

# Ashok Sekhar

## List of Publications by Citations

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39  
papers

1,316  
citations

19  
h-index

36  
g-index

42  
ext. papers

1,591  
ext. citations

7.4  
avg, IF

5.09  
L-index

| #  | Paper   | IF   | Citations |
|----|---|------|-----------|
| 39 | Structural and hydrodynamic properties of an intrinsically disordered region of a germ cell-specific protein on phase separation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, E8194-E8203 | 11.5 | 227       |
| 38 | NMR paves the way for atomic level descriptions of sparsely populated, transiently formed biomolecular conformers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 12867-74                   | 11.5 | 194       |
| 37 | Probing conformational dynamics in biomolecules via chemical exchange saturation transfer: a primer. <i>Journal of Biomolecular NMR</i> , <b>2017</b> , 67, 243-271   | 3    | 78        |
| 36 | Hsp70 biases the folding pathways of client proteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, E2794-801   | 11.5 | 73        |
| 35 | Thermal fluctuations of immature SOD1 lead to separate folding and misfolding pathways. <i>ELife</i> , <b>2015</b> , 4, e07296  | 8.9  | 67        |
| 34 | Mapping the conformation of a client protein through the Hsp70 functional cycle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, 10395-400  | 11.5 | 62        |
| 33 | An NMR View of Protein Dynamics in Health and Disease. <i>Annual Review of Biophysics</i> , <b>2019</b> , 48, 297-319   | 21.1 | 60        |
| 32 | Promiscuous binding by Hsp70 results in conformational heterogeneity and fuzzy chaperone-substrate ensembles. <i>ELife</i> , <b>2017</b> , 6,   | 8.9  | 57        |
| 31 | Conserved conformational selection mechanism of Hsp70 chaperone-substrate interactions. <i>ELife</i> , <b>2018</b> , 7,   | 8.9  | 50        |
| 30 | Heterogeneous binding of the SH3 client protein to the DnaK molecular chaperone. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2015</b> , 112, E4206-15   | 11.5 | 42        |
| 29 | Understanding the mechanism of proteasome 20S core particle gating. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2014</b> , 111, 5532-7  | 11.5 | 41        |
| 28 | Probing the free energy landscapes of ALS disease mutants of SOD1 by NMR spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2016</b> , 113, E6939-E6945  | 11.5 | 35        |
| 27 | Effects of maturation on the conformational free-energy landscape of SOD1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, E2546-E2555  | 11.5 | 34        |
| 26 | A Universal Pattern in the Percolation and Dissipation of Protein Structural Perturbations. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 4779-4784   | 6.4  | 31        |
| 25 | Separating Dipolar and Chemical Exchange Magnetization Transfer Processes in H-CEST. <i>Angewandte Chemie - International Edition</i> , <b>2017</b> , 56, 6122-6125   | 16.4 | 24        |
| 24 | Defining a length scale for millisecond-timescale protein conformational exchange. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 11391-6  | 11.5 | 23        |
| 23 | Probing Invisible, Excited Protein States by Non-Uniformly Sampled Pseudo-4D CEST Spectroscopy. <i>Angewandte Chemie - International Edition</i> , <b>2015</b> , 54, 10507-11   | 16.4 | 22        |

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|----|---|------|----|
| 22 | Viscosity-dependent kinetics of protein conformational exchange: microviscosity effects and the need for a small viscogen. <i>Journal of Physical Chemistry B</i> , <b>2014</b> , 118, 4546-51  | 3.4  | 20 |
| 21 | Triple resonance-based $^{13}\text{C}\{^1\text{H}\}$ and $^{13}\text{C}\{^1\text{H}\}$ CEST experiments for studies of ms timescale dynamics in proteins. <i>Journal of Biomolecular NMR</i> , <b>2014</b> , 60, 203-8                                  | 3    | 20 |
| 20 | Self-Assembly of Human Profilin-1 Detected by Carr-Purcell-Meiboom-Gill Nuclear Magnetic Resonance (CPMG NMR) Spectroscopy. <i>Biochemistry</i> , <b>2017</b> , 56, 692-703   | 3.2  | 18 |
| 19 | Conformational heterogeneity in the Hsp70 chaperone-substrate ensemble identified from analysis of NMR-detected titration data. <i>Protein Science</i> , <b>2017</b> , 26, 2207-2220  | 6.3  | 16 |
| 18 | Folding of the four-helix bundle FF domain from a compact on-pathway intermediate state is governed predominantly by water motion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 19268-73 | 11.5 | 15 |
| 17 | Transient interactions of a slow-folding protein with the Hsp70 chaperone machinery. <i>Protein Science</i> , <b>2012</b> , 21, 1042-55   | 6.3  | 15 |
| 16 | Characterizing Post-Translational Modifications and Their Effects on Protein Conformation Using NMR Spectroscopy. <i>Biochemistry</i> , <b>2020</b> , 59, 57-73   | 3.2  | 14 |
| 15 | EPIC- and CHANCE-HSQC: two $^{15}\text{N}$ -photo-CIDNP-enhanced pulse sequences for the sensitive detection of solvent-exposed tryptophan. <i>Journal of Magnetic Resonance</i> , <b>2009</b> , 200, 207-13  | 3    | 13 |
| 14 | Protein folding rates and thermodynamic stability are key determinants for interaction with the Hsp70 chaperone system. <i>Protein Science</i> , <b>2012</b> , 21, 1489-502   | 6.3  | 12 |
| 13 | $^1\text{H}$ photo-CIDNP enhancements in heteronuclear correlation NMR spectroscopy. <i>Journal of Physical Chemistry B</i> , <b>2009</b> , 113, 8310-8   | 3.4  | 10 |
| 12 | An enhanced sensitivity methyl $^1\text{H}$ triple-quantum pulse scheme for measuring diffusion constants of macromolecules. <i>Journal of Biomolecular NMR</i> , <b>2017</b> , 68, 249-255   | 3    | 8  |
| 11 | Measuring Diffusion Constants of Invisible Protein Conformers by Triple-Quantum $^1\text{H}$ CPMG Relaxation Dispersion. <i>Angewandte Chemie - International Edition</i> , <b>2018</b> , 57, 16777-16780   | 16.4 | 8  |
| 10 | Evolution of magnetization due to asymmetric dimerization: theoretical considerations and application to aberrant oligomers formed by apoSOD1(2SH). <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 5720-8                               | 3.6  | 6  |
| 9  | Probing Invisible, Excited Protein States by Non-Uniformly Sampled Pseudo-4D CEST Spectroscopy. <i>Angewandte Chemie</i> , <b>2015</b> , 127, 10653-10657   | 3.6  | 5  |
| 8  | Metamorphic proteins: the Janus proteins of structural biology. <i>Open Biology</i> , <b>2021</b> , 11, 210012  | 7    | 5  |
| 7  | Engineering Order and Cooperativity in a Disordered Protein. <i>Biochemistry</i> , <b>2019</b> , 58, 2389-2397  | 3.2  | 4  |
| 6  | Separating Dipolar and Chemical Exchange Magnetization Transfer Processes in $^1\text{H}$ -CEST. <i>Angewandte Chemie</i> , <b>2017</b> , 129, 6218-6221  | 3.6  | 2  |
| 5  | Evaluating the influence of initial magnetization conditions on extracted exchange parameters in NMR relaxation experiments: applications to CPMG and CEST. <i>Journal of Biomolecular NMR</i> , <b>2016</b> , 65, 143-156                              | 3    | 2  |

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| 4 | Measuring Diffusion Constants of Invisible Protein Conformers by Triple-Quantum <sup>1</sup> H CPMG Relaxation Dispersion. <i>Angewandte Chemie</i> , <b>2018</b> , 130, 17019-17022                  | 3.6 | 1 |
| 3 | Quantification of Entropic Excluded Volume Effects Driving Crowding-Induced Collapse and Folding of a Disordered Protein.. <i>Journal of Physical Chemistry Letters</i> , <b>2022</b> , 13, 3112-3120 | 6.4 | 1 |
| 2 | Elucidating the mechanisms underlying protein conformational switching using NMR spectroscopy.. <i>Journal of Magnetic Resonance Open</i> , <b>2022</b> , 10-11, 100034                               | 0.4 | 0 |
| 1 | Measuring radiofrequency fields in NMR spectroscopy using offset-dependent nutation profiles. <i>Journal of Magnetic Resonance</i> , <b>2021</b> , 330, 107032  | 3   |   |