

C Daniel Frisbie

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/4662557/c-daniel-frisbie-publications-by-year.pdf>

Version: 2023-06-06

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

237
papers

25,207
citations

81
h-index

155
g-index

245
ext. papers

27,002
ext. citations

10.4
avg, IF

7.21
L-index

#	Paper	IF	Citations
237	Quantifying Image Charge Effects in Molecular Tunnel Junctions Based on Self-Assembled Monolayers of Substituted Oligophenylene Ethynylene Dithiols. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 56404-56412	9.4	0
236	Hopping Conductance in Molecular Wires Exhibits a Large Heavy-Atom Kinetic Isotope Effect. <i>Journal of the American Chemical Society</i> , 2021 , 143, 2638-2643	16	6
235	Solution-based, additive fabrication of flush metal conductors in plastic substrates by printing and plating in two-level capillary channels. <i>Flexible and Printed Electronics</i> , 2021 , 6, 045005	3	
234	Electrolyte-gated transistors for enhanced performance bioelectronics.. <i>Nature Reviews Methods Primers</i> , 2021 , 1,		42
233	Modeling of Quasi-Static Floating-Gate Transistor Biosensors. <i>ACS Sensors</i> , 2021 , 6, 1910-1917	9	2
232	Quantitative analysis of weak current rectification in molecular tunnel junctions subject to mechanical deformation reveals two different rectification mechanisms for oligophenylene thiols alkane thiols. <i>Nanoscale</i> , 2021 , 13, 16755-16768	7.5	3
231	Quantifying Molecular Structure-Tunneling Conductance Relationships: Oligophenylene Dimethanethiol vs Oligophenylene Dithiol Molecular Junctions. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 4292-4298	3.7	6
230	Site-specific chemical doping reveals electron atmospheres at the surfaces of organic semiconductor crystals. <i>Nature Materials</i> , 2021 , 20, 1532-1538	26.5	7
229	Microfluidic opportunities in printed electrolyte-gated transistor biosensors. <i>Biomicrofluidics</i> , 2020 , 14, 011301	3.1	11
228	Inkjet-printed, self-aligned organic Schottky diodes on imprinted plastic substrates. <i>Flexible and Printed Electronics</i> , 2020 , 5, 015006	3	8
227	Strain-Work Function Relationship in Single-Crystal Tetracene. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 40607-40612	9.4	3
226	The Catalytic Mechanics of Dynamic Surfaces: Stimulating Methods for Promoting Catalytic Resonance. <i>ACS Catalysis</i> , 2020 , 10, 12666-12695	12.9	18
225	Self-Aligned Capillarity-Assisted Printing of High Aspect Ratio Flexible Metal Conductors: Optimizing Ink Flow, Plating, and Mechanical Adhesion. <i>Industrial & Engineering Chemistry Research</i> , 2020 , 59, 22107-22122	3.9	4
224	Sub-3 V ZnO Electrolyte-Gated Transistors and Circuits with Screen-Printed and Photo-Crosslinked Ion Gel Gate Dielectrics: New Routes to Improved Performance. <i>Advanced Functional Materials</i> , 2020 , 30, 1902028	15.4	28
223	Determination of Energy-Level Alignment in Molecular Tunnel Junctions by Transport and Spectroscopy: Self-Consistency for the Case of Oligophenylene Thiols and Dithiols on Ag, Au, and Pt Electrodes. <i>Journal of the American Chemical Society</i> , 2019 , 141, 3670-3681	16	47
222	Electric-field effect on photoluminescence of lead-halide perovskites. <i>Materials Today</i> , 2019 , 28, 31-39	21.5	13
221	Gate-Tuned Insulator-Metal Transition in Electrolyte-Gated Transistors Based on Tellurene. <i>Nano Letters</i> , 2019 , 19, 4738-4744	11.3	31

220	Field Effect Modulation of Electrocatalytic Hydrogen Evolution at Back-Gated Two-Dimensional MoS Electrodes. <i>Nano Letters</i> , 2019 , 19, 6118-6123	11.3	16
219	Energy Level Alignment in Molecular Tunnel Junctions by Transport and Spectroscopy: Self-Consistency for the Case of Alkyl Thiols and Dithiols on Ag, Au, and Pt Electrodes. <i>Journal of the American Chemical Society</i> , 2019 , 141, 18182-18192	16	30
218	Detection and amplification of capacitance- and charge-based signals using printed electrolyte gated transistors with floating gates. <i>Flexible and Printed Electronics</i> , 2019 , 4, 044001	3	3
217	Freestanding Ion Gels for Flexible, Printed, Multifunctional Microsupercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 9947-9954	9.4	17
216	Continuous and Reversible Tuning of Electrochemical Reaction Kinetics on Back-Gated 2D Semiconductor Electrodes: Steady-State Analysis Using a Hydrodynamic Method. <i>Analytical Chemistry</i> , 2019 , 91, 1627-1635	7.7	9
215	Mechanical Deformation Distinguishes Tunneling Pathways in Molecular Junctions. <i>Journal of the American Chemical Society</i> , 2019 , 141, 497-504	16	16
214	Interfacial Charge Contributions to Chemical Sensing by Electrolyte-Gated Transistors with Floating Gates. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 1335-1339	6.3	13
213	All-Printed, Self-Aligned Carbon Nanotube Thin-Film Transistors on Imprinted Plastic Substrates. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 15926-15932	9.4	27
212	HOMO Level Pinning in Molecular Junctions: Joint Theoretical and Experimental Evidence. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 2394-2403	6.3	35
211	Why one can expect large rectification in molecular junctions based on alkane monothiols and why rectification is so modest. <i>Chemical Science</i> , 2018 , 9, 4456-4467	9.1	29
210	Detection and Sourcing of Gluten in Grain with Multiple Floating-Gate Transistor Biosensors. <i>ACS Sensors</i> , 2018 , 3, 395-402	9	24
209	Printed, 1 V electrolyte-gated transistors based on poly(3-hexylthiophene) operating at >10 kHz on plastic. <i>Applied Physics Letters</i> , 2018 , 113, 053301	3.3	14
208	Self-aligned capillarity-assisted printing of top-gate thin-film transistors on plastic. <i>Flexible and Printed Electronics</i> , 2018 , 3, 035004	3	7
207	Anomalous Cooling-Rate-Dependent Charge Transport in Electrolyte-Gated Rubrene Crystals. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 4828-4833	6.3	2
206	Transfer Printing of Sub-5 μm Graphene Electrodes for Flexible Microsupercapacitors. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 22303-22310	9.4	26
205	Work function and temperature dependence of electron tunneling through an N-type perylene diimide molecular junction with isocyanide surface linkers. <i>Nanoscale</i> , 2018 , 10, 964-975	7.5	35
204	Open-channel microfluidic diodes based on two-tier junctions. <i>Applied Physics Letters</i> , 2018 , 113, 193701	3.3	4
203	High-Resolution, High-Aspect-Ratio Printed and Plated Metal Conductors Utilizing Roll-to-Roll Microscale UV Imprinting with Prototype Imprinting Stamps. <i>Industrial & Engineering Chemistry Research</i> , 2018 , 57, 16335-16346	3.9	11

202	Self-aligned inkjet printing of resistors and low-pass resistor-capacitor filters on roll-to-roll imprinted plastics with resistances ranging from 10 to 10 ⁶ Ω. <i>Flexible and Printed Electronics</i> , 2018 , 3, 045003	3	11
201	Crystal step edges can trap electrons on the surfaces of n-type organic semiconductors. <i>Nature Communications</i> , 2018 , 9, 2141	16.9	35
200	2D Insulator/Metal Transition in Aerosol-Jet-Printed Electrolyte-Gated Indium Oxide Thin Film Transistors. <i>Advanced Electronic Materials</i> , 2017 , 3, 1600369	6	34
199	Exceptionally Small Statistical Variations in the Transport Properties of Metal-Molecule-Metal Junctions Composed of 80 Oligophenylene Dithiol Molecules. <i>Journal of the American Chemical Society</i> , 2017 , 139, 5696-5699	16	36
198	Rubrene Single-Crystal Transistors with Perfluoropolyether Liquid Dielectric: Exploiting Free Dipoles to Induce Charge Carriers at Organic Surfaces. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 6540-6545	3.7	5
197	Scanning Kelvin Probe Microscopy Reveals Planar Defects Are Sources of Electronic Disorder in Organic Semiconductor Crystals. <i>Advanced Electronic Materials</i> , 2017 , 3, 1700117	6	6
196	Scalable, Self-Aligned Printing of Flexible Graphene Micro-Supercapacitors. <i>Advanced Energy Materials</i> , 2017 , 7, 1700285	21.6	137
195	Negative Isotope Effect on Field-Effect Hole Transport in Fully Substituted ¹³ C-Rubrene. <i>Advanced Electronic Materials</i> , 2017 , 3, 1700018	6	26
194	Effect of Heteroatom Substitution on Transport in Alkanedithiol-Based Molecular Tunnel Junctions: Evidence for Universal Behavior. <i>ACS Nano</i> , 2017 , 11, 569-578	16.4	42
193	Critical assessment of charge mobility extraction in FETs. <i>Nature Materials</i> , 2017 , 17, 2-7	26.5	443
192	Printable, Degradable, and Biocompatible Ion Gels from a Renewable ABA Triblock Polyester and a Low Toxicity Ionic Liquid. <i>ACS Macro Letters</i> , 2017 , 6, 1083-1088	6.5	32
191	Field Effect Modulation of Heterogeneous Charge Transfer Kinetics at Back-Gated Two-Dimensional MoS ₂ Electrodes. <i>Nano Letters</i> , 2017 , 17, 7586-7592	11.3	19
190	High-Resolution Transfer Printing of Graphene Lines for Fully Printed, Flexible Electronics. <i>ACS Nano</i> , 2017 , 11, 7431-7439	16.4	83
189	Theory of magnetoresistance of organic molecular tunnel junctions with nonmagnetic electrodes. <i>Physical Review B</i> , 2017 , 95,	3.3	4
188	Electrochemiluminescent displays based on ion gels: correlation between device performance and choice of electrolyte. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 8448-8453	7	37
187	Quantitative Surface Coverage Measurements of Self-Assembled Monolayers by Nuclear Reaction Analysis of Carbon-12. <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 3477-81	6.3	10
186	Printed, Self-Aligned Side-Gate Organic Transistors with a Sub-5 μm Gate-Channel Distance on Imprinted Plastic Substrates. <i>Advanced Electronic Materials</i> , 2016 , 2, 1600293	6	31
185	Parasitic Capacitance Effect on Dynamic Performance of Aerosol-Jet-Printed Sub 2 V Poly(3-hexylthiophene) Electrolyte-Gated Transistors. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 27012-27017	9.4	30

184	Field Effect Modulation of Outer-Sphere Electrochemistry at Back-Gated, Ultrathin ZnO Electrodes. <i>Journal of the American Chemical Society</i> , 2016 , 138, 7220-3	16	11
183	NANOSCIENCE. Designing a robust single-molecule switch. <i>Science</i> , 2016 , 352, 1394-5	32.2	20
182	Photoswitchable Hopping Transport in Molecular Wires 4 nm in Length. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 6442-6449	3.7	30
181	Multicolored, Low-Power, Flexible Electrochromic Devices Based on Ion Gels. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 6252-60	9.4	155
180	Strain effects on the work function of an organic semiconductor. <i>Nature Communications</i> , 2016 , 7, 10270	6.9	59
179	Operating and Sensing Mechanism of Electrolyte-Gated Transistors with Floating Gates: Building a Platform for Amplified Biodetection. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 108-117	3.7	40
178	Measuring the Thickness and Potential Profiles of the Space-Charge Layer at Organic/Organic Interfaces under Illumination and in the Dark by Scanning Kelvin Probe Microscopy. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 5772-6	9.4	8
177	Charge Transport in 4 nm Molecular Wires with Interrupted Conjugation: Combined Experimental and Computational Evidence for Thermally Assisted Polaron Tunneling. <i>ACS Nano</i> , 2016 , 10, 4372-83	16.4	49
176	Characterization of the Electric Double Layer Formation Dynamics of a Metal/Ionic Liquid/Metal Structure. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 14879-84	9.4	19
175	Comparison of DC and AC Transport in 1.5-7.5 nm Oligophenylene Imine Molecular Wires across Two Junction Platforms: Eutectic Ga-In versus Conducting Probe Atomic Force Microscope Junctions. <i>Journal of the American Chemical Society</i> , 2016 , 138, 7305-14	16	49
174	Large Magnetoresistance at Room Temperature in Organic Molecular Tunnel Junctions with Nonmagnetic Electrodes. <i>ACS Nano</i> , 2016 , 10, 8571-7	16.4	14
173	Rapid, Selective, Label-Free Aptameric Capture and Detection of Ricin in Potable Liquids Using a Printed Floating Gate Transistor. <i>ACS Sensors</i> , 2016 , 1, 1213-1216	9	38
172	Electrostatic versus Electrochemical Doping and Control of Ferromagnetism in Ion-Gel-Gated Ultrathin La _{0.5} Sr _{0.5} CoO ₃ - δ . <i>ACS Nano</i> , 2016 , 10, 7799-810	16.4	66
171	High-resolution, high-aspect ratio conductive wires embedded in plastic substrates. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 1841-7	9.4	35
170	Growth of Thin, Anisotropic, π -Conjugated Molecular Films by Stepwise "Click" Assembly of Molecular Building Blocks: Characterizing Reaction Yield, Surface Coverage, and Film Thickness versus Addition Step Number. <i>Journal of the American Chemical Society</i> , 2015 , 137, 8819-28	16	15
169	Synergistic Increase in Ionic Conductivity and Modulus of Triblock Copolymer Ion Gels. <i>Macromolecules</i> , 2015 , 48, 4942-4950	5.4	73
168	Experimental and Theoretical Analysis of Nanotransport in Oligophenylene Dithiol Junctions as a Function of Molecular Length and Contact Work Function. <i>ACS Nano</i> , 2015 , 9, 8022-36	16.4	119
167	Screen Printing of Highly Loaded Silver Inks on Plastic Substrates Using Silicon Stencils. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 12619-24	9.4	89

166	Single ion conducting, polymerized ionic liquid triblock copolymer films: high capacitance electrolyte gates for n-type transistors. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 7294-302	9.4	80
165	All-Printed, Foldable Organic Thin-Film Transistors on Glassine Paper. <i>Advanced Materials</i> , 2015 , 27, 7058-56	23.6	118
164	Charge Saturation and Intrinsic Doping in Electrolyte-Gated Organic Semiconductors. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 4840-4	6.3	12
163	Length-Dependent Nanotransport and Charge Hopping Bottlenecks in Long Thiophene-Containing Conjugated Molecular Wires. <i>Journal of the American Chemical Society</i> , 2015 , 137, 15732-41	16	70
162	High-resolution patterning of graphene by screen printing with a silicon stencil for highly flexible printed electronics. <i>Advanced Materials</i> , 2015 , 27, 109-15	23.6	336
161	Wettability Contrast Gravure Printing. <i>Advanced Materials</i> , 2015 , 27, 7420-5	23.6	20
160	A Self-Aligned Strategy for Printed Electronics: Exploiting Capillary Flow on Microstructured Plastic Surfaces. <i>Advanced Electronic Materials</i> , 2015 , 1, 1500137	6	37
159	Homoepitaxial growth modes in textured, polycrystalline ultrathin pentacene films on dielectrics. <i>Physica Status Solidi (B): Basic Research</i> , 2015 , 252, 1291-1299	1.3	1
158	Uncovering a law of corresponding states for electron tunneling in molecular junctions. <i>Nanoscale</i> , 2015 , 7, 10465-71	7.5	50
157	Solution Processable, Electrochromic Ion Gels for Sub-1 V, Flexible Displays on Plastic. <i>Chemistry of Materials</i> , 2015 , 27, 1420-1425	9.5	183
156	Label-free DNA sensing platform with low-voltage electrolyte-gated transistors. <i>Analytical Chemistry</i> , 2015 , 87, 1861-6	7.7	55
155	Gravure printing of graphene for large-area flexible electronics. <i>Advanced Materials</i> , 2014 , 26, 4533-8	23.6	252
154	Facile method for fabricating flexible substrates with embedded, printed silver lines. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 1306-12	9.4	18
153	Hopping Transport and Rectifying Behavior in Long Donor-Acceptor Molecular Wires. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 26485-26497	3.7	31
152	Aerosol jet printed p- and n-type electrolyte-gated transistors with a variety of electrode materials: exploring practical routes to printed electronics. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 18704-11	9.4	62
151	Tuning of HOMO energy levels and open circuit voltages in solar cells based on statistical copolymers prepared by ADMET polymerization. <i>Polymer Chemistry</i> , 2014 , 5, 6287-6294	4.8	12
150	High capacitance, photo-patternable ion gel gate insulators compatible with vapor deposition of metal gate electrodes. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 19275-81	9.4	26
149	Electronic Polarization at Pentacene/Polymer Dielectric Interfaces: Imaging Surface Potentials and Contact Potential Differences as a Function of Substrate Type, Growth Temperature, and Pentacene Microstructure. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 2487-2497	3.7	14

148	Determination of Quantum Capacitance and Band Filling Potential in Graphene Transistors with Dual Electrochemical and Field-Effect Gates. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 21160-21169	3.7	24
147	Solution-processable electrochemiluminescent ion gels for flexible, low-voltage, emissive displays on plastic. <i>Journal of the American Chemical Society</i> , 2014 , 136, 3705-12	16	180
146	DC-Driven, Sub-2 V Solid-State Electrochemiluminescent Devices by Incorporating Redox Coreactants into Emissive Ion Gels. <i>Chemistry of Materials</i> , 2014 , 26, 5358-5364	9.5	48
145	Charge density dependent two-channel conduction in organic electric double layer transistors (EDLTs). <i>Advanced Materials</i> , 2014 , 26, 2527-32	23.6	18
144	Transistors: Aerosol Jet Printed, Sub-2 V Complementary Circuits Constructed from P- and N-Type Electrolyte Gated Transistors (Adv. Mater. 41/2014). <i>Advanced Materials</i> , 2014 , 26, 7131-7131	23.6	1
143	High conductance 2D transport around the Hall mobility peak in electrolyte-gated rubrene crystals. <i>Physical Review Letters</i> , 2014 , 113, 246602	7.3	35
142	Aerosol jet printed, sub-2 V complementary circuits constructed from P- and N-type electrolyte gated transistors. <i>Advanced Materials</i> , 2014 , 26, 7032-7	23.6	77
141	Intramolecular Exciton Diffusion in Poly(3-hexylthiophene). <i>Journal of Physical Chemistry Letters</i> , 2013 , 4, 3445-3449	6.3	18
140	Aerosol-jet-printed, 1 volt H-bridge drive circuit on plastic with integrated electrochromic pixel. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 13198-206	9.4	33
139	High-Mobility Transistors Based on Single Crystals of Isotopically Substituted Rubrene-d28. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 11522-11529	3.7	64
138	Coupling of channel conductance and gate-to-channel capacitance in electric double layer transistors. <i>Applied Physics Letters</i> , 2013 , 103, 193304	3.3	9
137	Transfer printing of thermoreversible ion gels for flexible electronics. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 9522-7	9.4	48
136	A pedagogical perspective on ambipolar FETs. <i>ChemPhysChem</i> , 2013 , 14, 1547-52	3.1	52
135	Aerosol jet printed, low voltage, electrolyte gated carbon nanotube ring oscillators with sub-5 ns stage delays. <i>Nano Letters</i> , 2013 , 13, 954-60	11.3	187
134	Electrolyte-gated transistors for organic and printed electronics. <i>Advanced Materials</i> , 2013 , 25, 1822-46	23.6	658
133	Optimization of aerosol jet printing for high-resolution, high-aspect ratio silver lines. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 4856-64	9.4	216
132	High toughness, high conductivity ion gels by sequential triblock copolymer self-assembly and chemical cross-linking. <i>Journal of the American Chemical Society</i> , 2013 , 135, 9652-5	16	157
131	Effects of Olefin Content and Alkyl Chain Placement on Optoelectronic and Morphological Properties in Poly(thienylene vinylenes). <i>Macromolecules</i> , 2013 , 46, 5184-5194	5.4	46

130	Rubrene-Based Single-Crystal Organic Semiconductors: Synthesis, Electronic Structure, and Charge-Transport Properties. <i>Chemistry of Materials</i> , 2013 , 25, 2254-2263	9.5	120
129	Utilizing carbon nanotube electrodes to improve charge injection and transport in bis(trifluoromethyl)-dimethyl-rubrene ambipolar single crystal transistors. <i>ACS Nano</i> , 2013 , 7, 10245-56	16.4	45
128	Performance and stability of aerosol-jet-printed electrolyte-gated transistors based on poly(3-hexylthiophene). <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 6580-5	9.4	106
127	Electrolyte gated single-crystal organic transistors to examine transport in the high carrier density regime. <i>MRS Bulletin</i> , 2013 , 38, 43-50	3	31
126	Printed, sub-2V ZnO electrolyte gated transistors and inverters on plastic. <i>Advanced Materials</i> , 2013 , 25, 3413-8	23.6	124
125	Temperature-independent transport in high-mobility dinaphtho-thieno-thiophene (DNNT) single crystal transistors. <i>Advanced Materials</i> , 2013 , 25, 3478-84	23.6	115
124	Influence of silver doping on electron transport in thin films of PbSe nanocrystals. <i>Advanced Materials</i> , 2013 , 25, 725-31	23.6	50
123	An ADMET Route to Low-Band-Gap Poly(3-hexadecylthienylene vinylene): A Systematic Study of Molecular Weight on Photovoltaic Performance. <i>Macromolecules</i> , 2012 , 45, 2190-2199	5.4	38
122	Band Gap and HOMO Level Control in Poly(thienylene vinylene)s Prepared by ADMET Polymerization. <i>ACS Macro Letters</i> , 2012 , 1, 986-990	6.5	37
121	Hopping transport and the Hall effect near the insulator-metal transition in electrochemically gated poly(3-hexylthiophene) transistors. <i>Nature Communications</i> , 2012 , 3, 1210	16.9	130
120	Electronic impurity doping in CdSe nanocrystals. <i>Nano Letters</i> , 2012 , 12, 2587-94	11.3	300
119	Dependence of Conductivity on Charge Density and Electrochemical Potential in Polymer Semiconductors Gated with Ionic Liquids. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 3132-3141	3.7	75
118	High-Transconductance Organic Thin-Film Electrochemical Transistors for Driving Low-Voltage Red-Green-Blue Active Matrix Organic Light-Emitting Devices. <i>Advanced Functional Materials</i> , 2012 , 22, 1623-1631	15.4	53
117	"Cut and stick" rubbery ion gels as high capacitance gate dielectrics. <i>Advanced Materials</i> , 2012 , 24, 4457-63	6.6	337
116	Low-Voltage Electrolyte-Gated OTFTs and Their Applications 2012 , 197-233		1
115	Ionic Conductivity, Capacitance, and Viscoelastic Properties of Block Copolymer-Based Ion Gels. <i>Macromolecules</i> , 2011 , 44, 940-949	5.4	163
114	Hopping Transport in Long Conjugated Molecular Wires Connected to Metals 2011 , 61-91		
113	Molecular tunnel junctions based on π -conjugated oligoacene thiols and dithiols between Ag, Au, and Pt contacts: effect of surface linking group and metal work function. <i>Journal of the American Chemical Society</i> , 2011 , 133, 19864-77	16	214

112	Electrical impedance of spin-coatable ion gel films. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 3315-21	3.3	142
111	Size- and temperature-dependent charge transport in PbSe nanocrystal thin films. <i>Nano Letters</i> , 2011 , 11, 3887-92	11.3	103
110	Examination of Au, Cu, and Al contacts in organic field-effect transistors via displacement current measurements. <i>Journal of Applied Physics</i> , 2011 , 110, 064514	2.4	22
109	Surface potential mapping of SAM-functionalized organic semiconductors by Kelvin probe force microscopy. <i>Advanced Materials</i> , 2011 , 23, 502-7	23.6	70
108	Length and Temperature Dependent Conduction of Ruthenium-Containing Redox-Active Molecular Wires. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 19955-19961	3.7	101
107	Relationship between Diode Saturation Current and Open Circuit Voltage in Poly(3-alkylthiophene) Solar Cells as a Function of Device Architecture, Processing Conditions, and Alkyl Side Chain Length. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 20806-20816	3.7	49
106	Determination of quasi-Fermi levels across illuminated organic donor/acceptor heterojunctions by Kelvin probe force microscopy. <i>Journal of the American Chemical Society</i> , 2011 , 133, 13802-5	16	35
105	Organic Electrical Double Layer Transistors Based on Rubrene Single Crystals: Examining Transport at High Surface Charge Densities above 10^{13} cm^{-2} . <i>Journal of Physical Chemistry C</i> , 2011 , 115, 14360-14368	2.7	71
104	Viscoelastic Properties, Ionic Conductivity, and Materials Design Considerations for Poly(styrene-b-ethylene oxide-b-styrene)-Based Ion Gel Electrolytes. <i>Macromolecules</i> , 2011 , 44, 8981-8989	5.4	92
103	Probing Hopping Conduction in Conjugated Molecular Wires Connected to Metal Electrodes. <i>Chemistry of Materials</i> , 2011 , 23, 631-645	9.5	151
102	Electrolyte gate-controlled Kondo effect in SrTiO ₃ . <i>Physical Review Letters</i> , 2011 , 107, 256601	7.3	122
101	Charge carrier extraction dynamics for organic field effect transistor structures. <i>Applied Physics Letters</i> , 2011 , 99, 073306	3.3	5
100	Transient Charge Carrier Transport Effects in Organic Field Effect Transistor Channels. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1270, 1		1
99	Carrier localization on surfaces of organic semiconductors gated with electrolytes. <i>Physical Review Letters</i> , 2010 , 105, 036802	7.3	66
98	Poly(lactide)- <i>b</i> -polythiophene- <i>b</i> -poly(lactide) Triblock Copolymers. <i>Macromolecules</i> , 2010 , 43, 3566-3569	5.4	38
97	Size-dependent electrical transport in CdSe nanocrystal thin films. <i>Nano Letters</i> , 2010 , 10, 3727-32	11.3	120
96	Length-dependent conductance of conjugated molecular wires synthesized by stepwise "click" chemistry. <i>Journal of the American Chemical Society</i> , 2010 , 132, 8854-5	16	75
95	Printed, sub-3V digital circuits on plastic from aqueous carbon nanotube inks. <i>ACS Nano</i> , 2010 , 4, 4388-95	56.4	323

94	Mixing at the Charged Interface of a Polymer Semiconductor and a Polyelectrolyte Dielectric. <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 862-867	6.3	9
93	Ultralow contact resistance in electrolyte-gated organic thin film transistors. <i>Applied Physics Letters</i> , 2010 , 97, 193311	3.3	81
92	Transition from tunneling to hopping transport in long, conjugated oligo-imine wires connected to metals. <i>Journal of the American Chemical Society</i> , 2010 , 132, 4358-68	16	200
91	Enhanced hopping conductivity in low band gap donor-acceptor molecular wires Up to 20 nm in length. <i>Journal of the American Chemical Society</i> , 2010 , 132, 16191-201	16	73
90	Transient effects controlling the charge carrier population of organic field effect transistor channels. <i>Journal of Applied Physics</i> , 2010 , 107, 104502	2.4	12
89	Printed Sub-2 V Gel-Electrolyte-Gated Polymer Transistors and Circuits. <i>Advanced Functional Materials</i> , 2010 , 20, 587-594	15.4	166
88	Growth of ultrathin pentacene films on polymeric substrates. <i>Physical Review B</i> , 2009 , 80,	3.3	39
87	Comparison of the Mobility-Carrier Density Relation in Polymer and Single-Crystal Organic Transistors Employing Vacuum and Liquid Gate Dielectrics. <i>Advanced Materials</i> , 2009 , 21, 2174-2179	23.6	128
86	Observation of Unusual Homoepitaxy in Ultrathin Pentacene Films and Correlation with Surface Electrostatic Potential. <i>Advanced Materials</i> , 2009 , 21, 3092-3098	23.6	39
85	Low Band Gap Poly(thienylene vinylene)/Fullerene Bulk Heterojunction Photovoltaic Cells. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 10790-10797	3.7	47
84	High Open-Circuit Voltage Photovoltaic Cells with a Low Bandgap Copolymer of Isothianaphthene, Thiophene, and Benzothiadiazole Units. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 21928-21936	3.7	21
83	Extended 7,7,8,8-Tetracyano-p-quinodimethane-Based Acceptors: How Molecular Shape and Packing Impact Electron Accepting Behavior. <i>Crystal Growth and Design</i> , 2009 , 9, 4599-4601	3.4	8
82	Synthesis, Solid State Properties, and Semiconductor Measurements of 5,6,11,12-Tetrachlorotetracene. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 16544-16548	3.7	18
81	Synthesis, Optical Properties, and Microstructure of a Fullerene-Terminated Poly(3-hexylthiophene). <i>Macromolecules</i> , 2009 , 42, 4118-4126	5.4	51
80	Enhancement of the Morphology and Open Circuit Voltage in Bilayer Polymer/Fullerene Solar Cells. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 11408-11415	3.7	60
79	High carrier densities achieved at low voltages in Ambipolar PbSe nanocrystal thin-film transistors. <i>Nano Letters</i> , 2009 , 9, 3848-52	11.3	104
78	Conducting channel formation and annihilation in organic field-effect structures. <i>Journal of Applied Physics</i> , 2009 , 105, 024514	2.4	32
77	Lithium Perchlorate-Doped Poly(styrene-b-ethylene oxide-b-styrene) Lamellae-Forming Triblock Copolymer as High Capacitance, Smooth, Thin Film Dielectric. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 3903-3908	3.7	22

76	Ion Gel-Gated Polymer Thin-Film Transistors: Operating Mechanism and Characterization of Gate Dielectric Capacitance, Switching Speed, and Stability. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 8972-8981	3.7	287
75	Correlation of on-state conductance with referenced electrochemical potential in ion gel gated polymer transistors. <i>Applied Physics Letters</i> , 2009 , 94, 013304	3.3	52
74	Printable ion-gel gate dielectrics for low-voltage polymer thin-film transistors on plastic. <i>Nature Materials</i> , 2008 , 7, 900-6	26.5	959
73	Nanoporous Poly(3-alkylthiophene) Thin Films Generated from Block Copolymer Templates. <i>Macromolecules</i> , 2008 , 41, 67-75	5.4	172
72	Single Crystal Field Effect Transistor of a Y-Shaped Ladder-Type Oligomer \square <i>Journal of Physical Chemistry C</i> , 2008 , 112, 7968-7971	3.7	8
71	Correlation of Phase Behavior and Charge Transport in Conjugated Polymer/Fullerene Blends. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 17726-17736	3.7	149
70	Electrical resistance of long conjugated molecular wires. <i>Science</i> , 2008 , 320, 1482-6	32.2	590
69	Grain Orientation Mapping of Polycrystalline Organic Semiconductor Films by Transverse Shear Microscopy. <i>Advanced Materials</i> , 2008 , 20, 4033-4039	23.6	76
68	Measuring relative barrier heights in molecular electronic junctions with transition voltage spectroscopy. <i>ACS Nano</i> , 2008 , 2, 827-32	16.4	228
67	Thin Film Transistors Based on Alkylphenyl Quaterthiophenes: Structure and Electrical Transport Properties. <i>Chemistry of Materials</i> , 2007 , 19, 1355-1361	9.5	22
66	Temperature and Length Dependence of Charge Transport in Redox-Active Molecular Wires Incorporating Ruthenium(II) Bis(Ethylacetylidene) Complexes. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 7521-7526	3.7	157
65	Current-Voltage Hysteresis and Memory Effects in Ambipolar Organic Thin Film Transistors Based on a Substituted Oligothiophene. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 452-456	3.7	37
64	Polymer electrolyte-gated organic field-effect transistors: low-voltage, high-current switches for organic electronics and testbeds for probing electrical transport at high charge carrier density. <i>Journal of the American Chemical Society</i> , 2007 , 129, 6599-607	16	227
63	Tetracene air-gap single-crystal field-effect transistors. <i>Applied Physics Letters</i> , 2007 , 90, 162106	3.3	74
62	Negative magnetoresistance of organic field effect transistors. <i>Applied Physics Letters</i> , 2007 , 91, 092117	3.3	19
61	Vibrational spectroscopy reveals electrostatic and electrochemical doping in organic thin film transistors gated with a polymer electrolyte dielectric. <i>Journal of the American Chemical Society</i> , 2007 , 129, 7824-30	16	89
60	Ion gel gated polymer thin-film transistors. <i>Journal of the American Chemical Society</i> , 2007 , 129, 4532-3	16	385
59	High charge carrier densities and conductance maxima in single-crystal organic field-effect transistors with a polymer electrolyte gate dielectric. <i>Applied Physics Letters</i> , 2006 , 88, 203504	3.3	86

58	Optimized dielectric properties of SrTiO ₃ :NbBrTiO ₃ (001) films for high field effect charge densities. <i>Applied Physics Letters</i> , 2006 , 89, 242915	3-3	10
57	Electrostatic modification of novel materials. <i>Reviews of Modern Physics</i> , 2006 , 78, 1185-1212	39-7	421
56	Correlation between HOMO alignment and contact resistance in molecular junctions: aromatic thiols versus aromatic isocyanides. <i>Journal of the American Chemical Society</i> , 2006 , 128, 4970-1	16	258
55	N- and P-channel transport behavior in thin film transistors based on tricyanovinyl-capped oligothiophenes. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 14590-7	3-3	57
54	Simultaneous nanoindentation and electron tunneling through alkanethiol self-assembled monolayers. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 10011-20	3-3	41
53	Transition from direct tunneling to field emission in metal-molecule-metal junctions. <i>Physical Review Letters</i> , 2006 , 97, 026801	7-3	445
52	Synthesis, X-ray, spectroelectrochemical, and theoretical studies of a tricyanovinyl-capped quaterthiophene: A correlation of semiconductor performance with physical properties. <i>Chemical Physics Letters</i> , 2006 , 425, 251-256	2-4	6
51	Structural and vibrational characterization of the organic semiconductor tetracene as a function of pressure and temperature. <i>Chemical Physics</i> , 2006 , 325, 138-151	2-3	18
50	Analysis of the causes of variance in resistance measurements on metal-molecule-metal junctions formed by conducting-probe atomic force microscopy. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 16801-10	3-3	88
49	Length dependence of charge transport in nanoscopic molecular junctions incorporating a series of rigid thiol-terminated norbornylogs. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 5207-15	3-3	30
48	p-Channel organic semiconductors based on hybrid acene-thiophene molecules for thin-film transistor applications. <i>Journal of the American Chemical Society</i> , 2005 , 127, 3997-4009	16	192
47	Effect of dielectric roughness on performance of pentacene TFTs and restoration of performance with a polymeric smoothing layer. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 10574-7	3-3	277
46	Polymer electrolyte gate dielectric reveals finite windows of high conductivity in organic thin film transistors at high charge carrier densities. <i>Journal of the American Chemical Society</i> , 2005 , 127, 6960-1	16	167
45	Low-voltage operation of a pentacene field-effect transistor with a polymer electrolyte gate dielectric. <i>Applied Physics Letters</i> , 2005 , 86, 103503	3-3	195
44	Hydrostatic pressure dependence of charge carrier transport in single-crystal rubrene devices. <i>Applied Physics Letters</i> , 2005 , 86, 123501	3-3	47
43	Transport properties of single-crystal tetracene field-effect transistors with silicon dioxide gate dielectric. <i>Applied Physics Letters</i> , 2004 , 85, 422-424	3-3	61
42	Pentacene organic field-effect transistor on metal substrate with spin-coated smoothing layer. <i>Applied Physics Letters</i> , 2004 , 85, 4406	3-3	35
41	Introduction to Organic Thin Film Transistors and Design of n-Channel Organic Semiconductors. <i>Chemistry of Materials</i> , 2004 , 16, 4436-4451	9-5	1159

40	Hydrostatic-pressure dependence of organic thin-film transistor current versus voltage characteristics. <i>Applied Physics Letters</i> , 2004 , 85, 5760-5762	3-3	27
39	Variable temperature film and contact resistance measurements on operating n-channel organic thin film transistors. <i>Journal of Applied Physics</i> , 2004 , 95, 6396-6405	2-4	182
38	Structural characterization of a pentacene monolayer on an amorphous SiO ₂ substrate with grazing incidence x-ray diffraction. <i>Journal of the American Chemical Society</i> , 2004 , 126, 4084-5	16	392
37	Length-dependent transport in molecular junctions based on SAMs of alkanethiols and alkanedithiols: effect of metal work function and applied bias on tunneling efficiency and contact resistance. <i>Journal of the American Chemical Society</i> , 2004 , 126, 14287-96	16	466
36	Organic Thin Film Transistors Based on N-Alkyl Perylene Diimides: Charge Transport Kinetics as a Function of Gate Voltage and Temperature. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 19281-19292	3-3	383
35	Field Effect Transport and Trapping in Regioregular Polythiophene Nanofibers. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 19169-19179	3-3	214
34	Gated four-probe measurements on pentacene thin-film transistors: Contact resistance as a function of gate voltage and temperature. <i>Journal of Applied Physics</i> , 2004 , 96, 7312-7324	2-4	272
33	Field effect conductance of conducting polymer nanofibers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2003 , 41, 2674-2680	2-6	132
32	Surface potential profiling and contact resistance measurements on operating pentacene thin-film transistors by Kelvin probe force microscopy. <i>Applied Physics Letters</i> , 2003 , 83, 5539-5541	3-3	262
31	A pi-stacking terthiophene-based quinodimethane is an n-channel conductor in a thin film transistor. <i>Journal of the American Chemical Society</i> , 2002 , 124, 4184-5	16	253
30	Direct detection by atomic force microscopy of single bond forces associated with the rupture of discrete charge-transfer complexes. <i>Journal of the American Chemical Society</i> , 2002 , 124, 15125-33	16	49
29	Contact mechanics modeling of pull-off measurements: effect of solvent, probe radius, and chemical binding probability on the detection of single-bond rupture forces by atomic force microscopy. <i>Analytical Chemistry</i> , 2002 , 74, 3096-104	7-7	20
28	Molecular rectification in a metal-insulator-metal junction based on self-assembled monolayers. <i>Journal of the American Chemical Society</i> , 2002 , 124, 11730-6	16	219
27	Distance Dependence of Electron Tunneling through Self-Assembled Monolayers Measured by Conducting Probe Atomic Force Microscopy: Unsaturated versus Saturated Molecular Junctions. <i>Journal of Physical Chemistry B</i> , 2002 , 106, 2813-2816	3-3	429
26	Contact resistance in metal-molecule-metal junctions based on aliphatic SAMs: effects of surface linker and metal work function. <i>Journal of the American Chemical Society</i> , 2002 , 124, 11268-9	16	346
25	Hydrostatic-pressure dependence of the photoconductivity of single-crystal pentacene and tetracene. <i>Applied Physics Letters</i> , 2001 , 79, 2731-2733	3-3	51
24	Temperature and gate voltage dependent transport across a single organic semiconductor grain boundary. <i>Journal of Applied Physics</i> , 2001 , 90, 1342-1349	2-4	121
23	Fabrication and characterization of metal-molecule-metal junctions by conducting probe atomic force microscopy. <i>Journal of the American Chemical Society</i> , 2001 , 123, 5549-56	16	493

22	Potentiometry of an operating organic semiconductor field-effect transistor. <i>Applied Physics Letters</i> , 2001 , 78, 993-995	3-3	111
21	Gate Voltage Dependent Resistance of a Single Organic Semiconductor Grain Boundary. <i>Journal of Physical Chemistry B</i> , 2001 , 105, 4538-4540	3-3	132
20	Fabrication of a Sexithiophene Semiconducting Wire: Nanoshaving with an Atomic Force Microscope Tip. <i>Advanced Materials</i> , 2000 , 12, 285-288	23.6	16
19	Detection of Discrete Interactions upon Rupture of Au Microcontacts to Self-Assembled Monolayers Terminated with $\text{B}(\text{CO})\text{CH}_3$ or BH . <i>Journal of the American Chemical Society</i> , 2000 , 122, 9750-9760	16	45
18	Field Effect Transport Measurements on Single Grains of Sexithiophene: Role of the Contacts. <i>Journal of Physical Chemistry B</i> , 2000 , 104, 12202-12209	3-3	72
17	Formation of Metal-Molecule-Metal Tunnel Junctions: Microcontacts to Alkanethiol Monolayers with a Conducting AFM Tip. <i>Journal of the American Chemical Society</i> , 2000 , 122, 2970-2971	16	271
16	Rupture of Hydrophobic Microcontacts in Water: Correlation of Pull-Off Force with AFM Tip Radius. <i>Langmuir</i> , 2000 , 16, 6294-6297	3-9	46
15	Tapping Mode Near-Field Scanning Optical Microscopy of Molecular Crystals and Thin Films. <i>Microscopy and Microanalysis</i> , 1999 , 5, 994-995	0.5	
14	Field Effect Conductance Measurements on Thin Crystals of Sexithiophene. <i>Journal of Physical Chemistry B</i> , 1999 , 103, 8842-8849	3-3	79
13	Direct Force Measurements at Polymer Brush Surfaces by Atomic Force Microscopy. <i>Macromolecules</i> , 1998 , 31, 4297-4300	5-4	146
12	Investigation of Charge Transport in Thin, Doped Sexithiophene Crystals by Conducting Probe Atomic Force Microscopy. <i>Journal of Physical Chemistry B</i> , 1998 , 102, 1679-1688	3-3	69
11	Self-Assembled Monolayers with Charge-Transfer Functional Groups: Immobilization of the Electron Donor TMPD and the Electron Acceptor TCNQ. <i>Langmuir</i> , 1998 , 14, 5834-5840	3-9	24
10	Electrical Characterization of Thin Single Crystals of Sexithiophene. <i>Materials Research Society Symposia Proceedings</i> , 1997 , 488, 431		
9	Diastereoselectivity of Enolate Anion Protonation. H/D Exchange of β -Substituted Ethyl Butanoates in Ethanol-d. <i>Journal of the American Chemical Society</i> , 1997 , 119, 479-486	16	47
8	Chemical Force Microscopy: Exploiting Chemically-Modified Tips To Quantify Adhesion, Friction, and Functional Group Distributions in Molecular Assemblies. <i>Journal of the American Chemical Society</i> , 1995 , 117, 7943-7951	16	478
7	High Lateral Resolution Imaging by Secondary Ion Mass Spectrometry of Photopatterned Self-Assembled Monolayers Containing Aryl Azide. <i>Langmuir</i> , 1995 , 11, 2563-2571	3-9	30
6	Systems for orthogonal self-assembly of electroactive monolayers on Au and ITO: an approach to molecular electronics. <i>Journal of the American Chemical Society</i> , 1995 , 117, 6927-6933	16	213
5	Photosensitive Self-Assembled Monolayers on Gold: Photochemistry of Surface-Confined Aryl Azide and Cyclopentadienylmanganese Tricarbonyl. <i>Journal of the American Chemical Society</i> , 1994 , 116, 4395-4404	16	138

- 4 Functional group imaging by chemical force microscopy. *Science*, **1994**, 265, 2071-4 32.2 896
- 3 Scanning electron microscopy for imaging photopatterned self-assembled monolayers on gold. *Langmuir*, **1993**, 9, 1517-1520 3.9 59
- 2 Imaging of features on surfaces by condensation figures. *Science*, **1993**, 260, 647-9 32.2 191
- 1 Use of high lateral resolution secondary-ion mass spectrometry to characterize self-assembled monolayers on microfabricated structures. *Journal of the American Chemical Society*, **1992**, 114, 7142-7145 16 34