

# Pavan Kumar Challa

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

31 papers	884 citations	15 h-index	29 g-index
35 ext. papers	1,155 ext. citations	7.2 avg, IF	4.16 L-index

#	Paper	IF	Citations
31	A natural product inhibits the initiation of $\beta$ -synuclein aggregation and suppresses its toxicity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, E1009-E1017	11.5	177
30	Systematic development of small molecules to inhibit specific microscopic steps of A $\beta$ 2 aggregation in Alzheimer's disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, E200-E208	11.5	134
29	Nucleation and Growth of Amino Acid and Peptide Supramolecular Polymers through Liquid-Liquid Phase Separation. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 18116-18123	16.4	122
28	Trodusquemine enhances A $\beta$ aggregation but suppresses its toxicity by displacing oligomers from cell membranes. <i>Nature Communications</i> , <b>2019</b> , 10, 225	17.4	69
27	Multistep Inhibition of $\beta$ -synuclein Aggregation and Toxicity in Vitro and in Vivo by Trodusquemine. <i>ACS Chemical Biology</i> , <b>2018</b> , 13, 2308-2319	4.9	52
26	Nucleation and Growth of Amino Acid and Peptide Supramolecular Polymers through Liquid-Liquid Phase Separation. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 18284-18291	3.6	37
25	Massively parallel C. elegans tracking provides multi-dimensional fingerprints for phenotypic discovery. <i>Journal of Neuroscience Methods</i> , <b>2018</b> , 306, 57-67	3	35
24	Microfluidic devices fabricated using fast wafer-scale LED-lithography patterning. <i>Biomicrofluidics</i> , <b>2017</b> , 11, 014113	3.2	31
23	Real-Time Intrinsic Fluorescence Visualization and Sizing of Proteins and Protein Complexes in Microfluidic Devices. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 3849-3855	7.8	29
22	Scalable integration of nano-, and microfluidics with hybrid two-photon lithography. <i>Microsystems and Nanoengineering</i> , <b>2019</b> , 5, 40	7.7	28
21	Attoliter protein nanogels from droplet nanofluidics for intracellular delivery. <i>Science Advances</i> , <b>2020</b> , 6, eaay7952	14.3	27
20	Observation of molecular self-assembly events in massively parallel microdroplet arrays. <i>Lab on a Chip</i> , <b>2018</b> , 18, 3303-3309	7.2	24
19	Label-Free Analysis of Protein Aggregation and Phase Behavior. <i>ACS Nano</i> , <b>2019</b> , 13, 13940-13948	16.7	22
18	Gradient-free determination of isoelectric points of proteins on chip. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 23060-23067	3.6	19
17	Enhancing the Resolution of Micro Free Flow Electrophoresis through Spatially Controlled Sample Injection. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 8998-9005	7.8	16
16	Enhanced Quality Factor Label-free Biosensing with Micro-Cantilevers Integrated into Microfluidic Systems. <i>Analytical Chemistry</i> , <b>2017</b> , 89, 11929-11936	7.8	13
15	Low-Cost Microfabrication Tool Box. <i>Micromachines</i> , <b>2020</b> , 11,	3.3	8

14	Resolving protein mixtures using microfluidic diffusional sizing combined with synchrotron radiation circular dichroism. <i>Lab on A Chip</i> , <b>2018</b> , 19, 50-58	7.2	6
13	Rapid two-dimensional characterisation of proteins in solution. <i>Microsystems and Nanoengineering</i> , <b>2019</b> , 5, 33	7.7	6
12	Comparative Studies in the A30P and A53T $\alpha$ -Synuclein Strains to Investigate the Molecular Origins of Parkinson's Disease. <i>Frontiers in Cell and Developmental Biology</i> , <b>2021</b> , 9, 552549	5.7	5
11	Light scattering from liquid crystal director fluctuations in steady magnetic fields up to 25 tesla. <i>Physical Review E</i> , <b>2012</b> , 86, 011708	2.4	4
10	Analysis of $\alpha$ -crystallin polydispersity in solution through native microfluidic electrophoresis. <i>Analyst</i> , <b>2019</b> , 144, 4413-4424	5	3
9	Viscoelastic properties of a branched liquid crystal in the nematic phase. <i>Liquid Crystals</i> , <b>2014</b> , 41, 747-754	5.3	3
8	Accelerating Reaction Rates of Biomolecules by Using Shear Stress in Artificial Capillary Systems. <i>Journal of the American Chemical Society</i> , <b>2021</b> , 143, 16401-16410	16.4	3
7	Direct digital sensing of proteins in solution through single-molecule optofluidics		3
6	Multidimensional protein characterisation using microfluidic post-column analysis. <i>Lab on A Chip</i> , <b>2020</b> , 20, 2663-2673	7.2	2
5	Collective dynamics in dispersions of anisometric pigment particles. <i>Journal of Molecular Liquids</i> , <b>2018</b> , 267, 322-329	6	1
4	Machine learning aided top-down proteomics on a microfluidic platform		1
3	Machine learning-aided protein identification from multidimensional signatures. <i>Lab on A Chip</i> , <b>2021</b> , 21, 2922-2931	7.2	1
2	Peculiarities of the magneto-optical response in dispersions of anisometric pigment nano-particles. <i>RSC Advances</i> , <b>2016</b> , 6, 80666-80669	3.7	0
1	Innenstruktur: Nucleation and Growth of Amino Acid and Peptide Supramolecular Polymers through Liquid-Liquid Phase Separation (Angew. Chem. 50/2019). <i>Angewandte Chemie</i> , <b>2019</b> , 131, 18463-18463	3.6	0