Vinod Subramaniam

List of Publications by Citations

232 papers	10,090 citations	56 h-index	89 g-index
261 ext. papers	11,085 ext. citations	5.2 avg, IF	6.01 L-index

#	Paper	IF	Citations
232	Dependence of alpha-synuclein aggregate morphology on solution conditions. *Journal of Molecular Biology*, **2002**, 322, 383-93	6.5	407
231	Neurotoxicity of Alzheimer disease A peptides is induced by small changes in the A42 to A40 ratio. *EMBO Journal*, **2010**, 29, 3408-20	13	376
230	Photochromicity and Fluorescence Lifetimes of Green Fluorescent Protein. *Journal of Physical Chemistry B*, **1999**, 103, 8612-8617	3.4	282
229	Impact of the acidic C-terminal region comprising amino acids 109-140 on alpha-synuclein aggregation in vitro. *Biochemistry*, **2004**, 43, 16233-42	3.2	268
228	Fast, ultrasensitive virus detection using a Young interferometer sensor. *Nano Letters*, **2007**, 7, 394-7	11.5	224
227	NMR of alpha-synuclein-polyamine complexes elucidates the mechanism and kinetics of induced aggregation. *EMBO Journal*, **2004**, 23, 2039-46	13	202
226	What in a name? Why these proteins are intrinsically disordered: Why these proteins are intrinsically disordered. *Intrinsically Disordered Proteins*, **2013**, 1, e24157		171
225	Dynamic fluorescence anisotropy imaging microscopy in the frequency domain (rFLIM). *Biophysical Journal*, **2002**, 83, 1631-49	2.9	171
224	One- and two-photon excited fluorescence lifetimes and anisotropy decays of green fluorescent proteins. *Biophysical Journal*, **2000**, 78, 1589-98	2.9	157
223	Rapid self-assembly of alpha-synuclein observed by in situ atomic force microscopy. *Journal of Molecular Biology*, **2004**, 340, 127-39	6.5	152
222	Identification of Single Molecules in Aqueous Solution by Time-Resolved Fluorescence Anisotropy. *Journal of Physical Chemistry A*, **1999**, 103, 331-336	2.8	147
221	Nanomechanical properties of synuclein amyloid fibrils: a comparative study by nanoindentation, harmonic force microscopy, and Peakforce QNM. *Nanoscale Research Letters*, **2011**, 6, 270	5	144
220	EFGP and DsRed expressing cultures of Escherichia coli imaged by confocal, two-photon and fluorescence lifetime microscopy. *FEBS Letters*, **2000**, 479, 131-5	3.8	136
219	Cellular polyamines promote the aggregation of alpha-synuclein. *Journal of Biological Chemistry*, **2003**, 278, 3235-40	5.4	132
218	Lipid bilayer disruption by oligomeric alpha-synuclein depends on bilayer charge and accessibility of the hydrophobic core. *Biochimica Et Biophysica Acta - Biomembranes*, **2009**, 1788, 1271-8	3.8	126
217	SNARE assembly and disassembly exhibit a pronounced hysteresis. *Nature Structural Biology*, **2002**, 9, 144-51		124
216	Combined AFM and confocal fluorescence microscope for applications in bio-nanotechnology. *Journal of Microscopy*, **2005**, 217, 109-16	1.9	119

215	Three photoconvertible forms of green fluorescent protein identified by spectral hole-burning. *Nature Structural Biology*, **1999**, 6, 706		117
214	The use of fluorescent dyes and probes in surgical oncology. *European Journal of Surgical Oncology*, **2010**, 36, 6-15	3.6	112
213	Covalent microcontact printing of proteins for cell patterning. *Chemistry - A European Journal*, **2006**, 12, 6290-7	4.8	111
212	Nanophotonic control of the Förster resonance energy transfer efficiency. *Physical Review Letters*, **2012**, 109, 203601	7.4	109
211	Membrane Permeabilization by Oligomeric α-Synuclein: In Search of the Mechanism. *PLoS ONE*, **2010**, 5, e14292	3.7	105
210	Fluorescence lifetime imaging: multi-point calibration, minimum resolvable differences, and artifact suppression. *Cytometry*, **2001**, 43, 248-60		100
209	Refractive index sensing of green fluorescent proteins in living cells using fluorescence lifetime imaging microscopy. *Biophysical Journal*, **2008**, 94, L67-9	2.9	99
208	Micromechanical bending of single collagen fibrils using atomic force microscopy. *Journal of Biomedical Materials Research - Part A*, **2007**, 82, 160-8	5.4	99
207	Antiparallel arrangement of the helices of vesicle-bound alpha-synuclein. *Journal of the American Chemical Society*, **2008**, 130, 7796-7	16.4	97
206	Interplay between myosin IIA-mediated contractility and actin network integrity orchestrates podosome composition and oscillations. *Nature Communications*, **2013**, 4, 1412	17.4	95
205	Strategies for patterning biomolecules with dip-pen nanolithography. *Small*, **2011**, 7, 989-1002	11	94
204	Generation of alternative Ultrabithorax isoforms and stepwise removal of a large intron by resplicing at exon-exon junctions. *Molecular Cell*, **1998**, 2, 787-96	17.6	93
203	Photophysics and optical switching in green fluorescent protein mutants. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 2974-2978	11.5	93
202	Tryptophan fluorescence reveals structural features of alpha-synuclein oligomers. *Journal of Molecular Biology*, **2009**, 394, 826-33	6.5	91
201	Three photoconvertible forms of green fluorescent protein identified by spectral hole-burning. *Nature Structural Biology*, **1999**, 6, 557-60		91
200	Quantitative morphological analysis reveals ultrastructural diversity of amyloid fibrils from alpha-synuclein mutants. *Biophysical Journal*, **2006**, 91, L96-8	2.9	89
199	Time, space, and spectrally resolved studies on J-aggregate interactions in zeolite L nanochannels. *Journal of the American Chemical Society*, **2008**, 130, 10970-6	16.4	88
198	The nature of fluorescence emission in the red fluorescent protein DsRed, revealed by single-molecule detection. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 14392-7	11.5	85

197	Inhibition of □synuclein aggregation by small heat shock proteins. *Proteins: Structure, Function and Bioinformatics*, **2011**, 79, 2956-67	4.2	84
196	Evidence for Intramolecular Antiparallel Beta-Sheet Structure in Alpha-Synuclein Fibrils from a Combination of Two-Dimensional Infrared Spectroscopy and Atomic Force Microscopy. *Scientific Reports*, **2017**, 7, 41051	4.9	82
195	Sensitive Electrochemical Detection of Native and Aggregated □Synuclein Protein Involved in Parkinson□ Disease. *Electroanalysis*, **2004**, 16, 1172-1181	3	76
194	Ultrafast dynamics in the excited state of green fluorescent protein (wt) studied by frequency-resolved femtosecond pump-probe spectroscopy. *Physical Chemistry Chemical Physics*, **2002**, 4, 1072-1081	3.6	76
193	□Synuclein oligomers: an amyloid pore? Insights into mechanisms of □synuclein oligomer-lipid interactions. *Molecular Neurobiology*, **2013**, 47, 613-21	6.2	74
192	Silver Nanoparticle Aggregates as Highly Efficient Plasmonic Antennas for Fluorescence Enhancement. *Journal of Physical Chemistry C*, **2012**, 116, 16687-16693	3.8	71
191	Interaction of oxazole yellow dyes with DNA studied with hybrid optical tweezers and fluorescence microscopy. *Biophysical Journal*, **2009**, 97, 835-43	2.9	67
190	Evaluation of fluorophores to label SNAP-tag fused proteins for multicolor single-molecule tracking microscopy in live cells. *Biophysical Journal*, **2014**, 107, 803-14	2.9	64
189	Molecular composition of sub-stoichiometrically labeled □synuclein oligomers determined by single-molecule photobleaching. *Angewandte Chemie - International Edition*, **2012**, 51, 8821-4	16.4	64
188	Nanometer arrays of functional light harvesting antenna complexes by nanoimprint lithography and host-guest interactions. *Journal of the American Chemical Society*, **2008**, 130, 8892-3	16.4	63
187	CD-tagging: a new approach to gene and protein discovery and analysis. *BioTechniques*, **1996**, 20, 896-904	2.5	63
186	Assembly of bionanostructures onto beta-cyclodextrin molecular printboards for antibody recognition and lymphocyte cell counting. *Journal of the American Chemical Society*, **2008**, 130, 6964-73	16.4	61
185	Cyanine dye-protein interactions: looking for fluorescent probes for amyloid structures. *Journal of Proteomics*, **2007**, 70, 727-33		61
184	Alpha-synuclein binds to the inner membrane of mitochondria in an □helical conformation. *ChemBioChem*, **2014**, 15, 2499-502	3.8	60
183	Membrane binding of oligomeric alpha-synuclein depends on bilayer charge and packing. *FEBS Letters*, **2008**, 582, 3788-92	3.8	59
182	Direct observation of nanomechanical properties of chromatin in living cells. *Nano Letters*, **2007**, 7, 1424-7	11.5	59
181	The Impact of N-terminal Acetylation of □Synuclein on Phospholipid Membrane Binding and Fibril Structure. *Journal of Biological Chemistry*, **2016**, 291, 21110-21122	5.4	58
180	Solubilization of lipids and lipid phases by the styrene-maleic acid copolymer. *European Biophysics Journal*, **2017**, 46, 91-101	1.9	57

179	C-Terminal Truncated Synuclein Fibrils Contain Strongly Twisted Sheets. *Journal of the American Chemical Society*, **2017**, 139, 15392-15400	16.4	57
178	Direct evidence of coexisting horseshoe and extended helix conformations of membrane-bound alpha-synuclein. *ChemPhysChem*, **2011**, 12, 267-9	3.2	57
177	Double-stranded DNA stimulates the fibrillation of alpha-synuclein in vitro and is associated with the mature fibrils: an electron microscopy study. *Journal of Molecular Biology*, **2004**, 344, 929-38	6.5	56
176	Observation of near-band-gap luminescence from boron nitride films. *Applied Physics Letters*, **1994**, 65, 1251-1253	3.4	56
175	Spin-label EPR on alpha-synuclein reveals differences in the membrane binding affinity of the two antiparallel helices. *ChemBioChem*, **2008**, 9, 2411-6	3.8	55
174	Concentration dependence of alpha-synuclein fibril length assessed by quantitative atomic force microscopy and statistical-mechanical theory. *Biophysical Journal*, **2008**, 95, 4871-8	2.9	54
173	Predicting the loading of virus-like particles with fluorescent proteins. *Biomacromolecules*, **2014**, 15, 558-63	6.9	52
172	A comparative analysis of the aggregation behavior of amyloid-peptide variants. *FEBS Letters*, **2012**, 586, 4088-93	3.8	52
171	Interactions of Perylene Bisimide in the One-Dimensional Channels of Zeolite L. *Journal of Physical Chemistry C*, **2011**, 115, 5974-5988	3.8	52
170	Creating nanopatterns of His-tagged proteins on surfaces by nanoimprint lithography using specific NiNTA-histidine interactions. *Small*, **2007**, 3, 1584-92	11	52
169	Specific fluorescent detection of fibrillar alpha-synuclein using mono- and trimethine cyanine dyes. *Bioorganic and Medicinal Chemistry*, **2008**, 16, 1452-9	3.4	52
168	Nano-mechanical tuning and imaging of a photonic crystal micro-cavity resonance. *Optics Express*, **2006**, 14, 8745-52	3.3	51
167	Photophysics and optical switching in green fluorescent protein mutants. *Proceedings of the National Academy of Sciences of the United States of America*, **2000**, 97, 2974-8	11.5	51
166	Long-range energy propagation in nanometer arrays of light harvesting antenna complexes. *Nano Letters*, **2010**, 10, 1450-7	11.5	50
165	Single-molecule FRET reveals structural heterogeneity of SDS-bound alpha-synuclein. *ChemBioChem*, **2009**, 10, 436-9	3.8	50
164	Directed formation of micro- and nanoscale patterns of functional light-harvesting LH2 complexes. *Journal of the American Chemical Society*, **2007**, 129, 14625-31	16.4	50
163	Tissue transglutaminase modulates alpha-synuclein oligomerization. *Protein Science*, **2008**, 17, 1395-402	6.3	50
162	Synuclein oligomers distinctively permeabilize complex model membranes. *FEBS Journal*, **2014**, 281, 2838-50	5.7	48

161	Atomic force microscopy under controlled conditions reveals structure of C-terminal region of □synuclein in amyloid fibrils. *ACS Nano*, **2012**, 6, 5952-60	16.7	47
160	DNA bending due to specific p53 and p53 core domain-DNA interactions visualized by electron microscopy. *Journal of Molecular Biology*, **1999**, 294, 1015-26	6.5	47
159	Force detection in optical tweezers using backscattered light. *Optics Express*, **2005**, 13, 1113-23	3.3	46
158	Expression of sensitized Eu(3+) luminescence at a multivalent interface. *Journal of the American Chemical Society*, **2009**, 131, 12567-9	16.4	44
157	Measurement of mode field profiles and bending and transition losses in curved optical channel waveguides. *Journal of Lightwave Technology*, **1997**, 15, 990-997	4	44
156	Force spectroscopy and fluorescence microscopy of dsDNA-YOYO-1 complexes: implications for the structure of dsDNA in the overstretching region. *Nucleic Acids Research*, **2010**, 38, 3423-31	20.1	43
155	Self-assembly of protein fibrils into suprafibrillar aggregates: bridging the nano- and mesoscale. *ACS Nano*, **2014**, 8, 5543-51	16.7	42
154	Phosphorescence reveals a continued slow annealing of the protein core following reactivation of Escherichia coli alkaline phosphatase. *Biochemistry*, **1995**, 34, 1133-6	3.2	41
153	Hunting the chameleon: structural conformations of the intrinsically disordered protein alpha-synuclein. *ChemBioChem*, **2012**, 13, 761-8	3.8	40
152	Color control of natural fluorescent proteins by photonic crystals. *Small*, **2008**, 4, 492-6	11	40
151	Anchoring of histidine-tagged proteins to molecular printboards: self-assembly, thermodynamic modeling, and patterning. *Chemistry - A European Journal*, **2008**, 14, 2044-51	4.8	40
150	Oligomerization of DsRed is required for the generation of a functional red fluorescent chromophore. *FEBS Letters*, **2002**, 525, 13-9	3.8	40
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148	A stable lipid-induced aggregate of alpha-synuclein. *Journal of the American Chemical Society*, **2010**, 132, 4080-2	16.4	39
147	Membrane interactions of oligomeric alpha-synuclein: potential role in Parkinson□ disease. *Current Protein and Peptide Science*, **2010**, 11, 334-42	2.8	39
146	Fabrication of cell container arrays with overlaid surface topographies. *Biomedical Microdevices*, **2012**, 14, 95-107	3.7	36
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144	Oligomers of Parkinson□ Disease-Related □Synuclein Mutants Have Similar Structures but Distinctive Membrane Permeabilization Properties. *Biochemistry*, **2015**, 54, 3142-50	3.2	34

143	Fibril breaking accelerates -synuclein fibrillization. *Journal of Physical Chemistry B*, **2015**, 119, 1912-8	3.4	34
142	Modulation of protein dimerization by a supramolecular host-guest system. *Chemistry - A European Journal*, **2009**, 15, 8779-90	4.8	34
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140	Kinetic measurements give new insights into lipid membrane permeabilization by -synuclein oligomers. *Molecular BioSystems*, **2012**, 8, 338-45		33
139	Porous multilayer-coated AFM tips for dip-pen nanolithography of proteins. *Journal of the American Chemical Society*, **2009**, 131, 7526-7	16.4	33
138	Binding of p53 and its core domain to supercoiled DNA. *FEBS Journal*, **2001**, 268, 573-81		33
137	Resonance energy transfer in a calcium concentration-dependent cameleon protein. *Biophysical Journal*, **2002**, 83, 3499-506	2.9	32
136	Distinct Mechanisms Determine -Synuclein Fibril Morphology during Growth and Maturation. *ACS Chemical Neuroscience*, **2017**, 8, 538-547	5.7	31
135	Controlling Protein Surface Orientation by Strategic Placement of Oligo-Histidine Tags. *ACS Nano*, **2017**, 11, 9068-9083	16.7	31
134	Oriented protein immobilization using covalent and noncovalent chemistry on a thiol-reactive self-reporting surface. *Journal of the American Chemical Society*, **2013**, 135, 3104-11	16.4	31
133	Membrane interactions and fibrillization of -synuclein play an essential role in membrane disruption. *FEBS Letters*, **2014**, 588, 4457-63	3.8	30
132	Solution conditions define morphological homogeneity of -synuclein fibrils. *Biochimica Et Biophysica Acta - Proteins and Proteomics*, **2014**, 1844, 2127-34	4	30
131	Dendritic ruthenium(II)-based dyes tuneable for diagnostic or therapeutic applications. *Chemistry - A European Journal*, **2011**, 17, 464-7	4.8	30
130	Picosecond multiphoton scanning near-field optical microscopy. *Biophysical Journal*, **1999**, 76, 1092-100	2.9	30
129	Enhancing spectral shifts of plasmon-coupled noble metal nanoparticles for sensing applications. *Physical Chemistry Chemical Physics*, **2015**, 17, 422-7	3.6	29
128	Amyloids of alpha-synuclein affect the structure and dynamics of supported lipid bilayers. *Biophysical Journal*, **2014**, 106, 2585-94	2.9	29
127	Molecular plasticity regulates oligomerization and cytotoxicity of the multipeptide-length amyloid- peptide pool. *Journal of Biological Chemistry*, **2012**, 287, 36732-43	5.4	29
126	Temperature-modulated quenching of quantum dots covalently coupled to chain ends of poly(N-isopropyl acrylamide) brushes on gold. *Nanotechnology*, **2009**, 20, 185501	3.4	29

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122	Polymorph-specific distribution of binding sites determines thioflavin-T fluorescence intensity in □synuclein fibrils. *Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis*, **2018**, 25, 189-196	2.7	28
121	Nanomechanical properties of single amyloid fibrils. *Journal of Physics Condensed Matter*, **2012**, 24, 243101	2.8	27
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111	Direct Observation of □Synuclein Amyloid Aggregates in Endocytic Vesicles of Neuroblastoma Cells. *PLoS ONE*, **2016**, 11, e0153020	3.7	26
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105	Directed assembly of functional light harvesting antenna complexes onto chemically patterned surfaces. *Nanotechnology*, **2008**, 19, 025101	3.4	24
104	Fluorescence resonance energy transfer detected by scanning near-field optical microscopy. *Journal of Microscopy*, **1999**, 194, 448-54	1.9	24
103	In vitro renaturation of bovine beta-lactoglobulin A leads to a biologically active but incompletely refolded state. *Protein Science*, **1996**, 5, 2089-94	6.3	23
102	Classification of dynamical diffusion states in single molecule tracking microscopy. *Biophysical Journal*, **2014**, 107, 588-598	2.9	22
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100	Single-molecule spectral dynamics at room temperature. *Molecular Physics*, **2009**, 107, 1923-1942	1.7	22
99	Multimode microscopy: spectral and lifetime imaging. *Journal of the Royal Society Interface*, **2009**, 6,	4.1	22
98	Alpha-Synuclein Disease Mutations Are Structurally Defective and Locally Affect Membrane Binding. *Journal of the American Chemical Society*, **2017**, 139, 4254-4257	16.4	21
97	Excitation Spectra and Stokes Shift Measurements of Single Organic Dyes at Room Temperature. *Journal of Physical Chemistry Letters*, **2014**, 5, 3259-64	6.4	21
96	Size-selective detection in integrated optical interferometric biosensors. *Optics Express*, **2012**, 20, 20934-50	3.5	21
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94	Pyrylium monolayers as amino-reactive platform. *Chemical Communications*, **2010**, 46, 4193-5	5.8	20
93	Microbioreactors for Raman microscopy of stromal cell differentiation. *Analytical Chemistry*, **2010**, 82, 1844-50	7.8	20
92	Single oligomer spectra probe chromophore nanoenvironments of tetrameric fluorescent proteins. *Journal of the American Chemical Society*, **2006**, 128, 8664-70	16.4	20
91	Conformational Compatibility Is Essential for Heterologous Aggregation of -Synuclein. *ACS Chemical Neuroscience*, **2016**, 7, 719-27	5.7	19
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87	Dependence of silicon position-detector bandwidth on wavelength, power, and bias. *Optics Letters*, **2006**, 31, 610-2	3	18
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85	Elucidating the aggregation number of dopamine-induced □synuclein oligomeric assemblies. *Biophysical Journal*, **2014**, 106, 440-6	2.9	17
84	Fast, single-step, and surfactant-free oligonucleotide modification of gold nanoparticles using DNA with a positively charged tail. *Chemical Communications*, **2013**, 49, 11400-2	5.8	17
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78	A four-amino acid linker between repeats in the □synuclein sequence is important for fibril formation. *Biochemistry*, **2014**, 53, 279-81	3.2	15
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76	Microspectroscopic analysis of green fluorescent proteins infiltrated into mesoporous silica nanochannels. *Journal of Colloid and Interface Science*, **2011**, 356, 123-30	9.3	15
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73	Fabrication and visualization of metal-ion patterns on glass by dip-pen nanolithography. *ChemPhysChem*, **2008**, 9, 1680-7	3.2	15
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70	A molecular beacon strategy for real-time monitoring of triplex DNA formation kinetics. *Oligonucleotides*, **2002**, 12, 145-54		14
69	Direct Visualization of Model Membrane Remodeling by Synuclein Fibrillization. *ChemPhysChem*, **2017**, 18, 1620-1626	3.2	13
68	Single molecule fluorescence spectroscopy of mutants of the Discosoma red fluorescent protein DsRed. *Chemical Physics Letters*, **2002**, 362, 355-361	2.5	13
67	Identification, cloning and characterization of a new DNA-binding protein from the hyperthermophilic methanogen Methanopyrus kandleri. *Nucleic Acids Research*, **2002**, 30, 685-94	20.1	13
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61	An ultrasensitive young interferometer handheld sensor for rapid virus detection. *Expert Review of Medical Devices*, **2007**, 4, 447-54	3.5	11
60	Time-resolved tryptophan phosphorescence spectroscopy: a sensitive probe of protein folding and structure. *IEEE Journal of Selected Topics in Quantum Electronics*, **1996**, 2, 1107-1114	3.8	11
59	Studies of interaction between cyanine dye T-284 and fibrillar alpha-synuclein. *Journal of Fluorescence*, **2010**, 20, 1267-74	2.4	10
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