Latha Venkataraman

List of Publications by Year in Descending Order

149 papers	11,665 citations	54 h-index	106 g-index
159 ext. papers	13,179 ext. citations	13.1 avg, IF	6.44 L-index

#	Paper	IF	Citations
149	Theory of Chirality Induced Spin Selectivity: Progress and Challenges.. *Advanced Materials*, **2022**, e2106629	24	14
148	Conjugated redox-active two-dimensional polymers as organic cathode materials.. *Chemical Science*, **2022**, 13, 3533-3538	9.4	1
147	Single-Molecule Junction Formation in Break-Junction Measurements. *Journal of Physical Chemistry Letters*, **2021**, 12, 10802-10807	6.4	3
146	Highly nonlinear transport across single-molecule junctions via destructive quantum interference. *Nature Nanotechnology*, **2021**, 16, 313-317	28.7	14
145	Single-molecule conductance in a unique cross-conjugated tetra(aminoaryl)ethene. *Chemical Communications*, **2021**, 57, 591-594	5.8	2
144	Voltage-Induced Single-Molecule Junction Planarization. *Nano Letters*, **2021**, 21, 673-679	11.5	10
143	Destructive quantum interference in heterocyclic alkanes: the search for ultra-short molecular insulators. *Chemical Science*, **2021**, 12, 10299-10305	9.4	4
142	Tight-binding analysis of helical states in carbyne. *Journal of Chemical Physics*, **2020**, 153, 124304	3.9	5
141	Visualizing Quantum Interference in Molecular Junctions. *Nano Letters*, **2020**, 20, 2843-2848	11.5	16
140	Gold-Carbon Contacts from Oxidative Addition of Aryl Iodides. *Journal of the American Chemical Society*, **2020**, 142, 7128-7133	16.4	15
139	Unsupervised feature recognition in single-molecule break junction data. *Nanoscale*, **2020**, 12, 8355-8363	7.7	12
138	Using Deep Learning to Identify Molecular Junction Characteristics. *Nano Letters*, **2020**, 20, 3320-3325	11.5	10
137	Solitonics with Polyacetylenes. *Nano Letters*, **2020**, 20, 2615-2619	11.5	8
136	Cyclopropenylidenes as Strong Carbene Anchoring Groups on Au Surfaces. *Journal of the American Chemical Society*, **2020**, 142, 19902-19906	16.4	4
135	Too Cool for Blackbody Radiation: Overbias Photon Emission in Ambient STM Due to Multielectron Processes. *Nano Letters*, **2020**, 20, 8912-8918	11.5	4
134	Synthesis and electronic properties of pyridine end-capped cyclopentadithiophene-vinylene oligomers.. *RSC Advances*, **2020**, 10, 41264-41271	3.7	1
133	Mechanically Tunable Quantum Interference in Ferrocene-Based Single-Molecule Junctions. *Nano Letters*, **2020**, 20, 6381-6386	11.5	16

132	Cumulene Wires Display Increasing Conductance with Increasing Length. *Nano Letters*, **2020**, 20, 8415-8419	11.5	15
131	Single-Electron Currents in Designer Single-Cluster Devices. *Journal of the American Chemical Society*, **2020**, 142, 14924-14932	16.4	4
130	The importance of intramolecular conductivity in three dimensional molecular solids. *Chemical Science*, **2019**, 10, 9339-9344	9.4	3
129	Permethylation Introduces Destructive Quantum Interference in Saturated Silanes. *Journal of the American Chemical Society*, **2019**, 141, 15471-15476	16.4	16
128	Enhanced coupling through π-stacking in imidazole-based molecular junctions. *Chemical Science*, **2019**, 10, 9998-10002	9.4	18
127	Directing isomerization reactions of cumulenes with electric fields. *Nature Communications*, **2019**, 10, 4482	17.4	47
126	Determination of the structure and geometry of N-heterocyclic carbenes on Au(111) using high-resolution spectroscopy. *Chemical Science*, **2019**, 10, 930-935	9.4	35
125	Abbildung des Orbitals des ungepaarten Elektrons in einem stabilen, organischen Radikal anhand seiner Kondo-Resonanz. *Angewandte Chemie*, **2019**, 131, 11179-11183	3.6	0
124	In Situ Coupling of Single Molecules Driven by Gold-Catalyzed Electrooxidation. *Angewandte Chemie - International Edition*, **2019**, 58, 16008-16012	16.4	11
123	Resolving the Unpaired-Electron Orbital Distribution in a Stable Organic Radical by Kondo Resonance Mapping. *Angewandte Chemie - International Edition*, **2019**, 58, 11063-11067	16.4	16
122	The Environment-Dependent Behavior of the Blatter Radical at the Metal-Molecule Interface. *Nano Letters*, **2019**, 19, 2543-2548	11.5	24
121	Non-chemisorbed gold-sulfur binding prevails in self-assembled monolayers. *Nature Chemistry*, **2019**, 11, 351-358	17.6	113
120	In Situ Coupling of Single Molecules Driven by Gold-Catalyzed Electrooxidation. *Angewandte Chemie*, **2019**, 131, 16154-16158	3.6	0
119	Molecular conductance versus inductive effects of axial ligands on the electrocatalytic activity of self-assembled iron phthalocyanines: The oxygen reduction reaction. *Electrochimica Acta*, **2019**, 327, 134996	6.7	8
118	Breaking Down Resonance: Nonlinear Transport and the Breakdown of Coherent Tunneling Models in Single Molecule Junctions. *Nano Letters*, **2019**, 19, 2555-2561	11.5	25
117	Probing Charge Transport through Peptide Bonds. *Journal of Physical Chemistry Letters*, **2018**, 9, 763-767	6.4	22
116	Electronic and mechanical characteristics of stacked dimer molecular junctions. *Nanoscale*, **2018**, 10, 3362-3368	7.7	29
115	Tuning ultrafast electron injection dynamics at organic-graphene/metal interfaces. *Nanoscale*, **2018**, 10, 8014-8022	7.7	3

114	Comprehensive suppression of single-molecule conductance using destructive interference. *Nature*, **2018**, 558, 415-419	50.4	162
113	Resonant Transport in Single Diketopyrrolopyrrole Junctions. *Journal of the American Chemical Society*, **2018**, 140, 13167-13170	16.4	32
112	Large Variations in the Single-Molecule Conductance of Cyclic and Bicyclic Silanes. *Journal of the American Chemical Society*, **2018**, 140, 15080-15088	16.4	19
111	Near Length-Independent Conductance in Polymethine Molecular Wires. *Nano Letters*, **2018**, 18, 6387-6391	11.5	30
110	In Situ Formation of N-Heterocyclic Carbene-Bound Single-Molecule Junctions. *Journal of the American Chemical Society*, **2018**, 140, 8944-8949	16.4	35
109	Too Hot for Photon-Assisted Transport: Hot-Electrons Dominate Conductance Enhancement in Illuminated Single-Molecule Junctions. *Nano Letters*, **2017**, 17, 1255-1261	11.5	28
108	Tuning the polarity of charge carriers using electron deficient thiophenes. *Chemical Science*, **2017**, 8, 3254-3259	9.4	18
107	The Influence of Linkers on Quantum Interference: A Linker Theorem. *Journal of Physical Chemistry C*, **2017**, 121, 14451-14462	3.8	19
106	Preface: Special Topic on Frontiers in Molecular Scale Electronics. *Journal of Chemical Physics*, **2017**, 146, 092101	3.9	12
105	Silane and Germane Molecular Electronics. *Accounts of Chemical Research*, **2017**, 50, 1088-1095	24.3	63
104	Reversible on-surface wiring of resistive circuits. *Chemical Science*, **2017**, 8, 4340-4346	9.4	4
103	Temperature dependent tunneling conductance of single molecule junctions. *Journal of Chemical Physics*, **2017**, 146, 092311	3.9	16
102	A reversible single-molecule switch based on activated antiaromaticity. *Science Advances*, **2017**, 3, eaao2615	14.3	63
101	Electronically Transparent Au-N Bonds for Molecular Junctions. *Journal of the American Chemical Society*, **2017**, 139, 14845-14848	16.4	52
100	Silver Makes Better Electrical Contacts to Thiol-Terminated Silanes than Gold. *Angewandte Chemie*, **2017**, 129, 14333-14336	3.6	0
99	Silver Makes Better Electrical Contacts to Thiol-Terminated Silanes than Gold. *Angewandte Chemie - International Edition*, **2017**, 56, 14145-14148	16.4	10
98	Room-temperature current blockade in atomically defined single-cluster junctions. *Nature Nanotechnology*, **2017**, 12, 1050-1054	28.7	49
97	Extreme Conductance Suppression in Molecular Siloxanes. *Journal of the American Chemical Society*, **2017**, 139, 10212-10215	16.4	20

96	The Role of Through-Space Interactions in Modulating Constructive and Destructive Interference Effects in Benzene. *Nano Letters*, **2017**, 17, 4436-4442	11.5	32
95	Controlling the rectification properties of molecular junctions through molecule-electrode coupling. *Nanoscale*, **2016**, 8, 16357-16362	7.7	28
94	High-Conductance Pathways in Ring-Strained Disilanes by Way of Direct Si-Si to Au Coordination. *Journal of the American Chemical Society*, **2016**, 138, 11505-8	16.4	15
93	Probing the Conductance of the System of Bipyridine Using Destructive Interference. *Journal of Physical Chemistry Letters*, **2016**, 7, 4825-4829	6.4	36
92	Mechanism for Si-Si Bond Rupture in Single Molecule Junctions. *Journal of the American Chemical Society*, **2016**, 138, 16159-16164	16.4	21
91	Chemical principles of single-molecule electronics. *Nature Reviews Materials*, **2016**, 1,	73.3	308
90	Mapping the Transmission Functions of Single-Molecule Junctions. *Nano Letters*, **2016**, 16, 3949-54	11.5	43
89	Tuning Conductance in Single-Molecule Wires. *Journal of the American Chemical Society*, **2016**, 138, 7791-5	16.4	20
88	Structure unction relationships in single molecule rectification by N-phenylbenzamide derivatives. *New Journal of Chemistry*, **2016**, 40, 7373-7378	3.6	6
87	Structure-Property Relationships in Atomic-Scale Junctions: Histograms and Beyond. *Accounts of Chemical Research*, **2016**, 49, 452-60	24.3	51
86	Solvent-dependent conductance decay constants in single cluster junctions. *Chemical Science*, **2016**, 7, 2701-2705	9.4	24
85	Conformations of cyclopentasilane stereoisomers control molecular junction conductance. *Chemical Science*, **2016**, 7, 5657-5662	9.4	19
84	Ultrafast electron injection into photo-excited organic molecules. *Physical Chemistry Chemical Physics*, **2016**, 18, 22140-5	3.6	10
83	Adsorption-Induced Solvent-Based Electrostatic Gating of Charge Transport through Molecular Junctions. *Nano Letters*, **2015**, 15, 4498-503	11.5	30
82	Reply to "Comment on Breakdown of Interference Rules in Azulene, a Nonalternant Hydrocarbon". *Nano Letters*, **2015**, 15, 7177-8	11.5	11
81	Computational Design of Intrinsic Molecular Rectifiers Based on Asymmetric Functionalization of N-Phenylbenzamide. *Journal of Chemical Theory and Computation*, **2015**, 11, 5888-96	6.4	29
80	Single-molecule conductance in atomically precise germanium wires. *Journal of the American Chemical Society*, **2015**, 137, 12400-5	16.4	31
79	Ultrafast Bidirectional Charge Transport and Electron Decoherence at Molecule/Surface Interfaces: A Comparison of Gold, Graphene, and Graphene Nanoribbon Surfaces. *Nano Letters*, **2015**, 15, 8316-21	11.5	13

78	Impact of Electrode Density of States on Transport through Pyridine-Linked Single Molecule Junctions. *Nano Letters*, **2015**, 15, 3716-22	11.5	56
77	Flicker Noise as a Probe of Electronic Interaction at Metal-Single Molecule Interfaces. *Nano Letters*, **2015**, 15, 4143-9	11.5	54
76	Single-molecule diodes with high rectification ratios through environmental control. *Nature Nanotechnology*, **2015**, 10, 522-7	28.7	278
75	Stereoelectronic switching in single-molecule junctions. *Nature Chemistry*, **2015**, 7, 215-20	17.6	134
74	Electric field breakdown in single molecule junctions. *Journal of the American Chemical Society*, **2015**, 137, 5028-33	16.4	50
73	Computational Study of Amino Mediated Molecular Interaction Evidenced in N 1s NEXAFS: 1,4-Diaminobenzene on Au (111). *Journal of Physical Chemistry C*, **2015**, 119, 1988-1995	3.8	8
72	Molecular length dictates the nature of charge carriers in single-molecule junctions of oxidized oligothiophenes. *Nature Chemistry*, **2015**, 7, 209-14	17.6	119
71	Tunable charge transport in single-molecule junctions via electrolytic gating. *Nano Letters*, **2014**, 14, 1400-4	11.5	84
70	Probing the mechanism for graphene nanoribbon formation on gold surfaces through X-ray spectroscopy. *Chemical Science*, **2014**, 5, 4419-4423	9.4	74
69	Evaluating atomic components in fluorene wires. *Chemical Science*, **2014**, 5, 1561	9.4	36
68	Control of single-molecule junction conductance of porphyrins via a transition-metal center. *Nano Letters*, **2014**, 14, 5365-70	11.5	70
67	Trimethyltin-mediated covalent gold-carbon bond formation. *Journal of the American Chemical Society*, **2014**, 136, 12556-9	16.4	20
66	Aromaticity decreases single-molecule junction conductance. *Journal of the American Chemical Society*, **2014**, 136, 918-20	16.4	113
65	Determination of energy level alignment and coupling strength in 4,4Sbipyridine single-molecule junctions. *Nano Letters*, **2014**, 14, 794-8	11.5	93
64	Length-dependent conductance of oligothiophenes. *Journal of the American Chemical Society*, **2014** , 136, 10486-92	16.4	107
63	Charge transport and rectification in molecular junctions formed with carbon-based electrodes. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 10928-32	11.5	74
62	Quantitative bond energetics in atomic-scale junctions. *ACS Nano*, **2014**, 8, 7522-30	16.7	16
61	Breakdown of interference rules in azulene, a nonalternant hydrocarbon. *Nano Letters*, **2014**, 14, 2941-5	11.5	99

60	Molecular electronics: general discussion. *Faraday Discussions*, **2014**, 174, 125-51	3.6	4
59	Molecular diodes enabled by quantum interference. *Faraday Discussions*, **2014**, 174, 79-89	3.6	26
58	Ultrafast Charge Transfer through Noncovalent Au□N Interactions in Molecular Systems. *Journal of Physical Chemistry C*, **2013**, 117, 16477-16482	3.8	34
57	Length-dependent thermopower of highly conducting Au-C bonded single molecule junctions. *Nano Letters*, **2013**, 13, 2889-94	11.5	109
56	Impact of molecular symmetry on single-molecule conductance. *Journal of the American Chemical Society*, **2013**, 135, 11724-7	16.4	49
55	Tuning rectification in single-molecular diodes. *Nano Letters*, **2013**, 13, 6233-7	11.5	152
54	Silicon ring strain creates high-conductance pathways in single-molecule circuits. *Journal of the American Chemical Society*, **2013**, 135, 18331-4	16.4	38
53	Correlating structure, conductance, and mechanics of silver atomic-scale contacts. *ACS Nano*, **2013**, 7, 3706-12	16.7	46
52	Simultaneous Measurement of Force and Conductance Across Single Molecule Junctions. *Conference Proceedings of the Society for Experimental Mechanics*, **2013**, 75-84	0.3	
51	Single-molecule junctions beyond electronic transport. *Nature Nanotechnology*, **2013**, 8, 399-410	28.7	617
50	Conductance of molecular junctions formed with silver electrodes. *Nano Letters*, **2013**, 13, 3358-64	11.5	77
49	Transport properties of individual C60-molecules. *Journal of Chemical Physics*, **2013**, 139, 234701	3.9	26
48	Importance of direct metal-□coupling in electronic transport through conjugated single-molecule junctions. *Journal of the American Chemical Society*, **2012**, 134, 20440-5	16.4	62
47	Quantum Soldering of Individual Quantum Dots. *Angewandte Chemie*, **2012**, 124, 12641-12644	3.6	3
46	Innenr□ktitelbild: Quantum Soldering of Individual Quantum Dots (Angew. Chem. 50/2012). *Angewandte Chemie*, **2012**, 124, 12797-12797	3.6	
45	Quantum soldering of individual quantum dots. *Angewandte Chemie - International Edition*, **2012**, 51, 12473-6	16.4	33
44	Electronic transport and mechanical stability of carboxyl linked single-molecule junctions. *Physical Chemistry Chemical Physics*, **2012**, 14, 13841-5	3.6	37
43	Quantitative current-voltage characteristics in molecular junctions from first principles. *Nano Letters*, **2012**, 12, 6250-4	11.5	62

42	Conductive molecular silicon. *Journal of the American Chemical Society*, **2012**, 134, 4541-4	16.4	74
41	Dissecting contact mechanics from quantum interference in single-molecule junctions of stilbene derivatives. *Nano Letters*, **2012**, 12, 1643-7	11.5	142
40	Linker dependent bond rupture force measurements in single-molecule junctions. *Journal of the American Chemical Society*, **2012**, 134, 4003-6	16.4	96
39	Van der Waals interactions at metal/organic interfaces at the single-molecule level. *Nature Materials*, **2012**, 11, 872-6	27	151
38	Probing the conductance superposition law in single-molecule circuits with parallel paths. *Nature Nanotechnology*, **2012**, 7, 663-7	28.7	258
37	Quantifying through-space charge transfer dynamics in coupled molecular systems. *Nature Communications*, **2012**, 3, 1086	17.4	85
36	Simultaneous determination of conductance and thermopower of single molecule junctions. *Nano Letters*, **2012**, 12, 354-8	11.5	217
35	Correlation analysis of atomic and single-molecule junction conductance. *ACS Nano*, **2012**, 6, 3411-23	16.7	64
34	Highly conducting conjugated molecular junctions covalently bonded to gold electrodes. *Journal of the American Chemical Society*, **2011**, 133, 17160-3	16.4	149
33	In situ formation of highly conducting covalent Au-C contacts for single-molecule junctions. *Nature Nanotechnology*, **2011**, 6, 353-7	28.7	206
32	Structure and Energy Level Alignment of Tetramethyl Benzenediamine on Au(111). *Journal of Physical Chemistry C*, **2011**, 115, 12625-12630	3.8	9
31	Mechanics and chemistry: single molecule bond rupture forces correlate with molecular backbone structure. *Nano Letters*, **2011**, 11, 1518-23	11.5	113
30	Conductance of single cobalt chalcogenide cluster junctions. *Journal of the American Chemical Society*, **2011**, 133, 8455-7	16.4	33
29	Environmental control of single-molecule junction transport. *Nano Letters*, **2011**, 11, 1988-92	11.5	91
28	Single-molecule conductance through multiple stacked benzene rings determined with direct electrode-to-benzene ring connections. *Journal of the American Chemical Society*, **2011**, 133, 2136-9	16.4	141
27	A single-molecule potentiometer. *Nano Letters*, **2011**, 11, 1575-9	11.5	98
26	Relating energy level alignment and amine-linked single molecule junction conductance. *Nano Letters*, **2010**, 10, 2470-4	11.5	92
25	Reliable Formation of Single Molecule Junctions with Air-Stable Diphenylphosphine Linkers. *Journal of Physical Chemistry Letters*, **2010**, 1, 2114-2119	6.4	34

24	Conductance and geometry of pyridine-linked single-molecule junctions. *Journal of the American Chemical Society*, **2010**, 132, 6817-21	16.4	160
23	The electrical properties of biphenylenes. *Organic Letters*, **2010**, 12, 4114-7	6.2	27
22	Formation and evolution of single-molecule junctions. *Physical Review Letters*, **2009**, 102, 126803	7.4	197
21	Measurement of voltage-dependent electronic transport across amine-linked single-molecular-wire junctions. *Nanotechnology*, **2009**, 20, 434009	3.4	39
20	Mechanically controlled binary conductance switching of a single-molecule junction. *Nature Nanotechnology*, **2009**, 4, 230-4	28.7	515
19	Frustrated rotations in single-molecule junctions. *Journal of the American Chemical Society*, **2009**, 131, 10820-1	16.4	77
18	Amine-linked single-molecule circuits: systematic trends across molecular families. *Journal of Physics Condensed Matter*, **2008**, 20, 374115	1.8	85
17	Magnetic Skyrmions Could Act as Qubits. *Physics Magazine*, **2008**, 1,	1.1	2
16	Single-molecule junction conductance through diaminoacenes. *Journal of the American Chemical Society*, **2007**, 129, 6714-5	16.4	67
15	Efficacy of AuÅu Contacts for Scanning Tunneling Microscopy Molecular Conductance Measurements. *Journal of Physical Chemistry C*, **2007**, 111, 17635-17639	3.8	24
14	Oxidation potentials correlate with conductivities of aromatic molecular wires. *Journal of the American Chemical Society*, **2007**, 129, 12376-7	16.4	54
13	Amine-gold linked single-molecule circuits: experiment and theory. *Nano Letters*, **2007**, 7, 3477-82	11.5	403
12	Electronics and chemistry: varying single-molecule junction conductance using chemical substituents. *Nano Letters*, **2007**, 7, 502-6	11.5	281
11	Contact chemistry and single-molecule conductance: a comparison of phosphines, methyl sulfides, and amines. *Journal of the American Chemical Society*, **2007**, 129, 15768-9	16.4	299
10	Electron transport in a multichannel one-dimensional conductor: molybdenum selenide nanowires. *Physical Review Letters*, **2006**, 96, 076601	7.4	103
9	Single-molecule circuits with well-defined molecular conductance. *Nano Letters*, **2006**, 6, 458-62	11.5	671
8	Variability of conductance in molecular junctions. *Journal of Physical Chemistry B*, **2006**, 110, 2462-6	3.4	174
7	Dependence of single-molecule junction conductance on molecular conformation. *Nature*, **2006**, 442, 904-7	50.4	1100

6	Molybdenum Selenide Molecular Wires as One-Dimensional Conductors. *Physical Review Letters*, **1999**, 83, 5334-5337	7.4	94
5	Monte Carlo simulation of energy dissipation of recombining hydrogen in a maze. *Journal of Low Temperature Physics*, **1995**, 101, 739-742	1.3	
4	Symmetry properties of chiral carbon nanotubes. *Physical Review B*, **1995**, 51, 11176-11179	3.3	48
3	Phonon modes in carbon nanotubules. *Chemical Physics Letters*, **1993**, 209, 77-82	2.5	372
2	Gap Size-Dependent Plasmonic Enhancement in Electroluminescent Tunnel Junctions. *ACS Photonics*,	6.3	1
1	A single-molecule blueprint for synthesis. *Nature Reviews Chemistry*,	34.6	3