

Brett D Nener

List of Publications by Year in descending order

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138
papers

1,986
citations

279487

23
h-index

301761

39
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140
all docs

140
docs citations

140
times ranked

1792
citing authors

#	ARTICLE	IF	CITATIONS
1	An accurate cell tracking approach with self-regulated foraging behavior of ant colonies in dynamic microscopy images. <i>Applied Intelligence</i> , 2022, 52, 1448-1460.	3.3	1
2	A fitness sharing based ant clustering method for multimodal optimization of the aircraft longitudinal automatic carrier landing system. <i>Aerospace Science and Technology</i> , 2022, 122, 107392.	2.5	7
3	An Automated Cell Tracking Approach With Multi-Bernoulli Filtering and Ant Colony Labor Division. <i>IEEE/ACM Transactions on Computational Biology and Bioinformatics</i> , 2021, 18, 1850-1863.	1.9	8
4	A Joint Tracking Approach via Ant Colony Evolution for Quantitative Cell Cycle Analysis. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2021, 25, 2338-2349.	3.9	5
5	pH-Dependent surface charge at the interfaces between aluminum gallium nitride (AlGaN) and aqueous solution revealed by surfactant adsorption. <i>Journal of Colloid and Interface Science</i> , 2021, 583, 331-339.	5.0	4
6	Mixture optimization for environmental, economical and mechanical objectives in silica fume concrete: A novel frame-work based on machine learning and a new meta-heuristic algorithm. <i>Resources, Conservation and Recycling</i> , 2021, 167, 105395.	5.3	51
7	Automating the mixture design of lightweight foamed concrete using multi-objective firefly algorithm and support vector regression. <i>Cement and Concrete Composites</i> , 2021, 121, 104103.	4.6	29
8	Dynamic Pressure/Temperature Behaviour of GaN-Based Chemical Sensors. <i>IEEE Sensors Journal</i> , 2021, 21, 18877-18886.	2.4	3
9	Effects of surface oxidation on the pH-dependent surface charge of oxidized aluminum gallium nitride. <i>Journal of Colloid and Interface Science</i> , 2021, 603, 604-614.	5.0	3
10	An Ant Colony Inspired Multi-Bernoulli Filter for Cell Tracking in Time-Lapse Microscopy Sequences. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2020, 24, 1703-1716.	3.9	7
11	A hybrid intelligent system for designing optimal proportions of recycled aggregate concrete. <i>Journal of Cleaner Production</i> , 2020, 273, 122922.	4.6	72
12	A metaheuristic-optimized multi-output model for predicting multiple properties of pervious concrete. <i>Construction and Building Materials</i> , 2020, 249, 118803.	3.2	49
13	An improved NSGA-II based control allocation optimisation for aircraft longitudinal automatic landing system. <i>International Journal of Control</i> , 2019, 92, 705-716.	1.2	9
14	A modified bacterial-foraging tuning algorithm for multimodal optimization of the flight control system. <i>Aerospace Science and Technology</i> , 2019, 93, 105274.	2.5	7
15	pH-dependent surface properties of the gallium nitride "Solution interface mapped by surfactant adsorption. <i>Journal of Colloid and Interface Science</i> , 2019, 556, 680-688.	5.0	4
16	A quantum inspired genetic algorithm for multimodal optimization of wind disturbance alleviation flight control system. <i>Chinese Journal of Aeronautics</i> , 2019, 32, 2480-2488.	2.8	12
17	Modelling uniaxial compressive strength of lightweight self-compacting concrete using random forest regression. <i>Construction and Building Materials</i> , 2019, 210, 713-719.	3.2	209
18	Multi-Sensor Space Debris Tracking for Space Situational Awareness With Labeled Random Finite Sets. <i>IEEE Access</i> , 2019, 7, 36991-37003.	2.6	18

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19	Role of GaN cap layer for reference electrode free AlGaIn/GaN-based pH sensors. Sensors and Actuators B: Chemical, 2019, 287, 250-257.	4.0	16
20	Determination of Young's modulus of jet grouted coalcretes using an intelligent model. Engineering Geology, 2019, 252, 43-53.	2.9	79
21	Multimodal control parameter optimization for aircraft longitudinal automatic landing via the hybrid particle swarm-BFGS algorithm. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2019, 233, 4482-4491.	0.7	3
22	A Modified NSGA-II for Solving Control Allocation Optimization Problem in Lateral Flight Control System for Large Aircraft. IEEE Access, 2019, 7, 17696-17704.	2.6	9
23	Density Functional Theory Simulations of Water Adsorption and Activation on the (111) Ga ₂ O ₃ Surface. Chemistry - A European Journal, 2018, 24, 7445-7455.	1.7	11
24	Tracking of multiple cells with ant pheromone field evolution. Engineering Applications of Artificial Intelligence, 2018, 72, 150-161.	4.3	5
25	Control parameter tuning for aircraft crosswind landing via multi-solution particle swarm optimization. Engineering Optimization, 2018, 50, 1914-1925.	1.5	14
26	Effect of pH and structure on the channel conductivity of AlGaIn/GaN heterostructure based sensors. Sensors and Actuators B: Chemical, 2018, 269, 54-61.	4.0	7
27	XPS/NEXAFS spectroscopic and conductance studies of glycine on AlGaIn/GaN transistor devices. Applied Surface Science, 2018, 435, 23-30.	3.1	6
28	Modelling and Characterization of the MEMS based filters for the spectroscopic imaging applications. , 2018, , .		1
29	Distributed Space Debris Tracking with Consensus Labeled Random Finite Set Filtering. Sensors, 2018, 18, 3005.	2.1	9
30	Theoretical study of the influence of surface effects on GaN-based chemical sensors. Applied Surface Science, 2018, 452, 75-86.	3.1	12
31	Global tracking of space debris via CPHD and consensus. Advances in Space Research, 2017, 59, 2548-2562.	1.2	5
32	Description of ionophore-doped membranes with a blocked interface. Sensors and Actuators B: Chemical, 2017, 250, 499-508.	4.0	16
33	Ca ²⁺ detection utilising AlGaIn/GaN transistors with ion-selective polymer membranes. Analytica Chimica Acta, 2017, 987, 105-110.	2.6	36
34	Consensus labeled multi-Bernoulli filtering for distributed space debris tracking. , 2017, , .		5
35	Centralized multi-sensor multi-target tracking with labeled random finite sets. , 2016, , .		14
36	Mercury(II) selective sensors based on AlGaIn/GaN transistors. Analytica Chimica Acta, 2016, 943, 1-7.	2.6	71

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37	MEMS-Based Tunable Fabry-Perot Filters for Adaptive Multispectral Thermal Imaging. Journal of Microelectromechanical Systems, 2016, 25, 227-235.	1.7	17
38	Application of Unscented Transform in Frequency Control of a Complex Power System Using Noisy PMU Data. IEEE Transactions on Industrial Informatics, 2016, 12, 853-863.	7.2	35
39	Tracking of space debris via CPHD and consensus. , 2015, , .		1
40	A functional observer based fault detection technique for dynamical systems. Journal of the Franklin Institute, 2015, 352, 2113-2128.	1.9	36
41	Method to Predict and Optimize Charge Sensitivity of Ungated AlGaIn/GaN HEMT-Based Ion Sensor Without Use of Reference Electrode. IEEE Sensors Journal, 2015, 15, 5320-5326.	2.4	13
42	An investigation into signal stability during measurement of AlGaIn/GaN transistor-based chemical sensors. , 2014, , .		0
43	Charging mechanism of AlGaIn/GaN open-gate pH sensor and electrolyte interface. , 2014, , .		3
44	Synchrotron-based XPS studies of AlGaIn and GaN surface chemistry and its relationship to ion sensor behaviour. Applied Surface Science, 2014, 314, 850-857.	3.1	35
45	Power system dynamic state estimation using particle filter. , 2014, , .		5
46	Recent developments towards low-cost MEMS spectrometers. , 2014, , .		2
47	Nitrate ion detection using AlGaIn/GaN heterostructure-based devices without a reference electrode. Sensors and Actuators B: Chemical, 2013, 181, 301-305.	4.0	37
48	AlGaIn/GaN-based biosensor for label-free detection of biological activity. Sensors and Actuators B: Chemical, 2013, 177, 577-582.	4.0	18
49	Efficient sub-harmonic phase-screen generation for modelling of free-space laser communications. , 2013, , .		0
50	A fault detection technique for dynamical systems. , 2013, , .		2
51	Investigation of the accuracy of the spectral photocurrent method for the determination of minority carrier diffusion length. Journal of Applied Physics, 2012, 111, 074503.	1.1	10
52	The influence of the Franz-Keldysh effect on the electron diffusion length in p-type GaN determined using the spectral photocurrent technique. Journal of Applied Physics, 2012, 112, 044501.	1.1	0
53	Optimisation studies for AlGaIn/GaN-based nitrate sensors. , 2012, , .		0
54	Detection of biological reactions by AlGaIn/GaN biosensor. , 2012, , .		5

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55	Biocompatibility of semiconducting AlGaIn/GaN material with living cells. Sensors and Actuators B: Chemical, 2012, 169, 401-406.	4.0	28
56	Scintillation index of the free space optical channel: Phase screen modelling and experimental results. , 2011, , .		14
57	Transport Studies of AlGaIn/GaN Heterostructures of Different Al Mole Fractions With Variable SiN_x Passivation Stress. IEEE Transactions on Electron Devices, 2011, 58, 2589-2596.	1.6	18
58	Mobility spectrum analysis of anisotropic electron transport in N-polar GaN/AlGaIn heterostructures on vicinal sapphire substrates. Microelectronic Engineering, 2011, 88, 1079-1082.	1.1	6
59	A physical large-signal model for GaN HEMTs including self-heating and trap-related dispersion. Microelectronics Reliability, 2011, 51, 229-234.	0.9	12
60	Implantation angle periphery effects on non-alloyed Si-implanted ohmic contacts for AlGaIn/GaN high electron mobility transistors. Solid-State Electronics, 2011, 56, 56-59.	0.8	0
61	Low resistivity contacts to plasma etched Mg-doped GaN using very low power inductively coupled plasma etching. Thin Solid Films, 2011, 519, 3686-3689.	0.8	12
62	Two-dimensional electron gas transport anisotropy in N-polar GaN/AlGaIn heterostructures. Applied Physics Letters, 2011, 98, .	1.5	8
63	Low contact resistance to plasma-etched p-type GaN. Electronics Letters, 2011, 47, 342.	0.5	1
64	Study of Pd/Au metallisation and surface characteristics on Mg-doped GaN induced by low power inductively coupled plasma etching. Optical Materials, 2010, 32, 700-702.	1.7	5
65	Investigation of the extraction of short diffusion lengths from simulated electron-beam induced current. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2566-2569.	0.8	7
66	Ion sensitive AlGaIn/GaN heterostructures for cell-based biosensor development. , 2010, , .		0
67	Ion versus pH sensitivity of ungated AlGaIn/GaN heterostructure-based devices. Applied Physics Letters, 2010, 97, .	1.5	35
68	Effect of very low power inductively coupled plasma etching on ohmic contacts to p-GaN. , 2010, , .		1
69	Cell growth and attachment to AlGaIn surfaces for biosensor applications. , 2010, , .		2
70	Electron-beam induced current measurements of diffusion length in Si doped MOCVD grown GaN. , 2010, , .		0
71	Anisotropic two-dimensional electron gas transport in N-polar GaN/AlGaIn heterostructures grown on vicinal substrates. , 2010, , .		1
72	Localised defect-induced Schottky barrier lowering in n-GaN Schottky diodes. Solid-State Electronics, 2008, 52, 171-174.	0.8	8

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73	Electrically Active Defects in GaN Layers Grown With and Without Fe-doped Buffers by Metal-organic Chemical Vapor Deposition. Journal of Electronic Materials, 2008, 37, 569-572.	1.0	40
74	Scanning Ion Probe Studies of Silicon Implantation Profiles in AlGaIn/GaN HEMT Heterostructures. Journal of Electronic Materials, 2008, 37, 554-557.	1.0	2
75	Effect of MBE Growth Conditions on Multiple Electron Transport in InN. Journal of Electronic Materials, 2008, 37, 593-596.	1.0	12
76	GaN vertical n-p junctions prepared by Si ion implantation. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1938-1940.	0.8	3
77	Multiple carrier transport in n-face indium nitride. Physica Status Solidi (B): Basic Research, 2008, 245, 907-909.	0.7	5
78	Temperature-Dependent Characterization of AlGaIn/GaN HEMTs: Thermal and Source/Drain Resistances. IEEE Transactions on Device and Materials Reliability, 2008, 8, 255-264.	1.5	91
79	Experimental and numerical investigation of the electrical characteristics of vertical n-p junction diodes created by Si implantation into p-GaN. Optoelectronic and Microelectronic Materials and Devices (COMMAD), Conference on, 2008, , .	0.0	3
80	Annealing of C60o gamma radiation-induced damage in n-GaN Schottky barrier diodes. Journal of Applied Physics, 2007, 101, 054511.	1.1	17
81	Characterisation of multiple carrier transport in indium nitride grown by molecular beam epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 2423-2427.	0.8	11
82	Magnetotransport in AlGaIn/GaN and AlGaIn/AlIn/GaN heterostructures. Physica Status Solidi (B): Basic Research, 2007, 244, 1877-1881.	0.7	4
83	Characterization of Non-Alloyed Ohmic Contacts to Si-Implanted AlGaIn/GaN Heterostructures for High-Electron Mobility Transistors. Journal of Electronic Materials, 2007, 36, 1156-1159.	1.0	4
84	Characterisation of Electron Transport in MBE Grown Indium Nitride. , 2006, , .		0
85	Determination of diffusion length of p-type GaN from spectral-response measurements. , 2006, , .		1
86	Characterisation of Multiple Carrier Transport in Indium Nitride Grown by Molecular Beam Epitaxy. Japanese Journal of Applied Physics, 2006, 45, L1090-L1092.	0.8	43
87	Analytical models of optical refraction paths in the lower atmosphere (Invited Paper). , 2005, , .		2
88	Numerical experiments in atmospheric scintillation correlation for applications in dual channel optical communications. , 2005, , .		2
89	Surface-layer damage and responsivity in sputtered-ITO/p-GaN Schottky-barrier photodiodes. Solid-State Electronics, 2005, 49, 1969-1973.	0.8	6
90	Microwave propagation over the Earth: image inversion. Journal of Engineering Mathematics, 2005, 53, 253-269.	0.6	2

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91	Effect of 60 Co gamma-irradiation on two-dimensional electron gas transport and device characteristics of AlGaIn/GaN HEMTs. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 2581-2584.	0.8	6
92	Mitigation of scintillation noise by common mode rejection. , 2005, , .		6
93	Contribution of hole trap to persistent photoconductivity inn-type GaN. <i>Journal of Applied Physics</i> , 2004, 96, 1019-1023.	1.1	18
94	Optical quenching of photoconductivity in undopedn-GaN. <i>Journal of Applied Physics</i> , 2004, 95, 1081-1088.	1.1	11
95	Investigations of ohmic contacts to reactive ion-etched p-type GaN. , 2004, , .		2
96	Magnetoresistance characteristics of gamma-irradiated Al 0.35 Ga 0.65 N/GaN HFETs. , 2004, 5274, 152.		0
97	/sup 60/Co gamma irradiation effects on n-GaN Schottky diodes. <i>IEEE Transactions on Electron Devices</i> , 2003, 50, 2326-2334.	1.6	96
98	Analytical models of optical refraction in the troposphere. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2003, 20, 867.	0.8	10
99	60Co gamma-irradiation-induced defects in n-GaN. <i>Applied Physics Letters</i> , 2002, 80, 4354-4356.	1.5	66
100	Mechanochemical Synthesis and Characterization of GaN Nanocrystals. <i>Journal of Nanoparticle Research</i> , 2002, 4, 367-371.	0.8	9
101	Simple wet etching of GaN. , 2001, , .		5
102	High UV/solar rejection ratios in GaN/AlGaIn/GaN p-i-n photodiodes. <i>IEEE Transactions on Electron Devices</i> , 2001, 48, 486-489.	1.6	7
103	Characterisation of dark current in novel Hg1â”xCdxTe mid-wavelength infrared photovoltaic detectors based on n-on-p junctions formed by plasma-induced type conversion. <i>Journal of Crystal Growth</i> , 2000, 214-215, 1106-1110.	0.7	10
104	HgCdTe mid-wavelength IR photovoltaic detectors fabricated using plasma induced junction technology. <i>Journal of Electronic Materials</i> , 2000, 29, 841-848.	1.0	53
105	Measurement of low-altitude infrared propagation. <i>Applied Optics</i> , 2000, 39, 873.	2.1	10
106	Wavelet analysis of low altitude infrared transmission in the coastal environment. <i>Infrared Physics and Technology</i> , 1999, 40, 399-409.	1.3	12
107	<title>Excess noise in MWIR photovoltaic detectors fabricated using a new junction formation technology</title>. , 1999, 3892, 221.		0
108	Design of externally tuned asymmetric fibre Fabryâ€”Perot electroabsorption optical modulators. <i>IEE Proceedings: Optoelectronics</i> , 1998, 145, 344-352.	0.8	4

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109	Suggestions for the development of GaN-based photodiodes. Solid-State Electronics, 1998, 42, 1731-1736.	0.8	12
110	<title>Relative infrared transmission measurements of EOPACE</title>. , 1997, , .		0
111	A monolithic dual-band HgCdTe infrared detector structure. IEEE Electron Device Letters, 1997, 18, 352-354.	2.2	3
112	Heterojunction blocking contacts in MOCVD grown Hg _{1-x} Cd _x Te long wavelength infrared photoconductors. IEEE Transactions on Electron Devices, 1997, 44, 239-249.	1.6	13
113	Enhanced responsivity of Hg _{0.80} Cd _{0.20} Te infrared photoconductors using MBE grown heterostructures. Infrared Physics and Technology, 1997, 38, 163-167.	1.3	1
114	MOCVD-grown wider-bandgap capping layers in long-wavelength infrared photoconductors. Semiconductor Science and Technology, 1996, 11, 1912-1922.	1.0	18
115	<title>Long-wavelength infrared photoconductor technology based on epitaxially grown Hg _{1-x} Cd _x Te</title>. , 1995, , .		0
116	<title>Midwavelength infrared Hg _{1-x} Cd _x Te photoconductor performance at T>80K</title>. , 1995, , .		1
117	<title>Near-sea-surface infrared transmission experiments</title>. , 1995, , .		0
118	<title>Status of MWIR HgCdTe photovoltaic detector technology in Australia</title>. , 1995, 2552, 110.		0
119	<title>Passivation and surface effects in long-wavelength infrared HgCdTe photoconductors</title>. , 1995, , .		1
120	Temperature dependence of Hg _{0.68} Cd _{0.32} Te infrared photoconductor performance. IEEE Transactions on Electron Devices, 1995, 42, 1441-1448.	1.6	20
121	Comparison between deep level defects in GaAs induced by gamma, 1 MeV electron, and neutron irradiation. Journal of Applied Physics, 1995, 78, 3686-3690.	1.1	36
122	Comparison of neutron and electron irradiation on the EL2 defect in GaAs. Journal of Applied Physics, 1995, 77, 2985-2988.	1.1	5
123	Growth and XPS Characterization of Anodic Telluride Films on Hg _{1-x} Cd _x Te. Journal of the Electrochemical Society, 1995, 142, 2480-2485.	1.3	3
124	Improved device technology for epitaxial Hg _{1-x} Cd _x Te infrared photoconductor arrays. Semiconductor Science and Technology, 1994, 9, 1515-1522.	1.0	31
125	Optical Deep-Level Transient Conductance Characterisation of Semi-Insulating Gallium Arsenide Treated with Hydrogen Plasma. Japanese Journal of Applied Physics, 1994, 33, 199-201.	0.8	2
126	Performance of optimized Hg _{1-x} Cd _x Te long wavelength infrared photoconductors. Infrared Physics and Technology, 1994, 35, 661-671.	1.3	7

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127	Annealing behavior of deep-level defects in 1 MeV electron irradiated GaAs. Journal of Applied Physics, 1994, 75, 2354-2357.	1.1	14
128	Parameter evaluation in automated digital deep-level transient spectroscopy (DLTS). IEEE Transactions on Instrumentation and Measurement, 1993, 42, 913-919.	2.4	7
129	Characterization of deep-level defects in GaAs irradiated by 1 MeV electrons. Journal of Applied Physics, 1993, 73, 640-647.	1.1	24
130	The Effect of Scanning Electron Beam Annealing on the Reverse Current in Ti-GaAs Schottky Diodes. Japanese Journal of Applied Physics, 1988, 27, L704-L706.	0.8	5
131	The Effect of Photochemical Surface Passivation on Reverse Current in Ti-GaAs Schottky Diodes. Japanese Journal of Applied Physics, 1988, 27, L290-L292.	0.8	7
132	Charge trapping centres in γ -irradiated Gallium Nitride grown by MOCVD. , 0, , .		0
133	Comparison of PIn and NIp AlGaIn UV photodiodes for solar-blind performance. , 0, , .		0
134	Effects of polarisation on solar-blind AlGaIn UV photodiodes. , 0, , .		0
135	Analysis of non-exponential thermal emission transients in undoped MOCVD-grown GaN. , 0, , .		0
136	Kinetics of persistent photoconductivity in GaN grown by MOCVD. , 0, , .		0
137	Minority carrier lifetime measurement in GaN by a differential phase technique. , 0, , .		1
138	AlGaIn/AlN/GaN High Electron Mobility Transistors with Improved Carrier Transport. , 0, , .		7