# Brian A Collins

List of Publications by Year
in descending order



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|---|---|---|---|
| 45 papers | 5,485 citations | 257450 24 h-index | 214800 47 g-index |
| 48 all docs | 48 docs citations | 48 times ranked | 5946 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Structural control of mixed ionic and electronic transport in conducting polymers. Nature Communications, 2016, 7, 11287. | 12.8 | 627 |
| 2 | Absolute Measurement of Domain Composition and Nanoscale Size Distribution Explains Performance in PTB7:PC<sub>71</sub>BM Solar Cells. Advanced Energy Materials, 2013, 3, 65-74. | 19.5 | 605 |
| 3 | Quantitative relations between interaction parameter, miscibility and function in organic solar cells. Nature Materials, 2018, 17, 253-260. | 27.5 | 556 |
| 4 | The influence of molecular orientation on organic bulk heterojunction solar cells. Nature Photonics, 2014, 8, 385-391. | 31.4 | 439 |
| 5 | Soft x-ray scattering facility at the Advanced Light Source with real-time data processing and analysis. Review of Scientific Instruments, 2012, 83, 045110. | 1.3 | 420 |
| 6 | The Importance of Fullerene Percolation in the Mixed Regions of Polymerâ€“Fullerene Bulk Heterojunction Solar Cells. Advanced Energy Materials, 2013, 3, 364-374. | 19.5 | 412 |
| 7 | Molecular Miscibility of Polymerâ”Fullerene Blends. Journal of Physical Chemistry Letters, 2010, 1, 3160-3166. | 4.6 | 362 |
| 8 | Miscibility, Crystallinity, and Phase Development in P3HT/PCBM Solar Cells: Toward an Enlightened Understanding of Device Morphology and Stability. Journal of Physical Chemistry Letters, 2011, 2, 3135-3145. | 4.6 | 301 |
| 9 | Polarized X-ray scattering reveals non-crystalline orientational ordering in organic films. Nature Materials, 2012, 11, 536-543. | 27.5 | 281 |
| 10 | The Role of Regioregularity, Crystallinity, and Chain Orientation on Electron Transport in a High-Mobility n-Type Copolymer. Journal of the American Chemical Society, 2014, 136, 4245-4256. | 13.7 | 226 |
| 11 | Miscibilityâ€“Function Relations in Organic Solar Cells: Significance of Optimal Miscibility in Relation to Percolation. Advanced Energy Materials, 2018, 8, 1703058. | 19.5 | 223 |
| 12 | Correlating the Efficiency and Nanomorphology of Polymer Blend Solar Cells Utilizing Resonant Soft X-ray Scattering. ACS Nano, 2012, 6, 677-688. | 14.6 | 149 |
| 13 | Correlated Donor/Acceptor Crystal Orientation Controls Photocurrent Generation in Allâ€Polymer Solar Cells. Advanced Functional Materials, 2014, 24, 4068-4081. | 14.9 | 144 |
| 14 | Probing the pathways of free charge generation in organic bulk heterojunction solar cells. Nature Communications, 2018, 9, 2038. | 12.8 | 104 |
| 15 | Quantitative compositional analysis of organic thin films using transmission NEXAFS spectroscopy in an X-ray microscope. Journal of Electron Spectroscopy and Related Phenomena, 2012, 185, 119-128. | 1.7 | 64 |
| 16 | Fullerene-Dependent Miscibility in the Silole-Containing Copolymer PSBTBT-08. Macromolecules, 2011, 44, 9747-9751. | 4.8 | 59 |
| 17 | Mixed Domains Enhance Charge Generation and Extraction in Bulkâ€Heterojunction Solar Cells with Smallâ€Molecule Donors. Advanced Energy Materials, 2018, 8, 1702941. | 19.5 | 43 |
| 18 | Fullerene-Free Polymer Solar Cells with Highly Reduced Bimolecular Recombination and Field-Independent Charge Carrier Generation. Journal of Physical Chemistry Letters, 2014, 5, 2815-2822. | 4.6 | 42 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Studying Polymer/Fullerene Intermixing and Miscibility in Laterally Patterned Films with Xâ€Ray Spectromicroscopy. Small, 2012, 8, 1920-1927. | 10.0 | 39 |
| 20 | Molecular and Energetic Order Dominate the Photocurrent Generation Process in Organic Solar Cells with Small Energetic Offsets. ACS Energy Letters, 2020, 5, 589-596. | 17.4 | 36 |
| 21 | Resonant soft Xâ€ray scattering in polymer science. Journal of Polymer Science, 2022, 60, 1199-1243. | 3.8 | 27 |
| 22 | Origins of polarization-dependent anisotropic X-ray scattering from organic thin films. Journal of Synchrotron Radiation, 2016, 23, 219-227. | 2.4 | 26 |
| 23 | Increased charge transfer state separationviareduced mixed phase interface in polymer solar cells. Journal of Materials Chemistry A, 2019, 7, 4536-4548. | 10.3 | 26 |
| 24 | Spectral Analysis for Resonant Soft X-Ray Scattering Enables Measurement of Interfacial Width in 3D Organic Nanostructures. Physical Review Letters, 2017, 119, 167801. | 7.8 | 25 |
| 25 | In Situ X-ray Scattering Studies of the Influence of an Additive on the Formation of a Low-Bandgap Bulk Heterojunction. Chemistry of Materials, 2017, 29, 2283-2293. | 6.7 | 23 |
| 26 | Synthesis, solidâ€state, and chargeâ€transport properties of conjugated polythiopheneâ€S,Sâ€dioxides. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 48-56. | 2.1 | 22 |
| 27 | GIWAXS-SIIRkit: scattering intensity, indexing and refraction calculation toolkit for grazing-incidence wide-angle X-ray scattering of organic materials. Journal of Applied Crystallography, 2020, 53, 1108-1129. | 4.5 | 22 |
| 28 | Dopant stability and strain states in Co and Mn-doped Ge (001) epitaxial films. Physical Review B, 2008, 77, . | 3.2 | 19 |
| 29 | Connecting Molecular Conformation to Aggregation in P3HT Using Near Edge X-ray Absorption Fine Structure Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 21720-21728. | 3.1 | 19 |
| 30 | Study of magnetic anisotropy and magnetization reversal using the quadratic magnetooptical effect in epitaxial Co<sub>x</sub>Mn<sub>y</sub>Ge<sub>z</sub>(111) films. Journal of Physics Condensed Matter, 2009, 21, 296005. | 1.8 | 14 |
| 31 | Combinatorial synthesis and characterization of a ternary epitaxial film of Co and Mn doped Ge (001). Applied Surface Science, 2007, 254, 709-713. | 6.1 | 13 |
| 32 | High Sensitivity of Nonâ€Fullerene Organic Solar Cells Morphology and Performance to a Processing Additive. Small, 2022, 18, e2202411. | 10.0 | 13 |
| 33 | Anomalous x-ray diffraction study of disorders in epitaxial films of the Heusler alloy Co[sub 2]MnGe. Journal of Vacuum Science & Technology B, 2007, 25, 999. | 1.3 | 12 |
| 34 | Structural and chemical ordering of Heusler <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">o</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:mi mathvariant="normal">M</mml:mi><mml:msub><mml:mi mathvariant="normal">n</mml:mi><mml:mi>y</mml:mi></mml:msub><mml:mi mathvariant="normal">G | 3.2 | 10 |
| 35 | On the Interplay between CT and Singlet Exciton Emission in Organic Solar Cells with Small Driving Force and Its Impact on Voltage Loss. Advanced Energy Materials, 2022, 12, . | 19.5 | 10 |
| 36 | Label-free characterization of organic nanocarriers reveals persistent single molecule cores for hydrocarbon sequestration. Nature Communications, 2021, 12, 3123. | 12.8 | 9 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Modifications in Morphology Resulting from Nanoimprinting Bulk Heterojunction Blends for Light Trapping Organic Solar Cell Designs. ACS Applied Materials & Interfaces, 2013, 5, 8225-8230. | 8.0 | 8 |
| 38 | High-resolution X-ray diffraction studies of combinatorial epitaxial Ge (001) thin-films on Ge (001) substrates. Applied Surface Science, 2007, 254, 714-719. | 6.1 | 6 |
| 39 | A NIST facility for resonant soft x-ray scattering measuring nano-scale soft matter structure at NSLS-II. Journal of Physics Condensed Matter, 2021, 33, 164001. | 1.8 | 6 |
| 40 | Evidence for Field-Dependent Charge Separation Caused by Mixed Phases in Polymerâ€“Fullerene Organic Solar Cells. Journal of Physical Chemistry Letters, 2021, 12, 1847-1853. | 4.6 | 5 |
| 41 | Electrical edge effect induced photocurrent overestimation in low-light organic photovoltaics. Joule, 2022, 6, 1904-1917. | 24.0 | 5 |
| 42 | Epitaxial growth of (FeCo)[sub x]Ge[sub 1â^'x](001). Journal of Vacuum Science & Technology B, 2007, 25, 1217. | 1.3 | 4 |
| 43 | Epitaxial growth of CoxMnySiz (111) thin films in the compositional range around the Heusler alloy Co2MnSi. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, . | 1.2 | 4 |
| 44 | Pressure-assisted thermal sterilization of avocado puree in high barrier polymeric packaging. LWT - Food Science and Technology, 2022, 155, 112960. | 5.2 | 4 |
| 45 | Evidence That Sharp Interfaces Suppress Recombination in Thick Organic Solar Cells. ACS Applied Materials & Interfaces, 2021, 13, 56394-56403. | 8.0 | 3 |