Oana Malis

List of Publications by Year
in descending order

66 papers	1,149 citations	430874 18 h-index	395702 33 g-index
66 all docs	66 docs citations	66 times ranked	1587 citing authors

#	ARTICLE	IF	CITATIONS
1	Nanoscale Alloying, Phase-Segregation, and Coreâˆ’Shell Evolution of Goldâˆ’Platinum Nanoparticles and Their Electrocatalytic Effect on Oxygen Reduction Reaction. Chemistry of Materials, 2010, 22, 4282-4294.	6.7	205
2	Goldâ€“Copper Nanoparticles: Nanostructural Evolution and Bifunctional Catalytic Sites. Chemistry of Materials, 2012, 24, 4662-4674.	6.7	85
3	Improvement of second-harmonic generation in quantum-cascade lasers with true phase matching. Applied Physics Letters, 2004, 84, 2721-2723.	3.3	65
4	Quasi-coherent thermal emitter based on refractory plasmonic materials. Optical Materials Express, 2015, 5, 2721.	3.0	64
5	Repeatable low-temperature negative-differential resistance from Al0.18Ga0.82N/GaN resonant tunneling diodes grown by molecular-beam epitaxy on free-standing GaN substrates. Applied Physics Letters, 2012, 100, .	3.3	56
6	Catalytic activity of bimetallic catalysts highly sensitive to the atomic composition and phase structure at the nanoscale. Nanoscale, 2015, 7, 18936-18948.	5.6	53
7	Si(100) surface morphology evolution during normal-incidence sputtering with 100â€“500 eV Ar+ ions. Applied Physics Letters, 2002, 81, 2770-2772.	3.3	49
8	Terahertz intersubband absorption in non-polar m-plane AlGaN/GaN quantum wells. Applied Physics Letters, 2014, 105, .	3.3	49
9	Milliwatt second harmonic generation in quantum cascade lasers with modal phase matching. Electronics Letters, 2004, 40, 1586.	1.0	33
10	Ion-induced pattern formation on Co surfaces: An x-ray scattering and kinetic Monte Carlo study. Physical Review B, 2002, 66, .	3.2	31
11	Near-infrared intersubband absorption in molecular-beam epitaxy-grown lattice-matched InAlN/GaN superlattices. Applied Physics Letters, 2009, 94, 161111.	3.3	31
12	Improvement of near-infrared absorption linewidth in AlGaN/GaN superlattices by optimization of delta-doping location. Applied Physics Letters, 2012, 101, .	3.3	29
13	Anin situreal-time x-ray diffraction study of phase segregation in Auâ€“Pt nanoparticles. Nanotechnology, 2009, 20, 245708.	2.6	28
14	Comparative study of intersubband absorption in AlGaN/GaN and AlInN/GaN superlattices: Impact of material inhomogeneities. Physical Review B, 2013, 88, .	3.2	28
15	Temperature-dependence of negative differential resistance in GaN/AlGaN resonant tunneling structures. Semiconductor Science and Technology, 2013, 28, 074024.	2.0	28
16	Surface morphology evolution of m-plane (11Â¯00) GaN during molecular beam epitaxy growth: Impact of Ga/N ratio, miscut direction, and growth temperature. Journal of Applied Physics, 2013, 114, 023508.	2.5	28
17	Homogeneous AlGaN/GaN superlattices grown on free-standing (11Â¯00) GaN substrates by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2013, 103, .	3.3	23
18	Coherent vertical electron transport and interface roughness effects in AlGaN/GaN intersubband devices. Journal of Applied Physics, 2015, 118, .	2.5	22

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19	Near-Infrared Absorption in Lattice-Matched AlInN/GaN and Strained AlGaN/GaN Heterostructures Grown by MBE on Low-Defect GaN Substrates. Journal of Electronic Materials, 2012, 41, 881-886.	2.2	19
20	Nanoalloying and phase transformations during thermal treatment of physical mixtures of Pd and Cu nanoparticles. Science and Technology of Advanced Materials, 2014, 15, 025002.	6.1	14
21	Impact of growth conditions and strain on indium incorporation in non-polar m-plane (101Â¯) InGaN grown by plasma-assisted molecular beam epitaxy. APL Materials, 2019, 7, .	5.1	14
22	Kinetics of phase transitions in equiatomic CuAu. Physical Review B, 1999, 60, 14675-14682.	3.2	12
23	Low-temperature phase and morphology transformations in noble metal nanocatalysts. Nanotechnology, 2011, 22, 025701.	2.6	11
24	Kinetic instability of AlGaN alloys during MBE growth under metal-rich conditions on m-plane GaN miscut towards the -c axis. Journal of Applied Physics, 2018, 123, 161581.	2.5	11
25	The quantum cascade laser: A versatile high-power semiconductor laser for mid-infrared applications. Bell Labs Technical Journal, 2005, 10, 199-214.	0.7	10
26	Saturation of intersubband transitions in p-doped GaAsâˆ•AlGaAs quantum wells. Applied Physics Letters, 2008, 92, .	3.3	10
27	Conductivity of r.f.-sputtered Ni 100 âˆ' x âˆ'Si x thin films with 33 â©½ x â©½ 77 at.%. Thin Solid Films, 1995, 259, 105-112.	1.8	9
28	Temperature-dependent current injection and lasing in T-shaped quantum-wire laser diodes with perpendicular p- and n-doping layers. Applied Physics Letters, 2007, 90, 091108.	3.3	9
29	Harnessing moleculeâ€"solid duality of nanoclusters/nanoparticles for nanoscale control of size, shape and alloying. Chemical Communications, 2011, 47, 9885.	4.1	9
30	3D Hybrid Trilayer Heterostructure: Tunable Au Nanorods and Optical Properties. ACS Applied Materials & Interfaces, 2020, 12, 45015-45022.	8.0	9
31	Photoluminescence study of non-polar m-plane InGaN and nearly strain-balanced InGaN/AlGaN superlattices. Journal of Applied Physics, 2020, 127, .	2.5	9
32	Dramatic enhancement of near-infrared intersubband absorption in c-plane AlInN/GaN superlattices. Applied Physics Letters, 2016, 108, .	3.3	8
33	Limited grain growth and chemical ordering during high-temperature sintering of PtNiCo nanoparticle aggregates. Nanotechnology, 2012, 23, 335705.	2.6	7
34	Intersubband Transitions in Nonpolar mâ€Plane AlGaN/GaN Heterostructures. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700828.	1.8	7
35	Indium surfactant assisted epitaxy of non-polar (10 1 Â¯ 0) AlGaN/InGaN multiple quantum well heterostructures. Journal of Applied Physics, 2020, 128, 115701.	2.5	7
36	Bound-to-bound midinfrared intersubband absorption in carbon-doped GaAsâˆ•AlGaAs quantum wells. Applied Physics Letters, 2005, 87, 091116.	3.3	6

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37	AlN-based hybrid thin films with self-assembled plasmonic Au and Ag nanoinclusions. Applied Physics Letters, 2019, 114, .	3.3	6
38	Effect of Intergrowth Defects on the X-Ray Diffraction Pattern. I. Structure Simulations. Physica Status Solidi A, 1995, 147, 31-43.	1.7	5
39	MBE development of dilute nitrides for commercial long-wavelength laser applications. Journal of Crystal Growth, 2003, 251, 432-436.	1.5	5
40	Mid-infrared hole-intersubband electroluminescence in carbon-doped GaAsâˆ•AlGaAs quantum cascade structures. Applied Physics Letters, 2006, 88, 081117.	3.3	5
41	An X-ray scattering and simulation study of the ordering kinetics in CuAu. Europhysics Letters, 1998, 43, 629-634.	2.0	4
42	Monte Carlo study of short-range order and displacement effects in disordered CuAu. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1999, 79, 869-879.	0.6	4
43	Interdiffusion effects and line broadening of hole intersubband absorption in complex GaAs/AlGaAs quantum well structures. Journal of Applied Physics, 2010, 107, .	2.5	4
44	Mid-infrared intersubband absorption in strain-balanced non-polar (In)AlGaN/InGaN multi-quantum wells. Optical Materials Express, 2021, 11, 3284.	3.0	4
45	Effect of Intergrowth Defects on the X-Ray Diffraction Pattern. II. A Case Study of Bi-Based Superconductors. Physica Status Solidi A, 1995, 147, 325-333.	1.7	3
46	Temperature dependence of the diffuse-scattering fine structure in equiatomic CuAu. Physical Review B, 1999, 59, 11105-11108.	3.2	3
47	Temperature dependence of the diffuse-scattering fine structure in Cu-Pd alloys. Physical Review B, 2001, 63, .	3.2	3
48	Evolution of indium segregation in metal-polar In0.17Al0.83N lattice-matched to GaN grown by plasma assisted molecular beam epitaxy. Journal of Crystal Growth, 2018, 500, 52-57.	1.5	3
49	Strong heavy-to-light hole intersubband absorption in the valence band of carbon-doped GaAs/AlAs superlattices. Journal of Applied Physics, 2013, 113, 053103.	2.5	2
50	Effect of Chemical Composition on the Nanoscale Ordering Transformations of Physical Mixtures of Pd and Cu Nanoparticles. Journal of Nanomaterials, 2018, 2018, 1-10.	2.7	2
51	Overcoming anomalous suppression of m-plane AlGaN growth by molecular-beam epitaxy using indium as a surfactant. Journal of Applied Physics, 2021, 130, 105702.	2.5	2
52	Recent progress in nonlinear quantum cascade lasers. , 2005, 5738, 80.		1
53	In[sub 0.68]Ga[sub 0.32]Asâˆ•Al[sub 0.64]In[sub 0.36]Asâˆ•InP 4.5â€‚Î¼m quantum cascade lasers grown by solid phosphorus molecular beam epitaxy. Journal of Vacuum Science & Technology B, 2007, 25, 913.	1.3	1
54	Intersubband Transitions in Lattice-Matched AlInN/GaN Heterostructures. , 2010, , .		1

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55	Quantum band engineering of nitride semiconductors for infrared lasers. Proceedings of SPIE, 2014, , .	0.8	1
56	Monte Carlo study of short-range order and displacement effects in disordered CuAu. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1999, 79, 869-879.	0.6	1
57	Photoluminescence Study of Carrier Localization and Recombination in Nearly Strainâ€Balanced Nonpolar InGaN/AlGaN Quantum Wells. Physica Status Solidi (B): Basic Research, 0, , 2100569.	1.5	1
58	Performance benefits of nonlinear quantum cascade sources. , 2006, , .		0
59	Analysis of an Annular-Geometry Thermoelectric Module (TEM). , 2007, , 241.		0
60	Optimization Of InP-Based Waveguides For High-Performance Mid-Infrared Quantum Cascade Lasers. AIP Conference Proceedings, 2007, , .	0.4	0
61	Heavy-to-light hole intersubband absorption in the valence band of GaAs/AlAs heterostructures. Materials Research Society Symposia Proceedings, 2013, 1509, 1.	0.1	0
62	Phase Transformations in physical mixtures of Pd-Cu nanoparticles. Materials Research Society Symposia Proceedings, 2013, 1528, 1.	0.1	0
63	Design considerations for GaN/AlN based unipolar (opto-)electronic devices, and interface quality aspects. , 2016, , .		0
64	The Effect of the Ion Beam Energy on M-plane InGaN Layer Preparation for STEM. Microscopy and Microanalysis, 2019, 25, 1702-1703.	0.4	0
65	Enhancement of second harmonic generation through phase-matching in quantum cascade lasers. , 2003, , .		0
66	Novel nitride quantum structures for infrared sensing. , 2022, , .		0