposition of 9-substituted 9-xanthydrols in basic media. Dependence of reaction behavior on structure and metal ion. Journal of the American Chemical Society, 1989, 111, 6450-6451.	6.6	12
119	Metal complexes of .alpha.-hydroxyimino phosphonic acid derivatives. Separation of E and Z isomers by metal chelation and the preparation and characterization of copper bis[(E)-(.alpha.-(hydroxyimino)benzyl)phosphonate]-water. Inorganic Chemistry, 1989, 28, 1928-1932.	1.9	13
120	Syntheses of 9-cyclohepta-2,4,6-trien-1-yl-9H-xanthen-9-ol and related alcohols by a novel umpolung method. Journal of the Chemical Society Chemical Communications, 1989, , 566.	2.0	11
121	FRAGMENTATION OF ACYLPHOSPHONATES[sbnd]NEW PRECURSORS FOR DICOORDINATED PHOSPHORUS SPECIES. Phosphorous and Sulfur and the Related Elements, 1987, 33, 61-63.	0.2	4
122	A NOVEL BASE-CATALYZED FRAGMENTATION OF ALIPHATIC ACYLPHOSPHONATES. Phosphorous and Sulfur and the Related Elements, 1984, 21, 119-120.	0.2	4