

Krishna Kumar

List of Publications by Year in descending order

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67
papers

2,499
citations

218677

26
h-index

197818

49
g-index

72
all docs

72
docs citations

72
times ranked

2497
citing authors

#	ARTICLE	IF	CITATIONS
1	Fluorinated amino acids in protein design and engineering. <i>Chemical Society Reviews</i> , 2002, 31, 335-341.	38.1	293
2	Antimicrobial Activity and Protease Stability of Peptides Containing Fluorinated Amino Acids. <i>Journal of the American Chemical Society</i> , 2007, 129, 15615-15622.	13.7	234
3	Programmed Self-Sorting of Coiled Coils with Leucine and Hexafluoroleucine Cores. <i>Journal of the American Chemical Society</i> , 2001, 123, 11815-11816.	13.7	170
4	A Coiled Coil with a Fluorous Core. <i>Journal of the American Chemical Society</i> , 2001, 123, 4393-4399.	13.7	169
5	Electronic Coupling in C-Clamp-Shaped Molecules: A Solvent-Mediated Superexchange Pathways. <i>Journal of the American Chemical Society</i> , 1996, 118, 243-244.	13.7	106
6	Use of Modern Electron Transfer Theories To Determine Electronic Coupling Matrix Elements in Intramolecular Systems. <i>Journal of Physical Chemistry A</i> , 1998, 102, 5529-5541.	2.5	106
7	From The Cover: De novo design of defined helical bundles in membrane environments. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 15324-15329.	7.1	84
8	Synthesis and thermodynamic characterization of self-sorting coiled coils. <i>Tetrahedron</i> , 2002, 58, 4105-4112.	1.9	79
9	Theoretical Study of Solvent Effects on the Electronic Coupling Matrix Element in Rigidly Linked Donor-Acceptor Systems. <i>The Journal of Physical Chemistry</i> , 1995, 99, 17501-17504.	2.9	73
10	Colocalization of the Ganglioside GM1 and Cholesterol Detected by Secondary Ion Mass Spectrometry. <i>Journal of the American Chemical Society</i> , 2013, 135, 5620-5630.	13.7	69
11	Biosynthesis and Stability of Coiled-Coil Peptides Containing (2 <i>S</i> ,4 <i>R</i>)-5,5-Trifluoroleucine and (2 <i>S</i> ,4 <i>S</i>)-5,5-Trifluoroleucine. <i>ChemBioChem</i> , 2009, 10, 84-86.	2.6	67
12	Fluorophobic Acceleration of Diels-Alder Reactions. <i>Journal of the American Chemical Society</i> , 2000, 122, 12025-12026.	13.7	65
13	Model System for Cell Adhesion Mediated by Weak Carbohydrate-Carbohydrate Interactions. <i>Journal of the American Chemical Society</i> , 2012, 134, 3326-3329.	13.7	64
14	Bioorthogonal noncovalent chemistry: fluorous phases in chemical biology. <i>Current Opinion in Chemical Biology</i> , 2006, 10, 576-583.	6.1	56
15	Influence of Selective Fluorination on the Biological Activity and Proteolytic Stability of Glucagon-like Peptide-1. <i>Journal of Medicinal Chemistry</i> , 2008, 51, 7303-7307.	6.4	56
16	Alternative Translations of a Single RNA Message: An Identity Switch of (2 <i>S</i> ,3 <i>R</i>)-4,4,4-Trifluorovaline between Valine and Isoleucine Codons. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 3664-3666.	13.8	50
17	Fluorinated Interfaces Drive Self-Association of Transmembrane α Helices in Lipid Bilayers. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 2588-2591.	13.8	49
18	β -Peptide Bundles with Fluorous Cores. <i>Journal of the American Chemical Society</i> , 2010, 132, 3658-3659.	13.7	48

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19	Just Add Water: A New Fluorous Capping Reagent for Facile Purification of Peptides Synthesized on the Solid Phase. <i>Journal of the American Chemical Society</i> , 2004, 126, 9528-9529.	13.7	46
20	Peptide Tertiary Structure Nucleation by Side-Chain Crosslinking with Metal Complexation and Double α -Click-Cycloaddition. <i>ChemBioChem</i> , 2008, 9, 1701-1705.	2.6	44
21	A Novel Synthesis of Enantiomerically Pure 5,5,5-Trifluoro-5-Hexafluoroleucine. <i>Organic Letters</i> , 2001, 3, 1285-1286.	4.6	37
22	An Air- and Water-Stable Iodonium Salt Promoter for Facile Thioglycoside Activation. <i>Organic Letters</i> , 2014, 16, 1780-1782.	4.6	37
23	Nanoscale Patterning in Mixed Fluorocarbon-Hydrocarbon Phospholipid Bilayers. <i>Journal of the American Chemical Society</i> , 2007, 129, 9037-9043.	13.7	36
24	Syntheses of Rigid and Semirigid Molecules for Investigations of Photoinduced Electron Transfer Reactions. <i>Journal of Organic Chemistry</i> , 1995, 60, 4051-4066.	3.2	32
25	Fluorination of mammalian cell surfaces via the sialic acid biosynthetic pathway. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2008, 18, 5945-5947.	2.2	32
26	Structure and Thermotropic phase Behavior of Fluorinated Phospholipid Bilayers: A combined Attenuated Total Reflection FTIR Spectroscopy and Imaging Ellipsometry Study. <i>Journal of Physical Chemistry B</i> , 2008, 112, 8250-8256.	2.6	32
27	Modulation of Cellular Adhesion by Glycoengineering. <i>Journal of Medicinal Chemistry</i> , 2010, 53, 4277-4284.	6.4	26
28	A Simple and Efficient Method for the Resolution of All Four Diastereomers of 4,4,4-Trifluorovaline and 5,5,5-Trifluoroleucine. <i>Journal of Organic Chemistry</i> , 2002, 67, 1722-1725.	3.2	24
29	Fluorinated Lipid Constructs Permit Facile Passage of Molecular Cargo into Living Cells. <i>Journal of the American Chemical Society</i> , 2009, 131, 12091-12093.	13.7	24
30	Development of a Membrane-anchored Chemerin Receptor Agonist as a Novel Modulator of Allergic Airway Inflammation and Neuropathic Pain. <i>Journal of Biological Chemistry</i> , 2014, 289, 13385-13396.	3.4	24
31	Discovery of Peptide Antibiotics Composed of α -Amino Acids. <i>ACS Chemical Biology</i> , 2019, 14, 1498-1506.	3.4	24
32	Selective Protein-Protein Interactions Driven by a Phenylalanine Interface. <i>Journal of the American Chemical Society</i> , 2006, 128, 188-191.	13.7	20
33	A Fluorous Capping Strategy for Fmoc-Based Automated and Manual Solid-Phase Peptide Synthesis. <i>European Journal of Organic Chemistry</i> , 2006, 2006, 874-877.	2.4	19
34	A new paradigm for protein design and biological self-assembly. <i>Journal of Fluorine Chemistry</i> , 2009, 130, 1178-1182.	1.7	19
35	Fluorogenic sialic acid glycosides for quantification of sialidase activity upon unnatural substrates. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2013, 23, 3406-3410.	2.2	17
36	Protein Design Using Unnatural Amino Acids. <i>Journal of Chemical Education</i> , 2003, 80, 1275.	2.3	13

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37	Total synthesis of trifluorobutyl-protected sialyl Lewis X by a convergent [2+2] approach. <i>Tetrahedron Letters</i> , 2015, 56, 109-114.	1.4	13
38	Enabling routine fluororous capping in solid phase peptide synthesis. <i>Journal of Fluorine Chemistry</i> , 2006, 127, 565-570.	1.7	12
39	Cross-Strand Interactions of Fluorinated Amino Acids in β -Hairpin Constructs. <i>Journal of the American Chemical Society</i> , 2012, 134, 17912-17921.	13.7	11
40	De novo design of protein mimics of B-DNA. <i>Molecular BioSystems</i> , 2016, 12, 169-177.	2.9	11
41	Novel Probes Establish Mas-Related G Protein-Coupled Receptor X1 Variants as Receptors with Loss or Gain of Function. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2016, 356, 276-283.	2.5	10
42	Engineering and characterization of a single chain surrogate light chain variable domain. <i>Protein Science</i> , 2008, 17, 458-465.	7.6	8
43	Coiled-Coil Lipopeptides Mimicking the Prehairpin Intermediate of Glycoprotein gp41. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 751-754.	13.8	8
44	Exploiting Existing Molecular Scaffolds for Long-Term COVID Treatment. <i>ACS Medicinal Chemistry Letters</i> , 2020, 11, 1357-1360.	2.8	8
45	Controlling Association of Vesicle Embedded Peptides by Alteration of the Physical State of the Lipid Matrix. <i>Biochemistry</i> , 2005, 44, 5188-5195.	2.5	7
46	The Role of Conserved Histidines in the Structure and Stability of Human Papillomavirus Type 16 E2 DNA-Binding Domain. <i>Biochemistry</i> , 2007, 46, 1402-1411.	2.5	7
47	Fluorinated Amino Acids and Biomolecules in Protein Design and Chemical Biology. , 0, , 411-446.		6
48	Designing convergent chemistry curricula. <i>Nature Chemical Biology</i> , 2016, 12, 382-386.	8.0	6
49	A Two-Step Strategy to Enhance Activity of Low Potency Peptides. <i>PLoS ONE</i> , 2014, 9, e110502.	2.5	6
50	A Highly Stereospecific and Efficient Synthesis of Homopentafluoro-phenylalanine. <i>Journal of Organic Chemistry</i> , 2004, 69, 5468-5470.	3.2	5
51	Sialidases as regulators of bioengineered cellular surfaces. <i>Glycobiology</i> , 2015, 25, 784-791.	2.5	5
52	A Non-Perturbative Molecular Grafting Strategy for Stable and Potent Therapeutic Peptide Ligands. <i>ACS Central Science</i> , 2021, 7, 454-466.	11.3	5
53	Lipopeptides derived from HIV and SIV mimicking the prehairpin intermediate of gp41 on solid supported lipid bilayers. <i>Journal of Structural Biology</i> , 2009, 168, 125-136.	2.8	3
54	Trifluoromethyl Derivatization of the Ganglioside, GM1. <i>Synthesis</i> , 2010, 2010, 1905-1908.	2.3	2

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55	Ligand-Induced Protein Mobility in Complexes of Carbonic Anhydrase II and Benzenesulfonamides with Oligoglycine Chains. PLoS ONE, 2013, 8, e57629.	2.5	2
56	Fluorinated Amino Acids and Reagents in Protein Design and Biomolecule Separation. ACS Symposium Series, 2007, , 487-499.	0.5	1
57	Weak Carbohydrate-Carbohydrate Interactions Measured by Colloidal Probe Microscopy. Biophysical Journal, 2012, 102, 427a.	0.5	1
58	Fluorination in the Design of Membrane Protein Assemblies. Methods in Molecular Biology, 2013, 1063, 227-243.	0.9	1
59	Fluorinated Amino Acids in Protein Design and Engineering. ChemInform, 2003, 34, no.	0.0	0
60	Protein Engineering Using Noncanonical Amino Acids. , 2009, , .		0
61	Partitioning of Cholesterol and Ganglioside GM1 in Phase Separated Lipid Bilayers Imaged by Secondary Ion Mass Spectrometry. Biophysical Journal, 2012, 102, 222a.	0.5	0
62	Hydrodynamic Co-Localization of Molecules in Supported Lipid Bilayers Detected by Secondary Ion Mass Spectrometry. Biophysical Journal, 2013, 104, 248a.	0.5	0
63	Electric Field Induced Co-Localization of Membrane Components in Supported Lipid Bilayers Detected by Secondary Ion Mass Spectrometry. Biophysical Journal, 2014, 106, 40a-41a.	0.5	0
64	Correlated Motion and Complex Formation of Lipid-Raft Components Analyzed by High-Resolution Secondary Ion Mass Spectrometry. Biophysical Journal, 2015, 108, 404a.	0.5	0
65	Comparison of 2D crystals formed by dissociative adsorption of fluorinated and nonfluorinated alkyl iodides on Cu(111). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 063211.	2.1	0
66	Synthetic Membrane Anchored Ligands: An Innovative Approach to Drug Discovery. FASEB Journal, 2015, 29, 1022.1.	0.5	0
67	Chemical Biology and Supramolecular Chemistry of Fluorinated Molecules. , 2020, , 561-584.		0