

Gilad Haran

List of Publications by Year in descending order

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Version: 2024-02-01

95
papers

6,889
citations

57758

44
h-index

62596

80
g-index

106
all docs

106
docs citations

106
times ranked

7338
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Vacuum Rabi splitting in a plasmonic cavity at the single quantum emitter limit. <i>Nature Communications</i> , 2016, 7, ncomms11823. | 12.8 | 371 |
| 2 | Watching proteins fold one molecule at a time. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 3197-3202. | 7.1 | 343 |
| 3 | Immobilization in Surface-Tethered Lipid Vesicles as a New Tool for Single Biomolecule Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2001, 105, 12165-12170. | 2.6 | 283 |
| 4 | Coil-globule transition in the denatured state of a small protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 11539-11543. | 7.1 | 281 |
| 5 | Time-Dependent Single-Molecule Raman Scattering as a Probe of Surface Dynamics. <i>Journal of Physical Chemistry B</i> , 2001, 105, 12348-12354. | 2.6 | 270 |
| 6 | Role of Solvation Effects in Protein Denaturation: From Thermodynamics to Single Molecules and Back. <i>Annual Review of Physical Chemistry</i> , 2011, 62, 257-277. | 10.8 | 249 |
| 7 | Managing light polarization via plasmon-molecule interactions within an asymmetric metal nanoparticle trimer. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 16448-16453. | 7.1 | 218 |
| 8 | Protein-Protein Association in Polymer Solutions: From Dilute to Semidilute to Concentrated. <i>Biophysical Journal</i> , 2007, 92, 2139-2149. | 0.5 | 193 |
| 9 | Effects of denaturants and osmolytes on proteins are accurately predicted by the molecular transfer model. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 13403-13408. | 7.1 | 182 |
| 10 | Three-dimensional localization of T-cell receptors in relation to microvilli using a combination of superresolution microscopies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E5916-E5924. | 7.1 | 175 |
| 11 | Two-State Folding Observed in Individual Protein Molecules. <i>Journal of the American Chemical Society</i> , 2004, 126, 14686-14687. | 13.7 | 169 |
| 12 | Single-molecule fluorescence spectroscopy maps the folding landscape of a large protein. <i>Nature Communications</i> , 2011, 2, 493. | 12.8 | 162 |
| 13 | Trimeric Plasmonic Molecules: The Role of Symmetry. <i>Nano Letters</i> , 2011, 11, 2440-2445. | 9.1 | 154 |
| 14 | FRET-based dynamic structural biology: Challenges, perspectives and an appeal for open-science practices. <i>ELife</i> , 2021, 10, . | 6.0 | 152 |
| 15 | How, when and why proteins collapse: the relation to folding. <i>Current Opinion in Structural Biology</i> , 2012, 22, 14-20. | 5.7 | 144 |
| 16 | Ribosome exit tunnel can entropically stabilize \hat{A} -helices. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 18956-18961. | 7.1 | 140 |
| 17 | Multiple-Particle Nanoantennas for Enormous Enhancement and Polarization Control of Light Emission. <i>ACS Nano</i> , 2009, 3, 637-642. | 14.6 | 137 |
| 18 | Collapse transition in proteins. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 83-93. | 2.8 | 125 |

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|----|---|------|-----------|
| 19 | Common Crowding Agents Have Only a Small Effect on Protein-Protein Interactions. <i>Biophysical Journal</i> , 2009, 97, 875-885. | 0.5 | 119 |
| 20 | Tunable Localized Plasmon Transducers Prepared by Thermal Dewetting of Percolated Evaporated Gold Films. <i>Journal of Physical Chemistry C</i> , 2011, 115, 24642-24652. | 3.1 | 114 |
| 21 | Quantum dot plasmonics: from weak to strong coupling. <i>Nanophotonics</i> , 2019, 8, 559-575. | 6.0 | 112 |
| 22 | Single-Molecule Raman Spectroscopy: A Probe of Surface Dynamics and Plasmonic Fields. <i>Accounts of Chemical Research</i> , 2010, 43, 1135-1143. | 15.6 | 107 |
| 23 | Using Fluorescence Correlation Spectroscopy to Study Conformational Changes in Denatured Proteins. <i>Biophysical Journal</i> , 2008, 94, 4819-4827. | 0.5 | 101 |
| 24 | Protein Folding, Protein Collapse, and Tanford's Transfer Model: Lessons from Single-Molecule FRET. <i>Journal of the American Chemical Society</i> , 2009, 131, 2942-2947. | 13.7 | 95 |
| 25 | Single-molecule FRET methods to study the dynamics of proteins at work. <i>Current Opinion in Biomedical Engineering</i> , 2019, 12, 8-17. | 3.4 | 93 |
| 26 | Small-Angle X-ray Scattering and Single-Molecule FRET Spectroscopy Produce Highly Divergent Views of the Low-Denaturant Unfolded State. <i>Journal of Molecular Biology</i> , 2012, 418, 226-236. | 4.2 | 92 |
| 27 | Excited state dynamics of bacteriorhodopsin revealed by transient stimulated emission spectra. <i>Chemical Physics Letters</i> , 1996, 261, 389-395. | 2.6 | 91 |
| 28 | Raman Spectroelectrochemistry of Molecules within Individual Electromagnetic Hot Spots. <i>Journal of the American Chemical Society</i> , 2009, 131, 14390-14398. | 13.7 | 87 |
| 29 | Direct observation of ultrafast large-scale dynamics of an enzyme under turnover conditions. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 3243-3248. | 7.1 | 87 |
| 30 | The simplest plasmonic molecules: Metal nanoparticle dimers and trimers. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2014, 21, 26-39. | 11.6 | 86 |
| 31 | Femtosecond far-infrared pump-probe spectroscopy: A new tool for studying low-frequency vibrational dynamics in molecular condensed phases. <i>Chemical Physics Letters</i> , 1997, 274, 365-371. | 2.6 | 82 |
| 32 | Separating the Contribution of Translational and Rotational Diffusion to Protein Association. <i>Journal of the American Chemical Society</i> , 2005, 127, 15138-15144. | 13.7 | 81 |
| 33 | Photon-by-Photon Hidden Markov Model Analysis for Microsecond Single-Molecule FRET Kinetics. <i>Journal of Physical Chemistry B</i> , 2016, 120, 13065-13075. | 2.6 | 81 |
| 34 | Artificial Plasmonic Molecules and Their Interaction with Real Molecules. <i>Chemical Reviews</i> , 2018, 118, 5539-5580. | 47.7 | 80 |
| 35 | Femtosecond Polarized Pump-Probe and Stimulated Emission Spectroscopy of the Isomerization Reaction of Rhodopsin. <i>Journal of Physical Chemistry A</i> , 1999, 103, 2202-2207. | 2.5 | 77 |
| 36 | The dynamic disulphide relay of quiescin sulphydryl oxidase. <i>Nature</i> , 2012, 488, 414-418. | 27.8 | 70 |

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|----|--|------|-----------|
| 37 | Allosteric inhibition of individual enzyme molecules trapped in lipid vesicles. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1437-E1443. | 7.1 | 70 |
| 38 | Single-molecule fluorescence spectroscopy of biomolecular folding. Journal of Physics Condensed Matter, 2003, 15, R1291-R1317. | 1.8 | 69 |
| 39 | Chemical Denaturants Inhibit the Onset of Dewetting. Journal of the American Chemical Society, 2008, 130, 11854-11855. | 13.7 | 65 |
| 40 | Single Molecule SERS Spectral Blinking and Vibronic Coupling. Journal of Physical Chemistry C, 2011, 115, 4540-4545. | 3.1 | 64 |
| 41 | Probing the Raman Scattering Tensors of Individual Molecules. Journal of Physical Chemistry B, 2006, 110, 2459-2461. | 2.6 | 63 |
| 42 | ERM-Dependent Assembly of T Cell Receptor Signaling and Co-stimulatory Molecules on Microvilli prior to Activation. Cell Reports, 2020, 30, 3434-3447.e6. | 6.4 | 58 |
| 43 | Effect of ligand binding on a protein with a complex folding landscape. Physical Chemistry Chemical Physics, 2018, 20, 3054-3062. | 2.8 | 52 |
| 44 | Effect of Symmetry Breaking on the Mode Structure of Trimeric Plasmonic Molecules. Journal of Physical Chemistry C, 2011, 115, 19488-19495. | 3.1 | 51 |
| 45 | Correlating Electron Tomography and Plasmon Spectroscopy of Single Noble Metal Core-Shell Nanoparticles. Nano Letters, 2012, 12, 145-150. | 9.1 | 47 |
| 46 | Vacuum Rabi splitting of a dark plasmonic cavity mode revealed by fast electrons. Nature Communications, 2020, 11, 487. | 12.8 | 47 |
| 47 | Tunable microsecond dynamics of an allosteric switch regulate the activity of a AAA+ disaggregation machine. Nature Communications, 2019, 10, 1438. | 12.8 | 46 |
| 48 | Noise reduction in single-molecule fluorescence trajectories of folding proteins. Chemical Physics, 2004, 307, 137-145. | 1.9 | 45 |
| 49 | Biophysical Characterization of the Unstructured Cytoplasmic Domain of the Human Neuronal Adhesion Protein Neuroligin 3. Biophysical Journal, 2008, 95, 1928-1944. | 0.5 | 45 |
| 50 | Complex plasmon-exciton dynamics revealed through quantum dot light emission in a nanocavity. Nature Communications, 2021, 12, 1310. | 12.8 | 44 |
| 51 | Maximal Raman Optical Activity in Hybrid Single Molecule-Plasmonic Nanostructures with Multiple Dipolar Resonances. Nano Letters, 2013, 13, 1285-1290. | 9.1 | 41 |
| 52 | Single molecule raman spectroscopy and local work function fluctuations. Israel Journal of Chemistry, 2004, 44, 385-390. | 2.3 | 36 |
| 53 | Non-random-coil Behavior as a Consequence of Extensive PPII Structure in the Denatured State. Journal of Molecular Biology, 2008, 382, 203-212. | 4.2 | 35 |
| 54 | In vitro suppression of two different stop codons. Biotechnology and Bioengineering, 2017, 114, 1065-1073. | 3.3 | 30 |

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|----|--|------|-----------|
| 55 | Two-state analysis of single-molecule Raman spectra of crystal violet. <i>Chemical Physics</i> , 2005, 318, 44-49. | 1.9 | 27 |
| 56 | Single-Particle Tracking Reveals Switching of the HIV Fusion Peptide between Two Diffusive Modes in Membranes. <i>Journal of Physical Chemistry B</i> , 2013, 117, 13308-13321. | 2.6 | 27 |
| 57 | Two states or not two states: Single-molecule folding studies of protein L. <i>Journal of Chemical Physics</i> , 2018, 148, 123303. | 3.0 | 27 |
| 58 | Long-Range Charge Reorganization as an Allosteric Control Signal in Proteins. <i>Journal of the American Chemical Society</i> , 2020, 142, 20456-20462. | 13.7 | 27 |
| 59 | Observation of Calcium-dependent Unidirectional Rotational Motion in Recombinant Photosynthetic F1-ATPase Molecules. <i>Journal of Biological Chemistry</i> , 2004, 279, 47415-47418. | 3.4 | 26 |
| 60 | Out-of-equilibrium conformational cycling of GroEL under saturating ATP concentrations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 6270-6274. | 7.1 | 26 |
| 61 | Lipid diffusion in the distal and proximal leaflets of supported lipid bilayer membranes studied by single particle tracking. <i>Journal of Chemical Physics</i> , 2018, 148, 123333. | 3.0 | 26 |
| 62 | Manipulating the Folding Landscape of a Multidomain Protein. <i>Journal of Physical Chemistry B</i> , 2018, 122, 11030-11038. | 2.6 | 24 |
| 63 | Fluorescence Correlation Spectroscopy of Fast Chain Dynamics within Denatured Protein L. <i>ChemPhysChem</i> , 2011, 12, 696-703. | 2.1 | 23 |
| 64 | Concerted ATP-induced allosteric transitions in GroEL facilitate release of protein substrate domains in an all-or-none manner. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 3119-3124. | 7.1 | 22 |
| 65 | Modular Plasmonic Antennas Built of Ultrathin Silica-Shell Silver-Core Nanoparticles. <i>Langmuir</i> , 2014, 30, 7919-7927. | 3.5 | 22 |
| 66 | Ultrafast pore-loop dynamics in a AAA+ machine point to a Brownian-ratchet mechanism for protein translocation. <i>Science Advances</i> , 2021, 7, eabg4674. | 10.3 | 21 |
| 67 | Optical activity in single-molecule surface-enhanced Raman scattering: Role of symmetry. <i>MRS Bulletin</i> , 2013, 38, 642-647. | 3.5 | 20 |
| 68 | Microenvironmental Investigation of Polymer-Bound Fluorescent Chelator by Fluorescence Microscopy and Optical Spectroscopy. <i>Analytical Chemistry</i> , 2001, 73, 4096-4103. | 6.5 | 18 |
| 69 | Concerted Release of Substrate Domains from GroEL by ATP Is Demonstrated with FRET. <i>Journal of Molecular Biology</i> , 2008, 380, 717-725. | 4.2 | 17 |
| 70 | Gradual Folding of an Off-Pathway Molten Globule Detected at the Single-Molecule Level. <i>Journal of Molecular Biology</i> , 2015, 427, 3148-3157. | 4.2 | 17 |
| 71 | Probing the Molecular Origin of Native-State Flexibility in Repeat Proteins. <i>Journal of the American Chemical Society</i> , 2015, 137, 10367-10373. | 13.7 | 16 |
| 72 | Single-molecule spectroscopy exposes hidden states in an enzymatic electron relay. <i>Nature Communications</i> , 2015, 6, 8624. | 12.8 | 16 |

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|----|---|------|-----------|
| 73 | Deciphering hierarchical features in the energy landscape of adenylate kinase folding/unfolding. <i>Journal of Chemical Physics</i> , 2018, 148, 123325. | 3.0 | 14 |
| 74 | Can a rare form of myasthenia gravis shed additional light on disease mechanisms?. <i>Clinical Neurology and Neurosurgery</i> , 2013, 115, 562-566. | 1.4 | 13 |
| 75 | Plasmonic Cavities and Individual Quantum Emitters in the Strong Coupling Limit. <i>Accounts of Chemical Research</i> , 2022, 55, 1659-1668. | 15.6 | 13 |
| 76 | Detection and Quantification through a Lipid Membrane Using the Molecularly Controlled Semiconductor Resistor. <i>Langmuir</i> , 2012, 28, 1020-1028. | 3.5 | 12 |
| 77 | The Effect of the Phospholipid Bilayer Environment on Cholesterol Crystal Polymorphism. <i>ChemPlusChem</i> , 2019, 84, 338-344. | 2.8 | 12 |
| 78 | Substrates Modulate Charge-Reorganization Allosteric Effects in Protein-Protein Association. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 2805-2808. | 4.6 | 12 |
| 79 | Design of an Optical Switch for Studying Conformational Dynamics in Individual Molecules of GroEL. <i>Bioconjugate Chemistry</i> , 2008, 19, 1339-1341. | 3.6 | 11 |
| 80 | To fold or expand—a charged question. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 14519-14520. | 7.1 | 11 |
| 81 | How fast are the motions of tertiary-structure elements in proteins?. <i>Journal of Chemical Physics</i> , 2020, 153, 130902. | 3.0 | 10 |
| 82 | Measuring protein stability in the GroEL chaperonin cage reveals massive destabilization. <i>ELife</i> , 2020, 9, . | 6.0 | 10 |
| 83 | Entropic Inhibition: How the Activity of a AAA+ Machine Is Modulated by Its Substrate-Binding Domain. <i>ACS Chemical Biology</i> , 2021, 16, 775-785. | 3.4 | 9 |
| 84 | Picosecond fluorescence spectroscopy of a single-chain class I major histocompatibility complex encoded protein in its peptide loaded and unloaded states. <i>Immunology Letters</i> , 1994, 40, 125-132. | 2.5 | 7 |
| 85 | Correlated diffusion in lipid bilayers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, . | 7.1 | 7 |
| 86 | CCR7 signalosomes are preassembled on tips of lymphocyte microvilli in proximity to LFA-1. <i>Biophysical Journal</i> , 2021, 120, 4002-4012. | 0.5 | 6 |
| 87 | Fast dynamics shape the function of the AAA+ machine ClpB: lessons from single-molecule FRET spectroscopy. <i>FEBS Journal</i> , 2023, 290, 3496-3511. | 4.7 | 6 |
| 88 | Higher-Order Photon Statistics as a New Tool to Reveal Hidden Excited States in a Plasmonic Cavity. <i>ACS Photonics</i> , 0, . | 6.6 | 5 |
| 89 | Improving the quality factors of plasmonic silver cavities for strong coupling with quantum emitters. <i>Journal of Chemical Physics</i> , 2021, 154, 014703. | 3.0 | 4 |
| 90 | Editorial: The Coming of Age. <i>ChemPhysChem</i> , 2005, 6, 755-758. | 2.1 | 3 |

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|----|--|-----|-----------|
| 91 | Control over size, shape, and photonics of self-assembled organic nanocrystals. Beilstein Journal of Organic Chemistry, 2021, 17, 42-51. | 2.2 | 3 |
| 92 | The Effect of the Phospholipid Bilayer Environment on Cholesterol Crystal Polymorphism. ChemPlusChem, 2019, 84, 317-317. | 2.8 | 1 |
| 93 | Targeting Non-Fluorescent Molecules by Nonlinear Optical Imaging. ChemPhysChem, 2010, 11, 1619-1622. | 2.1 | 0 |
| 94 | Single-Molecule Raman Spectroscopy: A Probe of Charge Transfer and Plasmonic Fields. , 2010, , . | | 0 |
| 95 | Understanding Microsecond Dynamics of Protein Machines. Biophysical Journal, 2021, 120, 113a-114a. | 0.5 | 0 |