

# Daniele Fazzi

## List of Publications by Year in descending order

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88  
papers

4,487  
citations

81900  
39  
h-index

106344  
65  
g-index

92  
all docs

92  
docs citations

92  
times ranked

5806  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Effect of the iodine atom position on the phosphorescence of BODIPY derivatives: a combined computational and experimental study. <i>Photochemical and Photobiological Sciences</i> , 2022, 21, 777-786.                                 | 2.9  | 7         |
| 2  | On the Origin of Seebeck Coefficient Inversion in Highly Doped Conducting Polymers. <i>Advanced Functional Materials</i> , 2022, 32, .   | 14.9 | 18        |
| 3  | Stable and Solution-Processable Cumulenonic sp <sup>2</sup> -Carbon Wires: A New Paradigm for Organic Electronics. <i>Advanced Materials</i> , 2022, 34, e2110468.   | 21.0 | 12        |
| 4  | Addressing the Elusive Polaronic Nature of Multiple Redox States in a $\pi$ -Conjugated Ladder-Type Polymer. <i>Advanced Electronic Materials</i> , 2021, 7, 2000786.  | 5.1  | 9         |
| 5  | Impact of Fluoroalkylation on the n-Type Charge Transport of Two Naphthodithiophene Diimide Derivatives. <i>Molecules</i> , 2021, 26, 4119.  | 3.8  | 6         |
| 6  | Time-domain spectroscopy of methane excited by resonant high-energy mid-IR pulses. <i>JPhys Photonics</i> , 2021, 3, 034020.   | 4.6  | 0         |
| 7  | Understanding the structural and charge transport property relationships for a variety of merocyanine single-crystals: a bottom up computational investigation. <i>Journal of Materials Chemistry C</i> , 2021, 9, 10851-10864.          | 5.5  | 9         |
| 8  | Size-selected polyynes synthesised by submerged arc discharge in water. <i>Chemical Physics Letters</i> , 2020, 740, 137054.   | 2.6  | 13        |
| 9  | Impact of the Interfacial Molecular Structure Organization on the Charge Transfer State Formation and Exciton Delocalization in Merocyanine:PC <sub>61</sub> BM Blends. <i>Journal of Physical Chemistry C</i> , 2020, 124, 21978-21984. | 3.1  | 5         |
| 10 | Guiding Charge Transport in Semiconducting Carbon Nanotube Networks by Local Optical Switching. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 28392-28403.   | 8.0  | 11        |
| 11 | Membrane Environment Enables Ultrafast Isomerization of Amphiphilic Azobenzene. <i>Advanced Science</i> , 2020, 7, 1903241.  | 11.2 | 28        |
| 12 | Ground-state electron transfer in all-polymer donor-acceptor heterojunctions. <i>Nature Materials</i> , 2020, 19, 738-744.   | 27.5 | 111       |
| 13 | Radical Anion Yield, Stability, and Electrical Conductivity of Naphthalene Diimide Copolymers <i>n</i> -Doped with Tertiary Amines. <i>ACS Applied Polymer Materials</i> , 2020, 2, 1954-1963.   | 4.4  | 12        |
| 14 | Neuronal firing modulation by a membrane-targeted photoswitch. <i>Nature Nanotechnology</i> , 2020, 15, 296-306.   | 31.5 | 71        |
| 15 | Polarons in $\pi$ -conjugated ladder-type polymers: a broken symmetry density functional description. <i>Journal of Materials Chemistry C</i> , 2019, 7, 12876-12885.  | 5.5  | 21        |
| 16 | Microstructural control suppresses thermal activation of electron transport at room temperature in polymer transistors. <i>Nature Communications</i> , 2019, 10, 3365.   | 12.8 | 30        |
| 17 | Effect of Backbone Regiochemistry on Conductivity, Charge Density, and Polaron Structure of <i>n</i> -Doped Donor-Acceptor Polymers. <i>Chemistry of Materials</i> , 2019, 31, 3395-3406.  | 6.7  | 44        |
| 18 | Highly Fluorescent Metal-Organic-Framework Nanocomposites for Photonic Applications. <i>Nano Letters</i> , 2018, 18, 528-534.  | 9.1  | 37        |

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|----|--|------|-----------|
| 19 | Probing Exciton Delocalization in Organic Semiconductors: Insight from Time-Resolved Electron Paramagnetic Resonance and Magnetophotoselection Experiments. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 7026-7031. | 4.6  | 9         |
| 20 | A Chemically Doped Naphthalenediimide-Bithiazole Polymer for n-Type Organic Thermoelectrics. <i>Advanced Materials</i> , 2018, 30, e1801898.   | 21.0 | 165       |
| 21 | Raman spectroscopy and microscopy of electrochemically and chemically doped high-mobility semiconducting polymers. <i>Journal of Materials Chemistry C</i> , 2017, 5, 6176-6184.   | 5.5  | 57        |
| 22 | Highly Planarized Naphthalene Diimide-Bifuran Copolymers with Unexpected Charge Transport Performance. <i>Chemistry of Materials</i> , 2017, 29, 5473-5483.  | 6.7  | 45        |
| 23 | Evaluation of Spin-Orbit Couplings with Linear-Response Time-Dependent Density Functional Methods. <i>Journal of Chemical Theory and Computation</i> , 2017, 13, 515-524.  | 5.3  | 249       |
| 24 | Hot and Cold Charge-Transfer Mechanisms in Organic Photovoltaics: Insights into the Excited States of Donor/Acceptor Interfaces. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4727-4734.                            | 4.6  | 36        |
| 25 | Photochromic Torsional Switch (PTS): a light-driven actuator for the dynamic tuning of $\pi$ -conjugation extension. <i>Chemical Science</i> , 2017, 8, 361-365.   | 7.4  | 15        |
| 26 | On the Effect of Prevalent Carbazole Homocoupling Defects on the Photovoltaic Performance of PCDTBT:PC <sub>71</sub> BM Solar Cells. <i>Advanced Energy Materials</i> , 2016, 6, 1601232.                                      | 19.5 | 52        |
| 27 | Linear Carbon Chains. , 2016, , 27-48.   |      | 1         |
| 28 | The Activation of Carboxylic Acids via Self-Assembly Asymmetric Organocatalysis: A Combined Experimental and Computational Investigation. <i>Journal of the American Chemical Society</i> , 2016, 138, 14740-14749.            | 13.7 | 52        |
| 29 | Thermoelectric Properties of Solution-Processed n-Doped Ladder-Type Conducting Polymers. <i>Advanced Materials</i> , 2016, 28, 10764-10771.  | 21.0 | 245       |
| 30 | Polarons in Narrow Band Gap Polymers Probed over the Entire Infrared Range: A Joint Experimental and Theoretical Investigation. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 4438-4444.                             | 4.6  | 24        |
| 31 | First-Principles Study of the Nuclear Dynamics of Doped Conjugated Polymers. <i>Journal of Physical Chemistry C</i> , 2016, 120, 1994-2001.  | 3.1  | 25        |
| 32 | Unveiling the Role of <i>Hot</i> Charge-Transfer States in Molecular Aggregates via Nonadiabatic Dynamics. <i>Journal of the American Chemical Society</i> , 2016, 138, 4502-4511.   | 13.7 | 41        |
| 33 | Modeling ultrafast exciton deactivation in oligothiophenes via nonadiabatic dynamics. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 7787-7799.  | 2.8  | 48        |
| 34 | C-H Arylation of Unsubstituted Furan and Thiophene with Acceptor Bromides: Access to Donor-Acceptor-Donor-Type Building Blocks for Organic Electronics. <i>Journal of Organic Chemistry</i> , 2015, 80, 980-987.               | 3.2  | 78        |
| 35 | Structural Characterization of Highly Oriented Naphthalene-Diimide-Bithiophene Copolymer Films via Vibrational Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2015, 119, 2062-2073.                                    | 2.6  | 19        |
| 36 | Multi-length-scale relationships between the polymer molecular structure and charge transport: the case of poly-naphthalene diimide bithiophene. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 8573-8590.             | 2.8  | 56        |

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|----|--|------|-----------|
| 37 | On the role of aggregation effects in the performance of perylene-diimide based solar cells. Organic Electronics, 2014, 15, 1347-1361.   | 2.6  | 60        |
| 38 | Mapping Orientational Order of Charge-Probed Domains in a Semiconducting Polymer. ACS Nano, 2014, 8, 5968-5978.  | 14.6 | 36        |
| 39 | Ï€-Conjugation and End Group Effects in Long Cumulenes: Raman Spectroscopy and DFT Calculations. Journal of Physical Chemistry C, 2014, 118, 26415-26425.  | 3.1  | 46        |
| 40 | The critical role of interfacial dynamics in the stability of organic photovoltaic devices. Physical Chemistry Chemical Physics, 2014, 16, 8294-8300.  | 2.8  | 18        |
| 41 | Atomistic Simulations of P(NDI2OD-T2) Morphologies: From Single Chain to Condensed Phases. Journal of Physical Chemistry B, 2014, 118, 12556-12565.  | 2.6  | 22        |
| 42 | Electron transport in crystalline PCBM-like fullerene derivatives: a comparative computational study. Journal of Materials Chemistry C, 2014, 2, 7313-7325.  | 5.5  | 41        |
| 43 | Nature of Charge Carriers in a High Electron Mobility Naphthalenediimide Based Semiconducting Copolymer. Advanced Functional Materials, 2014, 24, 5584-5593.   | 14.9 | 30        |
| 44 | Structure-Function Relationships of High-Electron Mobility Naphthalene Diimide Copolymers Prepared Via Direct Arylation. Chemistry of Materials, 2014, 26, 6233-6240.  | 6.7  | 105       |
| 45 | Reversible P3HT/Oxygen Charge Transfer Complex Identification in Thin Films Exposed to Direct Contact with Water. Journal of Physical Chemistry C, 2014, 118, 6291-6299.                                     | 3.1  | 64        |
| 46 | Synthesis, Electronic Structure, and Charge Transport Characteristics of Naphthalenediimide-Based Co-Polymers with Different Oligothiophene Donor Units. Advanced Functional Materials, 2014, 24, 1151-1162. | 14.9 | 65        |
| 47 | Reply to 'Measuring internal quantum efficiency to demonstrate hot exciton dissociation'. Nature Materials, 2013, 12, 594-595.   | 27.5 | 15        |
| 48 | Hot exciton dissociation in polymer solar cells. Nature Materials, 2013, 12, 29-33.  | 27.5 | 567       |
| 49 | Polymerization Inhibition by Triplet State Absorption for Nanoscale Lithography. Advanced Materials, 2013, 25, 904-909.  | 21.0 | 59        |
| 50 | Structure and chain polarization of long polyynes investigated with infrared and Raman spectroscopy. Journal of Raman Spectroscopy, 2013, 44, 1398-1410.   | 2.5  | 50        |
| 51 | Molecular Level Investigation of the Film Structure of a High Electron Mobility Copolymer via Vibrational Spectroscopy. Macromolecules, 2013, 46, 2658-2670.   | 4.8  | 63        |
| 52 | Ultrafast spectroscopy of linear carbon chains: the case of dinaphthylpolyynes. Physical Chemistry Chemical Physics, 2013, 15, 9384.   | 2.8  | 15        |
| 53 | Ultrafast Energy Transfer in Ultrathin Organic Donor/Acceptor Blend. Scientific Reports, 2013, 3, 2073.  | 3.3  | 39        |
| 54 | Ultrafast exciton dissociation at donor/acceptor interfaces. , 2013, , .   |      | 1         |

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|----|--|------|-----------|
| 55 | Hot Exciton Dissociation at Organic Interfaces. Materials Research Society Symposia Proceedings, 2013, 1537, 1.  | 0.1  | 0         |
| 56 | Ultrafast hot exciton dissociation at organic interfaces. , 2013, , .  |      | 0         |
| 57 | Ultrafast spectroscopy of dinaphthylpolyynes. , 2013, , .  |      | 0         |
| 58 | Ultrafast spectroscopy of linear carbon chains: the case of dinaphthylpolyynes. EPJ Web of Conferences, 2013, 41, 05026.   | 0.3  | 0         |
| 59 | Ultrafast Charge Separation in Low Band-Gap Polymer Blend for Photovoltaics. EPJ Web of Conferences, 2013, 41, 04010.  | 0.3  | 1         |
| 60 | Spectroscopic Investigation of Oxygen- and Water-Induced Electron Trapping and Charge Transport Instabilities in n-type Polymer Semiconductors. Journal of the American Chemical Society, 2012, 134, 14877-14889.                    | 13.7 | 138       |
| 61 | Effects of Polymer Packing Structure on Photoinduced Triplet Generation and Dynamics. Journal of Physical Chemistry C, 2012, 116, 11298-11305.   | 3.1  | 7         |
| 62 | Ultrafast internal conversion in a low band gap polymer for photovoltaics: experimental and theoretical study. Physical Chemistry Chemical Physics, 2012, 14, 6367.  | 2.8  | 43        |
| 63 | Tuning the Quinoid versus Biradicaloid Character of Thiophene-Based Heteroquaterphenoquinones by Means of Functional Groups. Journal of the American Chemical Society, 2012, 134, 19070-19083.                                       | 13.7 | 59        |
| 64 | Absolute Raman intensity measurements and determination of the vibrational second hyperpolarizability of adamantyl endcapped polyynes. Journal of Raman Spectroscopy, 2012, 43, 1293-1298.   | 2.5  | 30        |
| 65 | Bent polyynes: ring geometry studied by Raman and IR spectroscopy. Journal of Raman Spectroscopy, 2012, 43, 95-101.  | 2.5  | 27        |
| 66 | Transient Absorption Imaging of P3HT:PCBM Photovoltaic Blend: Evidence For Interfacial Charge Transfer State. Journal of Physical Chemistry Letters, 2011, 2, 1099-1105.   | 4.6  | 171       |
| 67 | A computational investigation on singlet and triplet exciton couplings in acene molecular crystals. Physical Chemistry Chemical Physics, 2011, 13, 18615.  | 2.8  | 44        |
| 68 | Quantum-Chemical Insights into the Prediction of Charge Transport Parameters for a Naphthalenetetracarboxydiimide-Based Copolymer with Enhanced Electron Mobility. Journal of the American Chemical Society, 2011, 133, 19056-19059. | 13.7 | 95        |
| 69 | Modulation of the electronic structure of polyconjugated organic molecules by geometry relaxation: A discussion based on local Raman parameters. Journal of Molecular Structure, 2011, 993, 26-37.                                   | 3.6  | 5         |
| 70 | Very Low Degree of Energetic Disorder as the Origin of High Mobility in an $\pi$ -conjugated Polymer Semiconductor. Advanced Functional Materials, 2011, 21, 3371-3381.  | 14.9 | 169       |
| 71 | Optical Modulation of Amplified Emission in a Polyfluorene- $\pi$ -Diarylethene Blend. ChemPhysChem, 2011, 12, 3619-3623.  | 2.1  | 10        |
| 72 | Photogenerated cumulenenic structure of adamantyl endcapped linear carbon chains: An experimental and computational investigation based on infrared spectroscopy. Journal of Chemical Physics, 2011, 134, 124512.                    | 3.0  | 22        |

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|----|--|------|-----------|
| 73 | Biradicaloid Character of Thiophene-Based Heterophenoquinones: The Role of Electron-Phonon Coupling. ChemPhysChem, 2010, 11, 3685-3695.  | 2.1  | 43        |
| 74 | Raman spectroscopic characterization of a thiophene-based active material for resistive organic nonvolatile memories. Journal of Raman Spectroscopy, 2010, 41, 406-413.                                  | 2.5  | 6         |
| 75 | Enhancing the light driven modulation of the refractive index in organic photochromic materials: A quantum chemical strategy. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 214, 61-68. | 3.9  | 10        |
| 76 | A density matrix based approach for studying excitons in organic crystals. Chemical Physics Letters, 2010, 496, 284-290.   | 2.6  | 11        |
| 77 | Toward carbyne: Synthesis and stability of really long polyynes. Pure and Applied Chemistry, 2010, 82, 891-904.  | 1.9  | 59        |
| 78 | Biradicaloid and Polyenic Character of Quinoidal Oligothiophenes Revealed by the Presence of a Low-Lying Double-Exciton State. Journal of Physical Chemistry Letters, 2010, 1, 3334-3339.                | 4.6  | 150       |
| 79 | Resistive memories based on Rose Bengal and related xanthene derivatives: insights from modeling charge transport properties. Physical Chemistry Chemical Physics, 2010, 12, 1600.                       | 2.8  | 16        |
| 80 | sp Carbon chain interaction with silver nanoparticles probed by Surface Enhanced Raman Scattering. Chemical Physics Letters, 2009, 478, 45-50.   | 2.6  | 40        |
| 81 | Resistive Molecular Memories: Influence of Molecular Parameters on the Electrical Bistability. Journal of the American Chemical Society, 2009, 131, 6591-6598.   | 13.7 | 86        |
| 82 | Evidence for Solution-State Nonlinearity of sp-Carbon Chains Based on IR and Raman Spectroscopy: Violation of Mutual Exclusion. Journal of the American Chemical Society, 2009, 131, 4239-4244.          | 13.7 | 93        |
| 83 | First-principles calculation of the Peierls distortion in an infinite linear carbon chain: the contribution of Raman spectroscopy. Journal of Raman Spectroscopy, 2008, 39, 164-168.                     | 2.5  | 43        |
| 84 | Modeling phonons of carbon nanowires. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 2570-2576.  | 2.7  | 19        |
| 85 | Low-frequency modes in the Raman spectrum of $s^{3/2}$ carbon. Physical Review B, 2008, 77, .  | 3.2  | 69        |
| 86 | Structure and Electrical Bistability of a New Class of Diphenyl-bithiophenes: A Combined Theoretical and Experimental Study. Journal of Physical Chemistry C, 2008, 112, 18628-18637.                    | 3.1  | 7         |
| 87 | Intramolecular Vibrational Force Fields for Linear Carbon Chains through an Adaptive Linear Scaling Scheme. Journal of Physical Chemistry A, 2007, 111, 11645-11651.                                     | 2.5  | 45        |
| 88 | Effective hamiltonian for $\pi$ electrons in linear carbon chains. Chemical Physics Letters, 2007, 450, 86-90.   | 2.6  | 10        |