

# Suchi Guha

## List of Publications by Year in descending order

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papers

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docs citations

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times ranked

4171  
citing authors

#	ARTICLE	IF	CITATIONS
1	Organic Electrochemical Transistors in Bioanalytical Chemistry. , 2022, , 305-312.		0
2	Weak magnetic field-dependent photoluminescence properties of lead bromide perovskites. Journal of Applied Physics, 2022, 131, .	1.1	2
3	Functionalized polymer dielectrics for low-operating voltage organic field-effect transistors. Journal of Materials Research, 2022, 37, 1547-1557.	1.2	2
4	Temperature-Dependent Phase Stable Hybrid Halide Perovskite Films by Chemical Vapor Deposition. ACS Applied Electronic Materials, 2022, 4, 4258-4264.	2.0	3
5	Mixed-halide perovskites solar cells through PbCl and PbCl <sub>2</sub> precursor films by sequential chemical vapor deposition. Solar Energy, 2021, 215, 179-188.	2.9	14
6	Solution-Processed Organic and ZnO Field-Effect Transistors in Complementary Circuits. Electronic Materials, 2021, 2, 60-71.	0.9	4
7	Enhanced Third Harmonic Generation in Lead Bromide Perovskites with Ruddlesden-Popper Planar Faults. Journal of Physical Chemistry Letters, 2021, 12, 4092-4097.	2.1	8
8	Probing structure-property relationship in chemical vapor deposited hybrid perovskites by pressure and temperature. Journal of Materials Research, 2021, 36, 1805-1812.	1.2	3
9	Inorganic Ruddlesden-Popper Faults in Cesium Lead Bromide Perovskite Nanocrystals for Enhanced Optoelectronic Performance. ACS Applied Materials & Interfaces, 2021, 13, 38579-38585.	4.0	6
10	Pressure-Induced Phase Changes in Cesium Lead Bromide Perovskite Nanocrystals with and without Ruddlesden-Popper Faults. Chemistry of Materials, 2020, 32, 785-794.	3.2	25
11	Air-Stable Hybrid Perovskite Solar Cell by Sequential Vapor Deposition in a Single Reactor. ACS Applied Energy Materials, 2020, 3, 2350-2359.	2.5	30
12	Tuning Charge Transport in PVDF-Based Organic Ferroelectric Transistors: Status and Outlook. ACS Applied Materials & Interfaces, 2020, 12, 26757-26775.	4.0	24
13	Coupling of organic cation and inorganic lattice in methylammonium lead halide perovskites: Insights into a pressure-induced isostructural phase transition. Physical Review Materials, 2020, 4, .	0.9	13
14	Interfacial Effects of UV-Ozone Treated Sol-Gel Processable ZnO for Hybrid Photodetectors and Thin Film Transistors. MRS Advances, 2019, 4, 1793-1800.	0.5	4
15	Revealing interfacial disorder at the growth-front of thick many-layer epitaxial graphene on SiC: a complementary neutron and X-ray scattering investigation. Nanoscale, 2019, 11, 14434-14445.	2.8	5
16	Atomic deuteration of epitaxial many-layer graphene on 4H-SiC(0001 $\bar{A}$ ). Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2019, 37, 041804.	0.6	1
17	UV-Ozone Modified Sol-Gel Processed ZnO for Improved Diketopyrrolopyrrole-Based Hybrid Photodetectors. ACS Applied Electronic Materials, 2019, 1, 2455-2462.	2.0	16
18	Peptide-Based Assemblies on Electrospun Polyamide-6/Chitosan Nanofibers for Detecting Visceral Leishmaniasis Antibodies. ACS Applied Electronic Materials, 2019, 1, 2086-2095.	2.0	20

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19	Temperature dependent carrier mobility in organic field-effect transistors: The role of dielectrics. <i>Journal of Applied Physics</i> , 2019, 125, .	1.1	8
20	Textured Poling of the Ferroelectric Dielectric Layer for Improved Organic Field-Effect Transistors. <i>Advanced Materials Interfaces</i> , 2019, 6, 1801787.	1.9	10
21	Measuring structural inhomogeneity of a helical conjugated polymer at high pressure and temperature. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2019, 57, 392-396.	2.4	1
22	Enhanced piezoresponse and nonlinear optical properties of fluorinated self-assembled peptide nanotubes. <i>AIP Advances</i> , 2019, 9, 115202.	0.6	7
23	Functionalized Self-Assembled Peptide Nanotubes with Cobalt Ferrite Nanoparticles for Applications in Organic Electronics. <i>ACS Applied Nano Materials</i> , 2018, 1, 1175-1187.	2.4	25
24	High Pressure Structural Studies of Conjugated Molecules. <i>Materials and Energy</i> , 2018, , 175-187.	2.5	0
25	Correlating Charge Transport with Structure in Deconstructed Diketopyrrolopyrrole Oligomers: A Case Study of a Monomer in Field-Effect Transistors. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 19844-19852.	4.0	9
26	Polarization Modulation in Ferroelectric Organic Field-Effect Transistors. <i>Physical Review Applied</i> , 2018, 10, .	1.5	18
27	Understanding charge transport in lead iodide perovskite thin-film field-effect transistors. <i>Science Advances</i> , 2017, 3, e1601935.	4.7	354
28	Hybrid ZnO-organic semiconductor interfaces in photodetectors: A comparison of two near-infrared donor-acceptor copolymers. <i>Organic Electronics</i> , 2017, 45, 115-123.	1.4	22
29	Polarization-Induced Transport: A Comparative Study of Ferroelectric and Non-Ferroelectric Dielectric-Gated Organic Field-Effect Transistors. <i>MRS Advances</i> , 2017, 2, 2951-2956.	0.5	1
30	Probing nonlinear optical coefficients in self-assembled peptide nanotubes. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 3084-3093.	1.3	13
31	Plasmonic nano-protrusions: hierarchical nanostructures for single-molecule Raman spectroscopy. <i>Nanotechnology</i> , 2017, 28, 025302.	1.3	9
32	SERS active self-assembled diphenylalanine micro/nanostructures: A combined experimental and theoretical investigation. <i>Journal of Chemical Physics</i> , 2017, 147, 084703.	1.2	10
33	Cyclometalated Platinum-Containing Diketopyrrolopyrrole Complexes and Polymers: Photophysics and Photovoltaic Applications. <i>Chemistry of Materials</i> , 2017, 29, 8449-8461.	3.2	27
34	Polarization-induced transport in organic field-effect transistors: the role of ferroelectric dielectrics. , 2017, , .		0
35	Blue emitting organic semiconductors under high pressure: status and outlook. <i>Reports on Progress in Physics</i> , 2016, 79, 066601.	8.1	12
36	Bandlike Transport in Ferroelectric-Based Organic Field-Effect Transistors. <i>Physical Review Applied</i> , 2016, 6, .	1.5	16

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37	Printed dielectric-based organic diodes and transistors. Flexible and Printed Electronics, 2016, 1, 015004.	1.5	11
38	Polycaprolactone fibers with self-assembled peptide micro/nanotubes: a practical route towards enhanced mechanical strength and drug delivery applications. Journal of Materials Chemistry B, 2016, 4, 1405-1413.	2.9	33
39	Visualisation of charge-transfer excitations in donor-acceptor molecules using the particle-hole map: a case study. Molecular Physics, 2016, 114, 1365-1373.	0.8	6
40	Multifunctional biosensors based on peptide-polyelectrolyte conjugates. Physical Chemistry Chemical Physics, 2016, 18, 3223-3233.	1.3	30
41	Self-Assembled Peptide-Polyfluorene Nanocomposites for Biodegradable Organic Electronics. Advanced Materials Interfaces, 2015, 2, 1500265.	1.9	35
42	Polarization-induced transport in ferroelectric organic field-effect transistors. Journal of Applied Physics, 2015, 117, .	1.1	26
43	Organic Electronics: Self-Assembled Peptide-Polyfluorene Nanocomposites for Biodegradable Organic Electronics (Adv. Mater. Interfaces 14/2015). Advanced Materials Interfaces, 2015, 2, n/a-n/a.	1.9	0
44	Enhanced performance of ferroelectric-based all organic capacitors and transistors through choice of solvent. Applied Physics Letters, 2014, 104, .	1.5	34
45	Persistence of nematic liquid crystalline phase in a polyfluorene-based organic semiconductor: A high pressure study. Journal of Polymer Science, Part B: Polymer Physics, 2014, 52, 1014-1023.	2.4	4
46	Bioinspired Peptide Nanostructures for Organic Field-Effect Transistors. ACS Applied Materials & Interfaces, 2014, 6, 21408-21415.	4.0	35
47	Photocurrent spectroscopic studies of diketopyrrolopyrrole-based statistical copolymers. Physical Chemistry Chemical Physics, 2014, 16, 4291.	1.3	7
48	Visible-light photocatalytic activity of NH <sub>4</sub> NO <sub>3</sub> ion-exchanged nitrogen-doped titanate and TiO <sub>2</sub> nanotubes. Journal of Molecular Catalysis A, 2014, 394, 48-56.	4.8	21
49	Surface-enhanced Raman spectroscopic studies of the Au-pentacene interface: A combined experimental and theoretical investigation. Journal of Chemical Physics, 2013, 139, 044715.	1.2	10
50	Enhanced mobility and environmental stability in all organic field-effect transistors: The role of high dipole moment solvent. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 1533-1542.	2.4	14
51	Pressure dependence of singlet and triplet excitons in amorphous polymer semiconductors. Europhysics Letters, 2013, 104, 27008.	0.7	7
52	Hybrid n-GaN and polymer interfaces: Model systems for tunable photodiodes. Organic Electronics, 2013, 14, 2818-2825.	1.4	9
53	Measuring Structural Inhomogeneity of Conjugated Polymer at High Pressures up to 30 GPa. Macromolecules, 2013, 46, 8284-8288.	2.2	12
54	Structural study of helical polyfluorene under high quasihydrostatic pressure. Physical Review E, 2013, 87, 022602.	0.8	12

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55	Polarization fluctuation dominated electrical transport processes of polymer-based ferroelectric field effect transistors. <i>Physical Review B</i> , 2012, 85, .	1.1	40
56	Surface-Enhanced Raman Spectroscopic Studies of Metal-Semiconductor Interfaces in Organic Field-Effect Transistors. <i>Journal of Physical Chemistry C</i> , 2012, 116, 12779-12785.	1.5	17
57	Electrical and Optical Properties of Diketopyrrolopyrrole-Based Copolymer Interfaces in Thin Film Devices. <i>ACS Applied Materials &amp; Interfaces</i> , 2011, 3, 1463-1471.	4.0	17
58	MAPLE-deposited polymer films for improved organic device performance. <i>Applied Physics A: Materials Science and Processing</i> , 2011, 105, 547-554.	1.1	19
59	Tuning structural and optical properties of blue-emitting polymeric semiconductors. <i>Physica Status Solidi (B): Basic Research</i> , 2011, 248, 1083-1090.	0.7	17
60	Matrix-assisted pulsed-laser evaporated polymer films in all-organic field-effect transistors and metal-insulator-semiconductor diodes. <i>Organic Electronics</i> , 2011, 12, 1580-1587.	1.4	11
61	Low-operating voltage and stable organic field-effect transistors with poly (methyl methacrylate) gate dielectric solution deposited from a high dipole moment solvent. <i>Applied Physics Letters</i> , 2011, 99, .	1.5	55
62	High-pressure optical studies of donor-acceptor polymer heterojunctions. <i>Physical Review B</i> , 2011, 84, .	1.1	4
63	Charge transfer complex states in diketopyrrolopyrrole polymers and fullerene blends: Implications for organic solar cell efficiency. <i>Applied Physics Letters</i> , 2011, 99, 233307.	1.5	15
64	Synthesis of liquid crystalline benzothiazole based derivatives: A study of their optical and electrical properties. <i>Organic Electronics</i> , 2010, 11, 1-9.	1.4	26
65	Diffusion length of triplet excitons in organic semiconductors. <i>Physical Review B</i> , 2010, 82, .	1.1	41
66	Evidence for structural transition in hairy-rod poly[9,9-bis(2-ethylhexyl)fluorene] under high pressure conditions. <i>Physical Review E</i> , 2010, 82, 051803.	0.8	5
67	Tuning Intermolecular Interactions in Dioctyl-Substituted Polyfluorene via Hydrostatic Pressure. <i>Journal of Physical Chemistry A</i> , 2010, 114, 4680-4688.	1.1	14
68	Interface-controlled pulsed-laser deposited polymer films in organic devices. <i>Synthetic Metals</i> , 2010, 160, 2501-2504.	2.1	6
69	Role of the triplet state in the green emission peak of polyfluorene films: A time evolution study. <i>Journal of Chemical Physics</i> , 2010, 132, 044104.	1.2	5
70	Space-charge-limited conduction in ethyl-hexyl substituted polyfluorene. <i>Journal of Materials Science: Materials in Electronics</i> , 2009, 20, 351-354.	1.1	10
71	Optical properties of dioctyl substituted polyfluorene under hydrostatic pressure. <i>Physica Status Solidi (B): Basic Research</i> , 2009, 246, 563-569.	0.7	7
72	Density functional calculations of the strain effects on binding energies and adatom diffusion on (0001) GaN surfaces. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2009, 158, 13-18.	1.7	12

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73	Harvesting triplet excitons for application in polymer solar cells. Applied Physics Letters, 2009, 94, 063307.	1.5	32
74	Triplet excitons in a ladder-type conjugated polymer: Application in solar cells. Synthetic Metals, 2009, 159, 2338-2341.	2.1	9
75	The role of triplet states in the emission mechanism of polymer light-emitting diodes. Europhysics Letters, 2009, 87, 57008.	0.7	7
76	Pulsed laser thin film growth of di-octyl substituted polyfluorene and its co-polymers. Applied Surface Science, 2008, 254, 7069-7073.	3.1	17
77	Raman Spectroscopic Studies of Polyfluorenes. The Open Physical Chemistry Journal, 2008, 2, 6-12.	0.4	6
78	Probing electronic excitations in organic light-emitting diodes via Raman scattering. Applied Physics Letters, 2007, 90, 252105.	1.5	5
79	Crystallization of amorphous silicon by self-propagation of nanoengineered thermites. Journal of Applied Physics, 2007, 101, 054509.	1.1	13
80	Polyfluorene as a model system for space-charge-limited conduction. Physical Review B, 2007, 75, .	1.1	61
81	Conformations in dioctyl substituted polyfluorene: A combined theoretical and experimental Raman scattering study. Journal of Chemical Physics, 2007, 126, 064905.	1.2	46
82	Quantum dots by ultraviolet and x-ray lithography. Nanotechnology, 2007, 18, 315603.	1.3	51
83	Interface states in polyfluorene-based metal-insulator-semiconductor devices. Organic Electronics, 2007, 8, 591-600.	1.4	25
84	Agarose-stabilized gold nanoparticles for surface-enhanced Raman spectroscopic detection of DNA nucleosides. Applied Physics Letters, 2006, 88, 153114.	1.5	45
85	Patterning porous matrices and planar substrates with quantum dots. Journal of Sol-Gel Science and Technology, 2006, 39, 299-306.	1.1	12
86	Infra red quantum dot photolithography. Journal of Sol-Gel Science and Technology, 2006, 40, 101-107.	1.1	10
87	Chain Morphologies in Blue-Emitting Polyfluorenes: Impact on Light-Emitting Diodes. Materials Research Society Symposia Proceedings, 2006, 916, 1.	0.1	3
88	Electrical Characterization of Polyfluorene-Based Metal-Insulator-Semiconductor Diodes. Materials Research Society Symposia Proceedings, 2006, 937, 1.	0.1	3
89	Chain Morphologies in Semicrystalline Polyfluorene: Evidence from Raman Scattering. Physical Review Letters, 2006, 96, 025503.	2.9	61
90	Capacitance-voltage characterization of polyfluorene-based metal-insulator-semiconductor diodes. Applied Physics Letters, 2006, 89, 013506.	1.5	55

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91	Electronic structures and spectral properties of endohedral fullerenes. <i>Coordination Chemistry Reviews</i> , 2005, 249, 1111-1132.	9.5	154
92	Raman Scattering from Organic Light Emitting Diodes. <i>AIP Conference Proceedings</i> , 2005, , .	0.3	0
93	Development of strain reduced GaN on Si (111) by substrate engineering. <i>Applied Physics Letters</i> , 2005, 87, 082103.	1.5	51
94	Laser writing of semiconductor nanoparticles and quantum dots. <i>Applied Physics Letters</i> , 2004, 85, 6007-6009.	1.5	35
95	Raman modes in oligophenyls under hydrostatic pressure. <i>Physica Status Solidi (B): Basic Research</i> , 2004, 241, 3339-3344.	0.7	21
96	Photophysics of organic emissive semiconductors under hydrostatic pressure. <i>Physica Status Solidi (B): Basic Research</i> , 2004, 241, 3318-3327.	0.7	17
97	Structural and Spectroscopic Investigations of Bulk Poly[bis(2-ethyl)hexylfluorene]. <i>Macromolecules</i> , 2004, 37, 9438-9448.	2.2	66
98	Effect of temperature and pressure on the optical properties of polyfluorene. <i>Synthetic Metals</i> , 2003, 135-136, 273-274.	2.1	1
99	Temperature-dependent optical studies of $Ti_{1-x}Co_xO_2$ . <i>Applied Physics Letters</i> , 2003, 83, 3296-3298.	1.5	17
100	Temperature-dependent photoluminescence of organic semiconductors with varying backbone conformation. <i>Physical Review B</i> , 2003, 67, .	1.1	122
101	Hydrostatic pressure dependence of the luminescence and Raman frequencies in polyfluorene. <i>Physical Review B</i> , 2003, 68, .	1.1	37
102	Optical Properties of Organic Wide Band-Gap Semiconductors under High Pressure. <i>ACS Symposium Series</i> , 2001, , 127-142.	0.5	2
103	Optical transitions in para-phenylenes under hydrostatic pressure. <i>Synthetic Metals</i> , 2001, 119, 657-658.	2.1	1
104	On the structure of oligophenylenes. <i>Synthetic Metals</i> , 2001, 119, 371-372.	2.1	7
105	Comparative optical studies of p-type and unintentionally doped GaN: The influence of annealing. <i>Applied Physics Letters</i> , 2001, 78, 58-60.	1.5	13
106	Tuning Intermolecular Interactions: A Study of the Structural and Vibrational Properties of p-Hexaphenyl under Pressure. <i>Journal of Physical Chemistry A</i> , 2001, 105, 6203-6211.	1.1	43
107	Optical Spectroscopic Studies of a Soluble Fluorene-Based Conjugated Polymer: A Hydrostatic Pressure and Temperature Study. <i>Materials Research Society Symposia Proceedings</i> , 2001, 708, 1071.	0.1	0
108	Squeezing Organic Conjugated Molecules—What Does One Learn?. <i>Advanced Materials</i> , 2001, 13, 613-618.	11.1	50

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109	Geometry-Dependent Electronic Properties of Highly Fluorescent Conjugated Molecules. Physical Review Letters, 2000, 85, 2388-2391.	2.9	35
110	High-pressure study of the Raman modes in YBa <sub>2</sub> (Cu <sub>0.96</sub> Ni <sub>0.04</sub> ) <sub>4</sub> O <sub>8</sub> . Physical Review B, 1999, 60, 4363-4369.	1.1	1
111	Planarity of paraHexaphenyl. Physical Review Letters, 1999, 82, 3625-3628.	2.9	98
112	Optical Properties of Poly(Para-Phenylenes) under High Pressure. Physica Status Solidi (B): Basic Research, 1999, 211, 177-188.	0.7	11
113	High pressure studies on the planarity of para-hexaphenyl. Synthetic Metals, 1999, 101, 180-181.	2.1	10
114	Influence of the molecular geometry on the photoexcitations of highly emissive organic semiconductors. , 1999, , .		4
115	Photoluminescence of short-period GaAs/AlAs superlattices: A hydrostatic pressure and temperature study. Physical Review B, 1998, 58, 7222-7229.	1.1	28
116	Raman Phonons under Hydrostatic Pressure in YBa <sub>2</sub> (Cu <sub>1-x</sub> Ni <sub>x</sub> ) <sub>4</sub> O <sub>8</sub> .. Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu, 1998, 7, 535-537.	0.1	0
117	Isotope effect on the Raman spectrum of the pentagonal-pinch mode in C <sub>60</sub> . Physical Review B, 1997, 56, 15431-15438.	1.1	13
118	Temperature Dependence of the Intervalley Deformation Potential of GaAs/AlAs Superlattices Under Hydrostatic Pressure. Materials Research Society Symposia Proceedings, 1997, 499, 201.	0.1	0
119	Structural Properties Of Hexaphenyl Powder Under High Pressure. Materials Research Society Symposia Proceedings, 1997, 488, 867.	0.1	0
120	Electronic Properties of Poly(Para-Phenylenes) Under High Pressure. Materials Research Society Symposia Proceedings, 1997, 488, 873.	0.1	0
121	Raman cross section for the pentagonal-pinch mode in buckminsterfullerene C <sub>60</sub> . Chemical Physics Letters, 1997, 270, 129-134.	1.2	17
122	Electron-phonon interactions in solid C <sub>60</sub> studied by transient picosecond Raman spectroscopy. Applied Physics Letters, 1996, 68, 1051-1053.	1.5	3
123	Empirical bond polarizability model for fullerenes. Physical Review B, 1996, 53, 13106-13114.	1.1	114
124	Nondestructive analysis of structural defects in wide bandgap II-VI heterostructures. Journal of Electronic Materials, 1996, 25, 235-238.	1.0	2
125	Isotopically resolved Raman spectra of C <sub>60</sub> . Physical Review Letters, 1994, 72, 3359-3362.	2.9	44
126	Extrinsic Nature of the 2.5 eV Raman Resonance in C <sub>60</sub> . Molecular Crystals and Liquid Crystals, 1994, 256, 391-398.	0.3	3



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127	The isotope effect on the Raman spectrum of molecular C60. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1994, 70, 651-659.	0.6	21
128	Raman study of photoexcited C60. Solid State Communications, 1993, 87, 981-986.	0.9	12
129	An explanation for the directionality of interfacet migration during molecular beam epitaxial growth on patterned substrates. Journal of Applied Physics, 1993, 73, 8662-8664.	1.1	16
130	Passivation of GaAs by Electrochemical Sulfur Treatments. Materials Research Society Symposia Proceedings, 1993, 315, 163.	0.1	1
131	Raman microprobe study of narrow InxGa1-xAs stripes on patterned GaAs(100) substrates. Applied Physics Letters, 1991, 58, 1644-1646.	1.5	21
132	Defect reduction in strained InxGa1-xAs via growth on GaAs(100) substrates patterned to submicron dimensions. Applied Physics Letters, 1990, 56, 2304-2306.	1.5	31