

John Kuriyan

List of Publications by Year in descending order

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137
papers

30,684
citations

8181

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165
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165
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165
times ranked

22028
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural Mechanism for STI-571 Inhibition of Abelson Tyrosine Kinase. <i>Science</i> , 2000, 289, 1938-1942.	12.6	1,712
2	Multiple BCR-ABL kinase domain mutations confer polyclonal resistance to the tyrosine kinase inhibitor imatinib (STI571) in chronic phase and blast crisis chronic myeloid leukemia. <i>Cancer Cell</i> , 2002, 2, 117-125.	16.8	1,548
3	The Conformational Plasticity of Protein Kinases. <i>Cell</i> , 2002, 109, 275-282.	28.9	1,531
4	An Allosteric Mechanism for Activation of the Kinase Domain of Epidermal Growth Factor Receptor. <i>Cell</i> , 2006, 125, 1137-1149.	28.9	1,358
5	Crystal structure of the Src family tyrosine kinase Hck. <i>Nature</i> , 1997, 385, 602-609.	27.8	1,155
6	Crystal structure of the eukaryotic DNA polymerase processivity factor PCNA. <i>Cell</i> , 1994, 79, 1233-1243.	28.9	881
7	Three-dimensional structure of the catalytic subunit of protein serine/threonine phosphatase-1. <i>Nature</i> , 1995, 376, 745-753.	27.8	851
8	Three-dimensional structure of the β subunit of E. coli DNA polymerase III holoenzyme: A sliding DNA clamp. <i>Cell</i> , 1992, 69, 425-437.	28.9	766
9	Structural Basis for the Autoinhibition of c-Abl Tyrosine Kinase. <i>Cell</i> , 2003, 112, 859-871.	28.9	762
10	Structure of the C-Terminal Region of p21WAF1/CIP1 Complexed with Human PCNA. <i>Cell</i> , 1996, 87, 297-306.	28.9	753
11	Crystal structure of the phosphotyrosine recognition domain SH2 of v-src complexed with tyrosine-phosphorylated peptides. <i>Nature</i> , 1992, 358, 646-653.	27.8	719
12	The structural basis of the activation of Ras by Sos. <i>Nature</i> , 1998, 394, 337-343.	27.8	692
13	Crystal structures of the kinase domain of c-Abl in complex with the small molecule inhibitors PD173955 and imatinib (STI-571). <i>Cancer Research</i> , 2002, 62, 4236-43.	0.9	684
14	Activation of the Sire-family tyrosine kinase Hck by SH3 domain displacement. <i>Nature</i> , 1997, 385, 650-653.	27.8	595
15	MODULAR PEPTIDE RECOGNITION DOMAINS IN EUKARYOTIC SIGNALING. <i>Annual Review of Biophysics and Biomolecular Structure</i> , 1997, 26, 259-288.	18.3	524
16	Mechanism for Activation of the EGF Receptor Catalytic Domain by the Juxtamembrane Segment. <i>Cell</i> , 2009, 137, 1293-1307.	28.9	506
17	Conformational Coupling across the Plasma Membrane in Activation of the EGF Receptor. <i>Cell</i> , 2013, 152, 543-556.	28.9	423
18	Structural analysis of a eukaryotic sliding DNA clamp—clamp loader complex. <i>Nature</i> , 2004, 429, 724-730.	27.8	422

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19	Architecture and Membrane Interactions of the EGF Receptor. <i>Cell</i> , 2013, 152, 557-569.	28.9	417
20	Crystal Structure of Hck in Complex with a Src Family-Selective Tyrosine Kinase Inhibitor. <i>Molecular Cell</i> , 1999, 3, 639-648.	9.7	406
21	A Myristoyl/Phosphotyrosine Switch Regulates c-Abl. <i>Cell</i> , 2003, 112, 845-857.	28.9	404
22	Structural Evidence for Feedback Activation by Ras-GTP of the Ras-Specific Nucleotide Exchange Factor SOS. <i>Cell</i> , 2003, 112, 685-695.	28.9	390
23	Dynamic Coupling between the SH2 and SH3 Domains of c-Src and Hck Underlies Their Inactivation by C-Terminal Tyrosine Phosphorylation. <i>Cell</i> , 2001, 105, 115-126.	28.9	366
24	Activation of tyrosine kinases by mutation of the gatekeeper threonine. <i>Nature Structural and Molecular Biology</i> , 2008, 15, 1109-1118.	8.2	366
25	The origin of protein interactions and allostery in colocalization. <i>Nature</i> , 2007, 450, 983-990.	27.8	351
26	Structural Basis for the Autoinhibition of Calcium/Calmodulin-Dependent Protein Kinase I. <i>Cell</i> , 1996, 84, 875-887.	28.9	327
27	Crystal Structure of the Processivity Clamp Loader Gamma (γ) Complex of E. coli DNA Polymerase III. <i>Cell</i> , 2001, 106, 429-441.	28.9	322
28	Inhibition of the EGF receptor by binding of MIG6 to an activating kinase domain interface. <i>Nature</i> , 2007, 450, 741-744.	27.8	311
29	Oncogenic Mutations Counteract Intrinsic Disorder in the EGFR Kinase and Promote Receptor Dimerization. <i>Cell</i> , 2012, 149, 860-870.	28.9	304
30	Structure of the Autoinhibited Kinase Domain of CaMKII and SAXS Analysis of the Holoenzyme. <i>Cell</i> , 2005, 123, 849-860.	28.9	293
31	Structure of the Kinase Domain of an Imatinib-Resistant Abl Mutant in Complex with the Aurora Kinase Inhibitor VX-680. <i>Cancer Research</i> , 2006, 66, 1007-1014.	0.9	282
32	Structural analysis of the catalytically inactive kinase domain of the human EGF receptor 3. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 21608-21613.	7.1	278
33	A Src-Like Inactive Conformation in the Abl Tyrosine Kinase Domain. <i>PLoS Biology</i> , 2006, 4, e144.	5.6	277
34	Crystal Structure of the β Subunit of the Clamp-Loader Complex of E. coli DNA Polymerase III. <i>Cell</i> , 1997, 91, 335-345.	28.9	268
35	A molecular assembly phase transition and kinetic proofreading modulate Ras activation by SOS. <i>Science</i> , 2019, 363, 1098-1103.	12.6	268
36	A Structural Perspective on the Regulation of the Epidermal Growth Factor Receptor. <i>Annual Review of Biochemistry</i> , 2015, 84, 739-764.	11.1	266

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37	Catalytic Control in the EGF Receptor and Its Connection to General Kinase Regulatory Mechanisms. <i>Molecular Cell</i> , 2011, 42, 9-22.	9.7	265
38	Structural Analysis of Autoinhibition in the Ras Activator Son of Sevenless. <i>Cell</i> , 2004, 119, 393-405.	28.9	251
39	Molecular mechanisms in signal transduction at the membrane. <i>Nature Structural and Molecular Biology</i> , 2010, 17, 659-665.	8.2	248
40	Structure of the Amino-Terminal Protein Interaction Domain of STAT-4. <i>Science</i> , 1998, 279, 1048-1052.	12.6	246
41	A conserved protonation-dependent switch controls drug binding in the Abl kinase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 139-144.	7.1	240
42	Mechanism of Processivity Clamp Opening by the Delta Subunit Wrench of the Clamp Loader Complex of <i>E. coli</i> DNA Polymerase III. <i>Cell</i> , 2001, 106, 417-428.	28.9	236
43	A Mechanism for Tunable Autoinhibition in the Structure of a Human Ca ²⁺ /Calmodulin-Dependent Kinase II Holoenzyme. <i>Cell</i> , 2011, 146, 732-745.	28.9	230
44	Membrane-dependent signal integration by the Ras activator Son of sevenless. <i>Nature Structural and Molecular Biology</i> , 2008, 15, 452-461.	8.2	222
45	Structural Basis for the Inhibition of Tyrosine Kinase Activity of ZAP-70. <i>Cell</i> , 2007, 129, 735-746.	28.9	217
46	Structure of a Sliding Clamp on DNA. <i>Cell</i> , 2008, 132, 43-54.	28.9	209
47	High yield bacterial expression of active c-Abl and c-Src tyrosine kinases. <i>Protein Science</i> , 2005, 14, 3135-3139.	7.6	206
48	c-Src Binds to the Cancer Drug Imatinib with an Inactive Abl/c-Kit Conformation and a Distributed Thermodynamic Penalty. <i>Structure</i> , 2007, 15, 299-311.	3.3	203
49	The structure, regulation, and function of ZAP-70. <i>Immunological Reviews</i> , 2009, 228, 41-57.	6.0	203
50	Organization of the SH3-SH2 Unit in Active and Inactive Forms of the c-Abl Tyrosine Kinase. <i>Molecular Cell</i> , 2006, 21, 787-798.	9.7	192
51	Crystal structure of the DNA polymerase processivity factor of T4 bacteriophage 1 Edited by I. A. Wilson. <i>Journal of Molecular Biology</i> , 2000, 296, 1215-1223.	4.2	176
52	Crystal Structure of a Tetradecameric Assembly of the Association Domain of Ca ²⁺ /Calmodulin-Dependent Kinase II. <i>Molecular Cell</i> , 2003, 11, 1241-1251.	9.7	164
53	Crystal Structure of the Catalytic Subunit of <i>E. coli</i> Replicative DNA Polymerase III. <i>Cell</i> , 2006, 126, 881-892.	28.9	155
54	How a DNA Polymerase Clamp Loader Opens a Sliding Clamp. <i>Science</i> , 2011, 334, 1675-1680.	12.6	155

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55	The Mechanism of ATP-Dependent Primer-Template Recognition by a Clamp Loader Complex. <i>Cell</i> , 2009, 137, 659-671.	28.9	151
56	Molecular basis for multimerization in the activation of the epidermal growth factor receptor. <i>ELife</i> , 2016, 5, .	6.0	144
57	Equally Potent Inhibition of c-Src and Abl by Compounds that Recognize Inactive Kinase Conformations. <i>Cancer Research</i> , 2009, 69, 2384-2392.	0.9	134
58	Clamp loaders and sliding clamps. <i>Current Opinion in Structural Biology</i> , 2002, 12, 217-224.	5.7	132
59	Cryo-EM structure of a dimeric B-Raf:14-3-3 complex reveals asymmetry in the active sites of B-Raf kinases. <i>Science</i> , 2019, 366, 109-115.	12.6	127
60	Ras activation by SOS: Allosteric regulation by altered fluctuation dynamics. <i>Science</i> , 2014, 345, 50-54.	12.6	126
61	Structural Basis for the Recognition of c-Src by Its Inactivator Csk. <i>Cell</i> , 2008, 134, 124-134.	28.9	119
62	Lck promotes Zap70-dependent LAT phosphorylation by bridging Zap70 to LAT. <i>Nature Immunology</i> , 2018, 19, 733-741.	14.5	115
63	Prospective discovery of small molecule enhancers of an E3 ligase-substrate interaction. <i>Nature Communications</i> , 2019, 10, 1402.	12.8	110
64	Reciprocal Regulation of Hck Activity by Phosphorylation of Tyr527 and Tyr416. <i>Journal of Biological Chemistry</i> , 2000, 275, 2721-2726.	3.4	108
65	Intersubunit capture of regulatory segments is a component of cooperative CaMKII activation. <i>Nature Structural and Molecular Biology</i> , 2010, 17, 264-272.	8.2	108
66	Regulation of Ras Signaling Dynamics by Sos-Mediated Positive Feedback. <i>Current Biology</i> , 2006, 16, 2173-2179.	3.9	106
67	Exploration of disorder in protein structures by X-ray restrained molecular dynamics. <i>Proteins: Structure, Function and Bioinformatics</i> , 1991, 10, 340-358.	2.6	105
68	Phosphotyrosine-mediated LAT assembly on membranes drives kinetic bifurcation in recruitment dynamics of the Ras activator SOS. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 8218-8223.	7.1	101
69	Protein-protein interactions in the allosteric regulation of protein kinases. <i>Current Opinion in Structural Biology</i> , 2006, 16, 702-709.	5.7	99
70	Analysis of the role of PCNA-DNA contacts during clamp loading. <i>BMC Structural Biology</i> , 2010, 10, 3.	2.3	97
71	Deconstruction of the Ras switching cycle through saturation mutagenesis. <i>ELife</i> , 2017, 6, .	6.0	95
72	Oligomerization states of the association domain and the holoenzyme of Ca ²⁺ /CaM kinase II. <i>FEBS Journal</i> , 2006, 273, 682-694.	4.7	92

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73	Structural Basis for Activation of ZAP-70 by Phosphorylation of the SH2-Kinase Linker. <i>Molecular and Cellular Biology</i> , 2013, 33, 2188-2201.	2.3	90
74	Molecular mechanism of activation-triggered subunit exchange in Ca ²⁺ /calmodulin-dependent protein kinase II. <i>ELife</i> , 2016, 5, .	6.0	89
75	Regulation of the catalytic activity of the EGF receptor. <i>Current Opinion in Structural Biology</i> , 2011, 21, 777-784.	5.7	87
76	Activation-triggered subunit exchange between CaMKII holoenzymes facilitates the spread of kinase activity. <i>ELife</i> , 2014, 3, e01610.	6.0	87
77	Structural insights into the role of iron-histidine bond cleavage in nitric oxide-induced activation of H-NOX gas sensor proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E4156-64.	7.1	87
78	An electrostatic selection mechanism controls sequential kinase signaling downstream of the T cell receptor. <i>ELife</i> , 2016, 5, .	6.0	85
79	A novel human autoimmune syndrome caused by combined hypomorphic and activating mutations in ZAP-70. <i>Journal of Experimental Medicine</i> , 2016, 213, 155-165.	8.5	83
80	A Dimeric Kinase Assembly Underlying Autophosphorylation in the p21 Activated Kinases. <i>Journal of Molecular Biology</i> , 2006, 361, 312-326.	4.2	82
81	Clamp loader ATPases and the evolution of DNA replication machinery. <i>BMC Biology</i> , 2012, 10, 34.	3.8	82
82	Autoinhibition of Bruton's tyrosine kinase (Btk) and activation by soluble inositol hexakisphosphate. <i>ELife</i> , 2015, 4, .	6.0	82
83	Role of the histone domain in the autoinhibition and activation of the Ras activator Son of Sevenless. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 3430-3435.	7.1	81
84	CRISPR-Cas12a exploits R-loop asymmetry to form double-strand breaks. <i>ELife</i> , 2020, 9, .	6.0	80
85	Structural analysis of autoinhibition in the Ras-specific exchange factor RasGRP1. <i>ELife</i> , 2013, 2, e00813.	6.0	78
86	Crystal Structure of the FLT3 Kinase Domain Bound to the Inhibitor Quizartinib (AC220). <i>PLoS ONE</i> , 2015, 10, e0121177.	2.5	75
87	Analysis of the Role of the C-Terminal Tail in the Regulation of the Epidermal Growth Factor Receptor. <i>Molecular and Cellular Biology</i> , 2015, 35, 3083-3102.	2.3	74
88	Monovalent and Multivalent Ligation of the B Cell Receptor Exhibit Differential Dependence upon Syk and Src Family Kinases. <i>Science Signaling</i> , 2013, 6, ra1.	3.6	73
89	Structural studies on the regulation of Ca ²⁺ /calmodulin dependent protein kinase II. <i>Current Opinion in Structural Biology</i> , 2013, 23, 292-301.	5.7	72
90	DNA polymerase clamp loaders and DNA recognition. <i>FEBS Letters</i> , 2005, 579, 863-867.	2.8	68

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91	Emerging concepts in the regulation of the EGF receptor and other receptor tyrosine kinases. Trends in Biochemical Sciences, 2014, 39, 437-446.	7.5	68
92	The Replication Factor C Clamp Loader Requires Arginine Finger Sensors to Drive DNA Binding and Proliferating Cell Nuclear Antigen Loading. Journal of Biological Chemistry, 2006, 281, 35531-35543.	3.4	67
93	Mechanism of Proliferating Cell Nuclear Antigen Clamp Opening by Replication Factor C. Journal of Biological Chemistry, 2006, 281, 17528-17539.	3.4	66
94	Out-of-plane motions in open sliding clamps: Molecular dynamics simulations of eukaryotic and archaeal proliferating cell nuclear antigen. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 13801-13806.	7.1	65
95	Slow phosphorylation of a tyrosine residue in LAT optimizes T cell ligand discrimination. Nature Immunology, 2019, 20, 1481-1493.	14.5	64
96	The Src module: an ancient scaffold in the evolution of cytoplasmic tyrosine kinases. Critical Reviews in Biochemistry and Molecular Biology, 2018, 53, 535-563.	5.2	62
97	Structural basis and regulation of the reductive stress response. Cell, 2021, 184, 5375-5390.e16.	28.9	58
98	Macromolecular juggling by ubiquitylation enzymes. BMC Biology, 2013, 11, 65.	3.8	56
99	Structural Insights into the Regulation of Ca ²⁺ /Calmodulin-Dependent Protein Kinase II (CaMKII). Cold Spring Harbor Perspectives in Biology, 2020, 12, a035147.	5.5	54
100	A Phosphosite within the SH2 Domain of Lck Regulates Its Activation by CD45. Molecular Cell, 2017, 67, 498-511.e6.	9.7	51
101	Fine-tuning of substrate preferences of the Src-family kinase Lck revealed through a high-throughput specificity screen. ELife, 2018, 7, .	6.0	51
102	The catalytic activity of the kinase ZAP-70 mediates basal signaling and negative feedback of the T cell receptor pathway. Science Signaling, 2015, 8, ra49.	3.6	50
103	Mapping the interaction of DNA with the Escherichia coli DNA polymerase clamp loader complex. Nature Structural and Molecular Biology, 2005, 12, 183-190.	8.2	46
104	The Interdependent Activation of Son-of-Sevenless and Ras. Cold Spring Harbor Perspectives in Medicine, 2019, 9, a031534.	6.2	46
105	A Structural Atlas of Kinases Inhibited by Clinically Approved Drugs. Methods in Enzymology, 2014, 548, 23-67.	1.0	44
106	A molecular mechanism for the generation of ligand-dependent differential outputs by the epidermal growth factor receptor. ELife, 2021, 10, .	6.0	44
107	Flexible linkers in CaMKII control the balance between activating and inhibitory autophosphorylation. ELife, 2020, 9, .	6.0	41
108	Multiple interactions between an Arf/GEF complex and charged lipids determine activation kinetics on the membrane. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 11416-11421.	7.1	38

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109	Switch-like activation of Bruton's tyrosine kinase by membrane-mediated dimerization. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 10798-10803.	7.1	37
110	Structural basis for dimerization quality control. Nature, 2020, 586, 452-456.	27.8	36
111	A two-component protein condensate of the EGFR cytoplasmic tail and Grb2 regulates Ras activation by SOS at the membrane. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2122531119.	7.1	33
112	Stability of an autoinhibitory interface in the structure of the tyrosine kinase ZAP-70 impacts T cell receptor response. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 20699-20704.	7.1	32
113	A Histidine pH sensor regulates activation of the Ras-specific guanine nucleotide exchange factor RasGRP1. ELife, 2017, 6, .	6.0	32
114	GHB analogs confer neuroprotection through specific interaction with the CaMKII β hub domain. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	31
115	Nucleotide-Induced Conformational Changes in an Isolated Escherichia coli DNA Polymerase III Clamp Loader Subunit. Structure, 2003, 11, 253-263.	3.3	29
116	Deep mutational analysis reveals functional trade-offs in the sequences of EGFR autophosphorylation sites. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7303-E7312.	7.1	28
117	Understanding molecular mechanisms in cell signaling through natural and artificial sequence variation. Nature Structural and Molecular Biology, 2019, 26, 25-34.	8.2	28
118	The Tyrosine Kinase Csk Dimerizes through Its SH3 Domain. PLoS ONE, 2009, 4, e7683.	2.5	28
119	Crystal structure of an SH2-kinase construct of c-Abl and effect of the SH2 domain on kinase activity. Biochemical Journal, 2015, 468, 283-291.	3.7	27
120	Breakage of the oligomeric CaMKII hub by the regulatory segment of the kinase. ELife, 2020, 9, .	6.0	25
121	Crystal Structure of a Ube2S-Ubiquitin Conjugate. PLoS ONE, 2016, 11, e0147550.	2.5	24
122	Modification by covalent reaction or oxidation of cysteine residues in the tandem-SH2 domains of ZAP-70 and Syk can block phosphopeptide binding. Biochemical Journal, 2015, 465, 149-161.	3.7	21
123	Comparative Analysis of Mutant Tyrosine Kinase Chemical Rescue. Biochemistry, 2009, 48, 3378-3386.	2.5	19
124	Allosteric communication in DNA polymerase clamp loaders relies on a critical hydrogen-bonded junction. ELife, 2021, 10, .	6.0	19
125	An SH2 domain in disguise. Nature, 1999, 398, 22-23.	27.8	16
126	Variation in assembly stoichiometry in non-metazoan homologs of the hub domain of Ca ²⁺ /calmodulin-dependent protein kinase II. Protein Science, 2019, 28, 1071-1082.	7.6	16

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127	Allostery and Coupled Sequence Variation in Nuclear Hormone Receptors. Cell, 2004, 116, 354-356.	28.9	15
128	Identification of Inhibitors of the Association of ZAP-70 with the T Cell Receptor by High-Throughput Screen. SLAS Discovery, 2017, 22, 324-331.	2.7	14
129	A saturation-mutagenesis analysis of the interplay between stability and activation in Ras. ELife, 2022, 11, .	6.0	13
130	Differences in the dynamics of the <scp>tandemâ€SH2</scp> modules of the Syk and <scp>ZAP</scp>â€70 tyrosine kinases. Protein Science, 2021, 30, 2373-2384.	7.6	10
131	Relating cellular signaling timescales to single-molecule kinetics: A first-passage time analysis of Ras activation by SOS. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	9
132	Phosphorylation control of the ubiquitin ligase Cbl is conserved in choanoflagellates. Protein Science, 2018, 27, 923-932.	7.6	7
133	A highly efficient peptide substrate for EGFR activates the kinase by inducing aggregation. Biochemical Journal, 2013, 453, 337-344.	3.7	4
134	New insights into Raf regulation from structural analyses. Current Opinion in Structural Biology, 2021, 71, 223-231.	5.7	4
135	DNA recognition, warts and all. Nature, 1992, 359, 476-476.	27.8	2
136	Molecular Mechanisms of DNA Polymerase Clamp Loaders. NATO Science for Peace and Security Series A: Chemistry and Biology, 2012, , 103-114.	0.5	2
137	Allosteric Mechanisms in Receptor Tyrosine Kinase Activation. FASEB Journal, 2009, 23, 313.1.	0.5	0