

# Sorin Melinte

## List of Publications by Year in descending order

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96  
papers

2,570  
citations

147726

31  
h-index

206029

48  
g-index

98  
all docs

98  
docs citations

98  
times ranked

3858  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hybrid supercapacitor-battery materials for fast electrochemical charge storage. Scientific Reports, 2014, 4, 4315.	1.6	274
2	Giant Low Temperature Heat Capacity of GaAs Quantum Wells near Landau Level Filling $\nu=1$ . Physical Review Letters, 1996, 76, 4584-4587.	2.9	118
3	Roll up nanowire battery from silicon chips. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15168-15173.	3.3	118
4	Spin Polarization and g Factor of a Dilute GaAs Two-Dimensional Electron System. Physical Review Letters, 2002, 88, 036805.	2.9	91
5	High-Throughput Fabrication of Organic Nanowire Devices with Preferential Internal Alignment and Improved Performance. Nano Letters, 2007, 7, 3639-3644.	4.5	89
6	NMR Determination of 2D Electron Spin Polarization at $\nu=1/2$ . Physical Review Letters, 2000, 84, 354-357.	2.9	84
7	Role of finite layer thickness in spin polarization of GaAs two-dimensional electrons in strong parallel magnetic fields. Physical Review B, 2003, 67, .	1.1	69
8	Towards All-Organic Field-Effect Transistors by Additive Soft Lithography. Small, 2009, 5, 1117-1122.	5.2	59
9	Graphene-coated holey metal films: Tunable molecular sensing by surface plasmon resonance. Applied Physics Letters, 2013, 102, .	1.5	58
10	Carbon Redox-Polymer-Gel Hybrid Supercapacitors. Scientific Reports, 2016, 6, 22194.	1.6	49
11	Surface Coating Mediated Swelling and Fracture of Silicon Nanowires during Lithiation. ACS Nano, 2014, 8, 9427-9436.	7.3	48
12	Laterally Modulated 2D Electron System in the Extreme Quantum Limit. Physical Review Letters, 2004, 92, 036802.	2.9	47
13	Critical Behavior of Nuclear-Spin Diffusion in GaAs/AlGaAs Heterostructures near Landau Level Filling $\nu=1$ . Physical Review Letters, 1997, 79, 1718-1721.	2.9	45
14	Uniaxial Alignment of Nanoconfined Columnar Mesophases. Nano Letters, 2007, 7, 2627-2632.	4.5	44
15	Mechanochemical Synthesis of PEDOT:PSS Hydrogels for Aqueous Formulation of Li-Ion Battery Electrodes. ACS Applied Materials & Interfaces, 2017, 9, 34865-34874.	4.0	43
16	Carbonyl-Based $\pi$ -Conjugated Materials: From Synthesis to Applications in Lithium-Ion Batteries. ChemPlusChem, 2019, 84, 1179-1214.	1.3	43
17	Flexible Nanoholey Patches for Antibiotic-Free Treatments of Skin Infections. ACS Applied Materials & Interfaces, 2017, 9, 36665-36674.	4.0	42
18	Anomalous spin polarization of GaAs two-dimensional hole systems. Physical Review B, 2005, 72, .	1.1	40

#	ARTICLE	IF	CITATIONS
19	A new design of organic radical batteries (ORBs): carbon nanotube buckypaper electrode functionalized by electrografting. <i>Chemical Communications</i> , 2015, 51, 9301-9304.	2.2	40
20	Structural and electrical characterization of hybrid metal-polypyrrole nanowires. <i>Physical Review B</i> , 2007, 76, .	1.1	39
21	Nanowire-Decorated Microscale Metallic Electrodes. <i>Small</i> , 2008, 4, 557-560.	5.2	39
22	Graphene-modified electrodes for sensing doxorubicin hydrochloride in human plasma. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 1509-1516.	1.9	39
23	Heat Capacity Evidence for the Suppression of Skyrmions at Large Zeeman Energy. <i>Physical Review Letters</i> , 1999, 82, 2764-2767.	2.9	37
24	Miscibility between Differently Shaped Mesogens: Structural and Morphological Study of a Phthalocyanine-Perylene Binary System. <i>Journal of Physical Chemistry B</i> , 2009, 113, 5448-5457.	1.2	37
25	Role of Density Imbalance in an Interacting Bilayer Hole System. <i>Physical Review Letters</i> , 2003, 91, 076802.	2.9	36
26	Controlled growth of single nanowires within a supported alumina template. <i>Nanotechnology</i> , 2006, 17, 4873-4876.	1.3	36
27	Wavelength-scale lens microscopy via thermal reshaping of colloidal particles. <i>Nanotechnology</i> , 2012, 23, 285708.	1.3	36
28	Electronic Transport Properties of 1,1'-Ferrocene Dicarboxylic Acid Linked to Al(111) Electrodes. <i>ACS Nano</i> , 2009, 3, 4137-4143.	7.3	35
29	Dual-Ligand Fe-Metal Organic Framework Based Robust High Capacity Li Ion Battery Anode and Its Use in a Flexible Battery Format for Electro-Thermal Heating. <i>ACS Applied Energy Materials</i> , 2019, 2, 4450-4457.	2.5	35
30	Direct Transcription of Two-Dimensional Colloidal Crystal Arrays into Three-Dimensional Photonic Crystals. <i>Advanced Functional Materials</i> , 2013, 23, 1164-1171.	7.8	33
31	Electrochemically Template-Grown Multi-Segmented Gold-Conducting Polymer Nanowires with Tunable Electronic Behavior. <i>Chemistry of Materials</i> , 2009, 21, 4241-4247.	3.2	32
32	Efficient capture and photothermal ablation of planktonic bacteria and biofilms using reduced graphene oxide-polyethyleneimine flexible nanoheaters. <i>Journal of Materials Chemistry B</i> , 2019, 7, 2771-2781.	2.9	31
33	Electrothermal patches driving the transdermal delivery of insulin. <i>Nanoscale Horizons</i> , 2020, 5, 663-670.	4.1	30
34	Negative differential Rashba effect in two-dimensional hole systems. <i>Applied Physics Letters</i> , 2004, 85, 3151-3153.	1.5	29
35	Highly Ordered Conjugated Polymer Nanoarchitectures with Three-Dimensional Structural Control. <i>Nano Letters</i> , 2009, 9, 2838-2843.	4.5	28
36	CNTs in Optoelectronic Devices: New Structural and Photophysical Insights on Porphyrin-DWCNTs Hybrid Materials. <i>Advanced Functional Materials</i> , 2012, 22, 3209-3222.	7.8	28

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37	Unconventional molecule-resolved current rectification in diamondoidâ€‘fullerene hybrids. Nature Communications, 2014, 5, 4877.	5.8	28
38	The impact of chemical engineering and technological advances on managing diabetes: present and future concepts. Chemical Society Reviews, 2021, 50, 2102-2146.	18.7	28
39	Nanowire-templated microelectrodes for high-sensitivity pH detection. Applied Physics Letters, 2009, 94, .	1.5	26
40	Controlled nanorubbing of polythiophene thin films for field-effect transistors. Organic Electronics, 2008, 9, 821-828.	1.4	25
41	Quantitative magneto-optical investigation of superconductor/ferromagnet hybrid structures. Review of Scientific Instruments, 2018, 89, 023705.	0.6	25
42	Kinked Silicon Nanowires: Superstructures by Metal-Assisted Chemical Etching. Nano Letters, 2019, 19, 7681-7690.	4.5	24
43	Spin splitting in GaAs (100) two-dimensional holes. Physical Review B, 2004, 69, .	1.1	23
44	Plasmon-Driven Electrochemical Methanol Oxidation on Gold Nanohole Electrodes. ACS Applied Materials & Interfaces, 2020, 12, 50426-50432.	4.0	21
45	Nanocontrolled Bending of Discotic Columns by Spiral Networks. Small, 2008, 4, 728-732.	5.2	20
46	Kinked silicon nanowires-enabled interweaving electrode configuration for lithium-ion batteries. Scientific Reports, 2018, 8, 9794.	1.6	20
47	Structural and Charge-Transport Properties of a Liquid-Crystalline Î±,Î²-Di-substituted Thiophene Derivative: A Joint Experimental and Theoretical Study. Journal of Physical Chemistry C, 2010, 114, 4617-4627.	1.5	18
48	A facile and fast electrochemical route to produce functional few-layer graphene sheets for lithium battery anode application. Journal of Materials Chemistry A, 2014, 2, 15298-15302.	5.2	17
49	Anomalous Thermopower in the Metalliclike Phase of a 2D Hole System. Physical Review Letters, 2000, 85, 4369-4372.	2.9	16
50	Layer-charge instability in unbalanced bilayer systems in the quantum Hall regime. Physical Review B, 2003, 68, .	1.1	14
51	Design of Flexible and Selfâ€‘Standing Electrodes for Liâ€‘Ion Batteries. Chinese Journal of Chemistry, 2017, 35, 41-47.	2.6	14
52	Statistics of thermomagnetic breakdown in Nb superconducting films. Scientific Reports, 2019, 9, 3659.	1.6	14
53	Direct Visualization of Current-Stimulated Oxygen Migration in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-Î´</sub> Thin Films. ACS Nano, 2020, 14, 11765-11774.	7.3	14
54	Spin polarization of two-dimensional electrons in GaAs quantum wells around Landau level filling $\nu=1$ from NMR measurements of gallium nuclei. Physical Review B, 2001, 64, .	1.1	13

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55	Electronic properties of 1-4, dicyanobenzene and 1-4, phenylene diisocyanide molecules contacted between Pt and Pd electrodes: First-principles study. <i>Physical Review B</i> , 2007, 76, .	1.1	13
56	ZnO(0001) surfaces probed by scanning tunneling spectroscopy: Evidence for an inhomogeneous electronic structure. <i>Applied Physics Letters</i> , 2009, 95, .	1.5	12
57	Plasmon-enhanced electrocatalytic oxygen reduction in alkaline media on gold nanohole electrodes. <i>Journal of Materials Chemistry A</i> , 2020, 8, 10395-10401.	5.2	12
58	The importance of the shape of Cu <sub>2</sub> O nanocrystals on plasmon-enhanced oxygen evolution reaction in alkaline media. <i>Electrochimica Acta</i> , 2021, 390, 138810.	2.6	11
59	Thermopower of Interacting GaAs Bilayer Hole Systems in the Reentrant Insulating Phase Near $\nu=1$ . <i>Physical Review Letters</i> , 2005, 94, 046802.	2.9	10
60	Femtogram-Controlled Synthesis and Self-Aligned Fabrication of Polyaniline Micro- and Nanostructures. <i>Small</i> , 2010, 6, 627-632.	5.2	10
61	Vertical single nanowire devices based on conducting polymers. <i>Nanotechnology</i> , 2012, 23, 025302.	1.3	10
62	Dopamine-functionalized cyclodextrins: modification of reduced graphene oxide based electrodes and sensing of folic acid in human serum. <i>Analytical and Bioanalytical Chemistry</i> , 2019, 411, 5149-5157.	1.9	10
63	High spatial resolution electrochemical biosensing using reflected light microscopy. <i>Scientific Reports</i> , 2019, 9, 15196.	1.6	10
64	Enhanced electrocatalytic hydrogen evolution on a plasmonic electrode: the importance of the Ti/TiO <sub>2</sub> adhesion layer. <i>Journal of Materials Chemistry A</i> , 2020, 8, 13980-13986.	5.2	10
65	High-resolution impedance mapping using electrically activated quantitative phase imaging. <i>Light: Science and Applications</i> , 2021, 10, 20.	7.7	10
66	Generation of Photonic Hooks from Patchy Microcylinders. <i>Photonics</i> , 2021, 8, 466.	0.9	10
67	In-plane magnetic-field-induced metal-insulator transition in (311)A GaAs two-dimensional hole systems probed by thermopower. <i>Physical Review B</i> , 2007, 76, .	1.1	9
68	Super-Resolution Imaging with Patchy Microspheres. <i>Photonics</i> , 2021, 8, 513.	0.9	8
69	Sensing of COVID-19 spike protein in nasopharyngeal samples using a portable surface plasmon resonance diagnostic system. <i>Sensors &amp; Diagnostics</i> , 2022, 1, 1021-1031.	1.9	8
70	Low-power dihexylquaterthiophene-based thin film transistors for analog applications. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	7
71	Dephasing time of two-dimensional holes in GaAs open quantum dots: Magnetotransport measurements. <i>Physical Review B</i> , 2007, 75, .	1.1	6
72	Size related transport mechanisms in hybrid metal-polymer nanowires. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2008, 205, 1447-1450.	0.8	6

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73	Electrografting onto ITO substrates of poly(thiophene)-based micelles decorated by acrylate groups. <i>Polymer Chemistry</i> , 2013, 4, 4151.	1.9	6
74	Tuning the surface conditioning of trapezoidally shaped silicon nanowires by (3-aminopropyl)triethoxysilane. <i>Applied Physics Letters</i> , 2014, 104, 023502.	1.5	6
75	Vertical Nanowire Architectures: Statistical Processing of Porous Templates Towards Discrete Nanochannel Integration. <i>Small</i> , 2010, 6, 1974-1980.	5.2	5
76	Adsorption of zwitterionic assemblies on Si(111)-7Å <sup>2</sup> : A joint tunneling spectroscopy and ab initio study. <i>Physical Review B</i> , 2012, 85, .	1.1	5
77	Charge and spin transport in single and packed ruthenium-terpyridine molecular devices: Insight from first-principles calculations. <i>Scientific Reports</i> , 2016, 6, 31856.	1.6	5
78	Porous reduced graphene oxide modified electrodes for the analysis of protein aggregation. Part 2: Application to the analysis of calcitonin containing pharmaceutical formulation. <i>Electrochimica Acta</i> , 2018, 266, 364-372.	2.6	5
79	Nanolithographic patterning of thin metal films with a scanning probe microscope. <i>Superlattices and Microstructures</i> , 1998, 24, 79-82.	1.4	4
80	Magnetism and pseudo-magnetism in quantum Hall systems. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2003, 20, 123-132.	1.3	4
81	Orbital effect, subband depopulation, and conductance fluctuations in ballistic quantum dots under a tilted magnetic field. <i>Physical Review B</i> , 2005, 71, .	1.1	4
82	Magnetization of an incompressible two-dimensional electron gas. <i>Physica B: Condensed Matter</i> , 1998, 256-258, 16-22.	1.3	3
83	Parallel magnetic-field-induced conductance fluctuations in one- and two-subband ballistic quantum dots. <i>Physical Review B</i> , 2003, 68, .	1.1	3
84	Multiple interacting bilayer electron system: Magnetotransport and heat capacity measurements. <i>Physical Review B</i> , 2003, 68, .	1.1	2
85	Giant heat capacity and nuclear-spin diffusion in GaAs/AlGaAs heterostructures near $\nu=1$ . <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 1997, 1, 36-41.	1.3	1
86	Thermopower evidence for Wigner crystallization in the insulating phase of two-dimensional GaAs bilayer hole systems. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2006, 34, 120-123.	1.3	1
87	Conjugated Polymer and Hybrid Polymer-Metal Single Nanowires: Correlated Characterization and Device Integration. , 2010, , .		1
88	Optoelectronic Devices: CNTs in Optoelectronic Devices: New Structural and Photophysical Insights on Porphyrin- $\text{C}_{60}$ Hybrid Materials (Adv. Funct. Mater. 15/2012). <i>Advanced Functional Materials</i> , 2012, 22, 3315-3315.	7.8	1
89	Surveying colloid sedimentation by coplanar waveguides. <i>Nanotechnology</i> , 2016, 27, 225502.	1.3	1
90	Heat capacity and nuclear-spin dynamics in GaAs/AlGaAs heterostructures around $\nu=1$ . <i>Physica B: Condensed Matter</i> , 1998, 249-251, 111-114.	1.3	0

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91	The effect of Zeeman energy on heat capacity of GaAs/AlGaAs heterostructures near $\hat{\nu}=1$ . Physica E: Low-Dimensional Systems and Nanostructures, 2000, 6, 52-55.	1.3	0
92	Probing spin physics in the quantum Hall regime by heat capacity and magnetotransport measurements. Comptes Rendus Physique, 2002, 3, 667-676.	0.3	0
93	Interacting GaAs bilayer hole systems with layer density imbalance. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 22, 32-35.	1.3	0
94	Statistical processing of nanoporous templates with high-yield single-pore resolution. , 2010, , .		0
95	Hybrid synthesis and processing schemes for highly-ordered polyaniline nanoarchitectures. , 2010, , .		0
96	Revisiting Coulomb diamond signatures in quantum Hall interferometers. Physical Review B, 2022, 105, .	1.1	0