Carol Trager-Cowan

List of Publications by Year
in descending order

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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	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
2	Kikuchi pattern simulations of backscattered and transmitted electrons. Journal of Microscopy, 2021, 284, 157-184.	0.8	10
3	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
4	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
5	Improving EBSD precision by orientation refinement with full pattern matching. Journal of Microscopy, 2020, 277, 79-92.	0.8	26
6	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
7	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
8	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
9	Structural and luminescence imaging and characterisation of semiconductors in the scanning electron microscope. Semiconductor Science and Technology, 2020, 35, 054001.	1.0	7
10	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
11	Polarity Determination in GaN Nanowires by Electron Backscatter Diffraction. Microscopy and Microanalysis, 2019, 25, 2404-2405.	0.2	0
12	Electron Channelling Contrast Imaging in a Low Voltage Scanning Electron Microscope. Microscopy and Microanalysis, 2019, 25, 504-505.	0.2	2
13	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
14	Two beam toy model for dislocation contrast in ECCI. Microscopy and Microanalysis, 2019, 25, 1968-1969.	0.2	0
15	Determining GaN Nanowire Polarity and its Influence on Light Emission in the Scanning Electron Microscope. Nano Letters, 2019, 19, 3863-3870.	4.5	14
16	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
17	Energy-weighted dynamical scattering simulations of electron diffraction modalities in the scanning electron microscope. Ultramicroscopy, 2018, 187, 98-106.	0.8	11
18	Practical application of direct electron detectors to EBSD mapping in 2D and 3D. Ultramicroscopy, 2018, 184, 242-251.	0.8	10

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19	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
20	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
21	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
22	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
23	Diffraction effects and inelastic electron transport in angleâ€resolved microscopic imaging applications. Journal of Microscopy, 2017, 267, 330-346.	0.8	13
24	Diffractive triangulation of radiative point sources. Applied Physics Letters, 2017, 110, .	1.5	5
25	Quantitative imaging of anti-phase domains by polarity sensitive orientation mapping using electron backscatter diffraction. Scientific Reports, 2017, 7, 10916.	1.6	20
26	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
27	Mapping Anti-phase Domains by Polarity Sensitive Orientation Imaging Using Electron Backscatter Diffraction. Microscopy and Microanalysis, 2017, 23, 1522-1523.	0.2	0
28	Nanoscale fissure formation in Al_{<i>x</i>}Ga_{1â€“<i>x</i>}N/GaN heterostructures and their influence on Ohmic contact formation. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600353.	0.8	3
29	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
30	Dynamical Simulations of Transmission Kikuchi Diffraction (TKD) Patterns. Microscopy and Microanalysis, 2017, 23, 540-541.	0.2	0
31	Electron channelling contrast imaging for III-nitride thin film structures. Materials Science in Semiconductor Processing, 2016, 47, 44-50.	1.9	21
32	Digital direct electron imaging of energy-filtered electron backscatter diffraction patterns. Physical Review B, 2015, 92, .	1.1	43
33	High-Resolution Electron Backscatter Diffraction in III-Nitride Semiconductors. Microscopy and Microanalysis, 2015, 21, 2217-2218.	0.2	2
34	Electron Channeling Contrast Imaging of Defects in III-Nitride Semiconductors. Microscopy and Microanalysis, 2014, 20, 1024-1025.	0.2	0
35	Coincident Electron Channeling and Cathodoluminescence Studies of Threading Dislocations in GaN. Microscopy and Microanalysis, 2014, 20, 55-60.	0.2	27
36	Multicharacterization approach for studying InAl(Ga)N/Al(Ga)N/GaN heterostructures for high electron mobility transistors. AIP Advances, 2014, 4, .	0.6	15

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37	Cathodoluminescence Hyperspectral Imaging of Nitride Semiconductors: Introducing New Variables. Microscopy and Microanalysis, 2014, 20, 906-907.	0.2	0
38	Electron channeling contrast imaging studies of nonpolar nitrides using a scanning electron microscope. Applied Physics Letters, 2013, 102, .	1.5	16
39	Stress distribution of GaN layer grown on micro-pillar patterned GaN templates. Applied Physics Letters, 2013, 103, .	1.5	12
40	Rapid Nondestructive Analysis of Threading Dislocations in Wurtzite Materials Using the Scanning Electron Microscope. Physical Review Letters, 2012, 108, 135503.	2.9	56
41	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
42	CafÃ© Scientifique: Nobel Laureate Communicates Science Across the World. MRS Bulletin, 2010, 35, 10-11.	1.7	1
43	Optical and structural properties of Eu-implanted InxAl1â^'xN. Journal of Applied Physics, 2009, 106, .	1.1	3
44	Europium doping of zincblende GaN by ion implantation. Journal of Applied Physics, 2009, 105, 113507.	1.1	8
45	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
46	Luminescence spectroscopy of Euâ€implanted zincblende GaN. Physica Status Solidi (B): Basic Research, 2008, 245, 170-173.	0.7	3
47	Electron backscatter diffraction and electron channeling contrast imaging of tilt and dislocations in nitride thin films. Physical Review B, 2007, 75, .	1.1	69
48	Many-beam dynamical simulation of electron backscatter diffraction patterns. Ultramicroscopy, 2007, 107, 414-421.	0.8	166
49	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
50	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
51	Development of CdSSe/CdS VCSELs for Application to Laser Cathode Ray Tubes. Physica Status Solidi A, 2004, 201, 673-677.	1.7	0
52	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
53	Depth Resolved Studies of Indium Content and Strain in InGaN Layers. Physica Status Solidi (B): Basic Research, 2001, 228, 59-64.	0.7	7
54	Buried Dielectric Mirrors for the Lateral Overgrowth of GaN-Based Microcavities. Physica Status Solidi A, 2001, 183, 145-149.	1.7	5

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55	In situ and ex situ Evaluation of Mechanisms of Lateral Epitaxial Overgrowth. Physica Status Solidi A, 2001, 188, 743-746.	1.7	8
56	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