

# Oana Malis

## List of Publications by Year in descending order

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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	Novel nitride quantum structures for infrared sensing. , 2022, , .		0
2	Overcoming anomalous suppression of m-plane AlGa <sub>N</sub> growth by molecular-beam epitaxy using indium as a surfactant. Journal of Applied Physics, 2021, 130, 105702.	2.5	2
3	Mid-infrared intersubband absorption in strain-balanced non-polar (In)AlGa <sub>N</sub> /InGa <sub>N</sub> multi-quantum wells. Optical Materials Express, 2021, 11, 3284.	3.0	4
4	3D Hybrid Trilayer Heterostructure: Tunable Au Nanorods and Optical Properties. ACS Applied Materials & Interfaces, 2020, 12, 45015-45022.	8.0	9
5	Indium surfactant assisted epitaxy of non-polar ( 10 1 Å <sup>-1</sup> ) AlGa <sub>N</sub> /InGa <sub>N</sub> multiple quantum well heterostructures. Journal of Applied Physics, 2020, 128, 115701.	2.5	7
6	Photoluminescence study of non-polar m-plane InGa <sub>N</sub> and nearly strain-balanced InGa <sub>N</sub> /AlGa <sub>N</sub> superlattices. Journal of Applied Physics, 2020, 127, .	2.5	9
7	The Effect of the Ion Beam Energy on M-plane InGa <sub>N</sub> Layer Preparation for STEM. Microscopy and Microanalysis, 2019, 25, 1702-1703.	0.4	0
8	AlN-based hybrid thin films with self-assembled plasmonic Au and Ag nano-inclusions. Applied Physics Letters, 2019, 114, .	3.3	6
9	Impact of growth conditions and strain on indium incorporation in non-polar m-plane (101Å <sup>-1</sup> ) InGa <sub>N</sub> grown by plasma-assisted molecular beam epitaxy. APL Materials, 2019, 7, .	5.1	14
10	Kinetic instability of AlGa <sub>N</sub> alloys during MBE growth under metal-rich conditions on m-plane Ga <sub>N</sub> miscut towards the -c axis. Journal of Applied Physics, 2018, 123, 161581.	2.5	11
11	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
12	Intersubband Transitions in Nonpolar m-Plane AlGa <sub>N</sub> /Ga <sub>N</sub> Heterostructures. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700828.	1.8	7
13	Evolution of indium segregation in metal-polar In <sub>0.17</sub> Al <sub>0.83</sub> N lattice-matched to Ga <sub>N</sub> grown by plasma assisted molecular beam epitaxy. Journal of Crystal Growth, 2018, 500, 52-57.	1.5	3
14	Dramatic enhancement of near-infrared intersubband absorption in c-plane AlInN/Ga <sub>N</sub> superlattices. Applied Physics Letters, 2016, 108, .	3.3	8
15	Design considerations for Ga <sub>N</sub> /AlN based unipolar (opto-)electronic devices, and interface quality aspects. , 2016, , .		0
16	Coherent vertical electron transport and interface roughness effects in AlGa <sub>N</sub> /Ga <sub>N</sub> intersubband devices. Journal of Applied Physics, 2015, 118, .	2.5	22
17	Quasi-coherent thermal emitter based on refractory plasmonic materials. Optical Materials Express, 2015, 5, 2721.	3.0	64
18	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

#	ARTICLE	IF	CITATIONS
19	Terahertz intersubband absorption in non-polar m-plane AlGaIn/GaN quantum wells. Applied Physics Letters, 2014, 105, .	3.3	49
20	Quantum band engineering of nitride semiconductors for infrared lasers. Proceedings of SPIE, 2014, , .	0.8	1
21	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
22	Homogeneous AlGaIn/GaN superlattices grown on free-standing (111̄00) GaN substrates by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2013, 103, .	3.3	23
23	Comparative study of intersubband absorption in AlGaIn/GaN and AlInN/GaN superlattices: Impact of material inhomogeneities. Physical Review B, 2013, 88, .	3.2	28
24	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
25	Temperature-dependence of negative differential resistance in GaN/AlGaIn resonant tunneling structures. Semiconductor Science and Technology, 2013, 28, 074024.	2.0	28
26	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
27	Phase Transformations in physical mixtures of Pd-Cu nanoparticles. Materials Research Society Symposia Proceedings, 2013, 1528, 1.	0.1	0
28	Surface morphology evolution of m-plane (111̄00) 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
29	Improvement of near-infrared absorption linewidth in AlGaIn/GaN superlattices by optimization of delta-doping location. Applied Physics Letters, 2012, 101, .	3.3	29
30	Goldâ€“Copper Nanoparticles: Nanostructural Evolution and Bifunctional Catalytic Sites. Chemistry of Materials, 2012, 24, 4662-4674.	6.7	85
31	Limited grain growth and chemical ordering during high-temperature sintering of PtNiCo nanoparticle aggregates. Nanotechnology, 2012, 23, 335705.	2.6	7
32	Repeatable low-temperature negative-differential resistance from Al <sub>0.18</sub> Ga <sub>0.82</sub> N/GaN resonant tunneling diodes grown by molecular-beam epitaxy on free-standing GaN substrates. Applied Physics Letters, 2012, 100, .	3.3	56
33	Near-Infrared Absorption in Lattice-Matched AlInN/GaN and Strained AlGaIn/GaN Heterostructures Grown by MBE on Low-Defect GaN Substrates. Journal of Electronic Materials, 2012, 41, 881-886.	2.2	19
34	Harnessing moleculeâ€“solid duality of nanoclusters/nanoparticles for nanoscale control of size, shape and alloying. Chemical Communications, 2011, 47, 9885.	4.1	9
35	Low-temperature phase and morphology transformations in noble metal nanocatalysts. Nanotechnology, 2011, 22, 025701.	2.6	11
36	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

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37	Nanoscale Alloying, Phase-Segregation, and Core-Shell Evolution of Gold-Platinum Nanoparticles and Their Electrocatalytic Effect on Oxygen Reduction Reaction. Chemistry of Materials, 2010, 22, 4282-4294.	6.7	205
38	Intersubband Transitions in Lattice-Matched AlInN/GaN Heterostructures. , 2010, , .		1
39	Near-infrared intersubband absorption in molecular-beam epitaxy-grown lattice-matched InAlN/GaN superlattices. Applied Physics Letters, 2009, 94, 161111.	3.3	31
40	In situ real-time x-ray diffraction study of phase segregation in Au-Pt nanoparticles. Nanotechnology, 2009, 20, 245708.	2.6	28
41	Saturation of intersubband transitions in p-doped GaAs-AlGaAs quantum wells. Applied Physics Letters, 2008, 92, .	3.3	10
42	In <sub>0.68</sub> Ga <sub>0.32</sub> As-Al <sub>0.64</sub> In <sub>0.36</sub> As-InP 4.5- $\mu$ m quantum cascade lasers grown by solid phosphorus molecular beam epitaxy. Journal of Vacuum Science & Technology B, 2007, 25, 913.	1.3	1
43	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
44	Analysis of an Annular-Geometry Thermoelectric Module (TEM). , 2007, , 241.		0
45	Optimization Of InP-Based Waveguides For High-Performance Mid-Infrared Quantum Cascade Lasers. AIP Conference Proceedings, 2007, , .	0.4	0
46	Performance benefits of nonlinear quantum cascade sources. , 2006, , .		0
47	Mid-infrared hole-intersubband electroluminescence in carbon-doped GaAs-AlGaAs quantum cascade structures. Applied Physics Letters, 2006, 88, 081117.	3.3	5
48	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
49	Bound-to-bound midinfrared intersubband absorption in carbon-doped GaAs-AlGaAs quantum wells. Applied Physics Letters, 2005, 87, 091116.	3.3	6
50	Recent progress in nonlinear quantum cascade lasers. , 2005, 5738, 80.		1
51	Milliwatt second harmonic generation in quantum cascade lasers with modal phase matching. Electronics Letters, 2004, 40, 1586.	1.0	33
52	Improvement of second-harmonic generation in quantum-cascade lasers with true phase matching. Applied Physics Letters, 2004, 84, 2721-2723.	3.3	65
53	MBE development of dilute nitrides for commercial long-wavelength laser applications. Journal of Crystal Growth, 2003, 251, 432-436.	1.5	5
54	Enhancement of second harmonic generation through phase-matching in quantum cascade lasers. , 2003, , .		0

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55	Ion-induced pattern formation on Co surfaces: An x-ray scattering and kinetic Monte Carlo study. Physical Review B, 2002, 66, .	3.2	31
56	Si(100) surface morphology evolution during normal-incidence sputtering with 100-500 eV Ar+ ions. Applied Physics Letters, 2002, 81, 2770-2772.	3.3	49
57	Temperature dependence of the diffuse-scattering fine structure in Cu-Pd alloys. Physical Review B, 2001, 63, .	3.2	3
58	Temperature dependence of the diffuse-scattering fine structure in equiatomic CuAu. Physical Review B, 1999, 59, 11105-11108.	3.2	3
59	Kinetics of phase transitions in equiatomic CuAu. Physical Review B, 1999, 60, 14675-14682.	3.2	12
60	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
61	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
62	An X-ray scattering and simulation study of the ordering kinetics in CuAu. Europhysics Letters, 1998, 43, 629-634.	2.0	4
63	Effect of Intergrowth Defects on the X-Ray Diffraction Pattern. I. Structure Simulations. Physica Status Solidi A, 1995, 147, 31-43.	1.7	5
64	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
65	Conductivity of r.f.-sputtered Ni <sub>100-x</sub> Si <sub>x</sub> thin films with 33-77 at.%. Thin Solid Films, 1995, 259, 105-112.	1.8	9
66	Photoluminescence Study of Carrier Localization and Recombination in Nearly Strain-Balanced Nonpolar InGaN/AlGaIn Quantum Wells. Physica Status Solidi (B): Basic Research, 0, , 2100569.	1.5	1