Carol Trager-Cowan

List of Publications by Year
in descending order

56	769	687220 13	526166 27
papers	citations	h-index	g-index

58	58	58	710
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Many-beam dynamical simulation of electron backscatter diffraction patterns. Ultramicroscopy, 2007, 107, 414-421.	0.8	166
2	Electron backscatter diffraction and electron channeling contrast imaging of tilt and dislocations in nitride thin films. Physical Review B, 2007, 75, .	1.1	69
3	Rapid Nondestructive Analysis of Threading Dislocations in Wurtzite Materials Using the Scanning Electron Microscope. Physical Review Letters, 2012, 108, 135503.	2.9	56
4	Cross-correlation based high resolution electron backscatter diffraction and electron channelling contrast imaging for strain mapping and dislocation distributions in InAlN thin films. Acta Materialia, 2017, 125, 125-135.	3.8	45
5	Digital direct electron imaging of energy-filtered electron backscatter diffraction patterns. Physical Review B, 2015, 92, .	1.1	43
6	Growth and Optical Properties of GaN Grown by MBE on Novel Lattice-Matched Oxide Substrates. Materials Research Society Symposia Proceedings, 1995, 395, 535.	0.1	28
7	Coincident Electron Channeling and Cathodoluminescence Studies of Threading Dislocations in GaN. Microscopy and Microanalysis, 2014, 20, 55-60.	0.2	27
8	Improving EBSD precision by orientation refinement with full pattern matching. Journal of Microscopy, 2020, 277, 79-92.	0.8	26
9	Electron channelling contrast imaging for III-nitride thin film structures. Materials Science in Semiconductor Processing, 2016, 47, 44-50.	1.9	21
10	Quantitative imaging of anti-phase domains by polarity sensitive orientation mapping using electron backscatter diffraction. Scientific Reports, 2017, 7, 10916.	1.6	20
11	Imaging and identifying defects in nitride semiconductor thin films using a scanning electron microscope. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 424-426.	0.8	16
12	Electron channeling contrast imaging studies of nonpolar nitrides using a scanning electron microscope. Applied Physics Letters, 2013, 102, .	1.5	16
13	Multicharacterization approach for studying InAl(Ga)N/Al(Ga)N/GaN heterostructures for high electron mobility transistors. AIP Advances, 2014, 4, .	0.6	15
14	Determining GaN Nanowire Polarity and its Influence on Light Emission in the Scanning Electron Microscope. Nano Letters, 2019, 19, 3863-3870.	4.5	14
15	Diffraction effects and inelastic electron transport in angleâ€resolved microscopic imaging applications. Journal of Microscopy, 2017, 267, 330-346.	0.8	13
16	Subgrain structure and dislocations in WC-Co hard metals revealed by electron channelling contrast imaging. International Journal of Refractory Metals and Hard Materials, 2020, 87, 105159.	1.7	13
17	Stress distribution of GaN layer grown on micro-pillar patterned GaN templates. Applied Physics Letters, 2013, 103, .	1.5	12
18	Spatially-resolved optical and structural properties of semi-polar $$mathrm{(11}ar{2}mathrm{2)}$$ Al x Ga1â^'x N with x up to 0.56. Scientific Reports, 2017, 7, 10804.	1.6	11

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19	Energy-weighted dynamical scattering simulations of electron diffraction modalities in the scanning electron microscope. Ultramicroscopy, 2018, 187, 98-106.	0.8	11
20	Design and fabrication of enhanced lateral growth for dislocation reduction in GaN using nanodashes. Journal of Crystal Growth, 2017, 466, 30-38.	0.7	10
21	Practical application of direct electron detectors to EBSD mapping in 2D and 3D. Ultramicroscopy, 2018, 184, 242-251.	0.8	10
22	Kikuchi pattern simulations of backscattered and transmitted electrons. Journal of Microscopy, 2021, 284, 157-184.	0.8	10
23	Scanning electron microscopy as a flexible technique for investigating the properties of UV-emitting nitride semiconductor thin films. Photonics Research, 2019, 7, B73.	3.4	9
24	In situ and ex situ Evaluation of Mechanisms of Lateral Epitaxial Overgrowth. Physica Status Solidi A, 2001, 188, 743-746.	1.7	8
25	Depth profiling of ion-implanted AlInN using time-of-flight secondary ion mass spectrometry and cathodoluminescence. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 1927-1930.	0.8	8
26	Rare earth doping of IIIâ€nitride alloys by ion implantation. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 34-37.	0.8	8
27	Europium doping of zincblende GaN by ion implantation. Journal of Applied Physics, 2009, 105, 113507.	1.1	8
28	Depth Resolved Studies of Indium Content and Strain in InGaN Layers. Physica Status Solidi (B): Basic Research, 2001, 228, 59-64.	0.7	7
29	Determination of the Structural and Luminescence Properties of Nitrides Using Electron Backscattered Diffraction and Photo- and Cathodoluminescence. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 532-536.	0.8	7
30	Report on the evening rump session on InN - July 21, 2004 at the 2004 International Workshop on Nitride Semiconductors. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 2240-2245.	0.8	7
31	Structural and luminescence imaging and characterisation of semiconductors in the scanning electron microscope. Semiconductor Science and Technology, 2020, 35, 054001.	1.0	7
32	Imaging basal plane stacking faults and dislocations in (11-22) GaN using electron channelling contrast imaging. Journal of Applied Physics, 2018, 124, 065301.	1.1	6
33	Buried Dielectric Mirrors for the Lateral Overgrowth of GaN-Based Microcavities. Physica Status Solidi A, 2001, 183, 145-149.	1.7	5
34	Diffractive triangulation of radiative point sources. Applied Physics Letters, 2017, 110, .	1.5	5
35	Influence of an InGaN superlattice pre-layer on the performance of semi-polar (11â€“22) green LEDs grown on silicon. Scientific Reports, 2020, 10, 12650.	1.6	4
36	Luminescence spectroscopy of Euâ€implanted zincblende GaN. Physica Status Solidi (B): Basic Research, 2008, 245, 170-173.	0.7	3

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37	Optical and structural properties of Eu-implanted InxAl1â^'xN. Journal of Applied Physics, 2009, 106, .	1.1	3
38	Nanoscale fissure formation in Al_xGa_{1â€“x}N/GaN heterostructures and their influence on Ohmic contact formation. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600353.	0.8	3
39	Luminescence behavior of semipolar (10 1 Â¯ 1) InGaN/GaN â€œbow-tieâ€•structures on patterned Si substrates. Journal of Applied Physics, 2020, 127, 035705.	1.1	3
40	Influence of micro-patterning of the growth template on defect reduction and optical properties of non-polar (112Ë‰0) GaN. Journal Physics D: Applied Physics, 2021, 54, 025107.	1.3	3
41	High-Resolution Electron Backscatter Diffraction in III-Nitride Semiconductors. Microscopy and Microanalysis, 2015, 21, 2217-2218.	0.2	2
42	Electron Channelling Contrast Imaging in a Low Voltage Scanning Electron Microscope. Microscopy and Microanalysis, 2019, 25, 504-505.	0.2	2
43	Metrology of crystal defects through intensity variations in secondary electrons from the diffraction of primary electrons in a scanning electron microscope. Ultramicroscopy, 2020, 213, 112977.	0.8	2
44	CafÃ© Scientifique: Nobel Laureate Communicates Science Across the World. MRS Bulletin, 2010, 35, 10-11.	1.7	1
45	You Do What in Your Microprobe?! The EPMA as a Multimode Platform for Nitride Semiconductor Characterization. Microscopy and Microanalysis, 2018, 24, 2026-2027.	0.2	1
46	Non-destructive imaging of residual strains in GaN and their effect on optical and electrical properties using correlative lightâ€“electron microscopy. Journal of Applied Physics, 2022, 131, 075303.	1.1	1
47	Development of CdSSe/CdS VCSELs for Application to Laser Cathode Ray Tubes. Physica Status Solidi A, 2004, 201, 673-677.	1.7	0
48	Electron Channeling Contrast Imaging of Defects in III-Nitride Semiconductors. Microscopy and Microanalysis, 2014, 20, 1024-1025.	0.2	0
49	Cathodoluminescence Hyperspectral Imaging of Nitride Semiconductors: Introducing New Variables. Microscopy and Microanalysis, 2014, 20, 906-907.	0.2	0
50	Mapping Anti-phase Domains by Polarity Sensitive Orientation Imaging Using Electron Backscatter Diffraction. Microscopy and Microanalysis, 2017, 23, 1522-1523.	0.2	0
51	Non-destructive Imaging of Extend Defects in III-nitride Thin film Structures Using Electron Channelling Contrast Imaging. Microscopy and Microanalysis, 2017, 23, 570-571.	0.2	0
52	Dynamical Simulations of Transmission Kikuchi Diffraction (TKD) Patterns. Microscopy and Microanalysis, 2017, 23, 540-541.	0.2	0
53	Polarity Determination in GaN Nanowires by Electron Backscatter Diffraction. Microscopy and Microanalysis, 2019, 25, 2404-2405.	0.2	0
54	Imaging Extended Defects in Low Z materials using Electron Channelling Contrast Imaging â€“ New Approaches and Challenges. Microscopy and Microanalysis, 2019, 25, 1760-1761.	0.2	0

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55	Two beam toy model for dislocation contrast in ECCI. Microscopy and Microanalysis, 2019, 25, 1968-1969.	0.2	0
56	Advances in electron channelling contrast imaging and electron backscatter diffraction for imaging and analysis of structural defects in the scanning electron microscope. IOP Conference Series: Materials Science and Engineering, 2020, 891, 012023.	0.3	0