

Enrico Di Cera

List of Publications by Year in descending order

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107
papers

4,914
citations

81743

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98622

67
g-index

112
all docs

112
docs citations

112
times ranked

4149
citing authors

#	ARTICLE	IF	CITATIONS
1	Serine proteases. IUBMB Life, 2009, 61, 510-515.	1.5	306
2	Evolution of enzyme cascades from embryonic development to blood coagulation. Trends in Biochemical Sciences, 2002, 27, 67-74.	3.7	301
3	Thrombin. Molecular Aspects of Medicine, 2008, 29, 203-254.	2.7	282
4	Conformational Selection or Induced Fit? A Critical Appraisal of the Kinetic Mechanism. Biochemistry, 2012, 51, 5894-5902.	1.2	269
5	Thrombin is a sodium ion activated enzyme. Biochemistry, 1992, 31, 11721-11730.	1.2	247
6	Molecular Dissection of Na ⁺ Binding to Thrombin. Journal of Biological Chemistry, 2004, 279, 31842-31853.	1.6	161
7	Thrombin Interactions. Chest, 2003, 124, 11S-17S.	0.4	115
8	A Structural Perspective on Enzymes Activated by Monovalent Cations. Journal of Biological Chemistry, 2006, 281, 1305-1308.	1.6	115
9	Data publication with the structural biology data grid supports live analysis. Nature Communications, 2016, 7, 10882.	5.8	113
10	Conformational Selection Is a Dominant Mechanism of Ligand Binding. Biochemistry, 2013, 52, 5723-5729.	1.2	110
11	Rational engineering of activity and specificity in a serine protease. Nature Biotechnology, 1997, 15, 146-149.	9.4	101
12	Molecular mapping of thrombin-receptor interactions. Proteins: Structure, Function and Bioinformatics, 2001, 45, 107-116.	1.5	99
13	Essential role of conformational selection in ligand binding. Biophysical Chemistry, 2014, 186, 13-21.	1.5	92
14	Release of Fibrinopeptides by the Slow and Fast Forms of Thrombin. Biochemistry, 1996, 35, 4417-4426.	1.2	84
15	Site-Specific Thermodynamics: Understanding Cooperativity in Molecular Recognition. Chemical Reviews, 1998, 98, 1563-1592.	23.0	82
16	Allostery in trypsin-like proteases suggests new therapeutic strategies. Trends in Biotechnology, 2011, 29, 577-585.	4.9	80
17	Molecular Mechanisms of Enzyme Activation by Monovalent Cations. Journal of Biological Chemistry, 2016, 291, 20840-20848.	1.6	80
18	Conformational selection in trypsin-like proteases. Current Opinion in Structural Biology, 2012, 22, 421-431.	2.6	79

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19	Rational Design of a Potent Anticoagulant Thrombin. <i>Journal of Biological Chemistry</i> , 2000, 275, 39827-39830.	1.6	78
20	The Thrombin Mutant W215A/E217A Shows Safe and Potent Anticoagulant and Antithrombotic Effects in Vivo. <i>Journal of Biological Chemistry</i> , 2002, 277, 27581-27584.	1.6	71
21	Energetics of Thrombin~Thrombomodulin Interaction. <i>Biochemistry</i> , 1997, 36, 6674-6681.	1.2	66
22	Histoplasma acquisition of calcium and expression of CBP1 during intracellular parasitism. <i>Molecular Microbiology</i> , 1998, 27, 531-539.	1.2	65
23	Defining epitopes: It's not as easy as it seems. <i>Nature Biotechnology</i> , 1999, 17, 936-937.	9.4	64
24	Rapid Kinetics of Na ⁺ Binding to Thrombin. <i>Journal of Biological Chemistry</i> , 2006, 281, 40049-40056.	1.6	62
25	Site-specific dissection of substrate recognition by thrombin. <i>Nature Biotechnology</i> , 1997, 15, 891-895.	9.4	60
26	Crystal Structure of Thrombin Bound to the Uncleaved Extracellular Fragment of PAR1. <i>Journal of Biological Chemistry</i> , 2010, 285, 15393-15398.	1.6	56
27	Mutation of W215 Compromises Thrombin Cleavage of Fibrinogen, but Not of PAR-1 or Protein C. <i>Biochemistry</i> , 2000, 39, 8095-8101.	1.2	51
28	The Anticoagulant Thrombin Mutant W215A/E217A Has a Collapsed Primary Specificity Pocket. <i>Journal of Biological Chemistry</i> , 2004, 279, 39824-39828.	1.6	51
29	Kinetic Pathway for the Slow to Fast Transition of Thrombin. <i>Journal of Biological Chemistry</i> , 1997, 272, 30275-30282.	1.6	49
30	Relative antithrombotic and antihemostatic effects of protein C activator versus low-molecular-weight heparin in primates. <i>Blood</i> , 2007, 109, 3733-3740.	0.6	49
31	Stochastic linkage: Effect of random fluctuations on a two-state process. <i>Journal of Chemical Physics</i> , 1991, 95, 5082-5086.	1.2	47
32	A simple method for the determination of individual rate constants for substrate hydrolysis by serine proteases. <i>Protein Science</i> , 2000, 9, 1589-1593.	3.1	47
33	Thrombomodulin Changes the Molecular Surface of Interaction and the Rate of Complex Formation between Thrombin and Protein C. <i>Journal of Biological Chemistry</i> , 2005, 280, 7956-7961.	1.6	46
34	Thrombin allostery. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 1291.	1.3	46
35	Crystal Structure of Thrombin in a Self-inhibited Conformation. <i>Journal of Biological Chemistry</i> , 2006, 281, 32922-32928.	1.6	45
36	Site-Specific Analysis of Mutational Effects in Proteins. <i>Advances in Protein Chemistry</i> , 1998, 51, 59-119.	4.4	44

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37	Crystallographic and Kinetic Evidence of Allostery in a Trypsin-like Protease. <i>Biochemistry</i> , 2011, 50, 6301-6307.	1.2	44
38	Conserved water molecules in the specificity pocket of serine proteases and the molecular mechanism of Na ⁺ binding. , 1998, 30, 34-42.		42
39	Crystal Structure of Prothrombin Reveals Conformational Flexibility and Mechanism of Activation. <i>Journal of Biological Chemistry</i> , 2013, 288, 22734-22744.	1.6	42
40	Thrombin Mutant W215A/E217A Acts as a Platelet GPIb Antagonist. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2008, 28, 329-334.	1.1	41
41	Crystal Structures of Prethrombin-2 Reveal Alternative Conformations under Identical Solution Conditions and the Mechanism of Zymogen Activation. <i>Biochemistry</i> , 2011, 50, 10195-10202.	1.2	40
42	Induced Fit Is a Special Case of Conformational Selection. <i>Biochemistry</i> , 2017, 56, 2853-2859.	1.2	39
43	Engineering Thrombin for Selective Specificity toward Protein C and PAR1. <i>Journal of Biological Chemistry</i> , 2010, 285, 19145-19152.	1.6	38
44	Crystal structure of prethrombin-1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 19278-19283.	3.3	37
45	The linker connecting the two kringles plays a key role in prothrombin activation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 7630-7635.	3.3	37
46	Synthesis and Characterization of More Potent Analogues of Hirudin Fragment 1â ⁴⁷ Containing Non-Natural Amino Acids,. <i>Biochemistry</i> , 1998, 37, 13507-13515.	1.2	35
47	Mechanisms of ligand binding. <i>Biophysics Reviews</i> , 2020, 1, 011303.	1.0	33
48	The Conformation of the Activation Peptide of Protein C Is Influenced by Ca ²⁺ and Na ⁺ Binding. <i>Journal of Biological Chemistry</i> , 2004, 279, 38519-38524.	1.6	32
49	Mutant N143P Reveals How Na ⁺ Activates Thrombin. <i>Journal of Biological Chemistry</i> , 2009, 284, 36175-36185.	1.6	31
50	Kinetic Dissection of the Pre-existing Conformational Equilibrium in the Trypsin Fold. <i>Journal of Biological Chemistry</i> , 2015, 290, 22435-22445.	1.6	31
51	Dissecting substrate recognition by thrombin using the inactive mutant S195A. <i>Biophysical Chemistry</i> , 2002, 100, 315-323.	1.5	29
52	Thrombin: a paradigm for enzymes allosterically activated by monovalent cations. <i>Comptes Rendus - Biologies</i> , 2004, 327, 1065-1076.	0.1	29
53	Important Role of the Cys-191â€“Cys-220 Disulfide Bond in Thrombin Function and Allostery. <i>Journal of Biological Chemistry</i> , 2007, 282, 27165-27170.	1.6	29
54	Cryo-EM structures of human coagulation factors V and Va. <i>Blood</i> , 2021, 137, 3137-3144.	0.6	29

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55	How the Linker Connecting the Two Kringles Influences Activation and Conformational Plasticity of Prothrombin. <i>Journal of Biological Chemistry</i> , 2016, 291, 6071-6082.	1.6	28
56	Structure of prothrombin in the closed form reveals new details on the mechanism of activation. <i>Scientific Reports</i> , 2018, 8, 2945.	1.6	28
57	Determinants of Thrombin Specificity. <i>Annals of the New York Academy of Sciences</i> , 2001, 936, 133-146.	1.8	26
58	Mechanism of Na ⁺ binding to thrombin resolved by ultra-rapid kinetics. <i>Biophysical Chemistry</i> , 2007, 131, 111-114.	1.5	26
59	Structural Architecture of Prothrombin in Solution Revealed by Single Molecule Spectroscopy. <i>Journal of Biological Chemistry</i> , 2016, 291, 18107-18116.	1.6	26
60	Structural basis of thrombinâ€“proteaseâ€“activated receptor interactions. <i>IUBMB Life</i> , 2011, 63, 375-382.	1.5	25
61	Mechanism of the Anticoagulant Activity of Thrombin Mutant W215A/E217A. <i>Journal of Biological Chemistry</i> , 2009, 284, 24098-24105.	1.6	23
62	Exposure of R169 controls protein C activation and autoactivation. <i>Blood</i> , 2012, 120, 664-670.	0.6	23
63	Interplay between conformational selection and zymogen activation. <i>Scientific Reports</i> , 2018, 8, 4080.	1.6	22
64	Rigidification of the autolysis loop enhances Na ⁺ binding to thrombin. <i>Biophysical Chemistry</i> , 2011, 159, 6-13.	1.5	21
65	Role of P225 and the C136â€“C201 disulfide bond in tissue plasminogen activator. <i>Protein Science</i> , 1998, 7, 1728-1737.	3.1	20
66	Evidence of the E [*] âˆ“E Equilibrium from Rapid Kinetics of Na ⁺ Binding to Activated Protein C and Factor Xa*. <i>Journal of Physical Chemistry B</i> , 2010, 114, 16125-16130.	1.2	20
67	Potassium and the K ⁺ /H ⁺ Exchanger Kha1p Promote Binding of Copper to ApoFet3p Multi-copper Ferroxidase. <i>Journal of Biological Chemistry</i> , 2016, 291, 9796-9806.	1.6	20
68	Cryo-EM structure of the prothrombin-prothrombinase complex. <i>Blood</i> , 2022, 139, 3463-3473.	0.6	19
69	Thrombin as an Anticoagulant. <i>Progress in Molecular Biology and Translational Science</i> , 2011, 99, 145-184.	0.9	17
70	Loop Electrostatics Asymmetry Modulates the Preexisting Conformational Equilibrium in Thrombin. <i>Biochemistry</i> , 2016, 55, 3984-3994.	1.2	17
71	Intrinsic thermodynamics of high affinity inhibitor binding to recombinant human carbonic anhydrase IV. <i>European Biophysics Journal</i> , 2018, 47, 271-290.	1.2	14
72	Reversible covalent direct thrombin inhibitors. <i>PLoS ONE</i> , 2018, 13, e0201377.	1.1	13

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73	Why Ser and Not Thr Brokers Catalysis in the Trypsin Fold. <i>Biochemistry</i> , 2015, 54, 1457-1464.	1.2	12
74	Prothrombin structure: unanticipated features and opportunities. <i>Expert Review of Proteomics</i> , 2014, 11, 653-655.	1.3	11
75	Enhancing the anticoagulant profile of meizothrombin. <i>Biomolecular Concepts</i> , 2018, 9, 169-175.	1.0	10
76	Role of the activation peptide in the mechanism of protein C activation. <i>Scientific Reports</i> , 2020, 10, 11079.	1.6	10
77	Mean-field treatment of local binding processes. <i>Journal of Chemical Physics</i> , 1992, 96, 6515-6522.	1.2	9
78	Combinatorial Enzyme Design Probes Allostery and Cooperativity in the Trypsin Fold. <i>Journal of Molecular Biology</i> , 2010, 399, 306-319.	2.0	9
79	Thrombin Cleavage of Plasmodium falciparum Erythrocyte Membrane Protein 1 Inhibits Cytoadherence. <i>MBio</i> , 2016, 7, .	1.8	9
80	Role of the I16-D194 ionic interaction in the trypsin fold. <i>Scientific Reports</i> , 2019, 9, 18035.	1.6	9
81	Zymogen and activated protein C have similar structural architecture. <i>Journal of Biological Chemistry</i> , 2020, 295, 15236-15244.	1.6	8
82	VE-1902 is a direct thrombin inhibitor with reversible covalent mechanism of action shows efficacy with reduced bleeding in rodent models of thrombosis. <i>Thrombosis Research</i> , 2020, 190, 112-121.	0.8	8
83	Role of sequence and position of the cleavage sites in prothrombin activation. <i>Journal of Biological Chemistry</i> , 2021, 297, 100955.	1.6	8
84	Replacement of thrombin residue G184 with Lys or Arg fails to mimic Na ⁺ binding. <i>Proteins: Structure, Function and Bioinformatics</i> , 2001, 43, 315-318.	1.5	7
85	Residues W215, E217 and E192 control the allosteric E*-E equilibrium of thrombin. <i>Scientific Reports</i> , 2019, 9, 12304.	1.6	7
86	Probing prothrombin structure by limited proteolysis. <i>Scientific Reports</i> , 2019, 9, 6125.	1.6	7
87	19F NMR reveals the conformational properties of free thrombin and its zymogen precursor prethrombin-2. <i>Journal of Biological Chemistry</i> , 2020, 295, 8227-8235.	1.6	7
88	Role of residue Y99 in tissue plasminogen activator. <i>Protein Science</i> , 2000, 9, 619-622.	3.1	6
89	Kinetics of Allosteric Activation. <i>Methods in Enzymology</i> , 2009, 466, 259-271.	0.4	6
90	Rational Design of Protein C Activators. <i>Scientific Reports</i> , 2017, 7, 44596.	1.6	6

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91	Site-Specific thermodynamics of ising networks: A theorem for linearly connected subsystems. Biopolymers, 1994, 34, 673-678.	1.2	5
92	The active site region plays a critical role in Na ⁺ binding to thrombin. Journal of Biological Chemistry, 2022, 298, 101458.	1.6	4
93	Special issue on conformational selection. Biophysical Chemistry, 2014, 186, 1-2.	1.5	3
94	Looking at Fokker-Planck dynamics with a noisy instrument. Journal of Statistical Physics, 1993, 71, 1179-1190.	0.5	2
95	Thermodynamic basis of site-specific cooperativity. Biopolymers, 1994, 34, 1001-1005.	1.2	2
96	Safe Interruption of Ongoing Thrombosis by the Protein C Activator Thrombin Analog, W215A/E217A; a Comparison to Enoxaparin in Primates.. Blood, 2006, 108, 909-909.	0.6	2
97	Mutation of W215 Compromises Thrombin Cleavage of Fibrinogen, but Not of PAR1 or Protein C. Annals of the New York Academy of Sciences, 2006, 936, 456-458.	1.8	1
98	Thrombin: A paradigm for enzymes allosterically activated by monovalent cations. Rendiconti Lincei, 2006, 17, 97-113.	1.0	1
99	Efficient Barrier Protective Signaling by Activated Protein C Is Mechanistically Linked to Protein C Activation on Endothelial Cells.. Blood, 2005, 106, 28-28.	0.6	1
100	How I became a biochemist. IUBMB Life, 2008, 60, 859-861.	1.5	0
101	Serine proteases. IUBMB Life, 2009, 61, spcone-spcone.	1.5	0
102	Introduction to mini-theme issue on "serine protease-activated receptor signaling". IUBMB Life, 2011, 63, 373-374.	1.5	0
103	John A. Schellman, 1924-2014. Biophysical Chemistry, 2015, 199, 51.	1.5	0
104	Sustained Pharmacological Activation of Protein C (PC) in Baboons.. Blood, 2004, 104, 3499-3499.	0.6	0
105	Thrombomodulin-Dependent Protein C Activator Treatment Improves the Short-Term Outcome of Experimental Ischemic Stroke in Mice.. Blood, 2006, 108, 895-895.	0.6	0
106	Rapid Interruption Of Occlusive Thrombus Formation By The Protein C Activator Enzyme EWE Thrombin (ProCase) In Primates. Blood, 2013, 122, 202-202.	0.6	0
107	In vitro veritas: 90 years of biochemistry at Saint Louis University. Missouri Medicine, 2013, 110, 297-301.	0.3	0