

# 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	Resonant soft X-ray scattering in polymer science. <i>Journal of Polymer Science</i> , 2022, 60, 1199-1243.	3.8	27
2	Pressure-assisted thermal sterilization of avocado puree in high barrier polymeric packaging. <i>LWT - Food Science and Technology</i> , 2022, 155, 112960.	5.2	4
3	High Sensitivity of Non-Fullerene Organic Solar Cells Morphology and Performance to a Processing Additive. <i>Small</i> , 2022, 18, e2202411.	10.0	13
4	On the Interplay between CT and Singlet Exciton Emission in Organic Solar Cells with Small Driving Force and Its Impact on Voltage Loss. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	10
5	Electrical edge effect induced photocurrent overestimation in low-light organic photovoltaics. <i>Joule</i> , 2022, 6, 1904-1917.	24.0	5
6	Evidence for Field-Dependent Charge Separation Caused by Mixed Phases in Polymer-Fullerene Organic Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 1847-1853.	4.6	5
7	A NIST facility for resonant soft x-ray scattering measuring nano-scale soft matter structure at NSLS-II. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 164001.	1.8	6
8	Label-free characterization of organic nanocarriers reveals persistent single molecule cores for hydrocarbon sequestration. <i>Nature Communications</i> , 2021, 12, 3123.	12.8	9
9	Evidence That Sharp Interfaces Suppress Recombination in Thick Organic Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 56394-56403.	8.0	3
10	<i>GIWAXS-SIIRkit</i>: scattering intensity, indexing and refraction calculation toolkit for grazing-incidence wide-angle X-ray scattering of organic materials. <i>Journal of Applied Crystallography</i> , 2020, 53, 1108-1129.	4.5	22
11	Molecular and Energetic Order Dominate the Photocurrent Generation Process in Organic Solar Cells with Small Energetic Offsets. <i>ACS Energy Letters</i> , 2020, 5, 589-596.	17.4	36
12	Increased charge transfer state separation via reduced mixed phase interface in polymer solar cells. <i>Journal of Materials Chemistry A</i> , 2019, 7, 4536-4548.	10.3	26
13	Mixed Domains Enhance Charge Generation and Extraction in Bulk-Heterojunction Solar Cells with Small-Molecule Donors. <i>Advanced Energy Materials</i> , 2018, 8, 1702941.	19.5	43
14	Quantitative relations between interaction parameter, miscibility and function in organic solar cells. <i>Nature Materials</i> , 2018, 17, 253-260.	27.5	556
15	Miscibility-Function Relations in Organic Solar Cells: Significance of Optimal Miscibility in Relation to Percolation. <i>Advanced Energy Materials</i> , 2018, 8, 1703058.	19.5	223
16	Probing the pathways of free charge generation in organic bulk heterojunction solar cells. <i>Nature Communications</i> , 2018, 9, 2038.	12.8	104
17	In Situ X-ray Scattering Studies of the Influence of an Additive on the Formation of a Low-Bandgap Bulk Heterojunction. <i>Chemistry of Materials</i> , 2017, 29, 2283-2293.	6.7	23
18	Spectral Analysis for Resonant Soft X-Ray Scattering Enables Measurement of Interfacial Width in 3D Organic Nanostructures. <i>Physical Review Letters</i> , 2017, 119, 167801.	7.8	25

#	ARTICLE	IF	CITATIONS
19	Connecting Molecular Conformation to Aggregation in P3HT Using Near Edge X-ray Absorption Fine Structure Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2017, 121, 21720-21728.	3.1	19
20	Structural control of mixed ionic and electronic transport in conducting polymers. <i>Nature Communications</i> , 2016, 7, 11287.	12.8	627
21	Origins of polarization-dependent anisotropic X-ray scattering from organic thin films. <i>Journal of Synchrotron Radiation</i> , 2016, 23, 219-227.	2.4	26
22	Structural and chemical ordering of Heusler $C_{1-x}O_xM_x$ thin films. <i>Journal of Applied Physics</i> , 2016, 119, 104301.	3.2	10
23	The influence of molecular orientation on organic bulk heterojunction solar cells. <i>Nature Photonics</i> , 2014, 8, 385-391.	31.4	439
24	Correlated Donor/Acceptor Crystal Orientation Controls Photocurrent Generation in All-Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2014, 24, 4068-4081.	14.9	144
25	The Role of Regioregularity, Crystallinity, and Chain Orientation on Electron Transport in a High-Mobility n-Type Copolymer. <i>Journal of the American Chemical Society</i> , 2014, 136, 4245-4256.	13.7	226
26	Fullerene-Free Polymer Solar Cells with Highly Reduced Bimolecular Recombination and Field-Independent Charge Carrier Generation. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2815-2822.	4.6	42
27	Modifications in Morphology Resulting from Nanoimprinting Bulk Heterojunction Blends for Light Trapping Organic Solar Cell Designs. <i>ACS Applied Materials &amp; Interfaces</i> , 2013, 5, 8225-8230.	8.0	8
28	Absolute Measurement of Domain Composition and Nanoscale Size Distribution Explains Performance in PTB7:PC <sub>71</sub> BM Solar Cells. <i>Advanced Energy Materials</i> , 2013, 3, 65-74.	19.5	605
29	The Importance of Fullerene Percolation in the Mixed Regions of Polymer/Fullerene Bulk Heterojunction Solar Cells. <i>Advanced Energy Materials</i> , 2013, 3, 364-374.	19.5	412
30	Synthesis, solid-state, and charge-transport properties of conjugated polythiophene sulfone dioxides. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013, 51, 48-56.	2.1	22
31	Soft x-ray scattering facility at the Advanced Light Source with real-time data processing and analysis. <i>Review of Scientific Instruments</i> , 2012, 83, 045110.	1.3	420
32	Correlating the Efficiency and Nanomorphology of Polymer Blend Solar Cells Utilizing Resonant Soft X-ray Scattering. <i>ACS Nano</i> , 2012, 6, 677-688.	14.6	149
33	Quantitative compositional analysis of organic thin films using transmission NEXAFS spectroscopy in an X-ray microscope. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2012, 185, 119-128.	1.7	64
34	Studying Polymer/Fullerene Intermixing and Miscibility in Laterally Patterned Films with X-ray Spectromicroscopy. <i>Small</i> , 2012, 8, 1920-1927.	10.0	39
35	Polarized X-ray scattering reveals non-crystalline orientational ordering in organic films. <i>Nature Materials</i> , 2012, 11, 536-543.	27.5	281
36	Fullerene-Dependent Miscibility in the Silole-Containing Copolymer PSBTBT-08. <i>Macromolecules</i> , 2011, 44, 9747-9751.	4.8	59

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37	Miscibility, Crystallinity, and Phase Development in P3HT/PCBM Solar Cells: Toward an Enlightened Understanding of Device Morphology and Stability. <i>Journal of Physical Chemistry Letters</i> , 2011, 2, 3135-3145.	4.6	301
38	Epitaxial growth of $\text{Co}_x\text{Mn}_y\text{Si}_z$ (111) thin films in the compositional range around the Heusler alloy $\text{Co}_2\text{MnSi}$ . <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011, 29, .	1.2	4
39	Molecular Miscibility of Polymer-Fullerene Blends. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 3160-3166.	4.6	362
40	Study of magnetic anisotropy and magnetization reversal using the quadratic magneto-optical effect in epitaxial $\text{Co}_x\text{Mn}_y\text{Ge}_z$ (111) films. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 296005.	1.8	14
41	Dopant stability and strain states in Co and Mn-doped Ge (001) epitaxial films. <i>Physical Review B</i> , 2008, 77, .	3.2	19
42	Anomalous x-ray diffraction study of disorders in epitaxial films of the Heusler alloy $\text{Co}_2\text{MnGe}$ . <i>Journal of Vacuum Science &amp; Technology B</i> , 2007, 25, 999.	1.3	12
43	Epitaxial growth of $(\text{FeCo})_x\text{Ge}_{1-x}$ (001). <i>Journal of Vacuum Science &amp; Technology B</i> , 2007, 25, 1217.	1.3	4
44	Combinatorial synthesis and characterization of a ternary epitaxial film of Co and Mn doped Ge (001). <i>Applied Surface Science</i> , 2007, 254, 709-713.	6.1	13
45	High-resolution X-ray diffraction studies of combinatorial epitaxial Ge (001) thin-films on Ge (001) substrates. <i>Applied Surface Science</i> , 2007, 254, 714-719.	6.1	6