Kai Hilpert

List of Publications by Year
in descending order

71	8,925	147801 31	91884 69
papers	citations	h-index	g-index

78	78	78	12928
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Agar and broth dilution methods to determine the minimal inhibitory concentration (MIC) of antimicrobial substances. Nature Protocols, 2008, 3, 163-175.	12.0	4,289
2	Alternatives to antibioticsâ€"a pipeline portfolio review. Lancet Infectious Diseases, The, 2016, 16, 239-251.	9.1	720
3	High-throughput generation of small antibacterial peptides with improved activity. Nature Biotechnology, 2005, 23, 1008-1012.	17.5	351
4	The biocompatibility and biofilm resistance of implant coatings based on hydrophilic polymer brushes conjugated with antimicrobial peptides. Biomaterials, 2011, 32, 3899-3909.	11.4	351
5	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
6	Peptide arrays on cellulose support: SPOT synthesis, a time and cost efficient method for synthesis of large numbers of peptides in a parallel and addressable fashion. Nature Protocols, 2007, 2, 1333-1349.	12.0	255
7	Identification of Novel Antibacterial Peptides by Chemoinformatics and Machine Learning. Journal of Medicinal Chemistry, 2009, 52, 2006-2015.	6.4	250
8	Screening and Characterization of Surface-Tethered Cationic Peptides for Antimicrobial Activity. Chemistry and Biology, 2009, 16, 58-69.	6.0	197
9	Synergistic Interaction between Silver Nanoparticles and Membrane-Permeabilizing Antimicrobial Peptides. Antimicrobial Agents and Chemotherapy, 2009, 53, 3538-3540.	3.2	189
10	Sequence Requirements and an Optimization Strategy for Short Antimicrobial Peptides. Chemistry and Biology, 2006, 13, 1101-1107.	6.0	158
11	Structural Studies of a Peptide with Immune Modulating and Direct Antimicrobial Activity. Chemistry and Biology, 2010, 17, 970-980.	6.0	143
12	The Dolphin Proline-Rich Antimicrobial Peptide Tur1A Inhibits Protein Synthesis by Targeting the Bacterial Ribosome. Cell Chemical Biology, 2018, 25, 530-539.e7.	5.2	90
13	Easy Strategy To Protect Antimicrobial Peptides from Fast Degradation in Serum. Antimicrobial Agents and Chemotherapy, 2010, 54, 4003-4005.	3.2	86
14	Using Intrinsic X-ray Absorption Spectral Differences To Identify and Map Peptides and Proteins. Journal of Physical Chemistry B, 2007, 111, 7691-7699.	2.6	83
15	Targeting Mycobacterium tuberculosis and Other Microbial Pathogens Using Improved Synthetic Antibacterial Peptides. Antimicrobial Agents and Chemotherapy, 2013, 57, 2295-2303.	3.2	72
16	Use of luminescent bacteria for rapid screening and characterization of short cationic antimicrobial peptides synthesized on cellulose using peptide array technology. Nature Protocols, 2007, 2, 1652-1660.	12.0	71
17	Short Cationic Antimicrobial Peptides Interact with ATP. Antimicrobial Agents and Chemotherapy, 2010, 54, 4480-4483.	3.2	70
18	Synthesis of Peptide Arrays Using SPOT-Technology and the CelluSpots-Method. Methods in Molecular Biology, 2009, 570, 157-174.	0.9	63

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19	Evaluating Different Descriptors for Model Design of Antimicrobial Peptides with Enhanced Activity Toward P. aeruginosa. Chemical Biology and Drug Design, 2007, 70, 134-142.	3.2	60
20	Improving short antimicrobial peptides despite elusive rules for activity. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 1024-1033.	2.6	57
21	Anti-c-myc antibody 9E10: epitope key positions and variability characterized using peptide spot synthesis on cellulose. Protein Engineering, Design and Selection, 2001, 14, 803-806.	2.1	56
22	The effect of lipidation and glycosylation on short cationic antimicrobial peptides. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183195.	2.6	56
23	Identification of novel host defense peptides and the absence of Î±â€defensins in the bovine genome. Proteins: Structure, Function and Bioinformatics, 2008, 73, 420-430.	2.6	53
24	Screening for Antifungal Peptides and Their Modes of Action in Aspergillus nidulans. Applied and Environmental Microbiology, 2010, 76, 7102-7108.	3.1	52
25	The rumen microbiome: an underexplored resource for novel antimicrobial discovery. Npj Biofilms and Microbiomes, 2017, 3, 33.	6.4	51
26	Synergy Pattern of Short Cationic Antimicrobial Peptides Against Multidrug-Resistant Pseudomonas aeruginosa. Frontiers in Microbiology, 2019, 10, 2740.	3.5	48
27	Atomic resolution structure of native porcine pancreatic elastase at 1.1â€…Ã…. Acta Crystallographica Section D: Biological Crystallography, 2000, 56, 520-523.	2.5	39
28	Use of Peptide Libraries for Identification and Optimization of Novel Antimicrobial Peptides. Current Topics in Medicinal Chemistry, 2016, 17, 537-553.	2.1	38
29	Cationic antimicrobial peptides as potential new therapeutic agents in neonates and children. Current Opinion in Infectious Diseases, 2014, 27, 258-267.	3.1	36
30	Screening and Optimizing Antimicrobial Peptides by Using SPOT-Synthesis. Frontiers in Chemistry, 2017, 5, 25.	3.6	36
31	Prolineâ€Rich Peptides with Improved Antimicrobial Activity against E. coli, K. pneumoniae, and A. baumannii. ChemMedChem, 2019, 14, 2025-2033.	3.2	35
32	Optimization of oncocin for antibacterial activity using a SPOT synthesis approach: extending the pathogen spectrum to Staphylococcus aureus. Amino Acids, 2016, 48, 269-280.	2.7	34
33	Small angle X-ray scattering as a high-throughput method to classify antimicrobial modes of action. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 918-925.	2.6	33
34	Design and Characterization of a Hybrid Miniprotein That Specifically Inhibits Porcine Pancreatic Elastase. Journal of Biological Chemistry, 2003, 278, 24986-24993.	3.4	32
35	Cellulose-bound Peptide Arrays: Preparation and Applications. Biotechnology and Genetic Engineering Reviews, 2007, 24, 31-106.	6.2	31
36	Short Linear Cationic Antimicrobial Peptides: Screening, Optimizing, and Prediction. Methods in Molecular Biology, 2008, 494, 127-159.	0.9	31

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37	Complete Substitutional Analysis of a Sunflower Trypsin Inhibitor with Different Serine Proteases. Journal of Biochemistry, 2005, 138, 383-390.	1.7	28
38	A short artificial antimicrobial peptide shows potential to prevent or treat bone infections. Scientific Reports, 2017, 7, 1506.	3.3	28
39	Characterizing and Optimizing Protease/Peptide Inhibitor Interactions, a New Application for Spot Synthesis. Journal of Biochemistry, 2000, 128, 1051-1057.	1.7	24
40	Peptide Inhibitors of Bacterial Protein Synthesis with Broad Spectrum and SbmA-Independent Bactericidal Activity against Clinical Pathogens. Journal of Medicinal Chemistry, 2020, 63, 9590-9602.	6.4	24
41	Rapid Assembly of Infection-Resistant Coatings: Screening and Identification of Antimicrobial Peptides Works in Cooperation with an Antifouling Background. ACS Applied Materials & Interfaces, 2021, 13, 36784-36799.	8.0	21
42	Interaction of blood components with cathelicidins and their modified versions. Biomaterials, 2015, 69, 201-211.	11.4	20
43	Interaction of the Capsid Protein p24 (HIV-1) with Sequence-Derived Peptides: Influence on p24 Dimerization. Virology, 1999, 254, 6-10.	2.4	19
44	Buwchitin: A Ruminal Peptide with Antimicrobial Potential against Enterococcus faecalis. Frontiers in Chemistry, 2017, 5, 51.	3.6	19
45	Use of small-angle X-ray scattering to resolve intracellular structure changes of Escherichia coli cells induced by antibiotic treatment. Journal of Applied Crystallography, 2016, 49, 2210-2216.	4.5	18
46	Interpretable Features for the Activity Prediction of Short Antimicrobial Peptides Using Fuzzy Logic. International Journal of Peptide Research and Therapeutics, 2009, 15, 129-137.	1.9	17
47	Antimicrobial peptides: Cell Membrane and Microbial Surface Interactions. Biochimica Et Biophysica Acta - Biomembranes, 2016, 1858, 915-917.	2.6	17
48	Improved Culture Medium (TiKa) for Mycobacterium avium Subspecies Paratuberculosis (MAP) Matches qPCR Sensitivity and Reveals Significant Proportions of Non-viable MAP in Lymphoid Tissue of Vaccinated MAP Challenged Animals. Frontiers in Microbiology, 2016, 7, 2112.	3.5	17
49	Structure of a hybrid squash inhibitor in complex with porcine pancreatic elastase at 1.8â€…Ã… resolution. Acta Crystallographica Section D: Biological Crystallography, 2003, 59, 247-254.	2.5	15
50	Is There a Connection Between Gut Microbiome Dysbiosis Occurring in COVID-19 Patients and Post-COVID-19 Symptoms?. Frontiers in Microbiology, 2021, 12, 732838.	3.5	15
51	X-ray spectromicroscopy study of competitive adsorption of protein and peptide onto polystyrene-poly(methyl methacrylate). Biointerphases, 2008, 3, FB27-FB35.	1.6	14
52	BioSAXS Measurements Reveal That Two Antimicrobial Peptides Induce Similar Molecular Changes in Gram-Negative and Gram-Positive Bacteria. Frontiers in Pharmacology, 2019, 10, 1127.	3.5	14
53	Comparison of a Short Linear Antimicrobial Peptide with Its Disulfide-Cyclized and Cyclotide-Grafted Variants against Clinically Relevant Pathogens. Microorganisms, 2021, 9, 1249.	3.6	13
54	SPOT Synthesis as a Tool to Study Proteinâ€“Protein Interactions. Methods in Molecular Biology, 2011, 723, 105-127.	0.9	12

#	Article	IF	Citations
55	In silico identification of two peptides with antibacterial activity against multidrug-resistant Staphylococcus aureus. Npj Biofilms and Microbiomes, 2022, 8, .	6.4	11
56	Synthesis of Antimicrobial Peptides Using the SPOT Technique. Methods in Molecular Biology, 2010, 618, 111-124.	0.9	8
57	Identifying Novel Antimicrobial Peptides with Therapeutic Potential Against Multidrug-Resistant Bacteria by Using the SPOT Synthesis. Mini-Reviews in Organic Chemistry, 2011, 8, 157-163.	1.3	8
58	Unraveling Sub-Site Specificities of Peptidic Serine Protease Inhibitors by Substitutional and Structural Analysis. Protein and Peptide Letters, 2005, 12, 449-456.	0.9	6
59	High-Throughput Screening for Antimicrobial Peptides Using the SPOT Technique. Methods in Molecular Biology, 2010, 618, 125-133.	0.9	6
60	Rational Designed Hybrid Peptides Show up to a 6-Fold Increase in Antimicrobial Activity and Demonstrate Different Ultrastructural Changes as the Parental Peptides Measured by BioSAXS. Frontiers in Pharmacology, 2021, 12, 769739.	3.5	6
61	A Novel Monoclonal Antibody Against the C-terminus of β-Tubulin Recognizes Endocytic Organelles in Trypanosoma cruzi. Protein and Peptide Letters, 2012, 19, 636-643.	0.9	5
62	Poster Session. Pediatric Pulmonology, 2019, 54, S155-S480.	2.0	5
63	Crystallization and preliminary X-ray analysis of the complex of porcine pancreatic elastase and a hybrid squash inhibitor. Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 672-674.	2.5	4
64	Peptides in COVID-19 Clinical Trialsâ€"A Snapshot. Biologics, 2021, 1, 300-311.	4.1	3
65	Crystallization and Preliminary X-ray Analysis of Complexes of Porcine Pancreatic Elastase with two Natural Inhibitors. Protein and Peptide Letters, 2004, 11, 393-399.	0.9	2
66	Is the Gut Microbiome a Target for Adjuvant Treatment of COVID-19?. Biologics, 2021, 1, 285-299.	4.1	2
67	Structural Studies of An Immune Modulating and Direct Antimicrobial Peptide. Biophysical Journal, 2010, 98, 84a.	0.5	1
68	In silico identification of two novel antimicrobial peptides with antibacterial activity against multi-drug resistant Staphylococcus aureus. Access Microbiology, 2019, 1, .	0.5	1
69	Antimicrobial Activity Of A Histone Derived Peptide In The Airway Surface Liquid. FASEB Journal, 2021, 35, .	0.5	0
70	The Savage Dawn Peptide: an antibiotic woven from 12th century Welsh poetry. Access Microbiology, 2019, 1, .	0.5	0
71	Identification Of A Novel Histone Derived Antimicrobial Peptide In Airway Surface Liquid.. FASEB Journal, 2020, 34, 1-1.	0.5	0