

Torsten Steinmetzer

List of Publications by Year in descending order

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101
papers

3,670
citations

159525

30
h-index

149623

56
g-index

108
all docs

108
docs citations

108
times ranked

4500
citing authors

#	ARTICLE	IF	CITATIONS
1	TMPRSS2 and furin are both essential for proteolytic activation of SARS-CoV-2 in human airway cells. <i>Life Science Alliance</i> , 2020, 3, e202000786.	1.3	597
2	Cleavage of Influenza Virus Hemagglutinin by Airway Proteases TMPRSS2 and HAT Differs in Subcellular Localization and Susceptibility to Protease Inhibitors. <i>Journal of Virology</i> , 2010, 84, 5605-5614.	1.5	159
3	Matriptase, HAT, and TMPRSS2 Activate the Hemagglutinin of H9N2 Influenza A Viruses. <i>Journal of Virology</i> , 2013, 87, 1811-1820.	1.5	116
4	Design of Novel and Selective Inhibitors of Urokinase-type Plasminogen Activator with Improved Pharmacokinetic Properties for Use as Antimetastatic Agents. <i>Journal of Biological Chemistry</i> , 2004, 279, 33613-33622.	1.6	113
5	Potent Inhibitors of Furin and Furin-like Proprotein Convertases Containing Decarboxylated P1 Arginine Mimetics. <i>Journal of Medicinal Chemistry</i> , 2010, 53, 1067-1075.	2.9	111
6	Identification of the first synthetic inhibitors of the type III transmembrane serine protease TMPRSS2 suitable for inhibition of influenza virus activation. <i>Biochemical Journal</i> , 2013, 452, 331-343.	1.7	111
7	Highly Potent Inhibitors of Proprotein Convertase Furin as Potential Drugs for Treatment of Infectious Diseases. <i>Journal of Biological Chemistry</i> , 2012, 287, 21992-22003.	1.6	98
8	Secondary Amides of Sulfonated 3-Amidinophenylalanine. New Potent and Selective Inhibitors of Matriptase. <i>Journal of Medicinal Chemistry</i> , 2006, 49, 4116-4126.	2.9	93
9	Two-Stage Method for Protein-Ligand Docking. <i>Journal of Medicinal Chemistry</i> , 1999, 42, 4422-4433.	2.9	86
10	Ligand Binding Stepwise Disrupts Water Network in Thrombin: Enthalpic and Entropic Changes Reveal Classical Hydrophobic Effect. <i>Journal of Medicinal Chemistry</i> , 2012, 55, 6094-6110.	2.9	86
11	MDCK cells that express proteases TMPRSS2 and HAT provide a cell system to propagate influenza viruses in the absence of trypsin and to study cleavage of HA and its inhibition. <i>Vaccine</i> , 2009, 27, 6324-6329.	1.7	81
12	Progress in the Development of Synthetic Thrombin Inhibitors as New Orally Active Anticoagulants. <i>Current Medicinal Chemistry</i> , 2004, 11, 2297-2321.	1.2	75
13	Influenza virus activating host proteases: Identification, localization and inhibitors as potential therapeutics. <i>European Journal of Cell Biology</i> , 2015, 94, 375-383.	1.6	73
14	Structure of the unliganded form of the proprotein convertase furin suggests activation by a substrate-induced mechanism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 11196-11201.	3.3	73
15	X-ray Structures of Human Furin in Complex with Competitive Inhibitors. <i>ACS Chemical Biology</i> , 2014, 9, 1113-1118.	1.6	69
16	Identification of the First Low-Molecular-Weight Inhibitors of Matriptase-2. <i>Journal of Medicinal Chemistry</i> , 2010, 53, 5523-5535.	2.9	67
17	Novel Furin Inhibitors with Potent Anti-infectious Activity. <i>ChemMedChem</i> , 2015, 10, 1218-1231.	1.6	64
18	Development and Characterization of New Peptidomimetic Inhibitors of the West Nile Virus NS2B Protease. <i>ChemMedChem</i> , 2013, 8, 231-241.	1.6	63

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19	Advances in the development of thrombin inhibitors. <i>Expert Opinion on Investigational Drugs</i> , 2001, 10, 845-864.	1.9	61
20	3-Amidinophenylalanine-based inhibitors of urokinase. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1999, 9, 3147-3152.	1.0	58
21	Structures of Zika virus NS2B-NS3 protease in complex with peptidomimetic inhibitors. <i>Antiviral Research</i> , 2018, 160, 17-24.	1.9	52
22	New 3-amidinophenylalanine-derived inhibitors of matriptase. <i>MedChemComm</i> , 2012, 3, 807.	3.5	47
23	Identification of novel periviscerokinins from single neurohaemal release sites in insects. <i>FEBS Journal</i> , 2000, 267, 3869-3873.	0.2	44
24	Development of substrate analogue inhibitors for the human airway trypsin-like protease HAT. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 4860-4864.	1.0	41
25	Quantifying Protein-Ligand Binding Constants using Electrospray Ionization Mass Spectrometry: A Systematic Binding Affinity Study of a Series of Hydrophobically Modified Trypsin Inhibitors. <i>Journal of the American Society for Mass Spectrometry</i> , 2012, 23, 1768-1777.	1.2	39
26	Tyrosine Phosphorylation of Gs1± and Inhibition of Bradykinin-induced Activation of the Cyclic AMP Pathway in A431 Cells by Epidermal Growth Factor Receptor. <i>Journal of Biological Chemistry</i> , 1996, 271, 31098-31105.	1.6	37
27	New Substrate Analogue Inhibitors of Factor Xa Containing 4-Amidinobenzylamide as P1 Residue: Part 1. <i>Medicinal Chemistry</i> , 2006, 2, 349-361.	0.7	35
28	A New Strategy for the Development of Highly Potent and Selective Plasmin Inhibitors. <i>Journal of Medicinal Chemistry</i> , 2012, 55, 1171-1180.	2.9	34
29	Effects of NS2B-NS3 protease and furin inhibition on West Nile and Dengue virus replication. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2017, 32, 712-721.	2.5	34
30	Enzymic properties of intestinal aminopeptidase P: A new continuous assay. <i>FEBS Letters</i> , 1988, 227, 171-174.	1.3	31
31	Transcriptome profiling and protease inhibition experiments identify proteases that activate H3N2 influenza A and influenza B viruses in murine airways. <i>Journal of Biological Chemistry</i> , 2020, 295, 11388-11407.	1.6	31
32	X-ray Structures of the Proprotein Convertase Furin Bound with Substrate Analogue Inhibitors Reveal Substrate Specificity Determinants beyond the S4 Pocket. <i>Biochemistry</i> , 2018, 57, 925-934.	1.2	30
33	Peptidomimetic furin inhibitor MI-701 in combination with oseltamivir and ribavirin efficiently blocks propagation of highly pathogenic avian influenza viruses and delays high level oseltamivir resistance in MDCK cells. <i>Antiviral Research</i> , 2015, 120, 89-100.	1.9	29
34	Structure-Based Macrocyclization of Substrate Analogue NS2B-NS3 Protease Inhibitors of Zika, West Nile and Dengue viruses. <i>ChemMedChem</i> , 2020, 15, 1439-1452.	1.6	29
35	Highly Potent and Selective Substrate Analogue Factor Xa Inhibitors Containing D-Homophenylalanine Analogues as P3 Residue: Part 2. <i>ChemMedChem</i> , 2007, 2, 1043-1053.	1.6	28
36	Protein-Templated Formation of an Inhibitor of the Blood Coagulation Factor...Xa through a Background-Free Amidation Reaction. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 3718-3722.	7.2	28

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37	Optimization of Substrate-Analogue Furin Inhibitors. <i>ChemMedChem</i> , 2017, 12, 1953-1968.	1.6	28
38	New furin inhibitors based on weakly basic amidinohydrazones. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 836-840.	1.0	27
39	Design, Synthesis, and Characterization of Macrocyclic Inhibitors of the Proprotein Convertase Furin. <i>ChemMedChem</i> , 2019, 14, 673-685.	1.6	27
40	Development of New Cyclic Plasmin Inhibitors with Excellent Potency and Selectivity. <i>Journal of Medicinal Chemistry</i> , 2013, 56, 820-831.	2.9	26
41	New substrate analogue furin inhibitors derived from 4-amidinobenzylamide. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2011, 21, 4695-4697.	1.0	25
42	Design and evaluation of novel bivalent thrombin inhibitors based on amidinophenylalanines. <i>FEBS Journal</i> , 1999, 265, 598-605.	0.2	24
43	Time-domain <i>in vivo</i> near infrared fluorescence imaging for evaluation of matriptase as a potential target for the development of novel, inhibitor-based tumor therapies. <i>International Journal of Cancer</i> , 2010, 127, 1958-1974.	2.3	23
44	Synthesis and Functional Characterization of Tridegin and Its Analogues: Inhibitors and Substrates of Factor XIIIa. <i>ChemMedChem</i> , 2012, 7, 326-333.	1.6	23
45	The Antiviral Potential of Host Protease Inhibitors. , 2018, , 279-325.		22
46	Potent Bivalent Thrombin Inhibitors: Replacement of the Scissile Peptide Bond at P1~P1' with Arginyl Ketomethylene Isosteres. <i>Journal of Medicinal Chemistry</i> , 1999, 42, 3109-3115.	2.9	21
47	Fibrinolysis Inhibitors: Potential Drugs for the Treatment and Prevention of Bleeding. <i>Journal of Medicinal Chemistry</i> , 2020, 63, 1445-1472.	2.9	21
48	Acylated 1 <i>H</i> -1,2,4-Triazol-5-amines Targeting Human Coagulation Factor XIIa and Thrombin: Conventional and Microscale Synthesis, Anticoagulant Properties, and Mechanism of Action. <i>Journal of Medicinal Chemistry</i> , 2020, 63, 13159-13186.	2.9	21
49	From selective substrate analogue factor Xa inhibitors to dual inhibitors of thrombin and factor Xa. Part 3. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2007, 17, 3322-3329.	1.0	20
50	Modification of the N-terminal sulfonyl residue in 3-amidinophenylalanine-based matriptase inhibitors. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2009, 19, 67-73.	1.0	20
51	Surface glycoprotein of Borna disease virus mediates virus spread from cell to cell. <i>Cellular Microbiology</i> , 2016, 18, 340-354.	1.1	20
52	The Methyl Group of N ^ε (Me)Arg-containing Peptides Disturbs the Active-site Geometry of Thrombin, Impairing Efficient Cleavage. <i>Journal of Molecular Biology</i> , 2002, 316, 869-874.	2.0	19
53	4-Amidinobenzylamine-Based inhibitors of urokinase. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2002, 12, 645-648.	1.0	19
54	Incorporation of neutral C-terminal residues in 3-amidinophenylalanine-derived matriptase inhibitors. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2009, 19, 1960-1965.	1.0	18

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55	Novel Insights into Structure and Function of Factor XIIIa-Inhibitor Tridegin. <i>Journal of Medicinal Chemistry</i> , 2014, 57, 10355-10365.	2.9	18
56	Optimization of Cyclic Plasmin Inhibitors: From Benzamidines to Benzylamines. <i>Journal of Medicinal Chemistry</i> , 2016, 59, 6370-6386.	2.9	17
57	Matriptase Induction of Metalloproteinase-Dependent Aggrecanolytic In Vitro and In Vivo: Promotion of Osteoarthritic Cartilage Damage by Multiple Mechanisms. <i>Arthritis and Rheumatology</i> , 2017, 69, 1601-1611.	2.9	16
58	Elongated and Shortened Peptidomimetic Inhibitors of the Proprotein Convertase Furin. <i>ChemMedChem</i> , 2017, 12, 613-620.	1.6	16
59	<i>In vitro</i> characterization of TMPRSS2 inhibition in IPEC-J2 cells. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2016, 31, 123-129.	2.5	15
60	Strategies for Late-Stage Optimization: Profiling Thermodynamics by Preorganization and Salt Bridge Shielding. <i>Journal of Medicinal Chemistry</i> , 2019, 62, 9753-9771.	2.9	15
61	Insights into Matriptase's Substrate Binding and Inhibition Mechanisms by Analyzing Active-Site Mutated Variants. <i>ChemMedChem</i> , 2012, 7, 68-72.	1.6	13
62	Entry, Replication, Immune Evasion, and Neurotoxicity of Synthetically Engineered Bat-Borne Mumps Virus. <i>Cell Reports</i> , 2018, 25, 312-320.e7.	2.9	13
63	First Structure-Activity Relationship of 17 β -Hydroxysteroid Dehydrogenase Type 14 Nonsteroidal Inhibitors and Crystal Structures in Complex with the Enzyme. <i>Journal of Medicinal Chemistry</i> , 2016, 59, 10719-10737.	2.9	12
64	A Fluorescently Labeled Phosphono Bisbenzguanidine As an Activity-Based Probe for Matriptase. <i>Chemistry - A European Journal</i> , 2017, 23, 5205-5209.	1.7	12
65	Peptidyl Ammonium Methyl Ketones as Substrate Analog Inhibitors of Proline-Specific Peptidases. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 1993, 7, 77-85.	0.5	11
66	New Thrombin Inhibitors Based on D-CHA-PRO-Derivatives. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 1999, 14, 203-216.	0.5	11
67	Limiting the Number of Potential Binding Modes by Introducing Symmetry into Ligands: Structure-Based Design of Inhibitors for Trypsin-Like Serine Proteases. <i>Chemistry - A European Journal</i> , 2016, 22, 610-625.	1.7	11
68	The Basicity Makes the Difference: Improved Canavanine-Derived Inhibitors of the Proprotein Convertase Furin. <i>ACS Medicinal Chemistry Letters</i> , 2021, 12, 426-432.	1.3	11
69	Tripeptidyl pyridinium methyl ketones as potent active site inhibitors of thrombin. <i>Bioorganic and Medicinal Chemistry Letters</i> , 1996, 6, 1677-1682.	1.0	10
70	Influence of structural variations in peptidomimetic 4-amidinophenylalanine-derived thrombin inhibitors on plasma clearance and biliary excretion in rats. <i>Pharmaceutical Research</i> , 2002, 19, 1027-1033.	1.7	10
71	Correlating structure and ligand affinity in drug discovery: a cautionary tale involving second shell residues. <i>Biological Chemistry</i> , 2014, 395, 891-903.	1.2	10
72	OFF-State-Specific Inhibition of the Proprotein Convertase Furin. <i>ACS Chemical Biology</i> , 2021, 16, 1692-1700.	1.6	10

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73	Structure-Activity Relationships of New NAPAP-Analogs. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2001, 16, 241-249.	0.5	9
74	Beyond Heparinization: Design of Highly Potent Thrombin Inhibitors Suitable for Surface Coupling. <i>ChemMedChem</i> , 2012, 7, 1965-1973.	1.6	9
75	Interaction exists between matriptase inhibitors and intestinal epithelial cells. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2016, 31, 736-741.	2.5	9
76	Synthesis and characterization of novel fluorogenic substrates of coagulation factor XIII-A. <i>Analytical Biochemistry</i> , 2013, 442, 223-230.	1.1	8
77	The Impact of Acute Matriptase Inhibition in Hepatic Inflammatory Models. <i>BioMed Research International</i> , 2016, 2016, 1-8.	0.9	7
78	Coagulation Factor XIIIa Inhibitor Tridegin: On the Role of Disulfide Bonds for Folding, Stability, and Function. <i>Journal of Medicinal Chemistry</i> , 2019, 62, 3513-3523.	2.9	7
79	Exposure of human intestinal epithelial cells and primary human hepatocytes to trypsin-like serine protease inhibitors with potential antiviral effect. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2021, 36, 659-668.	2.5	7
80	Use of IHC and newly designed matriptase inhibitors to elucidate the role of matriptase in pancreatic ductal adenocarcinoma. <i>International Journal of Oncology</i> , 2009, 35, 347-57.	1.4	7
81	Structure-Based Optimization and Characterization of Macrocyclic Zika Virus NS2B-NS3 Protease Inhibitors. <i>Journal of Medicinal Chemistry</i> , 2022, 65, 6555-6572.	2.9	7
82	Improving the selectivity of 3-amidinophenylalanine-derived matriptase inhibitors. <i>European Journal of Medicinal Chemistry</i> , 2022, 238, 114437.	2.6	7
83	Design, synthesis, and characterization of chromogenic substrates of coagulation factor XIIIa. <i>Analytical Biochemistry</i> , 2012, 428, 73-80.	1.1	6
84	A Bisbenzamidine Phosphonate as a Janus-Faced Inhibitor for Trypsin-Like Serine Proteases. <i>ChemMedChem</i> , 2015, 10, 1641-1646.	1.6	6
85	Changing the selectivity profile “ from substrate analog inhibitors of thrombin and factor Xa to potent matriptase inhibitors. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2016, 31, 89-97.	2.5	6
86	Thrombin-Inhibiting Anticoagulant Liposomes: Development and Characterization. <i>ChemMedChem</i> , 2016, 11, 340-349.	1.6	6
87	In vitro characterization of the furin inhibitor MI-1851: Albumin binding, interaction with cytochrome P450 enzymes and cytotoxicity. <i>Biomedicine and Pharmacotherapy</i> , 2022, 151, 113124.	2.5	6
88	Identification of inhibitors of the transmembrane protease FlaK of <i>Methanococcus maripaludis</i> . <i>MicrobiologyOpen</i> , 2016, 5, 637-646.	1.2	4
89	A novel cell-based sensor detecting the activity of individual basic proprotein convertases. <i>FEBS Journal</i> , 2019, 286, 4597-4620.	2.2	4
90	NMR-Based Structural Characterization of a Two-Disulfide-Bonded Analogue of the FXIIIa Inhibitor Tridegin: New Insights into Structure-Activity Relationships. <i>International Journal of Molecular Sciences</i> , 2021, 22, 880.	1.8	4

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91	Distinct 3-disulfide-bonded isomers of tridegin differentially inhibit coagulation factor XIIIa: The influence of structural stability on bioactivity. <i>European Journal of Medicinal Chemistry</i> , 2020, 201, 112474.	2.6	4
92	Novel non-peptide lead structures for bradykinin B2-receptor antagonists. <i>International Journal of Peptide Research and Therapeutics</i> , 2000, 7, 69-77.	0.1	3
93	In vitro interaction of potential antiviral TMPRSS2 inhibitors with human serum albumin and cytochrome P 450 isoenzymes. <i>Biomedicine and Pharmacotherapy</i> , 2022, 146, 112513.	2.5	3
94	Structure-activity relationships of new NAPAP-analogs. <i>Journal of Enzyme Inhibition and Medicinal Chemistry</i> , 2002, 17, 241-9.	2.5	3
95	3-Amidinophenylalanine-derived matriptase inhibitors can modulate hepcidin production in vitro. <i>Naunyn-Schmiedeberg's Archives of Pharmacology</i> , 2020, 393, 511-520.	1.4	2
96	How a Fragment Draws Attention to Selectivity Discriminating Features between the Related Proteases Trypsin and Thrombin. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 1611-1625.	2.9	2
97	Synthetic urokinase inhibitors as potential antitumor drugs. <i>IDrugs: the Investigational Drugs Journal</i> , 2003, 6, 138-46.	0.7	2
98	Interspecies Comparisons of the Effects of Potential Antiviral 3-Amidinophenylalanine Derivatives on Cytochrome P450 1A2 Isoenzyme. <i>Veterinary Sciences</i> , 2022, 9, 156.	0.6	2
99	Editorial: Pharmazie in unserer Zeit 2/2011. <i>Pharmazie in Unserer Zeit</i> , 2011, 40, 95-95.	0.0	0
100	Inside Cover: Insights into Matriptase-2 Substrate Binding and Inhibition Mechanisms by Analyzing Active-Site-Mutated Variants (<i>ChemMedChem</i> 1/2012). <i>ChemMedChem</i> , 2012, 7, 2-2.	1.6	0
101	The Amino Acid at Position 8 of the Proteolytic Cleavage Site of the Mumps Virus Fusion Protein Affects Viral Proteolysis and Fusogenicity. <i>Journal of Virology</i> , 2020, 94, .	1.5	0