

# Bethany M Hudak

## List of Publications by Year in descending order

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Version: 2024-02-01

30  
papers

376  
citations

933447

10  
h-index

794594

19  
g-index

31  
all docs

31  
docs citations

31  
times ranked

737  
citing authors

#	ARTICLE	IF	CITATIONS
1	Atom-by-atom fabrication with electron beams. <i>Nature Reviews Materials</i> , 2019, 4, 497-507.	48.7	73
2	Directed Atom-by-Atom Assembly of Dopants in Silicon. <i>ACS Nano</i> , 2018, 12, 5873-5879.	14.6	62
3	Real-time atomistic observation of structural phase transformations in individual hafnia nanorods. <i>Nature Communications</i> , 2017, 8, 15316.	12.8	59
4	Direct atomic fabrication and dopant positioning in Si using electron beams with active real-time image-based feedback. <i>Nanotechnology</i> , 2018, 29, 255303.	2.6	46
5	Shell-Induced Ostwald Ripening: Simultaneous Structure, Composition, and Morphology Transformations during the Creation of Hollow Iron Oxide Nanocapsules. <i>ACS Nano</i> , 2018, 12, 9051-9059.	14.6	36
6	Real-Time Observation of the Solid-Liquid-Vapor Dissolution of Individual Tin(IV) Oxide Nanowires. <i>ACS Nano</i> , 2014, 8, 5441-5448.	14.6	18
7	Simple synthetic route to manganese-containing nanowires with the spinel crystal structure. <i>Journal of Solid State Chemistry</i> , 2016, 240, 23-29.	2.9	15
8	Capacity and phase stability of metal-substituted $\text{Ni}(\text{OH})_2$ nanosheets in aqueous $\text{Ni-Zn}$ batteries. <i>Materials Advances</i> , 2021, 2, 3060-3074.	5.4	13
9	Unveiling the Microscopic Origins of Phase Transformations: An <i>in Situ</i> TEM Perspective. <i>Chemistry of Materials</i> , 2020, 32, 639-650.	6.7	12
10	Detection of defects in atomic-resolution images of materials using cycle analysis. <i>Advanced Structural and Chemical Imaging</i> , 2020, 6, .	4.0	11
11	Mechanism of Electron-Beam Manipulation of Single-Dopant Atoms in Silicon. <i>Journal of Physical Chemistry C</i> , 2021, 125, 16041-16048.	3.1	10
12	Direct observation of Li diffusion in Li-doped ZnO nanowires. <i>Materials Research Express</i> , 2016, 3, 054001.	1.6	6
13	$\text{Co}_x\text{Ni}_{1-x}\text{Sb}_{12-y}\text{Sn}_y$ skutterudites: processing and thermoelectric properties. <i>Journal of Materials Science</i> , 2016, 51, 6117-6132.	3.7	4
14	Sustainable Electrocatalytic Architectures Enable Rechargeable Zinc-Air Batteries with Low Voltage Hysteresis. <i>ACS Applied Energy Materials</i> , 2020, 3, 10485-10494.	5.1	3
15	Temperature Dependence of Impurity Distributions in Nanodiamonds as Revealed by Coordinated UHV-STEM EDX and EELS Analysis. <i>Microscopy and Microanalysis</i> , 2020, 26, 1506-1507.	0.4	2
16	Laser-Patterned Submicrometer $\text{Bi}_2\text{Se}_3$ WS <sub>2</sub> Pixels with Tunable Circular Polarization at Room Temperature. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 9504-9514.	8.0	2
17	Observation of Square-Planar Distortion in Lanthanide-Doped Skutterudite Crystals. <i>Journal of Physical Chemistry C</i> , 2019, 123, 14632-14638.	3.1	1
18	Enhancing Li-ion capacity and rate capability in cation-defective vanadium ferrite aerogels via aluminum substitution. <i>RSC Advances</i> , 2021, 11, 14495-14503.	3.6	1

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19	Understanding nanomaterial synthesis with in situ transmission electron microscopy. <i>Microscopy and Microanalysis</i> , 2015, 21, 1507-1508.	0.4	0
20	Direct Observation of Hafnia Structural Phase Transformations. <i>Microscopy and Microanalysis</i> , 2017, 23, 2092-2093.	0.4	0
21	Movement and Imaging of Single-Atom Dopants in Silicon. <i>Microscopy and Microanalysis</i> , 2017, 23, 1706-1707.	0.4	0
22	Towards Atomic-Scale Fabrication in Silicon. <i>Microscopy and Microanalysis</i> , 2018, 24, 158-159.	0.4	0
23	Atomic Manipulation on a Scanning Transmission Electron Microscope Platform using Real-Time Image Processing and Feedback. <i>Microscopy and Microanalysis</i> , 2018, 24, 534-535.	0.4	0
24	Direct Imaging of Low-Dimensional Nanostructures. <i>Microscopy and Microanalysis</i> , 2018, 24, 90-91.	0.4	0
25	A STEM-based Path Towards Atomic-scale Silicon-based Devices. <i>Microscopy and Microanalysis</i> , 2019, 25, 2290-2291.	0.4	0
26	From Control of the Electron Beam to Control of Single Atoms. <i>Microscopy and Microanalysis</i> , 2019, 25, 1678-1679.	0.4	0
27	Evolution of lattice defects upon Bi-doping of epitaxial Si overlayers on Si(111). <i>Applied Surface Science</i> , 2020, 502, 144284.	6.1	0
28	Accurately Imaging, Tracking and Moving Single Atoms. <i>Microscopy and Microanalysis</i> , 2020, 26, 2556-2557.	0.4	0
29	Uncovering the Mechanism for Electron-beam Manipulation of Dopants in Silicon. <i>Microscopy and Microanalysis</i> , 2020, 26, 2560-2561.	0.4	0
30	Electron Beam Control of Dopants in 2D and 3D Materials. <i>Microscopy and Microanalysis</i> , 2021, 27, 2150-2153.	0.4	0