Nicolas Doucet

List of Publications by Year
in descending order

66 papers	1,840 citations	279798 23 h-index	289244 40 g-index
69 all docs	69 docs citations	69 times ranked	2586 citing authors

#	Article	IF	Citations
1	Perturbing dimer interactions and allosteric communication modulates the immunosuppressive activity of human galectin-7. Journal of Biological Chemistry, 2021, 297, 101308.	3.4	5
2	Insights into Structural and Dynamical Changes Experienced by Human RNase 6 upon Ligand Binding. Biochemistry, 2020, 59, 755-765.	2.5	6
3	Prevalence and mechanisms of azole resistance in clinical isolates of Aspergillus section Fumigati species in a Canadian tertiary care centre, 2000 to 2013. Journal of Antimicrobial Chemotherapy, 2020, 75, 849-858.	3.0	15
4	Synthesis and biological assessment of a ruthenium(II) cyclopentadienyl complex in breast cancer cells and on the development of zebrafish embryos. European Journal of Medicinal Chemistry, 2020, 188, 112030.	5.5	31
5	Binding of a Soluble meso-Tetraarylporphyrin to Human Galectin-7 Induces Oligomerization and Modulates Its Pro-Apoptotic Activity. Biochemistry, 2020, 59, 4591-4600.	2.5	4
6	Genome sequencing and functional characterization of a Dictyopanus pusillus fungal enzymatic extract offers a promising alternative for lignocellulose pretreatment of oil palm residues. PLoS ONE, 2020, 15, e0227529.	2.5	4
7	Cationic Ru^{II} Cyclopentadienyl Complexes with Antifungal Activity against Several Candida Species. ChemBioChem, 2020, 21, 3112-3119.	2.6	14
8	Artificial iron hydrogenase made by covalent grafting of KnÃ¶lker's complex into xylanase: Application in asymmetric hydrogenation of an aryl ketone in water. Biotechnology and Applied Biochemistry, 2020, 67, 563-573.	3.1	7
9	Enzyme Dynamics: Looking Beyond a Single Structure. ChemCatChem, 2020, 12, 4704-4720.	3.7	31
10	Title is missing!. , 2020, 15, e0227529.		0
11	Title is missing!. , 2020, 15, e0227529.		0
12	Title is missing!. , 2020, 15, e0227529.		0
13	Title is missing!. , 2020, 15, e0227529.		0
14	Enzyme catalysis under pressure. Nature Catalysis, 2019, 2, 646-647.	34.4	1
15	Dissecting the evolvability landscape of the CalB active site toward aromatic substrates. Scientific Reports, 2019, 9, 15588.	3.3	5
16	Nucleotide substrate binding characterization in human pancreatic-type ribonucleases. PLoS ONE, 2019, 14, e0220037.	2.5	4
17	Serotonin and serotonin reuptake inhibitors alter placental aromatase. Journal of Steroid Biochemistry and Molecular Biology, 2019, 195, 105470.	2.5	11
18	Organoruthenium(II) Complexes Bearing an Aromatase Inhibitor: Synthesis, Characterization, in Vitro Biological Activity and in Vivo Toxicity in Zebrafish Embryos. Organometallics, 2019, 38, 702-711.	2.3	28

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19	Semiâ€rational evolution of the 3â€(3â€hydroxyalkanoyloxy)alkanoate (<scp>HAA</scp>) synthase RhlA to improve rhamnolipid production in Pseudomonas aeruginosa and Burkholderia glumae. FEBS Journal, 2019, 286, 4036-4059.	4.7	15
20	The Structural Dynamics of Engineered Î²-Lactamases Vary Broadly on Three Timescales yet Sustain Native Function. Scientific Reports, 2019, 9, 6656.	3.3	19
21	Conservation of Dynamics Associated with Biological Function in an Enzyme Superfamily. Structure, 2018, 26, 426-436.e3.	3.3	52
22	A New Approach to Inhibit Prototypic Galectins. Trends in Glycoscience and Glycotechnology, 2018, 30, SE155-SE165.	0.1	2
23	Antibacterial properties of the pituitary adenylate cyclase-activating polypeptide: A new human antimicrobial peptide. PLoS ONE, 2018, 13, e0207366.	2.5	7
24	Ligand-Induced Variations in Structural and Dynamical Properties Within an Enzyme Superfamily. Frontiers in Molecular Biosciences, 2018, 5, 54.	3.5	30
25	Applications of NMR and computational methodologies to study protein dynamics. Archives of Biochemistry and Biophysics, 2017, 628, 71-80.	3.0	30
26	Sequence-specific backbone resonance assignments and microsecond timescale molecular dynamics simulation of human eosinophil-derived neurotoxin. Biomolecular NMR Assignments, 2017, 11, 143-149.	0.8	6
27	Conserved amino acid networks modulate discrete functional properties in an enzyme superfamily. Scientific Reports, 2017, 7, 3207.	3.3	35
28	Role of Conformational Motions in Enzyme Function: Selected Methodologies and Case Studies. Catalysts, 2016, 6, 81.	3.5	26
29	Photoassisted Oxidation of Sulfides Catalyzed by Artificial Metalloenzymes Using Water as an Oxygen Source. Catalysts, 2016, 6, 202.	3.5	11
30	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
31	Ligand Binding Enhances Millisecond Conformational Exchange in Xylanase B2 from Streptomyces lividans. Biochemistry, 2016, 55, 4184-4196.	2.5	22
32	Combining chitinase C and N-acetylhexosaminidase from Streptomyces coelicolor A3(2) provides an efficient way to synthesize N-acetylglucosamine from crystalline chitin. Journal of Biotechnology, 2016, 220, 25-32.	3.8	59
33	Antimicrobial Effects of Nisin, Essential Oil, and Î³â€irradiation Treatments against High Load of Salmonella typhimurium on Miniâ€carrots. Journal of Food Science, 2015, 80, M1544-8.	3.1	15
34	Combinatorial activeâ€site variants confer sustained clavulanate resistance in <scp>B</scp>laC Î²â€lactamase from <scp>M</scp>ycobacterium tuberculosis. Protein Science, 2015, 24, 534-544.	7.6	13
35	Network of longâ€range concerted chemical shift displacements upon ligand binding to human angiogenin. Protein Science, 2015, 24, 525-533.	7.6	19
36	Antimicrobial Effects of Essential Oils, Nisin, and Irradiation Treatments against Listeria monocytogenes on Readyâ€toâ€Eat Carrots. Journal of Food Science, 2015, 80, M795-9.	3.1	14

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37	Sequence-specific backbone 1H, 13C, and 15N resonance assignments of human ribonuclease 4. Biomolecular NMR Assignments, 2015, 9, 181-185.	0.8	3
38	Photoreleasable ligands to study intracrine angiotensin II signalling. Journal of Physiology, 2015, 593, 521-539.	2.9	16
39	Perturbation of the Conformational Dynamics of an Active-Site Loop Alters Enzyme Activity. Structure, 2015, 23, 2256-2266.	3.3	54
40	Design of a peptidic inhibitor that targets the dimer interface of a prototypic galectin. Oncotarget, 2015, 6, 40970-40980.	1.8	21
41	Cytosolic galectin-7 impairs p53 functions and induces chemoresistance in breast cancer cells. BMC Cancer, 2014, 14, 801.	2.6	28
42	Short-Chain Flavor Ester Synthesis in Organic Media by an E. coli Whole-Cell Biocatalyst Expressing a Newly Characterized Heterologous Lipase. PLoS ONE, 2014, 9, e91872.	2.5	45
43	Maintenance of Native-like Protein Dynamics May Not Be Required for Engineering Functional Proteins. Chemistry and Biology, 2014, 21, 1330-1340.	6.0	29
44	Structure and Activity of the Streptomyces coelicolor A3(2) Î²-N-Acetylhexosaminidase Provides Further Insight into GH20 Family Catalysis and Inhibition. Biochemistry, 2014, 53, 1789-1800.	2.5	23
45	Design of a Truncated Cardiotoxin-I Analogue with Potent Insulinotropic Activity. Journal of Medicinal Chemistry, 2014, 57, 2623-2633.	6.4	11
46	Structural and functional importance of local and global conformational fluctuations in the <scp>RN</scp>aseÂ<scp>A</scp> superfamily. FEBS Journal, 2013, 280, 5596-5607.	4.7	43
47	The End of an Old Hypothesis: The Pseudomonas Signaling Molecules 4-Hydroxy-2-Alkylquinolines Derive from Fatty Acids, Not 3-Ketofatty Acids. Chemistry and Biology, 2013, 20, 1481-1491.	6.0	122
48	Effect of combination of essential oils and bacteriocins on the efficacy of gamma radiation againstSalmonellaTyphimurium and Listeria monocytogenes. International Journal of Radiation Biology, 2013, 89, 794-800.	1.8	15
49	Avian lipocalin expression in chickens following Escherichia coli infection and inhibition of avian pathogenic Escherichia coli growth by Ex-FABP. Veterinary Immunology and Immunopathology, 2013, 152, 156-167.	1.2	18
50	Development and Pharmacological Characterization of Conformationally Constrained Urotensin II-Related Peptide Agonists. Journal of Medicinal Chemistry, 2013, 56, 9612-9622.	6.4	15
51	Systematic Mutational Analysis of the Putative Hydrolase PqsE: Toward a Deeper Molecular Understanding of Virulence Acquisition in Pseudomonas aeruginosa. PLoS ONE, 2013, 8, e73727.	2.5	13
52	Conservation of Flexible Residue Clusters among Structural and Functional Enzyme Homologues. Journal of Biological Chemistry, 2012, 287, 44289-44300.	3.4	46
53	Design and characterization of novel cell-penetrating peptides from pituitary adenylate cyclase-activating polypeptide. Journal of Controlled Release, 2012, 163, 256-265.	9.9	20
54	Cardiotoxinâ€I: An Unexpectedly Potent Insulinotropic Agent. ChemBioChem, 2012, 13, 1805-1812.	2.6	21

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55	Incorporation of Manganese Complexes into Xylanase: New Artificial Metalloenzymes for Enantioselective Epoxidation. ChemBioChem, 2012, 13, 240-251.	2.6	72
56	Isolation and Characterization of EstC, a New Cold-Active Esterase from Streptomyces coelicolor A3(2). PLoS ONE, 2012, 7, e32041.	2.5	42
57	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
58	Alteration of Hydrogen Bonding in the Vicinity of Histidine 48 Disrupts Millisecond Motions in RNase A. Biochemistry, 2011, 50, 1723-1730.	2.5	31
59	Can Enzyme Engineering Benefit from the Modulation of Protein Motions? Lessons Learned from NMR Relaxation Dispersion Experiments. Protein and Peptide Letters, 2011, 18, 336-343.	0.9	15
60	The crystal structure of ribonuclease A in complex with thymidineâ€3â€²â€monophosphate provides further insight into ligand binding. Proteins: Structure, Function and Bioinformatics, 2010, 78, 2459-2468.	2.6	16
61	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
62	The Flexibility of a Distant Loop Modulates Active Site Motion and Product Release in Ribonuclease A. Biochemistry, 2009, 48, 7160-7168.	2.5	91
63	NMR Investigation of Tyr105 Mutants in TEM-1 Î²-Lactamase. Journal of Biological Chemistry, 2007, 282, 21448-21459.	3.4	33
64	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
65	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
66	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