

David B Olsen

List of Publications by Year in descending order

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104
papers

5,242
citations

117625

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docs citations

113
times ranked

4868
citing authors

#	ARTICLE	IF	CITATIONS
1	Inhibition of Hepatitis C Virus RNA Replication by 2'-Modified Nucleoside Analogs. <i>Journal of Biological Chemistry</i> , 2003, 278, 11979-11984.	3.4	314
2	Characterization of Resistance to Non-obligate Chain-terminating Ribonucleoside Analogs That Inhibit Hepatitis C Virus Replication in Vitro. <i>Journal of Biological Chemistry</i> , 2003, 278, 49164-49170.	3.4	305
3	MK-5172, a Selective Inhibitor of Hepatitis C Virus NS3/4a Protease with Broad Activity across Genotypes and Resistant Variants. <i>Antimicrobial Agents and Chemotherapy</i> , 2012, 56, 4161-4167.	3.2	242
4	A 7-Deaza-Adenosine Analog Is a Potent and Selective Inhibitor of Hepatitis C Virus Replication with Excellent Pharmacokinetic Properties. <i>Antimicrobial Agents and Chemotherapy</i> , 2004, 48, 3944-3953.	3.2	221
5	Structure-Activity Relationship of Purine Ribonucleosides for Inhibition of Hepatitis C Virus RNA-Dependent RNA Polymerase. <i>Journal of Medicinal Chemistry</i> , 2004, 47, 2283-2295.	6.4	200
6	Structure-Activity Relationship of Heterobase-Modified 2'-C-Methyl Ribonucleosides as Inhibitors of Hepatitis C Virus RNA Replication. <i>Journal of Medicinal Chemistry</i> , 2004, 47, 5284-5297.	6.4	188
7	Discovery of MK-8742: An HCV NS5A Inhibitor with Broad Genotype Activity. <i>ChemMedChem</i> , 2013, 8, 1930-1940.	3.2	183
8	Discovery of MK-5172, a Macrocyclic Hepatitis C Virus NS3/4a Protease Inhibitor. <i>ACS Medicinal Chemistry Letters</i> , 2012, 3, 332-336.	2.8	181
9	Discovery of Vaniprevir (MK-7009), a Macrocyclic Hepatitis C Virus NS3/4a Protease Inhibitor. <i>Journal of Medicinal Chemistry</i> , 2010, 53, 2443-2463.	6.4	166
10	Human Monoclonal Antibody HCV1 Effectively Prevents and Treats HCV Infection in Chimpanzees. <i>PLoS Pathogens</i> , 2012, 8, e1002895.	4.7	160
11	SARS-CoV-2 tropism, entry, replication, and propagation: Considerations for drug discovery and development. <i>PLoS Pathogens</i> , 2021, 17, e1009225.	4.7	160
12	Inhibition of HIV-1 Ribonuclease H by a Novel Diketo Acid, 4-[5-(Benzoylamino)thien-2-yl]-2,4-dioxobutanoic Acid. <i>Journal of Biological Chemistry</i> , 2003, 278, 2777-2780.	3.4	148
13	MK-7009, a Potent and Selective Inhibitor of Hepatitis C Virus NS3/4A Protease. <i>Antimicrobial Agents and Chemotherapy</i> , 2010, 54, 305-311.	3.2	141
14	Molecular Modeling Based Approach to Potent P2-P4 Macrocyclic Inhibitors of Hepatitis C NS3/4A Protease. <i>Journal of the American Chemical Society</i> , 2008, 130, 4607-4609.	13.7	137
15	Characterization of the Inhibition of Hepatitis C Virus RNA Replication by Nonnucleosides. <i>Journal of Virology</i> , 2004, 78, 938-946.	3.4	128
16	PD-1 Blockade in Rhesus Macaques: Impact on Chronic Infection and Prophylactic Vaccination. <i>Journal of Immunology</i> , 2009, 182, 980-987.	0.8	126
17	Replication Fitness and NS5B Drug Sensitivity of Diverse Hepatitis C Virus Isolates Characterized by Using a Transient Replication Assay. <i>Antimicrobial Agents and Chemotherapy</i> , 2005, 49, 2059-2069.	3.2	118
18	Study of a hammerhead ribozyme containing 2'-modified adenosine residues. <i>Biochemistry</i> , 1991, 30, 9735-9741.	2.5	103

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19	Dual Plasmeprin-Targeting Antimalarial Agents Disrupt Multiple Stages of the Malaria Parasite Life Cycle. <i>Cell Host and Microbe</i> , 2020, 27, 642-658.e12.	11.0	94
20	Robust Antiviral Efficacy upon Administration of a Nucleoside Analog to Hepatitis C Virus-Infected Chimpanzees. <i>Antimicrobial Agents and Chemotherapy</i> , 2009, 53, 926-934.	3.2	82
21	Non-active Site Changes Elicit Broad-based Cross-resistance of the HIV-1 Protease to Inhibitors. <i>Journal of Biological Chemistry</i> , 1999, 274, 23699-23701.	3.4	65
22	Sensitivity of HIV-1 Reverse Transcriptase and Its Mutants to Inhibition by Azidothymidine Triphosphate. <i>Biochemistry</i> , 1994, 33, 2113-2120.	2.5	64
23	Oxabicyclooctane-Linked Novel Bacterial Topoisomerase Inhibitors as Broad Spectrum Antibacterial Agents. <i>ACS Medicinal Chemistry Letters</i> , 2014, 5, 609-614.	2.8	64
24	Generation of SARS-CoV-2 reporter replicon for high-throughput antiviral screening and testing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	64
25	Incomplete primer extension during <i>in vitro</i> DNA amplification catalyzed by Taq polymerase; exploitation for DNA sequencing. <i>Nucleic Acids Research</i> , 1989, 17, 9613-9620.	14.5	55
26	Design, Synthesis, and Biological Evaluation of Monopyrrolinone-Based HIV-1 Protease Inhibitors. <i>Journal of Medicinal Chemistry</i> , 2003, 46, 1831-1844.	6.4	55
27	Identification of MK-944a: A Second Clinical Candidate from the Hydroxylaminepentanamide Isostere Series of HIV Protease Inhibitors. <i>Journal of Medicinal Chemistry</i> , 2000, 43, 3386-3399.	6.4	53
28	Investigation of the <i>Bacillus cereus</i> phosphonoacetaldehyde hydrolase. Evidence for a Schiff base mechanism and sequence analysis of an active-site peptide containing the catalytic lysine residue. <i>Biochemistry</i> , 1988, 27, 2229-2234.	2.5	48
29	Phosphoramidate Prodrugs of 2'-Methylcytidine for Therapy of Hepatitis C Virus Infection. <i>Journal of Medicinal Chemistry</i> , 2009, 52, 5394-5407.	6.4	48
30	Sustained Viral Response in a Hepatitis C Virus-Infected Chimpanzee via a Combination of Direct-Acting Antiviral Agents. <i>Antimicrobial Agents and Chemotherapy</i> , 2011, 55, 937-939.	3.2	46
31	Inhibitory Effect of 2'-Substituted Nucleosides on Hepatitis C Virus Replication Correlates with Metabolic Properties in Replicon Cells. <i>Antimicrobial Agents and Chemotherapy</i> , 2005, 49, 2050-2058.	3.2	43
32	Identification and Biological Evaluation of a Series of 1-H-Benzo[<i>d</i>]isoquinoline-1,3(2-H)-diones as Hepatitis C Virus NS5B Polymerase Inhibitors. <i>Journal of Medicinal Chemistry</i> , 2009, 52, 5217-5227.	6.4	42
33	Hinnuliquinone, a C2-symmetric dimeric non-peptide fungal metabolite inhibitor of HIV-1 protease. <i>Biochemical and Biophysical Research Communications</i> , 2004, 324, 108-113.	2.1	40
34	Liver-Targeted Prodrugs of 2'-Methyladenosine for Therapy of Hepatitis C Virus Infection. <i>Journal of Medicinal Chemistry</i> , 2007, 50, 3891-3896.	6.4	37
35	X-ray Crystallographic and Site-directed Mutagenesis Analysis of the Mechanism of Schiff-base Formation in Phosphonoacetaldehyde Hydrolase Catalysis. <i>Journal of Biological Chemistry</i> , 2004, 279, 9353-9361.	3.4	34
36	Synthesis and Evaluation of S-Acyl-2-thioethyl Esters of Modified Nucleoside 5'-Monophosphates as Inhibitors of Hepatitis C Virus RNA Replication. <i>Journal of Medicinal Chemistry</i> , 2005, 48, 1199-1210.	6.4	34

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37	Indinavir analogues with blocked metabolism sites as HIV protease inhibitors with improved pharmacological profiles and high potency against PI-Resistant viral strains. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2002, 12, 2419-2422.	2.2	32
38	A time-resolved, internally quenched fluorescence assay to characterize inhibition of hepatitis C virus nonstructural protein 3â€™4A protease at low enzyme concentrations. <i>Analytical Biochemistry</i> , 2008, 373, 1-8.	2.4	32
39	Tricyclic 1,5-naphthyridinone oxabicyclooctane-linked novel bacterial topoisomerase inhibitors as broad-spectrum antibacterial agents-SAR of left-hand-side moiety (Part-2). <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 1831-1835.	2.2	32
40	Investigation of the substrate binding and catalytic groups of the Pi-C bond cleaving enzyme, phosphonoacetaldehyde hydrolase. <i>Archives of Biochemistry and Biophysics</i> , 1992, 296, 144-151.	3.0	31
41	Bismacroyclic Inhibitors of Hepatitisâ€™C NS3/4a Protease. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 9104-9107.	13.8	31
42	Synthesis and HCV inhibitory properties of 9-deaza- and 7,9-dideaza-7-oxa-2â€™-C-methyladenosine. <i>Bioorganic and Medicinal Chemistry</i> , 2007, 15, 5219-5229.	3.0	30
43	Discovery of MK-1220: A Macroyclic Inhibitor of Hepatitis C Virus NS3/4A Protease with Improved Preclinical Plasma Exposure. <i>ACS Medicinal Chemistry Letters</i> , 2011, 2, 207-212.	2.8	30
44	Elucidation of DnaE as the Antibacterial Target of the Natural Product, Nargenicin. <i>Chemistry and Biology</i> , 2015, 22, 1362-1373.	6.0	29
45	Discovery and Structureâ€™Activity-Relationship Study of <i>N</i> -Alkyl-5-hydroxypyrimidinone Carboxamides as Novel Antitubercular Agents Targeting Decaprenylphosphoryl- <i>I</i> ² -ribose 2â€™-Oxidase. <i>Journal of Medicinal Chemistry</i> , 2018, 61, 9952-9965.	6.4	29
46	An alternate binding site for the P1â€™P3 group of a class of potent HIV-1 protease inhibitors as a result of concerted structural change in the 80s loop of the protease. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2000, 56, 381-388.	2.5	25
47	Gene expression profiling of rat liver reveals a mechanistic basis for ritonavir-induced hyperlipidemia. <i>Genomics</i> , 2007, 90, 464-473.	2.9	24
48	Linking High-Throughput Screens to Identify MoAs and Novel Inhibitors of <i>Mycobacterium tuberculosis</i> Dihydrofolate Reductase. <i>ACS Chemical Biology</i> , 2017, 12, 2448-2456.	3.4	24
49	Elucidation of Basic Mechanistic and Kinetic Properties of Influenza Endonuclease Using Chemically Synthesized RNAs. <i>Journal of Biological Chemistry</i> , 1996, 271, 7435-7439.	3.4	22
50	P1â€™ oxadiazole protease inhibitors with excellent activity against native and protease inhibitor-resistant HIV-1. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2004, 14, 4651-4654.	2.2	22
51	Design, synthesis, and biological evaluation of monopyrrolinone-based HIV-1 protease inhibitors possessing augmented P2â€™ side chains. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2006, 16, 859-863.	2.2	22
52	Hydroxy tricyclic 1,5-naphthyridinone oxabicyclooctane-linked novel bacterial topoisomerase inhibitors as broad-spectrum antibacterial agents-SAR of RHS moiety (Part-3). <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 2473-2478.	2.2	22
53	P2â€™Quinazolinones and Bisâ€™Macrocycles as New Templates for Nextâ€™Generation Hepatitisâ€™C Virus NS3/4a Protease Inhibitors: Discovery of MKâ€™2748 and MKâ€™6325. <i>ChemMedChem</i> , 2015, 10, 727-735.	3.2	22
54	Combinatorial diversification of indinavir: in vivo mixture dosing of an HIV protease inhibitor library. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2000, 10, 1527-1530.	2.2	21

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55	Investigation of the inhibitory role of phosphorothioate internucleotidic linkages on the catalytic activity of the restriction endonuclease EcoRV. <i>Biochemistry</i> , 1990, 29, 9546-9551.	2.5	20
56	Antiviral Efficacy upon Administration of a HepDirect Prodrug of 2'-Methylcytidine to Hepatitis C Virus-Infected Chimpanzees. <i>Antimicrobial Agents and Chemotherapy</i> , 2011, 55, 3854-3860.	3.2	20
57	Inhibition of restriction endonuclease hydrolysis by phosphorothioate-containing DNA. <i>Nucleic Acids Research</i> , 1989, 17, 9495-9495.	14.5	19
58	Kibdelomycin Is a Potent and Selective Agent against Toxigenic <i>Clostridium difficile</i> . <i>Antimicrobial Agents and Chemotherapy</i> , 2014, 58, 2387-2392.	3.2	19
59	In Vitro and In Vivo Characterization of the Novel Oxabicyclooctane-Linked Bacterial Topoisomerase Inhibitor AM-8722, a Selective, Potent Inhibitor of Bacterial DNA Gyrase. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 4830-4839.	3.2	19
60	Design and synthesis of highly potent HIV protease inhibitors with activity against resistant virus. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2003, 13, 1821-1824.	2.2	18
61	[20] Preparation and use of synthetic oligoribonucleotides as tools for study of viral polymerases. <i>Methods in Enzymology</i> , 1996, 275, 365-382.	1.0	17
62	[13] Site-directed mutagenesis of single-stranded and double-stranded DNA by phosphorothioate approach. <i>Methods in Enzymology</i> , 1993, 217, 189-217.	1.0	16
63	Structure activity relationship of C-2 ether substituted 1,5-naphthyridine analogs of oxabicyclooctane-linked novel bacterial topoisomerase inhibitors as broad-spectrum antibacterial agents (Part-5). <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 3630-3635.	2.2	16
64	HIV protease inhibitors with picomolar potency against PI-Resistant HIV-1 by extension of the P3 substituent. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2003, 13, 2569-2572.	2.2	15
65	A genotype 2b NS5B polymerase with novel substitutions supports replication of a chimeric HCV 1b:2b replicon containing a genotype 1b NS3-5A background. <i>Antiviral Research</i> , 2006, 69, 24-30.	4.1	15
66	A transient cell-based phenotype assay for hepatitis C NS3/4A protease: Application to potency determinations of a novel macrocyclic inhibitor against diverse protease sequences isolated from plasma infected with HCV. <i>Journal of Virological Methods</i> , 2008, 151, 301-307.	2.1	15
67	Design, Synthesis, Structure-Function Relationship, Bioconversion, and Pharmacokinetic Evaluation of Ertapenem Prodrugs. <i>Journal of Medicinal Chemistry</i> , 2014, 57, 8421-8444.	6.4	15
68	Structure activity relationship of substituted 1,5-naphthyridine analogs of oxabicyclooctane-linked novel bacterial topoisomerase inhibitors as broad-spectrum antibacterial agents (Part-4). <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 2409-2415.	2.2	15
69	Affinity Selection-Mass Spectrometry Identifies a Novel Antibacterial RNA Polymerase Inhibitor. <i>ACS Chemical Biology</i> , 2017, 12, 1346-1352.	3.4	15
70	Synthesis and activity of novel HIV protease inhibitors with improved potency against multiple PI-resistant viral strains. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2002, 12, 2423-2426.	2.2	14
71	Synthesis and evaluation of optically pure dioxolanes as inhibitors of hepatitis C virus RNA replication. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2003, 13, 4455-4458.	2.2	14
72	The design, synthesis and evaluation of novel HIV-1 protease inhibitors with high potency against PI-resistant viral strains. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2003, 13, 2573-2576.	2.2	14

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73	Structure activity relationship of pyridoxazinone substituted RHS analogs of oxabicyclooctane-linked 1,5-naphthyridinyl novel bacterial topoisomerase inhibitors as broad-spectrum antibacterial agents (Part-6). <i>Bioorganic and Medicinal Chemistry Letters</i> , 2015, 25, 3636-3643.	2.2	14
74	A Combinatorial Library of Indinavir Analogues and Its In Vitro and In Vivo Studies. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2002, 12, 529-532.	2.2	13
75	Combinatorial library of indinavir analogues: replacement for the aminoindanol at P2. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2002, 12, 2855-2858.	2.2	13
76	Novel HIV-1 protease inhibitors active against multiple PI-Resistant viral strains: coadministration with indinavir. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2003, 13, 4027-4030.	2.2	13
77	Syntheses of 4 ^ε -spirocyclic phosphono-nucleosides as potential inhibitors of hepatitis C virus NS5B polymerase. <i>Tetrahedron Letters</i> , 2014, 55, 4407-4409.	1.4	13
78	Identification of ¹² -Lactams Active against <i>Mycobacterium tuberculosis</i> by a Consortium of Pharmaceutical Companies and Academic Institutions. <i>ACS Infectious Diseases</i> , 2022, 8, 557-573.	3.8	13
79	Synthesis of 2 ^ε - ¹² -C-methyl-neplanocin derivatives as anti-HCV agents. <i>Tetrahedron Letters</i> , 2008, 49, 4149-4152.	1.4	12
80	Development of a New Structural Class of Broadly Acting HCV Non-Nucleoside Inhibitors Leading to the Discovery of MK-8876. <i>ChemMedChem</i> , 2017, 12, 1436-1448.	3.2	12
81	[8] Expression and purification of retroviral HIV-1 reverse transcriptase. <i>Methods in Enzymology</i> , 1996, 275, 122-133.	1.0	11
82	HIV-1 protease inhibitors with picomolar potency against PI-resistant HIV-1 by modification of the P1 ^ε substituent. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2003, 13, 3323-3326.	2.2	11
83	Structure-Guided Drug Design of 6-Substituted Adenosine Analogues as Potent Inhibitors of <i>Mycobacterium tuberculosis</i> Adenosine Kinase. <i>Journal of Medicinal Chemistry</i> , 2019, 62, 4483-4499.	6.4	11
84	DNA-Dependent Binding of Nargenicin to DnaE1 Inhibits Replication in <i>Mycobacterium tuberculosis</i> . <i>ACS Infectious Diseases</i> , 2022, 8, 612-625.	3.8	11
85	Synthesis and biological evaluation of 5R- and 5S-methyl substituted d- and l-configuration 1,3-dioxolane nucleoside analogs. <i>Bioorganic and Medicinal Chemistry</i> , 2004, 12, 6237-6247.	3.0	10
86	Orally bioavailable highly potent HIV protease inhibitors against PI-resistant virus. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2005, 15, 5311-5314.	2.2	10
87	C1 ^ε -C2-linker substituted 1,5-naphthyridine analogues of oxabicyclooctane-linked NBTIs as broad-spectrum antibacterial agents (part 7). <i>MedChemComm</i> , 2015, 6, 1773-1780.	3.4	10
88	Synthesis of amino heterocycle aspartyl protease inhibitors. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 4970-4985.	2.8	10
89	Thiazomycin, nocathiacin and analogs show strong activity against clinical strains of drug-resistant <i>Mycobacterium tuberculosis</i> . <i>Journal of Antibiotics</i> , 2017, 70, 671-674.	2.0	10
90	Development of macrocyclic inhibitors of HCV NS3/4A protease with cyclic constrained P2 ^ε -P4 linkers. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2012, 22, 7207-7213.	2.2	9

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91	Basis for drug selectivity of plasmepsin IX and X inhibition in Plasmodium falciparum and vivax. Structure, 2022, 30, 947-961.e6.	3.3	9
92	Synthesis of novel HIV protease inhibitors (PI) with activity against PI-resistant virus. Bioorganic and Medicinal Chemistry Letters, 2007, 17, 5432-5436.	2.2	8
93	Design, Synthesis, and Evaluation of Prodrugs of Ertapenem. ACS Medicinal Chemistry Letters, 2013, 4, 715-719.	2.8	7
94	Syntheses of nucleosides with 2 β -spirolactam and 2 β -spiropyrrolidine moieties as potential inhibitors of hepatitis C virus NS5B polymerase. Tetrahedron Letters, 2014, 55, 3813-3816.	1.4	7
95	Development of potent macrocyclic inhibitors of genotype 3a HCV NS3/4A protease. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 7201-7206.	2.2	6
96	Syntheses of nucleosides with a 1 β ,2 β -lactam moiety as potential inhibitors of hepatitis C virus NS5B polymerase. Tetrahedron Letters, 2014, 55, 5576-5579.	1.4	6
97	Syntheses of 1 β ,2 β -cyclopentyl nucleosides as potential antiviral agents. Tetrahedron Letters, 2014, 55, 5092-5095.	1.4	5
98	2 β -Modified Guanosine Analogs for the Treatment of HCV. Nucleosides, Nucleotides and Nucleic Acids, 2016, 35, 277-294.	1.1	5
99	Assay for Influenza Virus Endonuclease Using DNA Polymerase Extension of a Specific Cleavage Product. Analytical Biochemistry, 1995, 231, 309-314.	2.4	4
100	[8] Direct sequencing of polymerase chain reaction products. Methods in Enzymology, 1993, 218, 79-92.	1.0	3
101	Structure activity relationship of N-1 substituted 1,5-naphthyrid-2-one analogs of oxabicyclooctane-linked novel bacterial topoisomerase inhibitors as broad-spectrum antibacterial agents (Part-9). Bioorganic and Medicinal Chemistry Letters, 2022, , 128808.	2.2	2
102	Identification of cyclic hexapeptides natural products with inhibitory potency against Mycobacterium tuberculosis. BMC Research Notes, 2018, 11, 416.	1.4	1
103	Overview: High Efficiency Oligonucleotide-Directed Mutagenesis of Double-stranded DNA Vectors. Current Opinion in Therapeutic Patents, 1992, 2, 1023-1029.	0.0	0
104	P1 β Oxadiazole Protease Inhibitors with Excellent Activity Against Native and Protease Inhibitor-Resistant HIV-1.. ChemInform, 2004, 35, no.	0.0	0