

# Hiroaki Benten

## List of Publications by Year in Descending Order

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

42  
papers

2,225  
citations

21  
h-index

45  
g-index

45  
ext. papers

2,397  
ext. citations

9.4  
avg, IF

5.15  
L-index

#	Paper	IF	Citations
42	Carbon Nanotube/Biomolecule Composite Yarn for Wearable Thermoelectric Applications. <i>ACS Applied Energy Materials</i> , <b>2022</b> , 5, 3698-3705	6.1	0
41	Nanoscale Observation of the Influence of Solvent Additives on All-Polymer Blend Solar Cells by Photoconductive Atomic Force Microscopy. <i>ACS Applied Polymer Materials</i> , <b>2022</b> , 4, 169-178	4.3	0
40	Perfectness of the main-chain alignment in the conjugated polymer films prepared by the floating film transfer method. <i>Applied Physics Letters</i> , <b>2022</b> , 120, 203301	3.4	1
39	Electron Transport in Thin Films of Polymer and Small-Molecule Acceptors Visualized by Conductive Atomic Force Microscopy. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 13741-13748	3.8	0
38	Extreme Orientational Uniformity in Large-Area Floating Films of Semiconducting Polymers for Their Application in Flexible Electronics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 38534-38543	9.5	6
37	Assisted alignment of conjugated polymers in floating film transfer method using polymer blend. <i>Thin Solid Films</i> , <b>2021</b> , 734, 138814	2.2	5
36	Enhanced Charge Transport in a Conjugated Polymer Blended with an Insulating Polymer. <i>Chemistry - an Asian Journal</i> , <b>2020</b> , 15, 796-801	4.5	3
35	Enhancement of Short-Range Ordering of Low-Bandgap Donor/Acceptor Conjugated Polymer in Polymer/Polymer Blend Films. <i>Macromolecules</i> , <b>2020</b> , 53, 6630-6639	5.5	4
34	Intermixed Donor/Acceptor Region in Conjugated Polymer Blends Visualized by Conductive Atomic Force Microscopy. <i>Macromolecules</i> , <b>2017</b> , 50, 1618-1625	5.5	16
33	Charge Transport in Intermixed Regions of All-Polymer Solar Cells Studied by Conductive Atomic Force Microscopy. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 15615-15622	9.5	27
32	Origin of Open-Circuit Voltage Loss in Polymer Solar Cells and Perovskite Solar Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 19988-19997	9.5	23
31	High-performance ternary blend all-polymer solar cells with complementary absorption bands from visible to near-infrared wavelengths. <i>Energy and Environmental Science</i> , <b>2016</b> , 9, 135-140	35.4	141
30	Recent research progress of polymer donor/polymer acceptor blend solar cells. <i>Journal of Materials Chemistry A</i> , <b>2016</b> , 4, 5340-5365	13	223
29	Transient Absorption Spectroscopy for Polymer Solar Cells. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2016</b> , 22, 100-111	3.8	30
28	Photovoltaic Performance of Perovskite Solar Cells with Different Grain Sizes. <i>Advanced Materials</i> , <b>2016</b> , 28, 917-22	24	239
27	Molecular design of near-IR dyes with different surface energy for selective loading to the heterojunction in blend films. <i>Scientific Reports</i> , <b>2015</b> , 5, 9321	4.9	18
26	Morphology-Limited Free Carrier Generation in Donor/Acceptor Polymer Blend Solar Cells Composed of Poly(3-hexylthiophene) and Fluorene-Based Copolymer. <i>Advanced Energy Materials</i> , <b>2015</b> , 5, 1500304	21.8	23

25	Nanostructures for Efficient Hole Transport in Poly(3-hexylthiophene) Film: A Study by Conductive Atomic Force Microscopy. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 24307-24314	3.8	6
24	Exciton Diffusion in Conjugated Polymers: From Fundamental Understanding to Improvement in Photovoltaic Conversion Efficiency. <i>Journal of Physical Chemistry Letters</i> , <b>2015</b> , 6, 3417-28	6.4	201
23	Electron Transport Nanostructures of Conjugated Polymer Films Visualized by Conductive Atomic Force Microscopy. <i>ACS Macro Letters</i> , <b>2015</b> , 4, 879-885	6.6	16
22	Interface engineering for ternary blend polymer solar cells with a heterostructured near-IR dye. <i>Advanced Materials</i> , <b>2015</b> , 27, 5868-74	24	51
21	Ultrafast Singlet Fission in a Push-Pull Low-Bandgap Polymer Film. <i>Journal of the American Chemical Society</i> , <b>2015</b> , 137, 15980-3	16.4	61
20	Low-Bandgap Donor/Acceptor Polymer Blend Solar Cells with Efficiency Exceeding 4%. <i>Advanced Energy Materials</i> , <b>2014</b> , 4, 1301006	21.8	159
19	One-Dimensional Singlet Exciton Diffusion in Poly(3-hexylthiophene) Crystalline Domains. <i>Journal of Physical Chemistry Letters</i> , <b>2014</b> , 5, 399-403	6.4	67
18	Triplet Exciton Dynamics in Fluorene $\pi$ -amine Copolymer Films. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 2733-2742	6	21
17	Highly efficient charge-carrier generation and collection in polymer/polymer blend solar cells with a power conversion efficiency of 5.7%. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 2939	35.4	253
16	Near-IR Sensitization of Polymer Solar Cells Incorporating Low-Bandgap Small Molecule. <i>Transactions of the Materials Research Society of Japan</i> , <b>2014</b> , 39, 439-442	0.2	3
15	Development of highly conductive nanodomains in poly(3-hexylthiophene) films studied by conductive atomic force microscopy. <i>Polymer</i> , <b>2013</b> , 54, 3443-3447	3.9	22
14	Near-Infrared Dye Sensitization of Polymer/Polymer Thin-Film Solar Cells. <i>Molecular Crystals and Liquid Crystals</i> , <b>2013</b> , 578, 19-25	0.5	2
13	Dye Sensitization in Polymer/ZnO/Dye Ternary Hybrid Solar Cells. <i>Chemistry Letters</i> , <b>2013</b> , 42, 825-827	1.7	5
12	Development of Polymer Blend Solar Cells Composed of Conjugated Donor and Acceptor Polymers. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , <b>2013</b> , 26, 175-180	6.7	11
11	Formation Mechanism of Fullerene Cation in Bulk Heterojunction Polymer Solar Cells. <i>Advanced Functional Materials</i> , <b>2012</b> , 22, 3075-3082	15.6	9
10	Molecular Understanding of the Open-Circuit Voltage of Polymer:Fullerene Solar Cells. <i>Advanced Energy Materials</i> , <b>2012</b> , 2, 229-237	21.8	89
9	Selective Dye Loading at the Heterojunction in Polymer/Fullerene Solar Cells. <i>Advanced Energy Materials</i> , <b>2011</b> , 1, 588-598	21.8	187
8	Polymer/polymer blend solar cells with 2.0% efficiency developed by thermal purification of nanoscale-phase-separated morphology. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2011</b> , 3, 2924-7	9.5	94

7	Surface segregation at the aluminum interface of poly(3-hexylthiophene)/fullerene solar cells. <i>Applied Physics Letters</i> , <b>2010</b> , 96, 043305	3.4	110
6	Exciton Generation and Diffusion in Multilayered Organic Solar Cells Designed by Layer-by-Layer Assembly of Poly(p-phenylenevinylene). <i>ACS Applied Materials &amp; Interfaces</i> , <b>2010</b> , 2, 236-245	9.5	21
5	Solution-Processed Multilayered Polymer Solar Cells Designed by Layer-by-Layer Assembly of Poly(p-phenylenevinylene)s with Dimethylsulfoxide. <i>Transactions of the Materials Research Society of Japan</i> , <b>2010</b> , 35, 31-34	0.2	1
4	Intramolecular singlet and triplet excimers of triply bridged [3.3.N](3,6,9)carbazolophanes. <i>Journal of Physical Chemistry B</i> , <b>2007</b> , 111, 10905-14	3.4	29
3	Intramolecular excimer emission of triply bridged [3.3.N](3,6,9)carbazolophanes. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 19681-7	3.4	20
2	Photoinduced intramolecular charge separation in a polymer solid below the glass transition temperature. <i>Journal of Chemical Physics</i> , <b>2005</b> , 123, 084901	3.9	4
1	Photoinduced electron transfer of carbazole-acceptor dyads in solution and in a polymer solid. <i>Physical Chemistry Chemical Physics</i> , <b>2004</b> , 6, 3977-3984	3.6	24