Thomas Durek

List of Publications by Year
in descending order

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78	2,881	172207	189595
papers	citations	29 h-index	50 g-index

85	85	85	2936
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structure of Rab GDP-Dissociation Inhibitor in Complex with Prenylated YPT1 GTPase. Science, 2003, 302, 646-650.	6.0	193
2	Efficient backbone cyclization of linear peptides by a recombinant asparaginyl endopeptidase. Nature Communications, 2015, 6, 10199.	5.8	186
3	Convergent chemical synthesis and high-resolution x-ray structure of human lysozyme. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 4846-4851.	3.3	153
4	Disulfide-rich macrocyclic peptides as templates in drug design. European Journal of Medicinal Chemistry, 2014, 77, 248-257.	2.6	117
5	Fmoc-Based Synthesis of Disulfide-Rich Cyclic Peptides. Journal of Organic Chemistry, 2014, 79, 5538-5544.	1.7	110
6	Structure of doubly prenylated Ypt1:GDI complex and the mechanism of GDI-mediated Rab recycling. EMBO Journal, 2006, 25, 13-23.	3.5	103
7	Preformed Selenoesters Enable Rapid Native Chemical Ligation at Intractable Sites. Angewandte Chemie - International Edition, 2011, 50, 12042-12045.	7.2	103
8	Molecular basis for the production of cyclic peptides by plant asparaginyl endopeptidases. Nature Communications, 2018, 9, 2411.	5.8	99
9	Analgesic Effects of GpTx-1, PF-04856264 and CNV1014802 in a Mouse Model of NaV1.7-Mediated Pain. Toxins, 2016, 8, 78.	1.5	94
10	Chemical Synthesis, 3D Structure, and ASIC Binding Site of the Toxin Mambalginâ€2. Angewandte Chemie - International Edition, 2014, 53, 1017-1020.	7.2	66
11	Site-Specific Sequential Protein Labeling Catalyzed by a Single Recombinant Ligase. Journal of the American Chemical Society, 2019, 141, 17388-17393.	6.6	65
12	Characterisation of Nav types endogenously expressed in human SH-SY5Y neuroblastoma cells. Biochemical Pharmacology, 2012, 83, 1562-1571.	2.0	64
13	Synthesis of Fluorescently Labeled Mono- and Diprenylated Rab7 GTPase. Journal of the American Chemical Society, 2004, 126, 16368-16378.	6.6	63
14	Protein semi-synthesis: New proteins for functional and structural studies. New Biotechnology, 2005, 22, 153-172.	2.7	63
15	Intein-Mediated Synthesis of Geranylgeranylated Rab7 Protein in Vitro. Journal of the American Chemical Society, 2002, 124, 5648-5649.	6.6	61
16	A bifunctional asparaginyl endopeptidase efficiently catalyzes both cleavage and cyclization of cyclic trypsin inhibitors. Nature Communications, 2020, 11, 1575.	5.8	61
17	Approaches to the stabilization of bioactive epitopes by grafting and peptide cyclization. Biopolymers, 2016, 106, 89-100.	1.2	56
18	Co-expression of a cyclizing asparaginyl endopeptidase enables efficient production of cyclic peptides in planta. Journal of Experimental Botany, 2018, 69, 633-641.	2.4	53

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19	Total Chemical Synthesis, Folding, and Assay of a Small Protein on a Water-Compatible Solid Support. Angewandte Chemie - International Edition, 2006, 45, 3283-3287.	7.2	52
20	Nicotiana alata Defensin Chimeras Reveal Differences in the Mechanism of Fungal and Tumor Cell Killing and an Enhanced Antifungal Variant. Antimicrobial Agents and Chemotherapy, 2016, 60, 6302-6312.	1.4	51
21	Chemical Engineering and Structural and Pharmacological Characterization of the Î±-Scorpion Toxin OD1. ACS Chemical Biology, 2013, 8, 1215-1222.	1.6	50
22	A suite of kinetically superior AEP ligases can cyclise an intrinsically disordered protein. Scientific Reports, 2019, 9, 10820.	1.6	47
23	Papain-like cysteine proteases prepare plant cyclic peptide precursors for cyclization. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 7831-7836.	3.3	44
24	Chemical synthesis and folding of APETx2, a potent and selective inhibitor of acid sensing ion channel 3. Toxicon, 2009, 54, 56-61.	0.8	42
25	Constrained Cyclic Peptides as Immunomodulatory Inhibitors of the CD2:CD58 Proteinâ€“Protein Interaction. ACS Chemical Biology, 2016, 11, 2366-2374.	1.6	40
26	Combining Sense and Nonsense Codon Reassignment for Site-Selective Protein Modification with Unnatural Amino Acids. ACS Synthetic Biology, 2017, 6, 535-544.	1.9	39
27	Mapping of voltage sensor positions in resting and inactivated mammalian sodium channels by LRET. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E1857-E1865.	3.3	35
28	Synthesis of Functionalized Rab GTPases by a Combination of Solution- or Solid-Phase Lipopeptide Synthesis with Expressed Protein Ligation. Chemistry - A European Journal, 2005, 11, 2756-2772.	1.7	32
29	Na_V1.6 regulates excitability of mechanosensitive sensory neurons. Journal of Physiology, 2019, 597, 3751-3768.	1.3	31
30	Solid phase synthesis of peptide-selenoesters. Bioorganic and Medicinal Chemistry, 2013, 21, 3473-3478.	1.4	30
31	Development of Novel Melanocortin Receptor Agonists Based on the Cyclic Peptide Framework of Sunflower Trypsin Inhibitor-1. Journal of Medicinal Chemistry, 2018, 61, 3674-3684.	2.9	29
32	Highly Potent and Selective Plasmin Inhibitors Based on the Sunflower Trypsin Inhibitor-1 Scaffold Attenuate Fibrinolysis in Plasma. Journal of Medicinal Chemistry, 2019, 62, 552-560.	2.9	27
33	Application and Structural Analysis of Triazoleâ€Bridged Disulfide Mimetics in Cyclic Peptides. Angewandte Chemie - International Edition, 2020, 59, 11273-11277.	7.2	27
34	Therapeutic conotoxins: a US patent literature survey. Expert Opinion on Therapeutic Patents, 2015, 25, 1159-1173.	2.4	25
35	Rapid and Scalable Plant-Based Production of a Potent Plasmin Inhibitor Peptide. Frontiers in Plant Science, 2019, 10, 602.	1.7	24
36	Isolation and Structural and Pharmacological Characterization of Î±-Elapitoxin-Dpp2d, an Amidated Three Finger Toxin from Black Mamba Venom. Biochemistry, 2014, 53, 3758-3766.	1.2	23

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37	An environmentally sustainable biomimetic production of cyclic disulfide-rich peptides. Green Chemistry, 2020, 22, 5002-5016.	4.6	23
38	Chemical Synthesis and Structure of the Prokineticin Bv8. ChemBioChem, 2010, 11, 1882-1888.	1.3	22
39	Improved Asparaginylâ€Ligaseâ€Catalyzed Transpeptidation via Selective Nucleophile Quenching. Angewandte Chemie - International Edition, 2021, 60, 4004-4008.	7.2	22
40	Enzymatic C-Terminal Protein Engineering with Amines. Journal of the American Chemical Society, 2021, 143, 19498-19504.	6.6	22
41	Yeast-based bioproduction of disulfide-rich peptides and their cyclization via asparaginyl endopeptidases. Nature Protocols, 2021, 16, 1740-1760.	5.5	21
42	Cyclic alpha-conotoxin peptidomimetic chimeras as potent GLP-1R agonists. European Journal of Medicinal Chemistry, 2015, 103, 175-184.	2.6	20
43	Interaction of Synthetic Human SLURP-1 with the Nicotinic Acetylcholine Receptors. Scientific Reports, 2017, 7, 16606.	1.6	20
44	Asparaginyl Ligases: New Enzymes for the Protein Engineer's Toolbox. ChemBioChem, 2021, 22, 2079-2086.	1.3	20
45	Isolation, synthesis and characterization of ï‰-TRTX-Cc1a, a novel tarantula venom peptide that selectively targets L-type CaV channels. Biochemical Pharmacology, 2014, 89, 276-286.	2.0	19
46	Make it or break it: Plant AEPs on stage in biotechnology. Biotechnology Advances, 2020, 45, 107651.	6.0	19
47	Chemical biology of protein lipidation: semi-synthesis and structure elucidation of prenylated RabGTPases. Organic and Biomolecular Chemistry, 2005, 3, 1157.	1.5	18
48	A Centipede Toxin Family Defines an Ancient Class of CSÎ±Î² Defensins. Structure, 2019, 27, 315-326.e7.	1.6	17
49	Modulation of human Na_v1.7 channel gating by synthetic Î±-scorpion toxin OD1 and its analogs. Channels, 2016, 10, 139-147.	1.5	16
50	Synthesis and Protein Engineering Applications of Cyclotides. Australian Journal of Chemistry, 2017, 70, 152.	0.5	16
51	The tarantula toxin Î²/Î´-TRTX-Pre1a highlights the importance of the S1-S2 voltage-sensor region for sodium channel subtype selectivity. Scientific Reports, 2017, 7, 974.	1.6	16
52	Potent Thiophene Antagonists of Human Complement C3a Receptor with Anti-Inflammatory Activity. Journal of Medicinal Chemistry, 2020, 63, 529-541.	2.9	16
53	Neurotoxic peptides from the venom of the giant Australian stinging tree. Science Advances, 2020, 6, .	4.7	16
54	Two for the Price of One: Heterobivalent Ligand Design Targeting Two Binding Sites on Voltage-Gated Sodium Channels Slows Ligand Dissociation and Enhances Potency. Journal of Medicinal Chemistry, 2020, 63, 12773-12785.	2.9	15

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55	Efficient chemical synthesis of human complement protein C3a. Chemical Communications, 2013, 49, 2356.	2.2	14
56	Isolation of two insecticidal toxins from venom of the Australian theraphosid spider Coremiocnemis tropix. Toxicon, 2016, 123, 62-70.	0.8	14
57	Targeted Delivery of Cyclotides via Conjugation to a Nanobody. ACS Chemical Biology, 2018, 13, 2973-2980.	1.6	13
58	Synthesis of Photoactive Analogues of a Cystine Knot Trypsin Inhibitor Protein. Organic Letters, 2007, 9, 5497-5500.	2.4	12
59	Enzymatic Câ€toâ€C Protein Ligation. Angewandte Chemie - International Edition, 2022, 61, .	7.2	11
60	The E15R Point Mutation in Scorpion Toxin Cn2 Uncouples Its Depressant and Excitatory Activities on Human Na_V1.6. Journal of Medicinal Chemistry, 2018, 61, 1730-1736.	2.9	9
61	Characterization of Synthetic Tf2 as a NaV1.3 Selective Pharmacological Probe. Biomedicines, 2020, 8, 155.	1.4	8
62	Application of Protein Semisynthesis for the Construction of Functionalized Posttranslationally Modified Rab GTPases. Methods in Enzymology, 2005, 403, 29-42.	0.4	7
63	Potent complement C3a receptor agonists derived from oxazole amino acids: Structureâ€“activity relationships. Bioorganic and Medicinal Chemistry Letters, 2015, 25, 5604-5608.	1.0	7
64	Application and Structural Analysis of Triazoleâ€Bridged Disulfide Mimetics in Cyclic Peptides. Angewandte Chemie, 2020, 132, 11369-11373.	1.6	7
65	Europium-Labeled Synthetic C3a Protein as a Novel Fluorescent Probe for Human Complement C3a Receptor. Bioconjugate Chemistry, 2017, 28, 1669-1676.	1.8	6
66	Effects of backbone cyclization on the pharmacokinetics and drug efficiency of the orally active analgesic conotoxin cVc1.1. Medicine in Drug Discovery, 2021, 10, 100087.	2.3	6
67	Melanocortin 1 Receptor Agonists Based on a Bivalent, Bicyclic Peptide Framework. Journal of Medicinal Chemistry, 2021, 64, 9906-9915.	2.9	6
68	Cystine Knot Peptides with Tuneable Activity and Mechanism. Angewandte Chemie - International Edition, 2022, 61, .	7.2	6
69	In Vitro Semisynthesis and Applications of C-Terminally Modified Rab Proteins. , 2004, 283, 233-244.		5
70	NMR Structure of Î¼-Conotoxin GIIIC: Leucine 18 Induces Local Repacking of the N-Terminus Resulting in Reduced NaV Channel Potency. Molecules, 2018, 23, 2715.	1.7	5
71	Neurotoxic and cytotoxic peptides underlie the painful stings of the tree nettle Urtica ferox. Journal of Biological Chemistry, 2022, 298, 102218.	1.6	5
72	Phage display-based discovery of cyclic peptides against the broad spectrum bacterial anti-virulence target CsrA. European Journal of Medicinal Chemistry, 2022, 231, 114148.	2.6	3

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73	Improved Asparaginylâ€Ligaseâ€Catalyzed Transpeptidation via Selective Nucleophile Quenching. Angewandte Chemie, 2021, 133, 4050-4054.	1.6	2
74	Enzymatic Câ€toâ€C Protein Ligation. Angewandte Chemie, 2022, 134, .	1.6	1
75	Chemical Biology of Protein Lipidation: Semi-Synthesis and Structure Elucidation of Prenylated RabGTPases. ChemInform, 2005, 36, no.	0.1	0
76	Innentitelbild: Application and Structural Analysis of Triazoleâ€Bridged Disulfide Mimetics in Cyclic Peptides (Angew. Chem. 28/2020). Angewandte Chemie, 2020, 132, 11258-11258.	1.6	0
77	Cystine Knot Peptides with Tuneable Activity and Mechanism. Angewandte Chemie, 0, , .	1.6	0
78	Low potency inhibition of NaV1.7 by externally applied QX-314 via a depolarizing shift in the voltage-dependence of activation. European Journal of Pharmacology, 2022, , 175013.	1.7	0