Rudolf Volkmer

List of Publications by Year
in descending order

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86 papers	4,608 citations	136950 32 h-index	106344 65 g-index
92 all docs	92 docs citations	92 times ranked	10387 citing authors

#	Article	IF	Citations
1	Histone Recognition and Large-Scale Structural Analysis of the Human Bromodomain Family. Cell, 2012, 149, 214-231.	28.9	1,368
2	Use of Artificial Intelligence in the Design of Small Peptide Antibiotics Effective against a Broad Spectrum of Highly Antibiotic-Resistant Superbugs. ACS Chemical Biology, 2009, 4, 65-74.	3.4	303
3	Cellular Mechanotransduction Relies on Tension-Induced and Chaperone-Assisted Autophagy. Current Biology, 2013, 23, 430-435.	3.9	246
4	Screening and Characterization of Surface-Tethered Cationic Peptides for Antimicrobial Activity. Chemistry and Biology, 2009, 16, 58-69.	6.0	197
5	Bayesian Modeling of the Yeast SH3 Domain Interactome Predicts Spatiotemporal Dynamics of Endocytosis Proteins. PLoS Biology, 2009, 7, e1000218.	5.6	172
6	Comparison of Cellular Uptake Using 22 CPPs in 4 Different Cell Lines. Bioconjugate Chemistry, 2008, 19, 2363-2374.	3.6	164
7	SNARE motif-mediated sorting of synaptobrevin by the endocytic adaptors clathrin assembly lymphoid myeloid leukemia (CALM) and AP180 at synapses. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13540-13545.	7.1	123
8	Synthesis and Application of Peptide Arrays: Quo Vadis SPOT Technology. ChemBioChem, 2009, 10, 1431-1442.	2.6	84
9	Targeting Mycobacterium tuberculosis and Other Microbial Pathogens Using Improved Synthetic Antibacterial Peptides. Antimicrobial Agents and Chemotherapy, 2013, 57, 2295-2303.	3.2	72
10	The membrane remodeling protein Pex11p activates the GTPase Dnm1p during peroxisomal fission. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 6377-6382.	7.1	69
11	Bio-Orthogonal Chemistry and Reloadable Biomaterial Enable Local Activation of Antibiotic Prodrugs and Enhance Treatments against Staphylococcus aureus Infections. ACS Central Science, 2018, 4, 1624-1632.	11.3	64
12	The Tim21 binding domain connects the preprotein translocases of both mitochondrial membranes. EMBO Reports, 2006, 7, 1233-1238.	4.5	60
13	Direct Visualization of Large and Protein-Free Hemifusion Diaphragms. Biophysical Journal, 2010, 98, 1192-1199.	0.5	59
14	Structural Basis for Two-component System Inhibition and Pilus Sensing by the Auxiliary CpxP Protein. Journal of Biological Chemistry, 2011, 286, 9805-9814.	3.4	59
15	Improving short antimicrobial peptides despite elusive rules for activity. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 1024-1033.	2.6	57
16	Chaperones specific for the membraneâ€bound [NiFe]â€hydrogenase interact with the Tat signal peptide of the small subunit precursor in Ralstonia eutropha H16. Molecular Microbiology, 2007, 66, 453-467.	2.5	55
17	Hemagglutinin of Influenza Virus Partitions into the Nonraft Domain of Model Membranes. Biophysical Journal, 2010, 99, 489-498.	0.5	55
18	Y65C Missense Mutation in the WW Domain of the Golabi-Ito-Hall Syndrome Protein PQBP1 Affects Its Binding Activity and Deregulates Pre-mRNA Splicing. Journal of Biological Chemistry, 2010, 285, 19391-19401.	3.4	53

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19	Increased Frequency of EBV-Specific Effector Memory CD8+ T Cells Correlates with Higher Viral Load in Rheumatoid Arthritis. Journal of Immunology, 2008, 181, 991-1000.	0.8	52
20	Cell Penetrating Peptides and Cationic Antibacterial Peptides. Journal of Biological Chemistry, 2014, 289, 14448-14457.	3.4	49
21	The cochaperone BAG3 coordinates protein synthesis and autophagy under mechanical strain through spatial regulation of mTORC1. Biochimica Et Biophysica Acta - Molecular Cell Research, 2017, 1864, 62-75.	4.1	49
22	Farnesylation of Pex19p Is Required for Its Structural Integrity and Function in Peroxisome Biogenesis. Journal of Biological Chemistry, 2009, 284, 20885-20896.	3.4	47
23	Structural Basis of Formation of the Microtubule Minus-End-Regulating CAMSAP-Katanin Complex. Structure, 2018, 26, 375-382.e4.	3.3	47
24	Crystal Structure of NblA from Anabaena sp. PCC 7120, a Small Protein Playing a Key Role in Phycobilisome Degradation. Journal of Biological Chemistry, 2006, 281, 5216-5223.	3.4	46
25	Engineering Peptide Inhibitors To Overcome PDZ Binding Promiscuity. Angewandte Chemie - International Edition, 2010, 49, 9912-9916.	13.8	44
26	Sequence Determinants of a Microtubule Tip Localization Signal (MtLS). Journal of Biological Chemistry, 2012, 287, 28227-28242.	3.4	44
27	Control of AMPA receptor activity by the extracellular loops of auxiliary proteins. ELife, 2017, 6, .	6.0	43
28	Complex Networks Govern Coiled-Coil Oligomerization â€“ Predicting and Profiling by Means of a Machine Learning Approach. Molecular and Cellular Proteomics, 2011, 10, M110.004994.	3.8	39
29	A modular toolkit to inhibit proline-rich motifâ€“mediated proteinâ€“protein interactions. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 5011-5016.	7.1	39
30	Short Linear Sequence Motif LxxPTPh Targets Diverse Proteins to Growing Microtubule Ends. Structure, 2017, 25, 924-932.e4.	3.3	37
31	Identification of Xin-repeat proteins as novel ligands of the SH3 domains of nebulin and nebulette and analysis of their interaction during myofibril formation and remodeling. Molecular Biology of the Cell, 2013, 24, 3215-3226.	2.1	35
32	Synthetic peptide arrays for investigating protein interaction domains. FEBS Letters, 2012, 586, 2780-2786.	2.8	34
33	Characterization of a Putative Phosphorylation Switch: Adaptation of SPOT Synthesis to Analyze PDZ Domain Regulation Mechanisms. ChemBioChem, 2007, 8, 2302-2307.	2.6	33
34	Box 2 Region of the Oncostatin M Receptor Determines Specificity for Recruitment of Janus Kinases and STAT5 Activation. Journal of Biological Chemistry, 2008, 283, 19465-19477.	3.4	33
35	A Disulfide-Free Single-Domain VL Intrabody with Blocking Activity towards Huntingtin Reveals a Novel Mode of Epitope Recognition. Journal of Molecular Biology, 2011, 414, 337-355.	4.2	33
36	Differential Recognition Preferences of the Three Src Homology 3 (SH3) Domains from the Adaptor CD2-associated Protein (CD2AP) and Direct Association with Ras and Rab Interactor 3 (RIN3). Journal of Biological Chemistry, 2015, 290, 25275-25292.	3.4	33

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37	Bimodal antagonism of PKA signalling by ARHGAP36. Nature Communications, 2016, 7, 12963.	12.8	33
38	CtpB Assembles a Gated Protease Tunnel Regulating Cell-Cell Signaling during Spore Formation in Bacillus subtilis. Cell, 2013, 155, 647-658.	28.9	31
39	The N-terminal amphipathic helix of Pex11p self-interacts to induce membrane remodelling during peroxisome fission. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 1292-1300.	2.6	28
40	Affinity profiling using the peptide microarray technology: A case study. Analytical Biochemistry, 2007, 363, 108-118.	2.4	26
41	NS1 Specific CD8+ T-Cells with Effector Function and TRBV11 Dominance in a Patient with Parvovirus B19 Associated Inflammatory Cardiomyopathy. PLoS ONE, 2008, 3, e2361.	2.5	25
42	Anti-Hemagglutinin Antibody Derived Lead Peptides for Inhibitors of Influenza Virus Binding. PLoS ONE, 2016, 11, e0159074.	2.5	25
43	Positional scanning library applied to the human eosinophil cationic protein/RNase3 N-terminus reveals novel and potent anti-biofilm peptides. European Journal of Medicinal Chemistry, 2018, 152, 590-599.	5.5	21
44	Designed nanomolar small-molecule inhibitors of Ena/VASP EVH1 interaction impair invasion and extravasation of breast cancer cells. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29684-29690.	7.1	21
45	Electrochemical functionalization of gold and silicon surfaces by a maleimide group as a biosensor for immunological application. Acta Biomaterialia, 2013, 9, 5838-5844.	8.3	20
46	Sorting and pooling strategy: A novel tool to map a virus proteome for CD8 T-cell epitopes. Biopolymers, 2007, 88, 64-75.	2.4	19
47	Immunization with an immunodominant self-peptide derived from glucose-6-phosphate isomerase induces arthritis in DBA/1 mice. Arthritis Research and Therapy, 2009, 11, R117.	3.5	18
48	Systematic amino acid substitutions improved efficiency of GD2-peptide mimotope vaccination against neuroblastoma. European Journal of Cancer, 2009, 45, 2915-2921.	2.8	17
49	A Polymorphic Microsatellite Repeat within the ECE-1c Promoter Is Involved in Transcriptional Start Site Determination, Human Evolution, and Alzheimer's Disease. Journal of Neuroscience, 2012, 32, 16807-16820.	3.6	17
50	Molecular basis of Kar9-Bim1 complex function during mating and spindle positioning. Molecular Biology of the Cell, 2016, 27, 3729-3745.	2.1	17
51	Identification of a Linear Epitope in Sortilin That Partakes in Pro-neurotrophin Binding. Journal of Biological Chemistry, 2010, 285, 12210-12222.	3.4	16
52	Transformation of a Biologically Active Peptide into Peptoid Analogs While Retaining Biological Activity. Protein and Peptide Letters, 2006, 13, 829-833.	0.9	15
53	A Network of Coiled-Coil Associations Derived from Synthetic GCN4 Leucine-Zipper Arrays. Angewandte Chemie - International Edition, 2007, 46, 1654-1657.	13.8	15
54	A new strategy for the preparation of maleimide-functionalised gold surfaces. Electrochemistry Communications, 2010, 12, 1403-1406.	4.7	15

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55	Generation and Characterization of a Rat Monoclonal Antibody Specific for PCNA. Hybridoma, 2008, 27, 91-98.	0.4	14
56	Synthesis of cleavable peptides with authentic C-termini: an application for fully automated SPOT synthesis. Tetrahedron Letters, 2007, 48, 361-364.	1.4	13
57	Evaluating the coupling efficiency of phosphorylated amino acids for SPOT synthesis. Journal of Peptide Science, 2008, 14, 1309-1314.	1.4	12
58	Exploring monovalent and multivalent peptides for the inhibition of FBP21-tWW. Beilstein Journal of Organic Chemistry, 2015, 11, 701-706.	2.2	12
59	Using hydroxymethylphenoxy derivates with the SPOT technology to generate peptides with authentic C-termini. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 4038-4043.	2.2	11
60	Chemical Biology Approaches Reveal Conserved Features of a Câ€Terminal Processing PDZ Protease. ChemBioChem, 2012, 13, 402-408.	2.6	11
61	A Novel Subtype of AP-1-binding Motif within the Palmitoylated trans-Golgi Network/Endosomal Accessory Protein Gadkin/Î³-BAR. Journal of Biological Chemistry, 2010, 285, 4074-4086.	3.4	10
62	Characterization of the allergen filarial tropomyosin with an invertebrate specific monoclonal antibody. Acta Tropica, 2010, 116, 61-67.	2.0	10
63	Identification of IgE Binding to Apiâ€‰gâ€‰1â€Derived Peptides. ChemBioChem, 2010, 11, 2283-2293.	2.6	9
64	A study to assess the crossâ€reactivity of cellulose membraneâ€bound peptides with detection systems: an analysis at the amino acid level. Journal of Peptide Science, 2010, 16, 297-302.	1.4	9
65	Recruitment of SHâ€Containing Peptides to Lipid and Biological Membranes through the Use of a Palmitic Acid Functionalized with a Maleimide Group. Angewandte Chemie - International Edition, 2015, 54, 323-326.	13.8	9
66	Identification of Targeting Peptides for Mucosal Delivery in Sheep and Mice. Molecular Pharmaceutics, 2016, 13, 202-210.	4.6	9
67	Mapping Putative Contact Sites Between Subunits in a Bacterial ATP-binding Cassette (ABC) Transporter by Synthetic Peptide Libraries. Journal of Molecular Biology, 2007, 369, 386-399.	4.2	8
68	Exploring and Profiling Protein Function with Peptide Arrays. Methods in Molecular Biology, 2009, 570, 3-17.	0.9	8
69	Evolution of the SH3 Domain Specificity Landscape in Yeasts. PLoS ONE, 2015, 10, e0129229.	2.5	8
70	The agony of choice: how to find a suitable CPP for cargo delivery. Journal of Peptide Science, 2012, 18, 293-301.	1.4	7
71	Tolerogenic Immunomodulation by PEGylated Antigenic Peptides. Frontiers in Immunology, 2020, 11, 529035.	4.8	7
72	Benchtop holdup assay for quantitative affinity-based analysis of sequence determinants of protein-motif interactions. Analytical Biochemistry, 2020, 603, 113772.	2.4	7

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73	Chemical synthesis of the third WW domain of TCERG 1 by native chemical ligation. Journal of Peptide Science, 2011, 17, 644-649.	1.4	6
74	Mapping receptorâ€“ligand interactions with synthetic peptide arrays: Exploring the structure and function of membrane receptors. European Journal of Cell Biology, 2012, 91, 349-356.	3.6	6
75	Potential of acylated peptides to target the influenza A virus. Beilstein Journal of Organic Chemistry, 2015, 11, 589-595.	2.2	6
76	Synthesis and Characterization of a New Bifunctionalized, Fluorescent, and Amphiphilic Molecule for Recruiting SHâ€Containing Molecules to Membranes. ChemBioChem, 2018, 19, 1643-1647.	2.6	6
77	Epitope Mapping of Antibodies against S-Tagged Fusion Proteins and Molecular Weight Markers. Bioscience, Biotechnology and Biochemistry, 2008, 72, 346-351.	1.3	5
78	Defining the immunoreactive epitope for the monoclonal anti-human glutathione peroxidase-4 antibody anti-hGPx4 Mab63-1. Immunology Letters, 2010, 133, 85-93.	2.5	5
79	Mapping discontinuous proteinâ€binding sites via structureâ€based peptide libraries: combining in silico and in vitro approaches. Journal of Molecular Recognition, 2013, 26, 23-31.	2.1	4
80	An Antimicrobial Peptide Induces FIG1-Dependent Cell Death During Cell Cycle Arrest in Yeast. Frontiers in Microbiology, 2018, 9, 1240.	3.5	4
81	Peptide Arrays on Planar Supports. Methods in Molecular Biology, 2016, 1352, 3-17.	0.9	3
82	Exploring Protein-Protein Interactions with Synthetic Peptide Arrays. Mini-Reviews in Organic Chemistry, 2011, 8, 164-170.	1.3	2
83	Investigation of the network of preferred interactions in an artificial coiled-coil association using the peptide array technique. Beilstein Journal of Organic Chemistry, 2012, 8, 640-649.	2.2	1
84	Rapid degradation of solidâ€phase bound peptides by the 20S proteasome. Journal of Peptide Science, 2013, 19, 588-597.	1.4	0
85	Fix-Wavelength Multi-Analyte Detection with Serial SOI Ring Resonators. Engineering Proceedings, 2021, 6, .	0.4	0
86	DEFINING REDUCED AMINO ACID SETS WITH A NEW SUBSTITUTION MATRIX BASED SOLELY ON BINDING AFFINITIES. , 2007, , .		0