Wouter Van den Broek

List of Publications by Year
in descending order

23 papers	684 citations	933447 10 h-index	713466 21 g-index
23 all docs	23 docs citations	23 times ranked	1424 citing authors

#	Article	IF	Citations
1	Atomic-scale determination of surface facets in gold nanorods. Nature Materials, 2012, 11, 930-935.	27.5	299
2	A novel quasi-one-dimensional topological insulator in bismuth iodide β-Bi4I4. Nature Materials, 2016, 15, 154-158.	27.5	90
3	Method for Retrieval of the Three-Dimensional Object Potential by Inversion of Dynamical Electron Scattering. Physical Review Letters, 2012, 109, 245502.	7.8	53
4	A practical method to determine the effective resolution in incoherent experimental electron tomography. Ultramicroscopy, 2011, 111, 330-336.	1.9	42
5	A holographic method to measure the source size broadening in STEM. Ultramicroscopy, 2012, 120, 35-40.	1.9	31
6	Crystal Growth and Real Structure Effects of the First Weak 3D Stacked Topological Insulator $Bi_{14}Rh_3I_9$. Chemistry of Materials, 2013, 25, 2359-2364.	6.7	30
7	Overcoming information reduced data and experimentally uncertain parameters in ptychography with regularized optimization. Optics Express, 2020, 28, 28306.	3.4	24
8	Modular Design with 2D Topological-Insulator Building Blocks: Optimized Synthesis and Crystal Growth and Crystal and Electronic Structures of Bi_xTeI (x = 2, 3). Chemistry of Materials, 2017, 29, 1321-1337.	6.7	23
9	Fully Automated Measurement of the Modulation Transfer Function of Charge-Coupled Devices above the Nyquist Frequency. Microscopy and Microanalysis, 2012, 18, 336-342.	0.4	19
10	Introducing measure-by-wire, the systematic use of systems and control theory in transmission electron microscopy. Ultramicroscopy, 2011, 111, 1581-1591.	1.9	14
11	Inverse dynamical photon scattering (IDPS): an artificial neural network based algorithm for three-dimensional quantitative imaging in optical microscopy. Optics Express, 2016, 24, 7006.	3.4	11
12	New Environment for a Two-Dimensional Topological Insulator with Hexagonal Channels Hosting Diiodido-bismuthate(I) Anions in a Singlet State. Chemistry of Materials, 2016, 28, 665-672.	6.7	10
13	3D Reconstruction of Ni_4Ti_3 Precipitates in a $Ni_{51}Ti_{49}$ Alloy in a FIB/SEM Dual-Beam System. Materials Science Forum, 2008, 583, 277-284.	0.3	9
14	Various Compressed Sensing Setups Evaluated Against Shannon Sampling Under Constraint of Constant Illumination. IEEE Transactions on Computational Imaging, 2019, 5, 502-514.	4.4	8
15	Quantitative electron tomography: The effect of the three-dimensional point spread function. Ultramicroscopy, 2013, 135, 1-5.	1.9	6
16	Many Faces of $Ni_3Bi_2S_2$: Tunable Nanoparticle Morphology via Microwave-Assisted Nanocrystal Conversion. Crystal Growth and Design, 2018, 18, 2202-2209.	3.0	4
17	Comparison of Ptychography vs. Center-of-mass Analysis of Registered 4D-STEM Series. Microscopy and Microanalysis, 2020, 26, 1898-1900.	0.4	4
18	Measure-by-Wire (MBW). Advances in Imaging and Electron Physics, 2013, 179, 291-346.	0.2	3

#	Article	IF	Citations
19	Adaptive Scanning in Ptychography through Deep Reinforcement Learning. Microscopy and Microanalysis, 2021, 27, 818-821.	0.4	2
20	Improving 4DSTEM measurements of atomic charge and electrostatic potential via energy filtration. Microscopy and Microanalysis, 2021, 27, 1450-1452.	0.4	1
21	Features of Our SEM Transmission Diffraction Sub-stage with 6-axis Sample Control and a Camera with Variable Camera Length. Microscopy and Microanalysis, 2020, 26, 1906-1907.	0.4	1
22	Real-Space Simulation of Electron Scattering in Imperfect Crystals and Reconstruction of the Electrostatic Potential. Microscopy and Microanalysis, 2015, 21, 1883-1884.	0.4	0
23	Retrieving Atomic Structure from Dynamical Rocking Curve Measurements in both Real and Reciprocal Space. Microscopy and Microanalysis, 2016, 22, 920-921.	0.4	0