

Synthetic approaches and pharmaceutical applications drug discovery: A critical review

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Enantioselective Syntheses of <i>trans</i> -Methylene-Lactones via Organocatalytic Halolactonization. <i>Advanced Synthesis and Catalysis</i> , 2019, 361, 4797-4804.	2.1	14
2	Chalcone derivatives targeting mitosis: synthesis, evaluation of antitumor activity and lipophilicity. <i>European Journal of Medicinal Chemistry</i> , 2019, 184, 111752.	2.6	32
3	Rational approaches, design strategies, structure activity relationship and mechanistic insights for therapeutic coumarin hybrids. <i>Bioorganic and Medicinal Chemistry</i> , 2019, 27, 3477-3510.	1.4	83
4	Green synthesis and biological evaluation of novel 5-fluorouracil derivatives as potent anticancer agents. <i>Saudi Pharmaceutical Journal</i> , 2019, 27, 1164-1173.	1.2	64
5	Hybrids of Isatin-Pyrazole as Potential Glucosidase Inhibitors: Synthesis, Biological Evaluations and Molecular Docking Studies. <i>ChemistrySelect</i> , 2019, 4, 13219-13227.	0.7	10
6	Isatin-azole hybrids and their anticancer activities. <i>Archiv Der Pharmazie</i> , 2020, 353, e1900272.	2.1	47
7	Synthesis of Sulfamate-Fused 2-Aminopyrroles via an Isocyanide-Based Three Component [1+2+2] Annulation. <i>Chemistry - an Asian Journal</i> , 2020, 15, 560-563.	1.7	16
8	Synthesis and cytotoxic evaluation of halogenated <i>trans</i> -exo-methylene-lactones. <i>Bioorganic and Medicinal Chemistry</i> , 2020, 28, 115281.	1.4	7
9	Preparation and in vitro antioxidant activity of some novel flavone analogues bearing piperazine moiety. <i>Bioorganic Chemistry</i> , 2020, 95, 103513.	2.0	10
10	Antibacterial activities with the structure-activity relationship of coumarin derivatives. <i>European Journal of Medicinal Chemistry</i> , 2020, 207, 112832.	2.6	116
11	Antibacterial activities of sulfonyl or sulfonamide containing heterocyclic derivatives and its structure-activity relationships (SAR) studies: A critical review. <i>Bioorganic Chemistry</i> , 2020, 105, 104400.	2.0	62
12	Synthesis, biological evaluation and molecular docking studies of novel thiopyrimidine analogue as apoptotic agent with potential anticancer activity. <i>Bioorganic Chemistry</i> , 2020, 104, 104249.	2.0	9
13	Indole – a promising pharmacophore in recent antiviral drug discovery. <i>RSC Medicinal Chemistry</i> , 2020, 11, 1335-1353.	1.7	60
14	Design, Facile Synthesis and Characterization of Dichloro Substituted Chalcones and Dihydropyrazole Derivatives for Their Antifungal, Antitubercular and Antiproliferative Activities. <i>Molecules</i> , 2020, 25, 3188.	1.7	26
15	Exploring the properties and potential biomedical applications of NSAID-capped peptide hydrogels. <i>Soft Matter</i> , 2020, 16, 10001-10012.	1.2	12
16	<i>In situ</i> construction of hybrid MnO ₂ @GO heterostructures for enhanced visible light photocatalytic, anti-inflammatory and anti-oxidant activity. <i>New Journal of Chemistry</i> , 2020, 44, 11092-11104.	1.4	21
17	Indole-based derivatives as potential antibacterial activity against methicillin-resistance <i>Staphylococcus aureus</i> (MRSA). <i>European Journal of Medicinal Chemistry</i> , 2020, 194, 112245.	2.6	93
18	Chalcone hybrids as privileged scaffolds in antimalarial drug discovery: A key review. <i>European Journal of Medicinal Chemistry</i> , 2020, 193, 112215.	2.6	98

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19	Introducing online multicolumn two-dimensional liquid chromatography screening for facile selection of stationary and mobile phase conditions in both dimensions. <i>Journal of Chromatography A</i> , 2020, 1622, 460895.	1.8	33
20	Facile one-pot synthesis, butyrylcholinesterase and β -glucosidase inhibitory activities, structure-activity relationship, molecular docking and DNA-drug binding analysis of Meldrum's acid derivatives. <i>Research on Chemical Intermediates</i> , 2020, 46, 2437-2456.	1.3	5
21	A Review on Recent Advances in Nitrogen-Containing Molecules and Their Biological Applications. <i>Molecules</i> , 2020, 25, 1909.	1.7	779
22	Indole chalcones: Design, synthesis, in vitro and in silico evaluation against <i>Mycobacterium tuberculosis</i> . <i>European Journal of Medicinal Chemistry</i> , 2020, 198, 112358.	2.6	48
23	Anti-tuberculosis activity and its structure-activity relationship (SAR) studies of oxadiazole derivatives: A key review. <i>European Journal of Medicinal Chemistry</i> , 2021, 209, 112886.	2.6	47
24	1,2,4-Triazole hybrids with potential antibacterial activity against methicillin-resistant <i>Staphylococcus aureus</i> . <i>Archiv Der Pharmazie</i> , 2021, 354, e2000223.	2.1	18
25	Recent accomplishments on the synthetic/biological facets of pharmacologically active 1H-1,2,3-triazoles. <i>European Journal of Medicinal Chemistry</i> , 2021, 212, 113069.	2.6	66
26	A Visible Light and Iron-mediated Carbocationic Route to Polysubstituted 1-Halonaphthalenes by Benzannulation using Allylbenzenes and Polyhalomethanes. <i>Advanced Synthesis and Catalysis</i> , 2021, 363, 1007-1013.	2.1	4
27	Design, synthesis, characterization, enzymatic inhibition evaluations, and docking study of novel quinazolinone derivatives. <i>International Journal of Biological Macromolecules</i> , 2021, 170, 1-12.	3.6	40
28	Design, Synthesis and Molecular Docking of Chalcone Derivatives as Potential Anticancer Agents. <i>ChemistrySelect</i> , 2021, 6, 888-895.	0.7	10
29	A review: antimicrobial properties of several medicinal plants widely used in Traditional Chinese Medicine. <i>Food Quality and Safety</i> , 2021, 5, .	0.6	6
30	Design and synthesis of benzyl aminocoumarin and its anti-Alzheimer's activity. <i>New Journal of Chemistry</i> , 2021, 45, 17287-17300.	1.4	7
31	Development and optimization of halogenated vinyl sulfones as Nrf2 activators for the treatment of Parkinson's disease. <i>European Journal of Medicinal Chemistry</i> , 2021, 212, 113103.	2.6	18
32	Pyrazole-based analogs as potential antibacterial agents against methicillin-resistance <i>staphylococcus aureus</i> (MRSA) and its SAR elucidation. <i>European Journal of Medicinal Chemistry</i> , 2021, 212, 113134.	2.6	92
33	Susceptibility of Sesbigrandiflorain B against Chlorination: A DFT Study. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1062, 012018.	0.3	0
34	Chlorination Reaction of Aromatic Compounds and Unsaturated Carbon-Carbon Bonds with Chlorine on Demand. <i>Organic Letters</i> , 2021, 23, 3015-3020.	2.4	32
35	Structure-activity relationship and mechanistic studies for a series of cinnamyl hydroxamate histone deacetylase inhibitors. <i>Bioorganic and Medicinal Chemistry</i> , 2021, 35, 116085.	1.4	9
36	Neurodegenerative Pathways in Alzheimer's Disease: A Review. <i>Current Neuropharmacology</i> , 2021, 19, 679-692.	1.4	21

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37	Recent developments of synthesis and biological activity of sultone scaffolds in medicinal chemistry. <i>Arabian Journal of Chemistry</i> , 2021, 14, 103037.	2.3	13
38	Adenine functionalized antibacterial PVC with both photo and thermal stability. <i>Journal of Vinyl and Additive Technology</i> , 2021, 27, 555-566.	1.8	5
39	Facile One-Pot Multicomponent Synthesis of Pyrazolo-Thiazole Substituted Pyridines with Potential Anti-Proliferative Activity: Synthesis, In Vitro and In Silico Studies. <i>Molecules</i> , 2021, 26, 3103.	1.7	14
40	Kinetic isotope effects and synthetic strategies for deuterated carbon-11 and fluorine-18 labelled PET radiopharmaceuticals. <i>Nuclear Medicine and Biology</i> , 2021, 96-97, 112-147.	0.3	6
41	Cu-O-Selective Cross-Coupling of Chlorinated Phenol Derivatives. <i>Synlett</i> , 2021, 32, 1484-1491.	1.0	2
42	Development of Halogenated Pyrazolines as Selective Monoamine Oxidase-B Inhibitors: Deciphering via Molecular Dynamics Approach. <i>Molecules</i> , 2021, 26, 3264.	1.7	9
43	TFA-catalyzed Q-Tube Reactor-Assisted Strategy for the Synthesis of Pyrido[1,2-b][1,2,4]triazine and Pyrido[2,3-b][1,2,4]triazino[5,6-b]indole Derivatives. <i>ACS Omega</i> , 2021, 6, 16086-16099.	1.6	6
44	A key review on oxadiazole analogs as potential methicillin-resistant <i>Staphylococcus aureus</i> (MRSA) activity: Structure-activity relationship studies. <i>European Journal of Medicinal Chemistry</i> , 2021, 219, 113442.	2.6	58
45	The pharmacotherapeutic management of pulmonary tuberculosis: an update of the state-of-the-art. <i>Expert Opinion on Pharmacotherapy</i> , 2022, 23, 139-148.	0.9	1
46	Antibacterial and Antibiofilm Activities of Chloroindoles Against <i>Vibrio parahaemolyticus</i> . <i>Frontiers in Microbiology</i> , 2021, 12, 714371.	1.5	17
47	A Practical Method of N-Methylpyrrole Disulfonamides Synthesis: Computational Studies, Carbonic Anhydrase Inhibition and Electrochemical DNA Binding Investigations. <i>ChemistrySelect</i> , 2021, 6, 7376-7383.	0.7	1
48	Novel N-bridged pyrazole-1-carbothioamides with potential antiproliferative activity: design, synthesis, in vitro and in silico studies. <i>Future Medicinal Chemistry</i> , 2021, 13, 1743-1766.	1.1	26
49	Discovery of novel 3-hydroxyandrost-5,7-Diene-17-Carboxylic acid derivatives as anti-inflammatory bowel diseases (IBD) agents. <i>European Journal of Medicinal Chemistry</i> , 2021, 220, 113468.	2.6	8
50	Combinatorial pathway balancing provides biosynthetic access to 2-fluoro-cis,cis-muconate in engineered <i>Pseudomonas putida</i> . <i>Chem Catalysis</i> , 2021, 1, 1234-1259.	2.9	19
51	Continuous Flow Organocatalytic Chlorination of Alkenes. <i>European Journal of Organic Chemistry</i> , 2021, 2021, 5058-5062.	1.2	4
52	CuAAC mediated synthesis of cyclen cored glycodendrimers of high sugar tethers at low generation. <i>Carbohydrate Research</i> , 2021, 508, 108403.	1.1	8
53	Isoxazole derivatives as anticancer agent: A review on synthetic strategies, mechanism of action and SAR studies. <i>European Journal of Medicinal Chemistry</i> , 2021, 221, 113511.	2.6	59
54	N-2-(phenylamino) benzamide derivatives as novel anti-glioblastoma agents: Synthesis and biological evaluation. <i>European Journal of Medicinal Chemistry</i> , 2021, 226, 113817.	2.6	4

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55	Total Synthesis of Hyalodendriol C. <i>Heterocycles</i> , 2021, 102, .	0.4	7
56	1,2,4-Oxadiazole topsentin analogs as staphylococcal biofilm inhibitors targeting the bacterial transpeptidase sortase A. <i>European Journal of Medicinal Chemistry</i> , 2021, 209, 112892.	2.6	44
57	New Aspects of Monoamine Oxidase B Inhibitors: The Key Role of Halogens to Open the Golden Door. <i>Current Medicinal Chemistry</i> , 2020, 28, 266-283.	1.2	32
58	Dinuclear Copper(I) Thiodiacetate Complex-Mediated Expeditious Synthesis of the Chlorine-Containing Cyclen-Cored 36-Glucose-Coated Glycodendrimer. <i>Journal of Chemistry</i> , 2021, 2021, 1-10.	0.9	1
59	Synthesis of polysubstituted pyrroles via isocyanide-based multicomponent reactions as an efficient synthesis tool. <i>New Journal of Chemistry</i> , 2021, 45, 21967-22011.	1.4	26
60	(E)-N-(3-chlorophenyl)-1-(5-nitro-2-(piperidin-1-yl)phenyl)methanimine: X-Ray, DFT, ADMET, Boiled-Egg Model, Druggability, Bioavailability, and Human Cyclophilin D (CypD) Inhibitory Activity. <i>Journal of Molecular Structure</i> , 2022, 1250, 131744.	1.8	7
61	Lead optimization of novel quinolone chalcone compounds by a structure-activity relationship (SAR) study to increase efficacy and metabolic stability. <i>Scientific Reports</i> , 2021, 11, 21576.	1.6	3
62	Superior selectivity of high-frequency ultrasound toward chlorine containing-pharmaceuticals elimination in urine: A comparative study with other oxidation processes through the elucidation of the degradation pathways. <i>Ultrasonics Sonochemistry</i> , 2021, 80, 105814.	3.8	6
63	A Cu(II) Complex as an Extremely Active Catalyst for Enantioselective α -Halogenation of N-Acyl-3,5-dimethylpyrazoles. <i>ACS Catalysis</i> , 2022, 12, 1012-1017.	5.5	16
64	Multilayered solid phase extraction and ultra performance liquid chromatographic method for suspect screening of halogenated pharmaceuticals and photo-transformation products in freshwater - comparison between data-dependent and data-independent acquisition mass spectrometry. <i>Journal of Chromatography A</i> , 2022, 1663, 462760.	1.8	11
65	Novel fluorinated pyrazolo[1,5-a]pyrimidines: In a way from synthesis and docking studies to biological evaluation. <i>Journal of Molecular Structure</i> , 2022, 1257, 132590.	1.8	10
66	Antibacterial Effects of Flavonoids and Their Structure-Activity Relationship Study: A Comparative Interpretation. <i>Molecules</i> , 2022, 27, 1149.	1.7	102
67	QSAR study, molecular docking, and ADMET prediction of vinyl sulfone-containing Nrf2 activator derivatives for treating Parkinson disease. <i>Structural Chemistry</i> , 2022, 33, 1109-1131.	1.0	2
68	New Halogen-Containing Drugs Approved by FDA in 2021: An Overview on Their Syntheses and Pharmaceutical Use. <i>Molecules</i> , 2022, 27, 1643.	1.7	48
69	Thiazole and Related Heterocyclic Systems as Anticancer Agents: A Review on Synthetic Strategies, Mechanisms of Action and SAR Studies. <i>Current Medicinal Chemistry</i> , 2022, 29, 4958-5009.	1.2	5
70	Trifluoromethyl-substituted aryldiazenyl-pyrazolo[1,5-a]pyrimidin-2-amines: Regioselective synthesis, structure, and optical properties. <i>Journal of Fluorine Chemistry</i> , 2022, 255-256, 109967.	0.9	6
71	Recent Progresses in the Preparation of Chlorinated Molecules: Electrocatalysis and Photoredox Catalysis in the Spotlight. <i>Reactions</i> , 2022, 3, 233-253.	0.9	5
72	Dichlorination of α -Keto Esters and 1,3-Diketones Mediated by Oxone/Aluminum Trichloride Mixture in Aqueous Medium. <i>Synthesis</i> , 2022, 54, 2457-2463.	1.2	2

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73	Recent advances on anticancer activity of coumarin derivatives. <i>European Journal of Medicinal Chemistry Reports</i> , 2022, 5, 100038.	0.6	35
74	Arene radiofluorination enabled by photoredox-mediated halide interconversion. <i>Nature Chemistry</i> , 2022, 14, 216-223.	6.6	25
75	N-heterocycles: Recent Advances in Biological Applications. <i>Mini-Reviews in Organic Chemistry</i> , 2023, 20, 735-747.	0.6	3
76	Antitrypanosomal activity of new semi-synthetic bergerin derivatives. <i>Chemical Biology and Drug Design</i> , 2022, 99, 179-186.	1.5	2
77	Bacterial adhesion properties of parylene C and D deposited on polydimethylsiloxane. <i>New Journal of Chemistry</i> , 0, , .	1.4	2
78	Amphiphilic indoles as efficient phase-transfer catalysts for bromination in water. <i>ChemSusChem</i> , 2022, , .	3.6	3
79	Probing the Electronic Properties and Interaction Landscapes in a Series of <i>N</i> -(Chlorophenyl)pyridinecarboxamides. <i>Crystal Growth and Design</i> , 2022, 22, 3343-3358.	1.4	2
80	Hydrodechlorination of Aryl Chlorides Under Biocompatible Conditions. <i>ACS Omega</i> , 2022, 7, 16028-16034.	1.6	2
81	Toward Environmentally Benign Electrophilic Chlorinations: From Chloroperoxidase to Bioinspired Isoporphyrins. <i>Inorganic Chemistry</i> , 2022, 61, 8105-8111.	1.9	7
82	<i>In situ</i> fabrication of HDA-mediated NiFe ₂ O ₃ nanorods: an efficient and recyclable heterogeneous catalyst for the synthesis of 2,3-dihydroquinazolin-4(1 <i>H</i>)-ones in water. <i>New Journal of Chemistry</i> , 2022, 46, 13196-13206.	1.4	2
83	Design, synthesis, antibacterial activity evaluation and molecular docking study of pleuromutilin derivatives bearing amide side chains. <i>Chemical Biology and Drug Design</i> , 2022, 100, 564-579.	1.5	1
84	Pharmacological significance of nitrogen-containing five and six-membered heterocyclic scaffolds as potent cholinesterase inhibitors for drug discovery. <i>Process Biochemistry</i> , 2022, 120, 250-259.	1.8	40
85	Light-Promoted Nickel-Catalyzed Aromatic Halogen Exchange. <i>ACS Catalysis</i> , 2022, 12, 11089-11096.	5.5	19
86	Nitrogen-Containing Heterocyclic Compounds Obtained from Monoterpenes or Their Derivatives: Synthesis and Properties. <i>Topics in Current Chemistry</i> , 2022, 380, .	3.0	8
87	Photoredox-catalysed chlorination of quinoxalin-2(1 <i>H</i>)-ones enabled by using CHCl ₃ as a chlorine source. <i>Chemical Communications</i> , 2022, 58, 11591-11594.	2.2	5
88	Glycogen synthase kinase-3 ^{Î²} inhibitors as a novel promising target in the treatment of cancer: Medicinal chemistry perspective. <i>Results in Chemistry</i> , 2022, 4, 100532.	0.9	3
89	The polychloromethylation/acyloxylation of 1,6-enynes with chloroalkanes and diacyl peroxides through dual-role designs. <i>Organic and Biomolecular Chemistry</i> , 2022, 20, 7067-7070.	1.5	4
90	Nitrostilbenes: Synthesis and Biological Evaluation as Potential Anti-Influenza Virus Agents. <i>Pharmaceuticals</i> , 2022, 15, 1061.	1.7	3

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91	Discovery of novel neuroprotective cinnamoyl-M30D hybrids targeting Alzheimer's disease. <i>Medicinal Chemistry Research</i> , 2022, 31, 1974-1989.	1.1	0
92	Catalyst-Tuned Electrophilic Chlorination of Diverse Aromatic Compounds with Sulfuryl Chloride and Regioselective Chlorination of Phenols with Organocatalysts. <i>Journal of Organic Chemistry</i> , 2022, 87, 12558-12573.	1.7	2
94	Amine organocatalysts for highly <i>ortho</i> -selective chlorination of anilines with sulfuryl chloride. <i>Chemical Communications</i> , 2022, 58, 13325-13328.	2.2	2
95	Photoinduced Chloroamination Cyclization Cascade with <i>N</i> -Chlorosuccinimide: From <i>N</i> -(Allenyl)sulfonylamides to 2-(1-Chlorovinyl)pyrrolidines. <i>Journal of Organic Chemistry</i> , 2023, 88, 6420-6433.	1.7	4
96	Development of benchmark datasets for text mining and sentiment analysis to accelerate regulatory literature review. <i>Regulatory Toxicology and Pharmacology</i> , 2023, 137, 105287.	1.3	1
97	Benzo[<i>d</i>]thiazole-2-carboxamides as new antituberculosis chemotypes inhibiting mycobacterial ATP phosphoribosyl transferase. <i>Future Medicinal Chemistry</i> , 2022, 14, 1847-1864.	1.1	2
98	Heterocyclic Moieties as Prospective Nematicides: An Overview. <i>Current Organic Chemistry</i> , 2022, 26, 1703-1724.	0.9	3
99	Design, synthesis, and biological evaluation of tetrahydroisoquinoline based hydroxamate derivatives as HDAC 6 inhibitors for cancer therapy. <i>Journal of Molecular Structure</i> , 2023, 1278, 134952.	1.8	5
100	Palladium-catalyzed C-N Coupling Reactions in the Synthesis of Dibenzodiazepines. <i>Current Organic Chemistry</i> , 2023, 26, 1813-1826.	0.9	1
101	Synthesis of C3-halo substituted bicyclo[1.1.1]pentylamines <i>via</i> halosulfoamidation of [1.1.1]propellane with sodium hypohalites and sulfonamides. <i>Chemical Communications</i> , 2023, 59, 6056-6059.	2.2	4
102	Oxidative Chlorination: A Sustainable Alternative for the Preparation of Chloroarenes. <i>Current Green Chemistry</i> , 2023, 10, .	0.7	0
103	Antitumor Effect of Chalcone Derivatives against Human Prostate (LNCaP and PC-3), Cervix HPV-Positive (HeLa) and Lymphocyte (Jurkat) Cell Lines and Their Effect on Macrophage Functions. <i>Molecules</i> , 2023, 28, 2159.	1.7	5
104	Current development of \hat{I}^2 -carboline derived potential antimalarial scaffolds. <i>European Journal of Medicinal Chemistry</i> , 2023, 252, 115247.	2.6	5
105	Concise route to stereoselective chlorobenzene-based spiropyrrrolidine oxindoles for pursuit as antitubercular agents. <i>Journal of Chemical Sciences</i> , 2023, 135, .	0.7	0
106	“Magic Chloro”: Profound Effects of the Chlorine Atom in Drug Discovery. <i>Journal of Medicinal Chemistry</i> , 2023, 66, 5305-5331.	2.9	29
107	The Addition of Ketene to Olefins under Ultrasonic Conditions: Evaluation of the Biological Activities of Halobicyclic Lactone. <i>ChemistrySelect</i> , 2023, 8, .	0.7	0
108	Exploration of a new class of monoamine oxidase B inhibitors by assembling benzyloxy pharmacophore on halogenated chalcones. <i>Chemical Biology and Drug Design</i> , 2023, 102, 271-284.	1.5	2
109	Sulfur-Arylation of Sulfenamides via Chan-Lam Coupling with Boronic Acids: Access to High Oxidation State Sulfur Pharmacophores. <i>Organic Letters</i> , 2023, 25, 2830-2834.	2.4	18

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110	Synthesis and Antimicrobial Activity of New Carbohydrazide Bearing Quinoline Scaffolds in Silico ADMET and Molecular Docking Studies. Polycyclic Aromatic Compounds, 2024, 44, 1348-1365.	1.4	1
111	(±)-N-(3-Chlorophenethyl)-2-(6-methoxynaphthalen-2-yl)propanamide. MolBank, 2023, 2023, M1625.	0.2	0
115	Balancing Lewis Acidity and Carbocation Stability for the Selective Deoxyhalogenation of Aryl Carbonyls and Carbinols. Organic Letters, 2023, 25, 4650-4655.	2.4	4