Joelle N Pelletier

List of Publications by Year
in descending order

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81	3,219	172457	161849
papers	citations	29 h-index	54 g-index

92	92	92	4017
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	SERS-based assay for multiplexed detection of cross-reactivity and persistence of antibodies against the spike of the native, P.1 and B.1.617.2 SARS-CoV-2 in non-hospitalised adults. Sensors & Diagnostics, 2022, 1, 851-866.	3.8	3
2	Cross-validation of ELISA and a portable surface plasmon resonance instrument for IgG antibody serology with SARS-CoV-2 positive individuals. Analyst, The, 2021, 146, 4905-4917.	3.5	28
3	Development of sulfahydantoin derivatives as Î²-lactamase inhibitors. Bioorganic and Medicinal Chemistry Letters, 2021, 35, 127781.	2.2	1
4	The Bacterial Genomic Context of Highly Trimethoprim-Resistant DfrB Dihydrofolate Reductases Highlights an Emerging Threat to Public Health. Antibiotics, 2021, 10, 433.	3.7	12
5	Methods for enzyme library creation: Which one will you choose?. BioEssays, 2021, 43, e2100052.	2.5	18
6	An Overview of Cytochrome P450 Immobilization Strategies for Drug Metabolism Studies, Biosensing, and Biocatalytic Applications: Challenges and Opportunities. ACS Catalysis, 2021, 11, 9418-9434.	11.2	22
7	Cross-reactivity of antibodies from non-hospitalized COVID-19 positive individuals against the native, B.1.351, B.1.617.2, and P.1 SARS-CoV-2 spike proteins. Scientific Reports, 2021, 11, 21601.	3.3	20
8	Indigo Formation and Rapid NADPH Consumption Provide Robust Prediction of Raspberry Ketone Synthesis by Engineered Cytochrome P450 BM3. ChemCatChem, 2020, 12, 837-845.	3.7	14
9	Dual-Target Inhibitors of the Folate Pathway Inhibit Intrinsically Trimethoprim-Resistant DfrB Dihydrofolate Reductases. ACS Medicinal Chemistry Letters, 2020, 11, 2261-2267.	2.8	9
10	Known Evolutionary Paths Are Accessible to Engineered ÃŸ-Lactamases Having Altered Protein Motions at the Timescale of Catalytic Turnover. Frontiers in Molecular Biosciences, 2020, 7, 599298.	3.5	3
11	Glutamine-walking: Creating reactive substrates for transglutaminase-mediated protein labeling. Methods in Enzymology, 2020, 644, 121-148.	1.0	3
12	Structure-Based Design of Dimeric Bisbenzimidazole Inhibitors to an Emergent Trimethoprim-Resistant Type II Dihydrofolate Reductase Guides the Design of Monomeric Analogues. ACS Omega, 2019, 4, 10056-10069.	3.5	7
13	The Structural Dynamics of Engineered Î²-Lactamases Vary Broadly on Three Timescales yet Sustain Native Function. Scientific Reports, 2019, 9, 6656.	3.3	19
14	Holistic engineering of Cal-A lipase chain-length selectivity identifies triglyceride binding hot-spot. PLoS ONE, 2019, 14, e0210100.	2.5	14
15	Computational tools for enzyme improvement: why everyone can â€“ and should â€“ use them. Current Opinion in Chemical Biology, 2017, 37, 89-96.	6.1	79
16	Integron-Associated DfrB4, a Previously Uncharacterized Member of the Trimethoprim-Resistant Dihydrofolate Reductase B Family, Is a Clinically Identified Emergent Source of Antibiotic Resistance. Antimicrobial Agents and Chemotherapy, 2017, 61, .	3.2	24
17	General Câ€“H Arylation Strategy for the Synthesis of Tunable Visible Light-Emitting Benzo[a]imidazo[2,1,5-c,d]indolizine Fluorophores. Journal of Organic Chemistry, 2017, 82, 5046-5067.	3.2	32
18	Investigation of Classical Organic and Ionic Liquid Cosolvents for Early-Stage Screening in Fragment-Based Inhibitor Design with Unrelated Bacterial and Human Dihydrofolate Reductases. Assay and Drug Development Technologies, 2017, 15, 141-153.	1.2	3

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19	Development of Escherichia coli Asparaginase II for Immunosensing: A Trade-Off between Receptor Density and Sensing Efficiency. ACS Omega, 2017, 2, 2114-2125.	3.5	12
20	Substrate-Specific Screening for Mutational Hotspots Using Biased Molecular Dynamics Simulations. ACS Catalysis, 2017, 7, 6786-6797.	11.2	17
21	Engineered, highly reactive substrates of microbial transglutaminase enable protein labeling within various secondary structure elements. Protein Science, 2017, 26, 2268-2279.	7.6	20
22	Transglutaminase-Catalyzed Bioconjugation Using One-Pot Metal-Free Bioorthogonal Chemistry. Bioconjugate Chemistry, 2017, 28, 2518-2523.	3.6	18
23	Tracking Silent Hypersensitivity Reactions to Asparaginase during Leukemia Therapy Using Single-Chip Indirect Plasmonic and Fluorescence Immunosensing. ACS Sensors, 2017, 2, 1761-1766.	7.8	2
24	Enzyme engineering: A synthetic biology approach for more effective library generation and automated high-throughput screening. PLoS ONE, 2017, 12, e0171741.	2.5	17
25	15N, 13C and 1H backbone resonance assignments of an artificially engineered TEM-1/PSE-4 class A Î²-lactamase chimera and its deconvoluted mutant. Biomolecular NMR Assignments, 2016, 10, 93-99.	0.8	6
26	Evolution of P450 Monooxygenases toward Formation of Transient Channels and Exclusion of Nonproductive Gases. ACS Catalysis, 2016, 6, 7426-7437.	11.2	14
27	Response Monitoring of Acute Lymphoblastic Leukemia Patients Undergoing <scp>l</scp>-Asparaginase Therapy: Successes and Challenges Associated with Clinical Sample Analysis in Plasmonic Sensing. ACS Sensors, 2016, 1, 1358-1365.	7.8	26
28	Specificity of transglutaminase-catalyzed peptide synthesis. Journal of Molecular Catalysis B: Enzymatic, 2016, 123, 53-61.	1.8	2
29	Miniature multi-channel SPR instrument for methotrexate monitoring in clinical samples. Biosensors and Bioelectronics, 2015, 64, 664-670.	10.1	121
30	Asymmetric mutations in the tetrameric R67 dihydrofolate reductase reveal high tolerance to activeâ€site substitutions. Protein Science, 2015, 24, 495-507.	7.6	10
31	Microbial transglutaminase displays broad acyl-acceptor substrate specificity. Applied Microbiology and Biotechnology, 2014, 98, 219-230.	3.6	75
32	Maintenance of Native-like Protein Dynamics May Not Be Required for Engineering Functional Proteins. Chemistry and Biology, 2014, 21, 1330-1340.	6.0	29
33	Influence of the Debye length on the interaction of a small molecule-modified Au nanoparticle with a surface-bound bioreceptor. Chemical Communications, 2014, 50, 4947.	4.1	33
34	Imidazolium-Based Ionic Liquid Surfaces for Biosensing. Analytical Chemistry, 2013, 85, 5770-5777.	6.5	36
35	Non-specific Adsorption of Crude Cell Lysate on Surface Plasmon Resonance Sensors. Langmuir, 2013, 29, 10141-10148.	3.5	28
36	Biotechnological Applications of Transglutaminases. Biomolecules, 2013, 3, 870-888.	4.0	72

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37	Development of LSPR and SPR sensor for the detection of an anti-cancer drug for chemotherapy. Proceedings of SPIE, 2012, , .	0.8	2
38	Fragment-Based Design of Symmetrical Bis-benzimidazoles as Selective Inhibitors of the Trimethoprim-Resistant, Type II R67 Dihydrofolate Reductase. Journal of Medicinal Chemistry, 2012, 55, 3182-3192.	6.4	26
39	Site-specific protein propargylation using tissue transglutaminase. Organic and Biomolecular Chemistry, 2012, 10, 5258.	2.8	22
40	Monitoring methotrexate in clinical samples from cancer patients during chemotherapy with a LSPR-based competitive sensor. Analyst, The, 2012, 137, 4742.	3.5	37
41	Expanding the organic toolbox: a guide to integrating biocatalysis in synthesis. Chemical Society Reviews, 2012, 41, 1585.	38.1	284
42	Chimeric Î²-Lactamases: Global Conservation of Parental Function and Fast Time-Scale Dynamics with Increased Slow Motions. PLoS ONE, 2012, 7, e52283.	2.5	16
43	Modified peptide monolayer binding His-tagged biomolecules for small ligand screening with SPR biosensors. Analyst, The, 2011, 136, 3142.	3.5	44
44	Identification and Characterization of an Inborn Error of Metabolism Caused by Dihydrofolate Reductase Deficiency. American Journal of Human Genetics, 2011, 88, 216-225.	6.2	90
45	Novel crystallization conditions for tandem variant R67 DHFR yield a wild-type crystal structure. Acta Crystallographica Section F: Structural Biology Communications, 2011, 67, 1316-1322.	0.7	8
46	Selectively weakened binding of methotrexate by human dihydrofolate reductase allows rapid ex vivo selection of mammalian cells. Journal of Molecular Recognition, 2011, 24, 188-198.	2.1	6
47	Chemical profiling of the deacetylase activity of acetyl xylan esterase A (AxeA) variants on chitooligosaccharides using hydrophilic interaction chromatographyâ€“mass spectrometry. Journal of Biotechnology, 2011, 155, 257-265.	3.8	19
48	Backbone resonance assignments of an artificially engineered TEM-1/PSE-4 Class A Î²-lactamase chimera. Biomolecular NMR Assignments, 2010, 4, 127-130.	0.8	7
49	SPR Biosensing in Crude Serum Using Ultralow Fouling Binary Patterned Peptide SAM. Analytical Chemistry, 2010, 82, 3699-3706.	6.5	108
50	High tolerance to simultaneous activeâ€site mutations in TEMâ€1 Î²â€lactamase: Distinct mutational paths provide more generalized Î²â€lactam recognition. Protein Science, 2009, 18, 147-160.	7.6	21
51	Multiple Conformers in Active Site of Human Dihydrofolate Reductase F31R/Q35E Double Mutant Suggest Structural Basis for Methotrexate Resistance. Journal of Biological Chemistry, 2009, 284, 20079-20089.	3.4	33
52	Fluorometric assay for tissue transglutaminase-mediated transamidation activity. Bioorganic and Medicinal Chemistry, 2009, 17, 6354-6359.	3.0	13
53	Peptide Self-Assembled Monolayers for Label-Free and Unamplified Surface Plasmon Resonance Biosensing in Crude Cell Lysate. Analytical Chemistry, 2009, 81, 6779-6788.	6.5	61
54	Mutational â€˜hot-spotsâ€™ in mammalian, bacterial and protozoal dihydrofolate reductases associated with antifolate resistance: Sequence and structural comparison. Drug Resistance Updates, 2009, 12, 28-41.	14.4	33

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55	Photolabeling of Tissue Transglutaminase Reveals the Binding Mode of Potent Cinnamoyl Inhibitors. Biochemistry, 2009, 48, 3346-3353.	2.5	23
56	The bioorganic chemistry of transglutaminase â€" from mechanism to inhibition and engineering. Canadian Journal of Chemistry, 2008, 86, 271-276.	1.1	39
57	Cinnamoyl Inhibitors of Tissue Transglutaminase. Journal of Organic Chemistry, 2008, 73, 5766-5775.	3.2	85
58	2-Tier Bacterial and In Vitro Selection of Active and Methotrexate-Resistant Variants of Human Dihydrofolate Reductase. Journal of Biomolecular Screening, 2008, 13, 504-514.	2.6	13
59	NMR Investigation of Tyr105 Mutants in TEM-1 Î²-Lactamase. Journal of Biological Chemistry, 2007, 282, 21448-21459.	3.4	33
60	Increasing Methotrexate Resistance by Combination of Active-site Mutations in Human Dihydrofolate Reductase. Journal of Molecular Biology, 2007, 373, 599-611.	4.2	36
61	Simulated annealing exploration of an active-site tyrosine in TEM-1Î²-lactamase suggests the existence of alternate conformations. Proteins: Structure, Function and Bioinformatics, 2007, 69, 340-348.	2.6	23
62	Sequence-activity relationships guide directed evolution. Nature Biotechnology, 2007, 25, 297-298.	17.5	2
63	Extracellular production of Streptomyces lividans acetyl xylan esterase A in Escherichia coli for rapid detection of activity. Protein Expression and Purification, 2006, 46, 274-284.	1.3	8
64	Revealing Domain Structure through Linker-Scanning Analysis of the Murine Leukemia Virus (MuLV) RNase H and MuLV and Human Immunodeficiency Virus Type 1 Integrase Proteins. Journal of Virology, 2006, 80, 9497-9510.	3.4	23
65	A direct fluorometric assay for tissue transglutaminase. Analytical Biochemistry, 2005, 347, 221-226.	2.4	28
66	Semi-rational approaches to engineering enzyme activity: combining the benefits of directed evolution and rational design. Current Opinion in Biotechnology, 2005, 16, 378-384.	6.6	333
67	The C-terminal Residues in the Alpha-interacting Domain (AID) Helix Anchor CaVÎ² Subunit Interaction and Modulation of CaV2.3 Channels. Journal of Biological Chemistry, 2005, 280, 494-505.	3.4	25
68	Combinatorial exploration of the catalytic site of a drug-resistant dihydrofolate reductase: creating alternative functional configurations. Protein Engineering, Design and Selection, 2004, 17, 809-819.	2.1	52
69	Site-saturation Mutagenesis of Tyr-105 Reveals Its Importance in Substrate Stabilization and Discrimination in TEM-1 Î²-Lactamase. Journal of Biological Chemistry, 2004, 279, 46295-46303.	3.4	54
70	Tissue transglutaminase acylation: Proposed role of conserved active site Tyr and Trp residues revealed by molecular modeling of peptide substrate binding. Protein Science, 2004, 13, 979-991.	7.6	37
71	Protein Motions Promote Catalysis. Chemistry and Biology, 2004, 11, 1037-1042.	6.0	104
72	Expression and rapid purification of highly active hexahistidine-tagged guinea pig liver transglutaminase. Protein Expression and Purification, 2004, 33, 256-264.	1.3	23

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73	In Vitro Selection for Catalytic Activity with Ribosome Display. Journal of the American Chemical Society, 2002, 124, 9396-9403.	13.7	76
74	Comparison of In Vivo Selection and Rational Design of Heterodimeric Coiled Coils. Structure, 2002, 10, 1235-1248.	3.3	51
75	Mapping proteinâ€“protein interactions with combinatorial biology methods. Current Opinion in Biotechnology, 2001, 12, 340-347.	6.6	26
76	A RACHITT for our toolbox. Nature Biotechnology, 2001, 19, 314-315.	17.5	12
77	A heterodimeric coiled-coil peptide pair selected in vivo from a designed library- versus -library ensemble 1 1Edited by A. R. Fersht. Journal of Molecular Biology, 2000, 295, 627-639.	4.2	101
78	[14] Detection of protein-protein interactions by protein fragment complementation strategies. Methods in Enzymology, 2000, 328, 208-230.	1.0	117
79	An in vivo library-versus-library selection of optimized proteinâ€“protein interactions. Nature Biotechnology, 1999, 17, 683-690.	17.5	182
80	Crystallization of the bifunctional methylenetetrahydrofolate dehydrogenase/methenyltetrahydrofolate cyclohydrolase domain of the human trifunctional enzyme. , 1996, 26, 479-480.		6
81	Methenyltetrahydrofolate Cyclohydrolase Catalyzes the Synthesis of (6S)-5-Formyltetrahydrofolate. Bioorganic Chemistry, 1996, 24, 220-228.	4.1	1