# Enrique M De La Cruz

List of Publications by Year
in descending order



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|---|---|---|---|
| 111 papers | 6,301 citations | 66250 44 h-index | 87275 74 g-index |
| 114 all docs | 114 docs citations | 114 times ranked | 5368 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | The nucleoporin Gle1 activates DEAD-box protein 5 (Dbp5) by promoting ATP binding and accelerating rate limiting phosphate release. Nucleic Acids Research, 2022, 50, 3998-4011. | 6.5 | 6 |
| 2 | Improving the Pharmacodynamics and In Vivo Activity of ENPP1â€Fc Through Protein and Glycosylation Engineering. Clinical and Translational Science, 2021, 14, 362-372. | 1.5 | 14 |
| 3 | Structural basis of fast- and slow-severing actinâ€“cofilactin boundaries. Journal of Biological Chemistry, 2021, 296, 100337. | 1.6 | 15 |
| 4 | Clusters of a Few Bound Cofilins Sever Actin Filaments. Journal of Molecular Biology, 2021, 433, 166833. | 2.0 | 18 |
| 5 | Rab34 GTPase mediates ciliary membrane formation in the intracellular ciliogenesis pathway. Current Biology, 2021, 31, 2895-2905.e7. | 1.8 | 25 |
| 6 | Structures of cofilin-induced structural changes reveal local and asymmetric perturbations of actin filaments. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 1478-1484. | 3.3 | 64 |
| 7 | Force and phosphate release from Arp2/3 complex promote dissociation of actin filament branches. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 13519-13528. | 3.3 | 47 |
| 8 | Directional allosteric regulation of protein filament length. Physical Review E, 2020, 101, 032409. | 0.8 | 6 |
| 9 | Thermal fracture kinetics of heterogeneous semiflexible polymers. Soft Matter, 2020, 16, 2017-2024. | 1.2 | 7 |
| 10 | Plastic Deformation and Fragmentation of Strained Actin Filaments. Biophysical Journal, 2019, 117, 453-463. | 0.2 | 19 |
| 11 | Severed Actin and Microtubules with Motors Walking All Over Them: Cryo-EM Studies of Seriously Perturbed Helical Assemblies. Microscopy and Microanalysis, 2019, 25, 1362-1363. | 0.2 | 0 |
| 12 | Active cargo positioning in antiparallel transport networks. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14835-14842. | 3.3 | 5 |
| 13 | Regulation of axon growth by myosin IIâ€“dependent mechanocatalysis of cofilin activity. Journal of Cell Biology, 2019, 218, 2329-2349. | 2.3 | 23 |
| 14 | The actin filament twist changes abruptly at boundaries between bare and cofilin-decorated segments. Journal of Biological Chemistry, 2018, 293, 5377-5383. | 1.6 | 50 |
| 15 | Cofilin Induces a Local Change in the Twist of Actin Filaments. Biophysical Journal, 2018, 114, 145a. | 0.2 | 1 |
| 16 | Opening remarks from the Editors. Biophysical Reviews, 2018, 10, 1479-1480. | 1.5 | 0 |
| 17 | Insights into the Cooperative Nature of ATP Hydrolysis in Actin Filaments. Biophysical Journal, 2018, 115, 1589-1602. | 0.2 | 29 |
| 18 | 14-3-3 proteins activate Pseudomonas exotoxins-S and -T by chaperoning a hydrophobic surface. Nature Communications, 2018, 9, 3785. | 5.8 | 37 |

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| 19 | Nup159 Weakens Gle1 Binding to Dbp5 But Does Not Accelerate ADP Release. Journal of Molecular Biology, 2018, 430, 2080-2095. | 2.0 | 8 |
| 20 | Mechanoregulated inhibition of formin facilitates contractile actomyosin ring assembly. Nature Communications, 2017, 8, 703. | 5.8 | 66 |
| 21 | Phosphomimetic S3D cofilin binds but only weakly severs actin filaments. Journal of Biological Chemistry, 2017, 292, 19565-19579. | 1.6 | 35 |
| 22 | Actin Filament Strain Promotes Severing and Cofilin Dissociation. Biophysical Journal, 2017, 112, 2624-2633. | 0.2 | 49 |
| 23 | Cations Stiffen Actin Filaments by Adhering a Key Structural Element to Adjacent Subunits. Journal of Physical Chemistry B, 2016, 120, 4558-4567. | 1.2 | 39 |
| 24 | Pi Release Limits the Intrinsic and RNA-Stimulated ATPase Cycles of DEAD-Box Protein 5 (Dbp5). Journal of Molecular Biology, 2016, 428, 492-508. | 2.0 | 17 |
| 25 | Architecture and Connectivity Govern Actin Network Contractility. Current Biology, 2016, 26, 616-626. | 1.8 | 221 |
| 26 | Neuronal Calcium Sensor 1 Has Two Variants with Distinct Calcium Binding Characteristics. PLoS ONE, 2016, 11, e0161414. | 1.1 | 10 |
| 27 | ENPP1-Fc prevents mortality and vascular calcifications in rodent model of generalized arterial calcification of infancy. Nature Communications, 2015, 6, 10006. | 5.8 | 102 |
| 28 | Actin Mechanics and Fragmentation. Journal of Biological Chemistry, 2015, 290, 17137-17144. | 1.6 | 86 |
| 29 | Metavinculin Tunes the Flexibility and the Architecture of Vinculin-Induced Bundles of Actin Filaments. Journal of Molecular Biology, 2015, 427, 2782-2798. | 2.0 | 13 |
| 30 | Mechanical Heterogeneity Favors Fragmentation of Strained Actin Filaments. Biophysical Journal, 2015, 108, 2270-2281. | 0.2 | 48 |
| 31 | Multi-Platform Compatible Software for Analysis of Polymer Bending Mechanics. PLoS ONE, 2014, 9, e94766. | 1.1 | 39 |
| 32 | Site-specific cation release drives actin filament severing by vertebrate cofilin. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17821-17826. | 3.3 | 45 |
| 33 | Competitive displacement of cofilin can promote actin filament severing. Biochemical and Biophysical Research Communications, 2013, 438, 728-731. | 1.0 | 42 |
| 34 | Biophysics of actin filament severing by cofilin. FEBS Letters, 2013, 587, 1215-1219. | 1.3 | 88 |
| 35 | Regulation of Actin by Ion-Linked Equilibria. Biophysical Journal, 2013, 105, 2621-2628. | 0.2 | 37 |
| 36 | Quantitative full time course analysis of nonlinear enzyme cycling kinetics. Scientific Reports, 2013, 3, 2658. | 1.6 | 40 |

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| 37 | Molecular Origins of Cofilin-Linked Changes in Actin Filament Mechanics. Journal of Molecular Biology, 2013, 425, 1225-1240. | 2.0 | 44 |
| 38 | Alteration in the cavity size adjacent to the active site of RB69 DNA polymerase changes its conformational dynamics. Nucleic Acids Research, 2013, 41, 9077-9089. | 6.5 | 14 |
| 39 | Take advantage of time in your experiments: a guide to simple, informative kinetics assays. Molecular Biology of the Cell, 2013, 24, 1103-1110. | 0.9 | 45 |
| 40 | ATPase coupling in the processive RNA helicase NS3 from hepatitis C virus. FASEB Journal, 2013, 27, 999.2. | 0.2 | 0 |
| 41 | ATP utilization by DExD/Hâ€box RNA helicases â€" molecular motor proteins that couple ATPase activity with RNA rearrangement.. FASEB Journal, 2013, 27, 454.1. | 0.2 | 0 |
| 42 | Analyzing ATP Utilization by DEAD-Box RNA Helicases Using Kinetic and Equilibrium Methods. Methods in Enzymology, 2012, 511, 29-63. | 0.4 | 18 |
| 43 | Identification of cation-binding sites on actin that drive polymerization and modulate bending stiffness. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16923-16927. | 3.3 | 79 |
| 44 | ATP Utilization and RNA Conformational Rearrangement by DEAD-Box Proteins. Annual Review of Biophysics, 2012, 41, 247-267. | 4.5 | 97 |
| 45 | Actin Network Architecture Can Determine Myosin Motor Activity. Science, 2012, 336, 1310-1314. | 6.0 | 281 |
| 46 | Plusâ€end directed myosins accelerate actin filament sliding by singleâ€headed myosin VI. Cytoskeleton, 2012, 69, 59-69. | 1.0 | 2 |
| 47 | Cofilin-Linked Changes in Actin Filament Flexibility Promote Severing. Biophysical Journal, 2011, 101, 151-159. | 0.2 | 131 |
| 48 | Mechanism of Mss116 ATPase Reveals Functional Diversity of DEAD-Box Proteins. Journal of Molecular Biology, 2011, 409, 399-414. | 2.0 | 63 |
| 49 | Actin Filament Dynamics in the Actomyosin VI Complex Is Regulated Allosterically by Calciumâ€"Calmodulin Light Chain. Journal of Molecular Biology, 2011, 413, 584-592. | 2.0 | 8 |
| 50 | Cofilin Tunes the Nucleotide State of Actin Filaments and Severs at Bare and Decorated Segment Boundaries. Current Biology, 2011, 21, 862-868. | 1.8 | 192 |
| 51 | Kinetic Analysis of Autotaxin Reveals Substrate-specific Catalytic Pathways and a Mechanism for Lysophosphatidic Acid Distribution. Journal of Biological Chemistry, 2011, 286, 30130-30141. | 1.6 | 29 |
| 52 | Insights regarding guanine nucleotide exchange from the structure of a DENN-domain protein complexed with its Rab GTPase substrate. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 18672-18677. | 3.3 | 96 |
| 53 | Direct Observation of the Myosin Va Recovery Stroke That Contributes to Unidirectional Stepping along Actin. PLoS Biology, 2011, 9, e1001031. | 2.6 | 23 |
| 54 | The ATPase cycle of the RNA helicase protein NS3 from hepatitis C virus. FASEB Journal, 2011, 25, 911.1. | 0.2 | 0 |

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| 55 | Molecular Structure and Biological Activity of NPP-4, An Endothelial Cell Surface Pyrophosphatase/Phosphodiesterase That Stimulates Platelet Aggregation and Secretion Via Liberation of ADP Upon Hydrolysis of Diadenosine Triphosphate. Blood, 2011, 118, 701-701. | 0.6 | 0 |
| 56 | A Myosinâ€...V Inhibitor Based on Privileged Chemical Scaffolds. Angewandte Chemie - International Edition, 2010, 49, 8484-8488. | 7.2 | 39 |
| 57 | Robust processivity of myosin V under off-axis loads. Nature Chemical Biology, 2010, 6, 300-305. | 3.9 | 23 |
| 58 | 3P159 Impact of the off-axis loads on the processivity of myosin VI(Molecular motor,The 48th Annual) Tj ETQq0 0 0 rgBT /Overlock 10 T | 0.0 | 0 |
| 59 | Actin filament remodeling by actin depolymerization factor/cofilin. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 7299-7304. | 3.3 | 100 |
| 60 | Pathway of ATP utilization and duplex rRNA unwinding by the DEAD-box helicase, DbpA. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4046-4050. | 3.3 | 80 |
| 61 | The Kinetics of Cooperative Cofilin Binding Reveals Two States of the Cofilin-Actin Filament. Biophysical Journal, 2010, 98, 1893-1901. | 0.2 | 57 |
| 62 | Origin of Twist-Bend Coupling in Actin Filaments. Biophysical Journal, 2010, 99, 1852-1860. | 0.2 | 72 |
| 63 | Myosin Isoform Determines the Conformational Dynamics and Cooperativity of Actin Filaments in the Strongly Bound Actomyosin Complex. Journal of Molecular Biology, 2010, 396, 501-509. | 2.0 | 42 |
| 64 | Structure-Based Analysis of Toxoplasma gondii Profilin: A Parasite-Specific Motif Is Required for Recognition by Toll-Like Receptor 11. Journal of Molecular Biology, 2010, 403, 616-629. | 2.0 | 54 |
| 65 | Watching the walk: Observing chemoâ€mechanical coupling in a processive myosin motor. HFSP Journal, 2009, 3, 67-70. | 2.5 | 2 |
| 66 | Chapter 6 Kinetic and Equilibrium Analysis of the Myosin ATPase. Methods in Enzymology, 2009, 455, 157-192. | 0.4 | 136 |
| 67 | How cofilin severs an actin filament. Biophysical Reviews, 2009, 1, 51-59. | 1.5 | 113 |
| 68 | Kinetic Analysis of the Guanine Nucleotide Exchange Activity of TRAPP, a Multimeric Ypt1p Exchange Factor. Journal of Molecular Biology, 2009, 389, 275-288. | 2.0 | 22 |
| 69 | 1P-124 Versatility of the unbinding force measurements at the single-molecule level adapted to different molecular motors(Molecular motor, The 47th Annual Meeting of the Biophysical Society of) Tj ETQq1 1 0.784314 rgBT /Overlo | 0.0 | 0 |
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| 72 | The ATPase Cycle Mechanism of the DEAD-box rRNA Helicase, DbpA. Journal of Molecular Biology, 2008, 377, 193-205. | 2.0 | 103 |

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| 73 | Effects of Solution Crowding on Actin Polymerization Reveal the Energetic Basis for Nucleotide-Dependent Filament Stability. Journal of Molecular Biology, 2008, 378, 540-550. | 2.0 | 31 |
| 74 | Cofilin Increases the Bending Flexibility of Actin Filaments: Implications for Severing and Cell Mechanics. Journal of Molecular Biology, 2008, 381, 550-558. | 2.0 | 200 |
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| 76 | The Structural Basis for Activation of the Rab Ypt1p by the TRAPP Membrane-Tethering Complexes. Cell, 2008, 133, 1202-1213. | 13.5 | 166 |
| 77 | Load-dependent ADP binding to myosins V and VI: Implications for subunit coordination and function. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 7714-7719. | 3.3 | 91 |
| 78 | Identification of small-molecule inhibitors of autotaxin that inhibit melanoma cell migration and invasion. Molecular Cancer Therapeutics, 2008, 7, 3352-3362. | 1.9 | 65 |
| 79 | How the Load and the Nucleotide State Affect the Actin Filament Binding Mode of the Molecular Motor Myosin V. Journal of the Korean Physical Society, 2008, 53, 1726-1731. | 0.3 | 3 |
| 80 | 2P132 Angular dependence of ADP dissociation kinetics in myosin V under directional loading(Molecular motors,Oral Presentations). Seibutsu Butsuri, 2007, 47, S146. | 0.0 | 0 |
| 81 | Contributions from All Over: Widely Distributed Residues in Thymosin Beta-4 Affect the Kinetics and Stability of Actin Binding. Annals of the New York Academy of Sciences, 2007, 1112, 38-44. | 1.8 | 1 |
| 82 | Thymosin Î²4 Induces a Conformational Change in Actin Monomers. Biophysical Journal, 2006, 90, 985-992. | 0.2 | 41 |
| 83 | Hydrodynamic Characterization of the DEAD-box RNA Helicase DbpA. Journal of Molecular Biology, 2006, 355, 697-707. | 2.0 | 18 |
| 84 | Energetics and Kinetics of Cooperative Cofilinâ€“Actin Filament Interactions. Journal of Molecular Biology, 2006, 361, 257-267. | 2.0 | 94 |
| 85 | 1P534 Loading direction controls the ADP affinity of myosin V.(26. Single molecule biophysics,Poster) Tj ETQq1 1 0.784314 rgBT /Overl | 0.0 | 0 |
| 86 | The Tail Domain of Myosin Va Modulates Actin Binding to One Head. Journal of Biological Chemistry, 2006, 281, 31326-31336. | 1.6 | 35 |
| 87 | The Tail Domain of Myosin Va Modulates Actin Binding to One Head. Journal of Biological Chemistry, 2006, 281, 31326-31336. | 1.6 | 11 |
| 88 | Vertebrate Myosin VIIb Is a High Duty Ratio Motor Adapted for Generating and Maintaining Tension. Journal of Biological Chemistry, 2005, 280, 39665-39676. | 1.6 | 66 |
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| 90 | Equilibrium and Kinetic Analysis of Nucleotide Binding to the DEAD-Box RNA Helicase DbpAâ€. Biochemistry, 2005, 44, 959-970. | 1.2 | 47 |

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| 95 | Mechanism of Nucleotide Binding to Actomyosin VI. Journal of Biological Chemistry, 2004, 279, 38608-38617. | 1.6 | 56 |
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| 101 | Actin-Binding Proteins: An Overview. Results and Problems in Cell Differentiation, 2001, 32, 123-134. | 0.2 | 1 |
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| 103 | Polymerization and structure of nucleotide-free actin filaments 1 1Edited by W. Baumeister. Journal of Molecular Biology, 2000, 295, 517-526. | 2.0 | 68 |
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| 105 | Thymosin-Î²4 Changes the Conformation and Dynamics of Actin Monomers. Biophysical Journal, 2000, 78, 2516-2527. | 0.2 | 68 |
| 106 | Actin and Light Chain Isoform Dependence of Myosin V Kineticsâ€. Biochemistry, 2000, 39, 14196-14202. | 1.2 | 87 |
| 107 | Interactions ofAcanthamoebaProfilin with Actin and Nucleotides Bound to Actinâ€. Biochemistry, 1998, 37, 10871-10880. | 1.2 | 152 |
| 108 | Regulation of G protein-coupled Receptor Kinase 5 (GRK5) by Actin. Journal of Biological Chemistry, 1998, 273, 20653-20657. | 1.6 | 52 |

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| 109 | Kinetics and Thermodynamics of Phalloidin Binding to Actin Filaments from Three Divergent Speciesâ€. Biochemistry, 1996, 35, 14054-14061. | 1.2 | 97 |
| 110 | Nucleotide-Free Actin: Stabilization by Sucrose and Nucleotide Binding Kinetics. Biochemistry, 1995, 34, 5452-5461. | 1.2 | 72 |
| 111 | Transient kinetic analysis of rhodamine phalloidin binding to actin filaments. Biochemistry, 1994, 33, 14387-14392. | 1.2 | 84 |