# David Cahen

## List of Publications by Year in Descending Order

**Source:** https://exaly.com/author-pdf/1494151/david-cahen-publications-by-year.pdf
**Version:** 2024-04-24



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| 490<br>papers | 31,111<br>citations | 89<br>h-index | 161<br>g-index |
| 553<br>ext. papers | 33,835<br>ext. citations | 9.7<br>avg, IF | 7.46<br>L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 490 | Prospect of making XPS a high-throughput analytical method illustrated for a Cu Ni O combinatorial material library.. *RSC Advances*, **2022**, 12, 7996-8002 | 3.7 | 0 |
| 489 | Halide perovskite dynamics at work: Large cations at 2D-on-3D interfaces are mobile.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119, e2114740119 | 11.5 | 1 |
| 488 | New Pb-Free Stable SnGe Solid Solution Halide Perovskites Fabricated by Spray Deposition. *ACS Applied Energy Materials*, **2022**, 5, 3638-3646 | 6.1 | 1 |
| 487 | Direct Probing of Gap States and Their Passivation in Halide Perovskites by High-Sensitivity, Variable Energy Ultraviolet Photoelectron Spectroscopy. *Journal of Physical Chemistry C*, **2021**, 125, 5217-5225 | 3.8 | 4 |
| 486 | Inelastic Electron Tunneling Spectroscopic Analysis of Bias-Induced Structural Changes in a Solid-State Protein Junction. *Small*, **2021**, 17, e2008218 | 11 | 3 |
| 485 | Response to Comment on "Eppur si Muove: Proton Diffusion in Halide Perovskite Single Crystals": Measure What is Measurable, and Make Measurable What is Not So: Discrepancies between Proton Diffusion in Halide Perovskite Single Crystals and Thin Films. *Advanced Materials*, **2021**, 33, e2102822 | 24 | 0 |
| 484 | Conformation-dependent charge transport through short peptides. *Nanoscale*, **2021**, 13, 3002-3009 | 7.7 | 1 |
| 483 | The pursuit of stability in halide perovskites: the monovalent cation and the key for surface and bulk self-healing. *Materials Horizons*, **2021**, 8, 1570-1586 | 14.4 | 5 |
| 482 | Reply to Ideal solar cell efficiencies *Nature Photonics*, **2021**, 15, 165-166 | 33.9 | 4 |
| 481 | What Can We Learn from Protein-Based Electron Transport Junctions?. *Journal of Physical Chemistry Letters*, **2021**, 12, 11598-11603 | 6.4 | 4 |
| 480 | Coherent Electron Transport across a 3 nm Bioelectronic Junction Made of Multi-Heme Proteins. *Journal of Physical Chemistry Letters*, **2020**, 11, 9766-9774 | 6.4 | 19 |
| 479 | Single-Crystal Growth and Thermal Stability of (CH3NH3)1xCsxPbBr3. *Crystal Growth and Design*, **2020**, 20, 4366-4374 | 3.5 | 3 |
| 478 | Solid-State Protein Junctions: Cross-Laboratory Study Shows Preservation of Mechanism at Varying Electronic Coupling. *IScience*, **2020**, 23, 101099 | 6.1 | 19 |
| 477 | Defects in halide perovskites: The lattice as a boojum?. *MRS Bulletin*, **2020**, 45, 478-484 | 3.2 | 11 |
| 476 | Pin-Hole-Free, Homogeneous, Pure CsPbBr3 Films on Flat Substrates by Simple Spin-Coating Modification. *Frontiers in Energy Research*, **2020**, 8, | 3.8 | 4 |
| 475 | Temperature-Dependent Optical Band Gap in CsPbBr, MAPbBr, and FAPbBr Single Crystals. *Journal of Physical Chemistry Letters*, **2020**, 11, 2490-2496 | 6.4 | 68 |
| 474 | Pitfalls and prospects of optical spectroscopy to characterize perovskite-transport layer interfaces. *Applied Physics Letters*, **2020**, 116, 100501 | 3.4 | 16 |

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| 473 | Origin of the anomalous Pb-Br bond dynamics in formamidinium lead bromide perovskites. *Physical Review B*, **2020**, 101, | 3.3 | 7 |
| 472 | Impact of SnF Addition on the Chemical and Electronic Surface Structure of CsSnBr. *ACS Applied Materials & Interfaces*, **2020**, 12, 12353-12361 | 9.5 | 22 |
| 471 | Electrochemical reduction of CO2: Two- or three-electrode configuration. *International Journal of Energy Research*, **2020**, 44, 548-559 | 4.5 | 6 |
| 470 | FTO Darkening Rate as a Qualitative, High-Throughput Mapping Method for Screening Li-Ionic Conduction in Thin Solid Electrolytes. *ACS Combinatorial Science*, **2020**, 22, 18-24 | 3.9 | 2 |
| 469 | Solid-State Electron Transport via the Protein Azurin is Temperature-Independent Down to 4 K. *Journal of Physical Chemistry Letters*, **2020**, 11, 144-151 | 6.4 | 17 |
| 468 | Eppur si Muove: Proton Diffusion in Halide Perovskite Single Crystals. *Advanced Materials*, **2020**, 32, e2002467 | 24 | 20 |
| 467 | Two-dimensional perovskite solar cells with high luminescence and ultra-low open-circuit voltage deficit. *Journal of Materials Chemistry A*, **2020**, 8, 22175-22180 | 13 | 6 |
| 466 | Effect of Low Pressure on Tetragonal to Cubic Phase Transition of Methylammonium Lead Iodide Perovskite. *Journal of Physical Chemistry Letters*, **2020**, 11, 1473-1476 | 6.4 | 5 |
| 465 | Protein Binding and Orientation Matter: Bias-Induced Conductance Switching in a Mutated Azurin Junction. *Journal of the American Chemical Society*, **2020**, 142, 19217-19225 | 16.4 | 8 |
| 464 | Minimum doping densities for p🗆 junctions. *Nature Energy*, **2020**, 5, 973-975 | 62.3 | 8 |
| 463 | Halide Diffusion in MAPbX3: Limits to Topotaxy for Halide Exchange in Perovskites. *Chemistry of Materials*, **2020**, 32, 4223-4231 | 9.6 | 11 |
| 462 | Ultrafast Charge Carrier Relaxation in Inorganic Halide Perovskite Single Crystals Probed by Two-Dimensional Electronic Spectroscopy. *Journal of Physical Chemistry Letters*, **2019**, 10, 5414-5421 | 6.4 | 7 |
| 461 | A Solid-State Protein Junction Serves as a Bias-Induced Current Switch. *Angewandte Chemie - International Edition*, **2019**, 58, 11852-11859 | 16.4 | 21 |
| 460 | Deep Defect States in Wide-Band-Gap ABX3 Halide Perovskites. *ACS Energy Letters*, **2019**, 4, 1150-1157 | 20.1 | 40 |
| 459 | Photovoltaic solar cell technologies: analysing the state of the art. *Nature Reviews Materials*, **2019**, 4, 269-285 | 73.3 | 430 |
| 458 | Innenr🗆ktitelbild: A Solid-State Protein Junction Serves as a Bias-Induced Current Switch (Angew. Chem. 34/2019). *Angewandte Chemie*, **2019**, 131, 12049-12049 | 3.6 | |
| 457 | When defects become 🗆ynamic🗆halide perovskites: a new window on materials?. *Materials Horizons*, **2019**, 6, 1297-1305 | 14.4 | 40 |
| 456 | A Solid-State Protein Junction Serves as a Bias-Induced Current Switch. *Angewandte Chemie*, **2019**, 131, 11978-11985 | 3.6 | |

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| 455 | Halide Perovskites: Is It All about the Interfaces?. *Chemical Reviews*, **2019**, 119, 3349-3417 | 68.1 | 287 |
| 454 | Unprecedented efficient electron transport across Au nanoparticles with up to 25-nm insulating SiO-shells. *Scientific Reports*, **2019**, 9, 18336 | 4.9 | 6 |
| 453 | Backbone-Constrained Peptides: Temperature and Secondary Structure Affect Solid-State Electron Transport. *Journal of Physical Chemistry B*, **2019**, 123, 10951-10958 | 3.4 | 1 |
| 452 | What Limits the Open-Circuit Voltage of Bromide Perovskite-Based Solar Cells?. *ACS Energy Letters*, **2019**, 4, 1-7 | 20.1 | 58 |
| 451 | How SnF2 Impacts the Material Properties of Lead-Free Tin Perovskites. *Journal of Physical Chemistry C*, **2018**, 122, 13926-13936 | 3.8 | 126 |
| 450 | Synergistic Effect of Charge Generation and Separation in Epitaxially Grown BiOCl/BiS Nano-Heterostructure. *ACS Applied Materials & Interfaces*, **2018**, 10, 15304-15313 | 9.5 | 64 |
| 449 | Electronic structure of dipeptides in the gas-phase and as an adsorbed monolayer. *Physical Chemistry Chemical Physics*, **2018**, 20, 6860-6867 | 3.6 | 8 |
| 448 | Effect of Internal Heteroatoms on Level Alignment at Metal/Molecular Monolayer/Si Interfaces. *Journal of Physical Chemistry C*, **2018**, 122, 3312-3325 | 3.8 | 6 |
| 447 | Self-Healing Inside APbBr Halide Perovskite Crystals. *Advanced Materials*, **2018**, 30, 1706273 | 24 | 99 |
| 446 | Protein bioelectronics: a review of what we do and do not know. *Reports on Progress in Physics*, **2018**, 81, 026601 | 14.4 | 123 |
| 445 | Tunneling explains efficient electron transport via protein junctions. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E4577-E4583 | 11.5 | 53 |
| 444 | What Remains Unexplained about the Properties of Halide Perovskites?. *Advanced Materials*, **2018**, 30, e1800691 | 24 | 174 |
| 443 | Direct evidence for heme-assisted solid-state electronic conduction in multi-heme -type cytochromes. *Chemical Science*, **2018**, 9, 7304-7310 | 9.4 | 27 |
| 442 | Revisiting Electrochemical Reduction of CO2 on Cu Electrode: Where Do We Stand about the Intermediates?. *Journal of Physical Chemistry C*, **2018**, 122, 18528-18536 | 3.8 | 20 |
| 441 | Understanding how excess lead iodide precursor improves halide perovskite solar cell performance. *Nature Communications*, **2018**, 9, 3301 | 17.4 | 173 |
| 440 | Control over Self-Doping in High Band Gap Perovskite Films. *Advanced Energy Materials*, **2018**, 8, 1800398 | 21.8 | 17 |
| 439 | Transistor configuration yields energy level control in protein-based junctions. *Nanoscale*, **2018**, 10, 21712-21720 | 7.7 | 19 |
| 438 | Plasmonics Yields Efficient Electron Transport via Assembly of Shell-Insulated Au Nanoparticles. *IScience*, **2018**, 8, 213-221 | 6.1 | 22 |

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| 437 | Interface Electrostatics Dictates the Electron Transport via Bioelectronic Junctions. *ACS Applied Materials & Interfaces*, **2018**, 10, 41599-41607 | 9.5 | 14 |
| 436 | On the influence of multiple cations on the in-gap states and phototransport properties of iodide-based halide perovskites. *Physical Chemistry Chemical Physics*, **2018**, 20, 24444-24452 | 3.6 | 18 |
| 435 | Can fluorine-doped tin Oxide, FTO, be more like indium-doped tin oxide, ITO? Reducing FTO surface roughness by introducing additional SnO2 coating. *MRS Communications*, **2018**, 8, 1358-1362 | 2.7 | 11 |
| 434 | Protein Electronics: Chemical Modulation of Contacts Control Energy Level Alignment in Gold-Azurin-Gold Junctions. *Journal of the American Chemical Society*, **2018**, 140, 13317-13326 | 16.4 | 35 |
| 433 | Can we use time-resolved measurements to get steady-state transport data for halide perovskites?. *Journal of Applied Physics*, **2018**, 124, 103103 | 2.5 | 32 |
| 432 | CsPbBr and CHNHPbBr promote visible-light photo-reactivity. *Physical Chemistry Chemical Physics*, **2018**, 20, 16847-16852 | 3.6 | 2 |
| 431 | Electronic structure of the CsPbBr3/polytriarylamine (PTAA) system. *Journal of Applied Physics*, **2017**, 121, 035304 | 2.5 | 74 |
| 430 | Type-inversion as a working mechanism of high voltage MAPbBr(Cl)-based halide perovskite solar cells. *Physical Chemistry Chemical Physics*, **2017**, 19, 5753-5762 | 3.6 | 18 |
| 429 | Chemical Modification of Semiconductor Surfaces for Molecular Electronics. *Chemical Reviews*, **2017**, 117, 4624-4666 | 68.1 | 139 |
| 428 | Large-Area, Ensemble Molecular Electronics: Motivation and Challenges. *Chemical Reviews*, **2017**, 117, 4248-4286 | 68.1 | 221 |
| 427 | Tetragonal CHNHPbI is ferroelectric. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E5504-E5512 | 11.5 | 187 |
| 426 | New insights into the nanostructure of innovative thin film solar cells gained by positron annihilation spectroscopy. *Journal of Physics: Conference Series*, **2017**, 791, 012021 | 0.3 | 1 |
| 425 | Self-Repairing Energy Materials: Sine Qua Non for a Sustainable Future. *Accounts of Chemical Research*, **2017**, 50, 573-576 | 24.3 | 15 |
| 424 | Laplace current deep level transient spectroscopy measurements of defect states in methylammonium lead bromide single crystals. *Journal of Applied Physics*, **2017**, 122, 145701 | 2.5 | 39 |
| 423 | What Is the Mechanism of MAPbI3 p-Doping by I2? Insights from Optoelectronic Properties. *ACS Energy Letters*, **2017**, 2, 2408-2414 | 20.1 | 58 |
| 422 | Metal to Halide Perovskite (HaP): An Alternative Route to HaP Coating, Directly from Pb(0) or Sn(0) Films. *Chemistry of Materials*, **2017**, 29, 8620-8629 | 9.6 | 9 |
| 421 | Deleterious Effect of Negative Capacitance on the Performance of Halide Perovskite Solar Cells. *ACS Energy Letters*, **2017**, 2, 2007-2013 | 20.1 | 47 |
| 420 | Conversion of Single Crystalline PbI2 to CH3NH3PbI3: Structural Relations and Transformation Dynamics. *Chemistry of Materials*, **2016**, 28, 6501-6510 | 9.6 | 58 |

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| 419 | Low-Temperature Solution-Grown CsPbBr3 Single Crystals and Their Characterization. *Crystal Growth and Design*, **2016**, 16, 5717-5725 | 3.5 | 256 |
| 418 | Tuning electronic transport via hepta-alanine peptides junction by tryptophan doping. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 10785-90 | 11.5 | 57 |
| 417 | Advances in Perovskite Solar Cells. *Advanced Science*, **2016**, 3, 1500324 | 13.6 | 397 |
| 416 | Interface-Dependent Ion Migration/Accumulation Controls Hysteresis in MAPbI3 Solar Cells. *Journal of Physical Chemistry C*, **2016**, 120, 16399-16411 | 3.8 | 106 |
| 415 | High-Work-Function Molybdenum Oxide Hole Extraction Contacts in Hybrid Organic-Inorganic Perovskite Solar Cells. *ACS Applied Materials & Interfaces*, **2016**, 8, 31491-31499 | 9.5 | 116 |
| 414 | Interface Modification by Simple Organic Salts Improves Performance of Planar Perovskite Solar Cells. *Advanced Materials Interfaces*, **2016**, 3, 1600506 | 4.6 | 5 |
| 413 | CsSnBr3, A Lead-Free Halide Perovskite for Long-Term Solar Cell Application: Insights on SnF2 Addition. *ACS Energy Letters*, **2016**, 1, 1028-1033 | 20.1 | 187 |
| 412 | Hybrid organic‐inorganic perovskites: low-cost semiconductors with intriguing charge-transport properties. *Nature Reviews Materials*, **2016**, 1, | 73.3 | 912 |
| 411 | Effects of Light and Electron Beam Irradiation on Halide Perovskites and Their Solar Cells. *Accounts of Chemical Research*, **2016**, 49, 347-54 | 24.3 | 117 |
| 410 | Towards nanometer-spaced silicon contacts to proteins. *Nanotechnology*, **2016**, 27, 115302 | 3.4 | 11 |
| 409 | Cesium Enhances Long-Term Stability of Lead Bromide Perovskite-Based Solar Cells. *Journal of Physical Chemistry Letters*, **2016**, 7, 167-72 | 6.4 | 665 |
| 408 | Impedance Spectroscopic Indication for Solid State Electrochemical Reaction in (CH3NH3)PbI3 Films. *Journal of Physical Chemistry Letters*, **2016**, 7, 191-7 | 6.4 | 71 |
| 407 | Valence and Conduction Band Densities of States of Metal Halide Perovskites: A Combined Experimental-Theoretical Study. *Journal of Physical Chemistry Letters*, **2016**, 7, 2722-9 | 6.4 | 264 |
| 406 | CH3NH3PbBr3 is not pyroelectric, excluding ferroelectric-enhanced photovoltaic performance. *APL Materials*, **2016**, 4, 051101 | 5.7 | 35 |
| 405 | Mobility-Lifetime Products in MAPbI Films. *Journal of Physical Chemistry Letters*, **2016**, 7, 5219-5226 | 6.4 | 51 |
| 404 | Electron transport via a soluble photochromic photoreceptor. *Physical Chemistry Chemical Physics*, **2016**, 18, 25671-25675 | 3.6 | 3 |
| 403 | Making the science of interfaces work for semiconductor electronics. *Journal Physics D: Applied Physics*, **2016**, 49, 391001 | 3 | 2 |
| 402 | Perovskite Solar Cells: Do We Know What We Do Not Know?. *Journal of Physical Chemistry Letters*, **2015**, 6, 279-82 | 6.4 | 65 |

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| 401 | Electronic Transport via Homopeptides: The Role of Side Chains and Secondary Structure. *Journal of the American Chemical Society*, **2015**, 137, 9617-26 | 16.4 | 81 |
| 400 | Light-Induced Increase of Electron Diffusion Length in a p-n Junction Type CH3NH3PbBr3 Perovskite Solar Cell. *Journal of Physical Chemistry Letters*, **2015**, 6, 2469-76 | 6.4 | 75 |
| 399 | How Important Is the Organic Part of Lead Halide Perovskite Photovoltaic Cells? Efficient CsPbBr3 Cells. *Journal of Physical Chemistry Letters*, **2015**, 6, 2452-6 | 6.4 | 771 |
| 398 | Electron Transfer Proteins as Electronic Conductors: Significance of the Metal and Its Binding Site in the Blue Cu Protein, Azurin. *Advanced Science*, **2015**, 2, 1400026 | 13.6 | 26 |
| 397 | Rain on Methylammonium Lead Iodide Based Perovskites: Possible Environmental Effects of Perovskite Solar Cells. *Journal of Physical Chemistry Letters*, **2015**, 6, 1543-7 | 6.4 | 323 |
| 396 | Insights into Solid-State Electron Transport through Proteins from Inelastic Tunneling Spectroscopy: The Case of Azurin. *ACS Nano*, **2015**, 9, 9955-63 | 16.7 | 43 |
| 395 | Thiophene-modified perylenediimide as hole transporting material in hybrid lead bromide perovskite solar cells. *Journal of Materials Chemistry A*, **2015**, 3, 20305-20312 | 13 | 21 |
| 394 | Mode-selective vibrational modulation of charge transport in organic electronic devices. *Nature Communications*, **2015**, 6, 7880 | 17.4 | 61 |
| 393 | Conjugated Cofactor Enables Efficient Temperature-Independent Electronic Transport Across ~6 nm Long Halorhodopsin. *Journal of the American Chemical Society*, **2015**, 137, 11226-9 | 16.4 | 21 |
| 392 | Effect of binding group on hybridization across the silicon/aromatic-monolayer interface. *Journal of Electron Spectroscopy and Related Phenomena*, **2015**, 204, 149-158 | 1.7 | 7 |
| 391 | Are Mobilities in Hybrid Organic-Inorganic Halide Perovskites Actually "High"?. *Journal of Physical Chemistry Letters*, **2015**, 6, 4754-7 | 6.4 | 167 |
| 390 | Mechanical properties of APbX3 (A = Cs or CH3NH3; X= I or Br) perovskite single crystals. *MRS Communications*, **2015**, 5, 623-629 | 2.7 | 195 |
| 389 | Protein Electronic Conductors: Hemin‐Substrate Bonding Dictates Transport Mechanism and Efficiency across Myoglobin. *Angewandte Chemie*, **2015**, 127, 12556-12560 | 3.6 | 1 |
| 388 | Hybrid Organic-Inorganic Perovskites (HOIPs): Opportunities and Challenges. *Advanced Materials*, **2015**, 27, 5102-12 | 24 | 325 |
| 387 | Protein electronic conductors: hemin-substrate bonding dictates transport mechanism and efficiency across myoglobin. *Angewandte Chemie - International Edition*, **2015**, 54, 12379-83 | 16.4 | 11 |
| 386 | Ultrafast Optical Control of Charge Dynamics in Organic and Hybrid Electronic Nanodevices. *Springer Proceedings in Physics*, **2015**, 675-678 | 0.2 | |
| 385 | Elucidating the charge carrier separation and working mechanism of CH3NH3PbI(3-x)Cl(x) perovskite solar cells. *Nature Communications*, **2014**, 5, 3461 | 17.4 | 461 |
| 384 | Updated assessment of possibilities and limits for solar cells. *Advanced Materials*, **2014**, 26, 1622-8 | 24 | 90 |

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| 383 | Why lead methylammonium tri-iodide perovskite-based solar cells require a mesoporous electron transporting scaffold (but not necessarily a hole conductor). *Nano Letters*, **2014**, 14, 1000-4 | 11.5 | 505 |
| 382 | Chloride Inclusion and Hole Transport Material Doping to Improve Methyl Ammonium Lead Bromide Perovskite-Based High Open-Circuit Voltage Solar Cells. *Journal of Physical Chemistry Letters*, **2014**, 5, 429-33 | 6.4 | 309 |
| 381 | Electronic transport via proteins. *Advanced Materials*, **2014**, 26, 7142-61 | 24 | 146 |
| 380 | Morphology-, synthesis- and doping-independent tuning of ZnO work function using phenylphosphonates. *Physical Chemistry Chemical Physics*, **2014**, 16, 8310-9 | 3.6 | 36 |
| 379 | Surface Photovoltage Spectroscopy Study of Organo-Lead Perovskite Solar Cells. *Journal of Physical Chemistry Letters*, **2014**, 5, 2408-13 | 6.4 | 75 |
| 378 | Nanoscale electron transport and photodynamics enhancement in lipid-depleted bacteriorhodopsin monomers. *ACS Nano*, **2014**, 8, 7714-22 | 16.7 | 21 |
| 377 | Crystallization of methyl ammonium lead halide perovskites: implications for photovoltaic applications. *Journal of the American Chemical Society*, **2014**, 136, 13249-56 | 16.4 | 345 |
| 376 | Solid-state electron transport via cytochrome c depends on electronic coupling to electrodes and across the protein. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 5556-61 | 11.5 | 47 |
| 375 | Preparation of Single-Phase Films of CH3NH3Pb(I1-xBrx)3 with Sharp Optical Band Edges. *Journal of Physical Chemistry Letters*, **2014**, 5, 2501-5 | 6.4 | 347 |
| 374 | Enhancing the tunability of the open-circuit voltage of hybrid photovoltaics with mixed molecular monolayers. *ACS Applied Materials & Interfaces*, **2014**, 6, 2317-24 | 9.5 | 4 |
| 373 | n-Si□Organic Inversion Layer Interfaces: A Low Temperature Deposition Method for Forming a p□ Homojunction in n-Si. *Advanced Energy Materials*, **2014**, 4, 1301724 | 21.8 | 54 |
| 372 | Fabrication of reproducible, integration-compatible hybrid molecular/si electronics. *Small*, **2014**, 10, 5151-60 | 11.5 | 18 |
| 371 | Odd-even effect in molecular electronic transport via an aromatic ring. *Langmuir*, **2014**, 30, 13596-605 | 4 | 29 |
| 370 | Effect of chemical treatments on nm-scale electrical characteristics of polycrystalline thin film Cu(In,Ga)Se2 surfaces. *Solar Energy Materials and Solar Cells*, **2014**, 120, 500-505 | 6.4 | 20 |
| 369 | Interface energetics in organo-metal halide perovskite-based photovoltaic cells. *Energy and Environmental Science*, **2014**, 7, 1377 | 35.4 | 554 |
| 368 | Effect of Molecule-Surface Reaction Mechanism on the Electronic Characteristics and Photovoltaic Performance of Molecularly Modified Si. *Journal of Physical Chemistry C*, **2013**, 117, 22351-22361 | 3.8 | 21 |
| 367 | Redox activity distinguishes solid-state electron transport from solution-based electron transfer in a natural and artificial protein: cytochrome C and hemin-doped human serum albumin. *Physical Chemistry Chemical Physics*, **2013**, 15, 17142-9 | 3.6 | 35 |
| 366 | A New Route to Nondestructive Top-Contacts for Molecular Electronics on Si: Pb Evaporated on Organic Monolayers. *Journal of Physical Chemistry Letters*, **2013**, 4, 426-30 | 6.4 | 23 |

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|---|---|---|---|
| 365 | 40 Years of Inversion Layer Solar Cells: From MOS to Conducting Polymer/Inorganic Hybrids. *IEEE Journal of Photovoltaics*, **2013**, 3, 1443-1459 | 3.7 | 20 |
| 364 | Mono-fluorinated alkyne-derived SAMs on oxide-free Si(111) surfaces: preparation, characterization and tuning of the Si workfunction. *Langmuir*, **2013**, 29, 570-80 | 4 | 34 |
| 363 | O2 and organic semiconductors: Electronic effects. *Organic Electronics*, **2013**, 14, 966-972 | 3.5 | 28 |
| 362 | The effect of structural order on solar cell parameters, as illustrated in a SiC-organic junction model. *Energy and Environmental Science*, **2013**, 6, 3272 | 35.4 | 8 |
| 361 | Electron transport via cytochrome c on Si-H surfaces: roles of Fe and heme. *Journal of the American Chemical Society*, **2013**, 135, 6300-6 | 16.4 | 27 |
| 360 | High Open-Circuit Voltage Solar Cells Based on Organic-Inorganic Lead Bromide Perovskite. *Journal of Physical Chemistry Letters*, **2013**, 4, 897-902 | 6.4 | 438 |
| 359 | Separating Charges at Organic Interfaces: Effects of Disorder, Hot States, and Electric Field. *Journal of Physical Chemistry Letters*, **2013**, 4, 1707-17 | 6.4 | 59 |
| 358 | Effect of Doping Density on the Charge Rearrangement and Interface Dipole at the Molecule-Silicon Interface. *Journal of Physical Chemistry C*, **2013**, 117, 22422-22427 | 3.8 | 12 |
| 357 | Rethinking transition voltage spectroscopy within a generic Taylor expansion view. *ACS Nano*, **2013**, 7, 695-706 | 16.7 | 50 |
| 356 | Photocontrol of Electrical Conductance with a Nonsymmetrical Azobenzene Dithiol. *Synlett*, **2013**, 24, 2370-2374 | 2.2 | 8 |
| 355 | Substituent variation drives metal/monolayer/semiconductor junctions from strongly rectifying to ohmic behavior. *Advanced Materials*, **2013**, 25, 702-6 | 24 | 30 |
| 354 | Marked changes in electron transport through the blue copper protein azurin in the solid state upon deuteration. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 507-12 | 11.5 | 46 |
| 353 | Molecular field effect passivation: Quinhydrone/methanol treatment of n-Si(100). *Journal of Applied Physics*, **2013**, 113, 084909 | 2.5 | 14 |
| 352 | Proteins as "dopable" bio-electronic materials **2013**, | | 2 |
| 351 | Chemical compositional non-uniformity and its effects on CIGS solar cell performance at the nm-scale. *Solar Energy Materials and Solar Cells*, **2012**, 98, 78-82 | 6.4 | 10 |
| 350 | Ga Composition Dictates Macroscopic Photovoltaic and Nanoscopic Electrical Characteristics of Cu(In$_{1-X}$Ga$_X$)Se$_2$ Thin Films via Grain-Boundary-Type Inversion. *IEEE Journal of Photovoltaics*, **2012**, 2, 191-195 | 3.7 | 18 |
| 349 | Hybrids of organic molecules and flat, oxide-free silicon: high-density monolayers, electronic properties, and functionalization. *Langmuir*, **2012**, 28, 9920-9 | 4 | 98 |
| 348 | Structure Matters: Correlating temperature dependent electrical transport through alkyl monolayers with vibrational and photoelectron spectroscopies. *Chemical Science*, **2012**, 3, 851-862 | 9.4 | 42 |

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| 347 | A novel method for investigating electrical breakdown enhancement by nm-sized features. *Nanoscale*, **2012**, 4, 3128-34 | 7.7 | 4 |
| 346 | Molecular length, monolayer density, and charge transport: lessons from Al-AlOx/alkyl-phosphonate/Hg junctions. *Langmuir*, **2012**, 28, 404-15 | 4 | 58 |
| 345 | Doping human serum albumin with retinoate markedly enhances electron transport across the protein. *Journal of the American Chemical Society*, **2012**, 134, 18221-4 | 16.4 | 28 |
| 344 | Controlling Space Charge of Oxide-Free Si by in Situ Modification of Dipolar Alkyl Monolayers. *Journal of Physical Chemistry C*, **2012**, 116, 11434-11443 | 3.8 | 21 |
| 343 | Temperature and force dependence of nanoscale electron transport via the Cu protein azurin. *ACS Nano*, **2012**, 6, 10816-24 | 16.7 | 54 |
| 342 | All-solid-state, semiconductor-sensitized nanoporous solar cells. *Accounts of Chemical Research*, **2012**, 45, 705-13 | 24.3 | 91 |
| 341 | Aluminum oxide-Si field effect inversion layer solar cells with organic top contact. *Applied Physics Letters*, **2012**, 101, 233901 | 3.4 | 26 |
| 340 | Temperature-dependent solid-state electron transport through bacteriorhodopsin: experimental evidence for multiple transport paths through proteins. *Journal of the American Chemical Society*, **2012**, 134, 4169-76 | 16.4 | 49 |
| 339 | Ambient organic molecular passivation of Si yields near-ideal, Schottky-Mott limited, junctions. *AIP Advances*, **2012**, 2, 012164 | 1.5 | 38 |
| 338 | Photovoltaic efficiency limits and material disorder. *Energy and Environmental Science*, **2012**, 5, 6022 | 35.4 | 134 |
| 337 | Charge transport across metal/molecular (alkyl) monolayer-Si junctions is dominated by the LUMO level. *Physical Review B*, **2012**, 85, | 3.3 | 48 |
| 336 | Energy limitations on materials availability. *MRS Bulletin*, **2012**, 37, 412-416 | 3.2 | 4 |
| 335 | Energetics of CdSe Quantum Dots Adsorbed on TiO2. *Journal of Physical Chemistry C*, **2011**, 115, 13236-13241 | 3.8 | 30 |
| 334 | Si-C-bound alkyl chains on oxide-free Si: towards versatile solution preparation of electronic transport quality monolayers. *Physical Chemistry Chemical Physics*, **2011**, 13, 1293-6 | 3.6 | 14 |
| 333 | Nanometer-scale electronic and microstructural properties of grain boundaries in Cu(In,Ga)Se2. *Thin Solid Films*, **2011**, 519, 7341-7346 | 2.2 | 42 |
| 332 | Filled and empty states of alkanethiol monolayer on Au (111): Fermi level asymmetry and implications for electron transport. *Chemical Physics Letters*, **2011**, 511, 344-347 | 2.5 | 44 |
| 331 | Solid-state electron transport across azurin: from a temperature-independent to a temperature-activated mechanism. *Journal of the American Chemical Society*, **2011**, 133, 2421-3 | 16.4 | 72 |
| 330 | Proteins as solid-state electronic conductors. *Accounts of Chemical Research*, **2010**, 43, 945-53 | 24.3 | 103 |

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