Dongwei Kang

List of Publications by Year
in descending order

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101	2,981	147566	205818
papers	citations	31 h-index	48 g-index

103	103	103	2940
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) membrane (M) protein inhibits type I and III interferon production by targeting RIG-I/MDA-5 signaling. Signal Transduction and Targeted Therapy, 2020, 5, 299.	7.1	232
2	Recent applications of click chemistry in drug discovery. Expert Opinion on Drug Discovery, 2019, 14, 779-789.	2.5	151
3	Overview of Recent Strategic Advances in Medicinal Chemistry. Journal of Medicinal Chemistry, 2019, 62, 9375-9414.	2.9	108
4	Design, Synthesis, and Evaluation of Thiophene[3,2-d]pyrimidine Derivatives as HIV-1 Non-nucleoside Reverse Transcriptase Inhibitors with Significantly Improved Drug Resistance Profiles. Journal of Medicinal Chemistry, 2016, 59, 7991-8007.	2.9	107
5	Medicinal chemistry strategies for discovering antivirals effective against drug-resistant viruses. Chemical Society Reviews, 2021, 50, 4514-4540.	18.7	84
6	New techniques and strategies in drug discovery. Chinese Chemical Letters, 2020, 31, 1695-1708.	4.8	82
7	Structure-Based Optimization of Thiophene[3,2-d]pyrimidine Derivatives as Potent HIV-1 Non-nucleoside Reverse Transcriptase Inhibitors with Improved Potency against Resistance-Associated Variants. Journal of Medicinal Chemistry, 2017, 60, 4424-4443.	2.9	79
8	Identification of Dihydrofuro[3,4-d]pyrimidine Derivatives as Novel HIV-1 Non-Nucleoside Reverse Transcriptase Inhibitors with Promising Antiviral Activities and Desirable Physicochemical Properties. Journal of Medicinal Chemistry, 2019, 62, 1484-1501.	2.9	70
9	Recent developments in the medicinal chemistry of single boron atom-containing compounds. Acta Pharmaceutica Sinica B, 2021, 11, 3035-3059.	5.7	70
10	Targeting the entrance channel of NNIBP: Discovery of diarylnicotinamide 1,4-disubstituted 1,2,3-triazoles as novel HIV-1 NNRTIs with high potency against wild-type and E138K mutant virus. European Journal of Medicinal Chemistry, 2018, 151, 339-350.	2.6	68
11	Exploiting the Tolerant Region I of the Non-Nucleoside Reverse Transcriptase Inhibitor (NNRTI) Binding Pocket: Discovery of Potent Diarylpyrimidine-Typed HIV-1 NNRTIs against Wild-Type and E138K Mutant Virus with Significantly Improved Water Solubility and Favorable Safety Profiles. Journal of Medicinal Chemistry, 2019, 62, 2083-2098.	2.9	66
12	Inhibitors of Influenza Virus Polymerase Acidic (PA) Endonuclease: Contemporary Developments and Perspectives. Journal of Medicinal Chemistry, 2017, 60, 3533-3551.	2.9	60
13	â€œOld Friends in New Guiseâ€• Exploiting Privileged Structures for Scaffold Re-Evolution/Refining. Combinatorial Chemistry and High Throughput Screening, 2014, 17, 536-553.	0.6	58
14	Structural basis for potent and broad inhibition of HIV-1 RT by thiophene[3,2-d]pyrimidine non-nucleoside inhibitors. ELife, 2018, 7, .	2.8	57
15	Design, synthesis and biological evaluation of tacrine-1,2,3-triazole derivatives as potent cholinesterase inhibitors. MedChemComm, 2018, 9, 149-159.	3.5	55
16	Discovery of phenylalanine derivatives as potent HIV-1 capsid inhibitors from click chemistry-based compound library. European Journal of Medicinal Chemistry, 2018, 158, 478-492.	2.6	51
17	Structure-Based Bioisosterism Yields HIV-1 NNRTIs with Improved Drug-Resistance Profiles and Favorable Pharmacokinetic Properties. Journal of Medicinal Chemistry, 2020, 63, 4837-4848.	2.9	50
18	Optimization of N-Substituted Oseltamivir Derivatives as Potent Inhibitors of Group-1 and -2 Influenza A Neuraminidases, Including a Drug-Resistant Variant. Journal of Medicinal Chemistry, 2018, 61, 6379-6397.	2.9	46

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19	Discovery of novel 1,4-disubstituted 1,2,3-triazole phenylalanine derivatives as HIV-1 capsid inhibitors. RSC Advances, 2019, 9, 28961-28986.	1.7	42
20	Design, Synthesis, and Mechanism Study of Benzenesulfonamide-Containing Phenylalanine Derivatives as Novel HIV-1 Capsid Inhibitors with Improved Antiviral Activities. Journal of Medicinal Chemistry, 2020, 63, 4790-4810.	2.9	41
21	Novel urate transporter 1 (URAT1) inhibitors: a review of recent patent literature (2016â€“2019). Expert Opinion on Therapeutic Patents, 2019, 29, 871-879.	2.4	39
22	Targeting the hydrophobic channel of NNIBP: discovery of novel 1,2,3-triazole-derived diarylpyrimidines as novel HIV-1 NNRTIs with high potency against wild-type and K103N mutant virus. Organic and Biomolecular Chemistry, 2019, 17, 3202-3217.	1.5	39
23	Exploring the hydrophobic channel of NNIBP leads to the discovery of novel piperidine-substituted thiophene[3,2-d]pyrimidine derivatives as potent HIV-1 NNRTIs. Acta Pharmaceutica Sinica B, 2020, 10, 878-894.	5.7	39
24	Discovery and Characterization of Fluorine-Substituted Diarylpyrimidine Derivatives as Novel HIV-1 NNRTIs with Highly Improved Resistance Profiles and Low Activity for the hERG Ion Channel. Journal of Medicinal Chemistry, 2020, 63, 1298-1312.	2.9	37
25	Current insights into anti-HIV drug discovery and development: a review of recent patent literature (2014â€“2017). Expert Opinion on Therapeutic Patents, 2018, 28, 299-316.	2.4	36
26	Discovery and characterization of novel imidazopyridine derivative CHEQ-2 as a potent CDC25 inhibitor and promising anticancer drug candidate. European Journal of Medicinal Chemistry, 2014, 82, 293-307.	2.6	35
27	Structure-Based Optimization of N-Substituted Oseltamivir Derivatives as Potent Anti-Influenza A Virus Agents with Significantly Improved Potency against Oseltamivir-Resistant N1-H274Y Variant. Journal of Medicinal Chemistry, 2018, 61, 9976-9999.	2.9	35
28	Contemporary medicinal-chemistry strategies for the discovery of selective butyrylcholinesterase inhibitors. Drug Discovery Today, 2019, 24, 629-635.	3.2	35
29	First discovery of novel 3-hydroxy-quinazoline-2,4(1H,3H)-diones as specific anti-vaccinia and adenovirus agents via â€˜privileged scaffoldâ€™ refining approach. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 5182-5186.	1.0	33
30	2,4,5-Trisubstituted Pyrimidines as Potent HIV-1 NNRTIs: Rational Design, Synthesis, Activity Evaluation, and Crystallographic Studies. Journal of Medicinal Chemistry, 2021, 64, 4239-4256.	2.9	33
31	Medicinal chemistry strategies towards the development of effective SARS-CoV-2 inhibitors. Acta Pharmaceutica Sinica B, 2022, 12, 581-599.	5.7	33
32	Contemporary Medicinal Chemistry Strategies for the Discovery and Development of Novel HIV-1 Non-nucleoside Reverse Transcriptase Inhibitors. Journal of Medicinal Chemistry, 2022, 65, 3729-3757.	2.9	33
33	Discovery of Novel Diarylpyrimidine Derivatives as Potent HIV-1 NNRTIs Targeting the â€œNNRTI Adjacentâ€• Binding Site. ACS Medicinal Chemistry Letters, 2018, 9, 334-338.	1.3	32
34	Discovery of non-peptide small molecular CXCR4 antagonists as anti-HIV agents: Recent advances and future opportunities. European Journal of Medicinal Chemistry, 2016, 114, 65-78.	2.6	30
35	Discovery of uracil-bearing DAPYs derivatives as novel HIV-1 NNRTIs via crystallographic overlay-based molecular hybridization. European Journal of Medicinal Chemistry, 2017, 130, 209-222.	2.6	30
36	Discovery of Thiophene[3,2-d]pyrimidine Derivatives as Potent HIV-1 NNRTIs Targeting the Tolerant Region I of NNIBP. ACS Medicinal Chemistry Letters, 2017, 8, 1188-1193.	1.3	30

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37	Novel Human Urate Transporter 1 Inhibitors as Hypouricemic Drug Candidates with Favorable Druggability. Journal of Medicinal Chemistry, 2020, 63, 10829-10854.	2.9	30
38	Design, synthesis and anti-HIV evaluation of novel diarylpyridine derivatives targeting the entrance channel of NNRTI binding pocket. European Journal of Medicinal Chemistry, 2016, 109, 294-304.	2.6	28
39	Further Exploring Solvent-Exposed Tolerant Regions of Allosteric Binding Pocket for Novel HIV-1 NNRTIs Discovery. ACS Medicinal Chemistry Letters, 2018, 9, 370-375.	1.3	28
40	Molecular design opportunities presented by solventâ€exposed regions of target proteins. Medicinal Research Reviews, 2019, 39, 2194-2238.	5.0	28
41	Discovery of novel diarylpyrimidines as potent HIV-1 NNRTIs by investigating the chemical space of a less explored â€œhydrophobic channelâ€. Organic and Biomolecular Chemistry, 2018, 16, 1014-1028.	1.5	26
42	Identification of highly potent and selective Cdc25 protein phosphatases inhibitors from miniaturization click-chemistry-based combinatorial libraries. European Journal of Medicinal Chemistry, 2019, 183, 111696.	2.6	26
43	â€œOld Dogs with New Tricksâ€: exploiting alternative mechanisms of action and new drug design strategies for clinically validated HIV targets. Molecular BioSystems, 2014, 10, 1998.	2.9	25
44	Discovery of piperidine-substituted thiazolo[5,4-d]pyrimidine derivatives as potent and orally bioavailable HIV-1 non-nucleoside reverse transcriptase inhibitors. Communications Chemistry, 2019, 2, .	2.0	24
45	Design, synthesis and biological evaluation of novel acetamide-substituted doravirine and its prodrugs as potent HIV-1 NNRTIs. Bioorganic and Medicinal Chemistry, 2019, 27, 447-456.	1.4	24
46	In situ click chemistry-based rapid discovery of novel HIV-1 NNRTIs by exploiting the hydrophobic channel and tolerant regions of NNIBP. European Journal of Medicinal Chemistry, 2020, 193, 112237.	2.6	23
47	Punicalagin is a neuraminidase inhibitor of influenza viruses. Journal of Medical Virology, 2021, 93, 3465-3472.	2.5	23
48	Novel fused pyrimidine and isoquinoline derivatives as potent HIV-1 NNRTIs: a patent evaluation of WO2016105532A1, WO2016105534A1 and WO2016105564A1. Expert Opinion on Therapeutic Patents, 2017, 27, 383-391.	2.4	22
49	Efficient drug discovery by rational lead hybridization based on crystallographic overlay. Drug Discovery Today, 2019, 24, 805-813.	3.2	22
50	Design, synthesis and evaluation of novel HIV-1 NNRTIs with dual structural conformations targeting the entrance channel of the NNRTI binding pocket. European Journal of Medicinal Chemistry, 2016, 115, 53-62.	2.6	21
51	Novel diarylpyrimidines and diaryltriazines as potent HIV-1 NNRTIs with dramatically improved solubility: a patent evaluation of US20140378443A1. Expert Opinion on Therapeutic Patents, 2016, 26, 281-289.	2.4	21
52	Synthesis and Biological Evaluation of a Series of 2â€((1â€substitutedâ€1Hâ€1,2,3â€triazolâ€4â€yl)methylthio)â€6â€(naphthalenâ€1â€ylmethyl)pyrimidinâ€4(3H)â€one Potential <scp>HIV</scp>â€1 Inhibitors. Chemical Biology and Drug Design, 2015, 86, 614-618.	1.5	17
53	Synthesis and Preliminary Antiviral Activities of Piperidineâ€substituted Purines against <scp>HIV</scp> and Influenza A/H1N1 Infections. Chemical Biology and Drug Design, 2015, 86, 568-577.	1.5	17
54	Design, synthesis, and antiviral evaluation of novel hydrazone-substituted thiophene[3,2-d]pyrimidine derivatives as potent human immunodeficiency virus-1 inhibitors. Chemical Biology and Drug Design, 2018, 92, 2009-2021.	1.5	16

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55	Discovery of novel indolylarylsulfones as potent HIV-1 NNRTIs via structure-guided scaffold morphing. European Journal of Medicinal Chemistry, 2019, 182, 111619.	2.6	16
56	Design, synthesis, and biological evaluation of piperidinylâ€substituted [1,2,4]triazolo[1,5â€a]pyrimidine derivatives as potential antiâ€HIVâ€1 agents with reduced cytotoxicity. Chemical Biology and Drug Design, 2021, 97, 67-76.	1.5	16
57	Boronic acid-containing diarylpyrimidine derivatives as novel HIV-1 NNRTIs: Design, synthesis and biological evaluation. Chinese Chemical Letters, 2021, 32, 4053-4057.	4.8	16
58	Design, synthesis, and evaluation of â€œdual-siteâ€•binding diarylpyrimidines targeting both NNIBP and the NNRTI adjacent site of the HIV-1 reverse transcriptase. European Journal of Medicinal Chemistry, 2021, 211, 113063.	2.6	15
59	Exploiting the tolerant region I of the non-nucleoside reverse transcriptase inhibitor (NNRTI) binding pocket. Part 2: Discovery of diarylpyrimidine derivatives as potent HIV-1 NNRTIs with high Fsp3 values and favorable drug-like properties. European Journal of Medicinal Chemistry, 2021, 213, 113051.	2.6	15
60	Design, synthesis, and mechanism study of dimerized phenylalanine derivatives as novel HIV-1 capsid inhibitors. European Journal of Medicinal Chemistry, 2021, 226, 113848.	2.6	15
61	Newly Emerging Strategies in Antiviral Drug Discovery: Dedicated to Prof. Dr. Erik De Clercq on Occasion of His 80th Anniversary. Molecules, 2022, 27, 850.	1.7	15
62	Discovery of Novel Dihydrothiopyrano[4,3-d]pyrimidine Derivatives as Potent HIV-1 NNRTIs with Significantly Reduced hERG Inhibitory Activity and Improved Resistance Profiles. Journal of Medicinal Chemistry, 2021, 64, 13658-13675.	2.9	14
63	First discovery of a potential carbonate prodrug of NNRTI drug candidate RDEA427 with submicromolar inhibitory activity against HIV-1 K103N/Y181C double mutant strain. Bioorganic and Medicinal Chemistry Letters, 2018, 28, 1348-1351.	1.0	13
64	Discovery of potent <scp>HIV</scp>â€1 nonâ€nucleoside reverse transcriptase inhibitors by exploring the structureâ€“activity relationship of solventâ€exposed regions I. Chemical Biology and Drug Design, 2019, 93, 430-437.	1.5	13
65	Arylazolyl(azinyl)thioacetanilides. Part 20: Discovery of novel purinylthioacetanilides derivatives as potent HIV-1 NNRTIs via a structure-based bioisosterism approach. Bioorganic and Medicinal Chemistry, 2016, 24, 4424-4433.	1.4	12
66	Design, synthesis and anti-HIV evaluation of novel diarylpyridine derivatives as potent HIV-1 NNRTIs. European Journal of Medicinal Chemistry, 2017, 140, 383-391.	2.6	12
67	Discovery of novel anti-influenza agents via contemporary medicinal chemistry strategies (2014â€“2018) Tj ETQq1 1 0.784314 rgBT /O	1.1	12
68	Structureâ€“Activity Relationship Exploration of NNIBP Tolerant Region I Leads to Potent HIV-1 NNRTIs. ACS Infectious Diseases, 2020, 6, 2225-2234.	1.8	12
69	Identification of C5-NH₂ Modified Oseltamivir Derivatives as Novel Influenza Neuraminidase Inhibitors with Highly Improved Antiviral Activities and Favorable Druggability. Journal of Medicinal Chemistry, 2021, 64, 17992-18009.	2.9	12
70	The development of an effective synthetic route of lesinurad (RDEA594). Chemistry Central Journal, 2017, 11, 86.	2.6	11
71	Resurrecting the Condemned: Identification of N-Benzoxaborole Benzofuran GSK8175 as a Clinical Candidate with Reduced Metabolic Liability. Journal of Medicinal Chemistry, 2019, 62, 3251-3253.	2.9	11
72	Novel indolylarylsulfone derivatives as covalent HIV-1 reverse transcriptase inhibitors specifically targeting the drug-resistant mutant Y181C. Bioorganic and Medicinal Chemistry, 2021, 30, 115927.	1.4	11

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73	Design, synthesis, and mechanistic investigations of phenylalanine derivatives containing a benzothiazole moiety as HIV-1 capsid inhibitors with improved metabolic stability. European Journal of Medicinal Chemistry, 2022, 227, 113903.	2.6	11
74	The discovery of novel diarylpyri(mi)dine derivatives with high level activity against a wide variety of HIV-1 strains as well as against HIV-2. Bioorganic and Medicinal Chemistry, 2018, 26, 2051-2060.	1.4	10
75	Contemporary medicinal-chemistry strategies for discovery of blood coagulation factor Xa inhibitors. Expert Opinion on Drug Discovery, 2019, 14, 915-931.	2.5	10
76	Targeting dual tolerant regions of binding pocket: Discovery of novel morpholine-substituted diarylpyrimidines as potent HIV-1 NNRTIs with significantly improved water solubility. European Journal of Medicinal Chemistry, 2020, 206, 112811.	2.6	10
77	Structure-Based Design and Discovery of Pyridyl-Bearing Fused Bicyclic HIV-1 Inhibitors: Synthesis, Biological Characterization, and Molecular Modeling Studies. Journal of Medicinal Chemistry, 2021, 64, 13604-13621.	2.9	10
78	Development of Novel Dihydrofuro[3,4-d]pyrimidine Derivatives as HIV-1 NNRTIs to Overcome the Highly Resistant Mutant Strains F227L/V106A and K103N/Y181C. Journal of Medicinal Chemistry, 2022, 65, 2458-2470.	2.9	10
79	Fragment-based approaches to anti-HIV drug discovery: state of the art and future opportunities. Expert Opinion on Drug Discovery, 2015, 10, 1271-1281.	2.5	9
80	Novel diaryltriazines with a picolinonitrile moiety as potent HIV-1 RT inhibitors: a patent evaluation of WO2016059647(A2). Expert Opinion on Therapeutic Patents, 2017, 27, 9-15.	2.4	9
81	Discovery and optimizing polycyclic pyridone compounds as anti-HBV agents. Expert Opinion on Therapeutic Patents, 2020, 30, 715-721.	2.4	9
82	Discovery, optimization, and target identification of novel coumarin derivatives as HIV-1 reverse transcriptase-associated ribonuclease H inhibitors. European Journal of Medicinal Chemistry, 2021, 225, 113769.	2.6	9
83	Novel RNase H Inhibitors Blocking RNA-directed Strand Displacement DNA Synthesis by HIV-1 Reverse Transcriptase. Journal of Molecular Biology, 2022, 434, 167507.	2.0	9
84	Discovery of novel pyridazinylthioacetamides as potent HIV-1 NNRTIs using a structure-based bioisosterism approach. MedChemComm, 2013, 4, 810.	3.5	8
85	Indolylarylsulfones bearing phenylboronic acid and phenylboronate ester functionalities as potent HIVâ€‘1 non-nucleoside reverse transcriptase inhibitors. Bioorganic and Medicinal Chemistry, 2022, 53, 116531.	1.4	8
86	HIV-1 capsid inhibitors: a sword to destroy the virus. Future Medicinal Chemistry, 2022, 14, 605-607.	1.1	8
87	Identification of novel potent HIV-1 inhibitors by exploiting the tolerant regions of the NNRTIs binding pocket. European Journal of Medicinal Chemistry, 2021, 214, 113204.	2.6	6
88	Chemical space exploration around indolylarylsulfone scaffold led to a novel class of highly active HIV-1 NNRTIs with spiro structural features. European Journal of Medicinal Chemistry, 2022, 238, 114471.	2.6	6
89	From design to biological mechanism evaluation of phenylalanine-bearing HIV-1 capsid inhibitors targeting a vital assembly interface. Chinese Chemical Letters, 2023, 34, 107611.	4.8	6
90	Development of a practical synthesis of etravirine via a microwave-promoted amination. Chemistry Central Journal, 2018, 12, 144.	2.6	5

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91	Search, Identification, and Design of Effective Antiviral Drugs Against Pandemic Human Coronaviruses. Advances in Experimental Medicine and Biology, 2021, 1322, 219-260.	0.8	5
92	The development of an effective synthetic route of rilpivirine. BMC Chemistry, 2021, 15, 22.	1.6	5
93	SARS-CoV-2 Entry Inhibitors Targeting Virus-ACE2 or Virus-TMPRSS2 Interactions. Current Medicinal Chemistry, 2022, 29, 682-699.	1.2	5
94	Design, synthesis, and antiviral evaluation of novel piperidine-substituted arylpyrimidines as HIV-1 NNRTIs by exploring the hydrophobic channel of NNIBP. Bioorganic Chemistry, 2021, 116, 105353.	2.0	5
95	Design, synthesis, and antiviral activity of phenylalanine derivatives as HIV-1 capsid inhibitors. Bioorganic and Medicinal Chemistry, 2021, 48, 116414.	1.4	4
96	Design, synthesis, and biological evaluation of novel double-winged galloyl derivatives as HIV-1 RNase H inhibitors. European Journal of Medicinal Chemistry, 2022, 240, 114563.	2.6	4
97	An improved synthesis approach of the HIV-1 inhibitor RDEA427, a pyrrolo[2,3-d]pyrimidine derivative. Arkivoc, 2017, 2016, 45-51.	0.3	3
98	Discovery of potential dual-target prodrugs of HIV-1 reverse transcriptase and nucleocapsid protein 7. Bioorganic and Medicinal Chemistry Letters, 2020, 30, 127287.	1.0	3
99	Exploiting the hydrophobic channel of the NNIBP: Discovery of novel diarylpyrimidines as HIV-1 NNRTIs against wild-type and K103N mutant viruses. Bioorganic and Medicinal Chemistry, 2021, 42, 116239.	1.4	3
100	Design, synthesis, and biological evaluation of novel 5â€Alkylâ€6â€Adamantylmethylpyrimidinâ€4(3H)â€ones as <scp>HIV</scp>â€1 nonâ€nucleoside reverseâ€transcriptase inhibitors. Chemical Biology and Drug Design, 2016, 88, 380-385.	1.5	2
101	Design, Synthesis, and Acetylcholinesterase Inhibition Assay of Novel 9-(1-(Substituted-benzyl)piperidin-4-yl)-2-chloro-9H-purin-6-amine Derivatives. Journal of Chemistry, 2013, 2013, 1-9.	0.9	1