

Stephen J Benkovic

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

355
papers

18,565
citations

72
h-index

116
g-index

368
ext. papers

20,252
ext. citations

10.1
avg, IF

6.81
L-index

#	Paper	IF	Citations
355	Multienzyme interactions of the de novo purine biosynthetic protein PAICS facilitate purinosome formation and metabolic channeling.. <i>Journal of Biological Chemistry</i> , 2022 , 101853	5.4	0
354	Purine biosynthetic enzymes assemble into liquid-like condensates dependent on the activity of chaperone protein HSP90.. <i>Journal of Biological Chemistry</i> , 2022 , 101845	5.4	2
353	From Bioorganic Models to Cells. <i>Annual Review of Biochemistry</i> , 2021 , 90, 57-76	29.1	
352	Human de novo purine biosynthesis. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2021 , 56, 1-16	8.7	11
351	Metabolic channeling: predictions, deductions, and evidence. <i>Molecular Cell</i> , 2021 , 81, 3775-3785	17.6	5
350	PCNA Monoubiquitination Is Regulated by Diffusion of Rad6/Rad18 Complexes along RPA Filaments. <i>Biochemistry</i> , 2020 , 59, 4694-4702	3.2	4
349	Hypoxia drives the assembly of the multienzyme purinosome complex. <i>Journal of Biological Chemistry</i> , 2020 , 295, 9551-9566	5.4	10
348	Metabolomics and mass spectrometry imaging reveal channeled de novo purine synthesis in cells. <i>Science</i> , 2020 , 368, 283-290	33.3	90
347	Replication protein A dynamically regulates monoubiquitination of proliferating cell nuclear antigen. <i>Journal of Biological Chemistry</i> , 2019 , 294, 5157-5168	5.4	16
346	Recognition of a Key Anchor Residue by a Conserved Hydrophobic Pocket Ensures Subunit Interface Integrity in DNA Clamps. <i>Journal of Molecular Biology</i> , 2019 , 431, 2493-2510	6.5	2
345	Mapping Post-Translational Modifications of de Novo Purine Biosynthetic Enzymes: Implications for Pathway Regulation. <i>Journal of Proteome Research</i> , 2019 , 18, 2078-2087	5.6	6
344	Thomas Bruice (1925-2019). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 22418-22419	11.5	
343	Expression of the purine biosynthetic enzyme phosphoribosyl formylglycinamide synthase in neurons. <i>Journal of Neurochemistry</i> , 2018 , 144, 723-735	6	7
342	Substrate-driven chemotactic assembly in an enzyme cascade. <i>Nature Chemistry</i> , 2018 , 10, 311-317	17.6	87
341	Detecting Purinosome Metabolon Formation with Fluorescence Microscopy. <i>Methods in Molecular Biology</i> , 2018 , 1764, 279-289	1.4	5
340	Role of HSP90 in the Regulation of de Novo Purine Biosynthesis. <i>Biochemistry</i> , 2018 , 57, 3217-3221	3.2	10
339	Microtubule-directed transport of purine metabolons drives their cytosolic transit to mitochondria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 13009-13014	11.5	25

338	Replication Protein A Prohibits Diffusion of the PCNA Sliding Clamp along Single-Stranded DNA. <i>Biochemistry</i> , 2017 , 56, 1824-1835	3.2	14
337	Eukaryotic Translesion DNA Synthesis on the Leading and Lagging Strands: Unique Detours around the Same Obstacle. <i>Chemical Reviews</i> , 2017 , 117, 7857-7877	68.1	28
336	RNA primer-primase complexes serve as the signal for polymerase recycling and Okazaki fragment initiation in T4 phage DNA replication. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 5635-5640	11.5	6
335	Monitoring the Retention of Human Proliferating Cell Nuclear Antigen at Primer/Template Junctions by Proteins That Bind Single-Stranded DNA. <i>Biochemistry</i> , 2017 , 56, 3415-3421	3.2	9
334	A New View into the Regulation of Purine Metabolism: The Purinosome. <i>Trends in Biochemical Sciences</i> , 2017 , 42, 141-154	10.3	202
333	Understanding DNA replication by the bacteriophage T4 replisome. <i>Journal of Biological Chemistry</i> , 2017 , 292, 18434-18442	5.4	14
332	Stability of the human polymerase I holoenzyme and its implications in lagging strand DNA synthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, E1777-86	11.5	39
331	The use of modified and non-natural nucleotides provide unique insights into pro-mutagenic replication catalyzed by polymerase eta. <i>Nucleic Acids Research</i> , 2016 , 44, 1022-35	20.1	6
330	Spatial colocalization and functional link of purinosomes with mitochondria. <i>Science</i> , 2016 , 351, 733-7	33.3	106
329	Characterization of human translesion DNA synthesis across a UV-induced DNA lesion. <i>ELife</i> , 2016 , 5,	8.9	30
328	Regulation of Rad6/Rad18 Activity During DNA Damage Tolerance. <i>Annual Review of Biophysics</i> , 2015 , 44, 207-28	21.1	64
327	Protein Conformational Changes Are Detected and Resolved Site Specifically by Second-Harmonic Generation. <i>Biophysical Journal</i> , 2015 , 109, 806-15	2.9	33
326	Controlling cell-cell interactions using surface acoustic waves. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 43-8	11.5	247
325	Coordinated DNA Replication by the Bacteriophage T4 Replisome. <i>Viruses</i> , 2015 , 7, 3186-200	6.2	12
324	Cyanotryptophans as Novel Fluorescent Probes for Studying Protein Conformational Changes and DNA-Protein Interaction. <i>Biochemistry</i> , 2015 , 54, 7457-69	3.2	44
323	Quantitative analysis of purine nucleotides indicates that purinosomes increase de novo purine biosynthesis. <i>Journal of Biological Chemistry</i> , 2015 , 290, 6705-13	5.4	66
322	Purinosome formation as a function of the cell cycle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 1368-73	11.5	55
321	Perspectives on electrostatics and conformational motions in enzyme catalysis. <i>Accounts of Chemical Research</i> , 2015 , 48, 482-9	24.3	106

320	The unique chemistry of benzoxaboroles: current and emerging applications in biotechnology and therapeutic treatments. <i>Bioorganic and Medicinal Chemistry</i> , 2014 , 22, 4462-73	3.4	84
319	DNA polymerase as a molecular motor and pump. <i>ACS Nano</i> , 2014 , 8, 2410-8	16.7	84
318	Tryptophan-based fluorophores for studying protein conformational changes. <i>Bioorganic and Medicinal Chemistry</i> , 2014 , 22, 5924-34	3.4	21
317	Probing the electrostatics of active site microenvironments along the catalytic cycle for <i>Escherichia coli</i> dihydrofolate reductase. <i>Journal of the American Chemical Society</i> , 2014 , 136, 10349-60	16.4	69
316	Dark-field illumination on zero-mode waveguide/microfluidic hybrid chip reveals T4 replisomal protein interactions. <i>Nano Letters</i> , 2014 , 14, 1952-60	11.5	22
315	<i>Escherichia coli</i> dihydrofolate reductase catalyzed proton and hydride transfers: temporal order and the roles of Asp27 and Tyr100. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 18231-6	11.5	44
314	Acoustofluidic chemical waveform generator and switch. <i>Analytical Chemistry</i> , 2014 , 86, 11803-10	7.8	42
313	Probing cell-cell communication with microfluidic devices. <i>Lab on A Chip</i> , 2013 , 13, 3152-62	7.2	55
312	Open questions - in brief: beyond -omics, missing motor proteins, and getting from molecules to organisms. <i>BMC Biology</i> , 2013 , 11, 8	7.3	0
311	Detection of dihydrofolate reductase conformational change by FRET using two fluorescent amino acids. <i>Journal of the American Chemical Society</i> , 2013 , 135, 12924-7	16.4	51
310	Functional significance of evolving protein sequence in dihydrofolate reductase from bacteria to humans. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 10159-64	11.5	71
309	Capturing a sulfenic acid with arylboronic acids and benzoxaborole. <i>Journal of the American Chemical Society</i> , 2013 , 135, 14544-7	16.4	29
308	Tunable, pulsatile chemical gradient generation via acoustically driven oscillating bubbles. <i>Lab on A Chip</i> , 2013 , 13, 328-31	7.2	74
307	Hsp70/Hsp90 chaperone machinery is involved in the assembly of the purinosome. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 2528-33	11.5	60
306	Interaction of T4 UvsW helicase and single-stranded DNA binding protein gp32 through its carboxy-terminal acidic tail. <i>Journal of Molecular Biology</i> , 2013 , 425, 2823-39	6.5	8
305	A distal mutation perturbs dynamic amino acid networks in dihydrofolate reductase. <i>Biochemistry</i> , 2013 , 52, 4605-19	3.2	68
304	Lab-on-a-chip technologies for single-molecule studies. <i>Lab on A Chip</i> , 2013 , 13, 2183-98	7.2	34
303	G-protein-coupled receptor regulation of de novo purine biosynthesis: a novel druggable mechanism. <i>Biotechnology and Genetic Engineering Reviews</i> , 2013 , 29, 31-48	4.1	11

302	A clamp-like biohybrid catalyst for DNA oxidation. <i>Nature Chemistry</i> , 2013 , 5, 945-51	17.6	58
301	Replication clamps and clamp loaders. <i>Cold Spring Harbor Perspectives in Biology</i> , 2013 , 5, a010165	10.2	74
300	Probing DNA clamps with single-molecule force spectroscopy. <i>Nucleic Acids Research</i> , 2013 , 41, 7804-14	20.1	10
299	How a holoenzyme for DNA replication is formed. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 99-104	11.5	59
298	Insights into Okazaki fragment synthesis by the T4 replisome: the fate of lagging-strand holoenzyme components and their influence on Okazaki fragment size. <i>Journal of Biological Chemistry</i> , 2013 , 288, 20807-20816	5.4	8
297	Too fast for catalysis. <i>Biocatalysis and Biotransformation</i> , 2013 , 31, 269-271	2.5	1
296	Stepwise assembly of the human replicative polymerase holoenzyme. <i>ELife</i> , 2013 , 2, e00278	8.9	22
295	Direct observation of stalled fork restart via fork regression in the T4 replication system. <i>Science</i> , 2012 , 338, 1217-20	33.3	67
294	Effects of the donor-acceptor distance and dynamics on hydride tunneling in the dihydrofolate reductase catalyzed reaction. <i>Journal of the American Chemical Society</i> , 2012 , 134, 1738-45	16.4	90
293	Examination of the reactivity of benzoxaboroles and related compounds with a cis-diol. <i>Journal of Organic Chemistry</i> , 2012 , 77, 11200-9	4.2	22
292	Ring Structure and Aromatic Substituent Effects on the pK _a of the Benzoxaborole Pharmacophore. <i>ACS Medicinal Chemistry Letters</i> , 2012 , 3, 48-52	4.3	88
291	Two pyrenylalanines in dihydrofolate reductase form an excimer enabling the study of protein dynamics. <i>Journal of the American Chemical Society</i> , 2012 , 134, 18883-5	16.4	29
290	Elucidation of the mechanism of the reaction between phenylboronic acid and a model diol, Alizarin Red S. <i>Journal of Organic Chemistry</i> , 2012 , 77, 2098-106	4.2	66
289	Single-molecule mechanical identification and sequencing. <i>Nature Methods</i> , 2012 , 9, 367-72	21.6	36
288	Targeting tumour proliferation with a small-molecule inhibitor of AICAR transformylase homodimerization. <i>ChemBioChem</i> , 2012 , 13, 1628-34	3.8	45
287	The human lagging strand DNA polymerase holoenzyme is distributive. <i>Journal of Biological Chemistry</i> , 2012 , 287, 38442-8	5.4	19
286	Mapping protein-protein proximity in the purinosome. <i>Journal of Biological Chemistry</i> , 2012 , 287, 36201-7	3.4	44
285	Mechanism of strand displacement synthesis by DNA replicative polymerases. <i>Nucleic Acids Research</i> , 2012 , 40, 6174-86	20.1	52

284	Collaborative coupling between polymerase and helicase for leading-strand synthesis. <i>Nucleic Acids Research</i> , 2012 , 40, 6187-98	20.1	52
283	Flexibility, diversity, and cooperativity: pillars of enzyme catalysis. <i>Biochemistry</i> , 2011 , 50, 10422-30	3.2	190
282	Boron-containing inhibitors of synthetases. <i>Chemical Society Reviews</i> , 2011 , 40, 4279-85	58.5	190
281	A dynamic knockout reveals that conformational fluctuations influence the chemical step of enzyme catalysis. <i>Science</i> , 2011 , 332, 234-8	33.3	350
280	Evolution of cyclic peptide protease inhibitors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 11052-6	11.5	100
279	Biochemical characterization of bacteriophage T4 Mre11-Rad50 complex. <i>Journal of Biological Chemistry</i> , 2011 , 286, 2382-92	5.4	44
278	GPCRs regulate the assembly of a multienzyme complex for purine biosynthesis. <i>Nature Chemical Biology</i> , 2011 , 7, 909-15	11.7	72
277	Stepwise loading of yeast clamp revealed by ensemble and single-molecule studies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 19736-41	11.5	22
276	Dynamic regulation of a metabolic multi-enzyme complex by protein kinase CK2. <i>Journal of Biological Chemistry</i> , 2010 , 285, 11093-9	5.4	48
275	Isothermal DNA amplification using the T4 replisome: circular nicking endonuclease-dependent amplification and primase-based whole-genome amplification. <i>Nucleic Acids Research</i> , 2010 , 38, e201	20.1	22
274	Microtubule-assisted mechanism for functional metabolic macromolecular complex formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 12872-6	11.5	64
273	Response of the bacteriophage T4 replisome to noncoding lesions and regression of a stalled replication fork. <i>Journal of Molecular Biology</i> , 2010 , 401, 743-56	6.5	25
272	Magnetic tweezers for the study of DNA tracking motors. <i>Methods in Enzymology</i> , 2010 , 475, 297-320	1.7	28
271	Coupled motions in enzyme catalysis. <i>Current Opinion in Chemical Biology</i> , 2010 , 14, 644-51	9.7	146
270	Investigation of stoichiometry of T4 bacteriophage helicase loader protein (gp59). <i>Journal of Biological Chemistry</i> , 2009 , 284, 29283-9	5.4	20
269	Structural and functional modularity of proteins in the de novo purine biosynthetic pathway. <i>Protein Science</i> , 2009 , 18, 881-92	6.3	16
268	Coupling DNA unwinding activity with primer synthesis in the bacteriophage T4 primosome. <i>Nature Chemical Biology</i> , 2009 , 5, 904-12	11.7	77
267	Free-energy landscape of enzyme catalysis. <i>Biochemistry</i> , 2008 , 47, 3317-21	3.2	218

266	Repetitive lagging strand DNA synthesis by the bacteriophage T4 replisome. <i>Molecular BioSystems</i> , 2008 , 4, 1070-4		9
265	Surface sites for engineering allosteric control in proteins. <i>Science</i> , 2008 , 322, 438-42	33.3	269
264	Inhibition of HIV budding by a genetically selected cyclic peptide targeting the Gag-TSG101 interaction. <i>ACS Chemical Biology</i> , 2008 , 3, 757-64	4.9	115
263	Unnatural translation initiation. <i>ACS Chemical Biology</i> , 2008 , 3, 87-8	4.9	
262	Regulation of polymerase exchange between Poldelta and Poldelta by monoubiquitination of PCNA and the movement of DNA polymerase holoenzyme. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 5361-6	11.5	104
261	RNA primer handoff in bacteriophage T4 DNA replication: the role of single-stranded DNA-binding protein and polymerase accessory proteins. <i>Journal of Biological Chemistry</i> , 2008 , 283, 22838-46	5.4	23
260	Genetic selection of cyclic peptide Dam methyltransferase inhibitors. <i>ChemBioChem</i> , 2008 , 9, 194-7	3.8	36
259	Reversible compartmentalization of de novo purine biosynthetic complexes in living cells. <i>Science</i> , 2008 , 320, 103-6	33.3	351
258	Split-intein mediated circular ligation used in the synthesis of cyclic peptide libraries in E. coli. <i>Nature Protocols</i> , 2007 , 2, 1126-33	18.8	120
257	Discovery of antibacterial cyclic peptides that inhibit the ClpXP protease. <i>Protein Science</i> , 2007 , 16, 1535-42	4.2	52
256	Real-time observation of bacteriophage T4 gp41 helicase reveals an unwinding mechanism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 19790-5	11.5	119
255	The T4 phage UvsW protein contains both DNA unwinding and strand annealing activities. <i>Journal of Biological Chemistry</i> , 2007 , 282, 407-16	5.4	27
254	Site-directed mutations of T4 helicase loading protein (gp59) reveal multiple modes of DNA polymerase inhibition and the mechanism of unlocking by gp41 helicase. <i>Journal of Biological Chemistry</i> , 2006 , 281, 8697-706	5.4	14
253	Biochemistry. Enzyme motions inside and out. <i>Science</i> , 2006 , 312, 208-9	33.3	80
252	Coordinated effects of distal mutations on environmentally coupled tunneling in dihydrofolate reductase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 15753-8	11.5	160
251	The structure of a ring-opened proliferating cell nuclear antigen-replication factor C complex revealed by fluorescence energy transfer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 2546-51	11.5	54
250	Design and evolution of new catalytic activity with an existing protein scaffold. <i>Science</i> , 2006 , 311, 535-8	33.3	213
249	IPro: an iterative computational protein library redesign and optimization procedure. <i>Biophysical Journal</i> , 2006 , 90, 4167-80	2.9	45

248	Identifying small-molecule modulators of protein-protein interactions. <i>Current Protocols in Protein Science</i> , 2006 , Chapter 19, Unit 19.15	3.1	5
247	Single-molecule investigation of the T4 bacteriophage DNA polymerase holoenzyme: multiple pathways of holoenzyme formation. <i>Biochemistry</i> , 2006 , 45, 7990-7	3.2	35
246	An alternative clamp loading pathway via the T4 clamp loader gp44/62-DNA complex. <i>Biochemistry</i> , 2006 , 45, 7976-89	3.2	23
245	The control mechanism for lagging strand polymerase recycling during bacteriophage T4 DNA replication. <i>Molecular Cell</i> , 2006 , 21, 153-64	17.6	80
244	Identification of a novel boron-containing antibacterial agent (AN0128) with anti-inflammatory activity, for the potential treatment of cutaneous diseases. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2006 , 16, 5963-7	2.9	57
243	Interaction between the T4 helicase loading protein (gp59) and the DNA polymerase (gp43): unlocking of the gp59-gp43-DNA complex to initiate assembly of a fully functional replisome. <i>Biochemistry</i> , 2005 , 44, 7747-56	3.2	38
242	Interaction between the T4 helicase-loading protein (gp59) and the DNA polymerase (gp43): a locking mechanism to delay replication during replisome assembly. <i>Biochemistry</i> , 2005 , 44, 2305-18	3.2	35
241	Identification of borinic esters as inhibitors of bacterial cell growth and bacterial methyltransferases, CcrM and MenH. <i>Journal of Medicinal Chemistry</i> , 2005 , 48, 7468-76	8.3	86
240	Synthesis and biological evaluation of N-[4-[5-(2,4-diamino-6-oxo-1,6-dihydropyrimidin-5-yl)-2-(2,2,2-trifluoroacetyl)pentyl]benzoyl]-L-glutamic acid as a potential inhibitor of GAR Tfase and the de novo purine biosynthetic pathway. <i>Bioorganic and Medicinal Chemistry</i> , 2005 , 13, 3593-9	3.4	7
239	Synthesis and biological evaluation of alpha- and gamma-carboxamide derivatives of 10-CF ₃ CO-DDACTHF. <i>Bioorganic and Medicinal Chemistry</i> , 2005 , 13, 3587-92	3.4	6
238	Design, synthesis, and biological evaluation of 10-methanesulfonyl-DDACTHF, 10-methanesulfonyl-5-DACTHF, and 10-methylthio-DDACTHF as potent inhibitors of GAR Tfase and the de novo purine biosynthetic pathway. <i>Bioorganic and Medicinal Chemistry</i> , 2005 , 13, 3577-85	3.4	4
237	A nonradioactive DNA methyltransferase assay adaptable to high-throughput screening. <i>Analytical Biochemistry</i> , 2005 , 340, 336-40	3.1	9
236	Genetically selected cyclic-peptide inhibitors of AICAR transformylase homodimerization. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 2760-2763	16.4	78
235	Engineering an affinity tag for genetically encoded cyclic peptides. <i>Biotechnology and Bioengineering</i> , 2005 , 92, 820-30	4.9	16
234	Genetically Selected Cyclic-Peptide Inhibitors of AICAR Transformylase Homodimerization. <i>Angewandte Chemie</i> , 2005 , 117, 2820-2823	3.6	6
233	Impact of distal mutations on the network of coupled motions correlated to hydride transfer in dihydrofolate reductase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 6807-12	11.5	131
232	Cyclic peptides, a chemical genetics tool for biologists. <i>Cell Cycle</i> , 2005 , 4, 552-5	4.7	44
231	Architecture of the bacteriophage T4 primosome: electron microscopy studies of helicase (gp41) and primase (gp61). <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 3623-6	11.5	30

230	Assembly of the bacteriophage T4 primosome: single-molecule and ensemble studies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 3254-9	11.5	41
229	Evolution of highly active enzymes by homology-independent recombination. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 10082-7	11.5	48
228	The oligomeric T4 primase is the functional form during replication. <i>Journal of Biological Chemistry</i> , 2005 , 280, 25416-23	5.4	26
227	Using incremental truncation to create libraries of hybrid enzymes. <i>Methods in Enzymology</i> , 2004 , 388, 50-60	1.7	3
226	FamClash: a method for ranking the activity of engineered enzymes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 4142-7	11.5	61
225	Single-molecule and transient kinetics investigation of the interaction of dihydrofolate reductase with NADPH and dihydrofolate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 2764-9	11.5	63
224	The dynamic processivity of the T4 DNA polymerase during replication. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 8289-94	11.5	110
223	A systematic method for identifying small-molecule modulators of protein-protein interactions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 15591-6	11.5	99
222	Tunneling and coupled motion in the Escherichia coli dihydrofolate reductase catalysis. <i>Journal of the American Chemical Society</i> , 2004 , 126, 4778-9	16.4	182
221	On the solution structure of the T4 sliding clamp (gp45). <i>Biochemistry</i> , 2004 , 43, 12723-7	3.2	36
220	On the structural and functional modularity of glycinamide ribonucleotide formyltransferases. <i>Protein Science</i> , 2003 , 12, 2206-14	6.3	5
219	Protein-protein interactions in the bacteriophage T4 replisome. The leading strand holoenzyme is physically linked to the lagging strand holoenzyme and the primosome. <i>Journal of Biological Chemistry</i> , 2003 , 278, 3145-52	5.4	40
218	Investigation of an antibody-ligase. Evidence for strain-induced catalysis. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2003 , 13, 1321-4	2.9	1
217	Design, synthesis, and biological evaluation of simplified alpha-keto heterocycle, trifluoromethyl ketone, and formyl substituted folate analogues as potential inhibitors of GAR transformylase and AICAR transformylase. <i>Bioorganic and Medicinal Chemistry</i> , 2003 , 11, 4487-501	3.4	27
216	10-(2-benzoxazolcarbonyl)-5,10-dideaza-acyclic-5,6,7,8-tetrahydrofolic acid: a potential inhibitor of GAR transformylase and AICAR transformylase. <i>Bioorganic and Medicinal Chemistry</i> , 2003 , 11, 4503-9	3.4	5
215	Design, synthesis and biological evaluation of 10-CF3CO-DDACTHF analogues and derivatives as inhibitors of GAR Tfase and the de novo purine biosynthetic pathway. <i>Bioorganic and Medicinal Chemistry</i> , 2003 , 11, 4511-21	3.4	16
214	Role of a solvent-exposed tryptophan in the recognition and binding of antibiotic substrates for a metallo-beta-lactamase. <i>Protein Science</i> , 2003 , 12, 1368-75	6.3	53
213	Dihydrofolate reductase mutant with exceptional resistance to methotrexate but not to trimetrexate. <i>Journal of Medicinal Chemistry</i> , 2003 , 46, 2816-8	8.3	10

212	Examination of the role of the clamp-loader and ATP hydrolysis in the formation of the bacteriophage T4 polymerase holoenzyme. <i>Journal of Molecular Biology</i> , 2003 , 326, 435-51	6.5	36
211	A perspective on enzyme catalysis. <i>Science</i> , 2003 , 301, 1196-202	33.3	977
210	Enhanced crossover SCRATCHY: construction and high-throughput screening of a combinatorial library containing multiple non-homologous crossovers. <i>Nucleic Acids Research</i> , 2003 , 31, e126	20.1	47
209	The application of a minicircle substrate in the study of the coordinated T4 DNA replication. <i>Journal of Biological Chemistry</i> , 2003 , 278, 49828-38	5.4	25
208	Dissociative properties of the proteins within the bacteriophage T4 replisome. <i>Journal of Biological Chemistry</i> , 2003 , 278, 49839-49	5.4	22
207	Use of inteins for the in vivo production of stable cyclic peptide libraries in E. coli. <i>Methods in Molecular Biology</i> , 2003 , 205, 281-94	1.4	22
206	PurT-encoded glycinamide ribonucleotide transformylase. Accommodation of adenosine nucleotide analogs within the active site. <i>Journal of Biological Chemistry</i> , 2002 , 277, 23898-908	5.4	30
205	Synthesis and biological evaluation of 9-thia-5,10-dideazafolic acid. <i>Journal of Heterocyclic Chemistry</i> , 2002 , 39, 1097-1099	1.9	1
204	Preorganization and protein dynamics in enzyme catalysis. <i>Chemical Record</i> , 2002 , 2, 24-36	6.6	59
203	10-Formyl-5,10-dideaza-acyclic-5,6,7,8-tetrahydrofolic acid (10-formyl-DDACTHF): a potent cytotoxic agent acting by selective inhibition of human GAR Tfase and the de novo purine biosynthetic pathway. <i>Bioorganic and Medicinal Chemistry</i> , 2002 , 10, 2739-49	3.4	16
202	Interaction of dihydrofolate reductase with methotrexate: ensemble and single-molecule kinetics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002 , 99, 13481-6	11.5	212
201	Assembly of the bacteriophage T4 helicase: architecture and stoichiometry of the gp41-gp59 complex. <i>Journal of Biological Chemistry</i> , 2002 , 277, 20555-62	5.4	35
200	Coupling interactions of distal residues enhance dihydrofolate reductase catalysis: mutational effects on hydride transfer rates. <i>Biochemistry</i> , 2002 , 41, 12618-28	3.2	156
199	Combinatorial approaches to engineering hybrid enzymes. <i>Perkin Transactions II RSC</i> , 2002 , 1483-1493		9
198	Structural requirements for the biosynthesis of backbone cyclic peptide libraries. <i>Chemistry and Biology</i> , 2001 , 8, 801-15		77
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