

Rana Biswas

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2809642/publications.pdf>

Version: 2024-02-01

65
papers

1,207
citations

471509

17
h-index

377865

34
g-index

67
all docs

67
docs citations

67
times ranked

1564
citing authors

#	ARTICLE	IF	CITATIONS
1	(Invited) Enhancement of Light Emission in Luminescent Structures within Nano-Arrays. ECS Meeting Abstracts, 2022, MA2022-01, 1087-1087.	0.0	0
2	Stability and temporal decay of nanopatterned tribocharge on nanotextured elastomer surfaces. Nano Energy, 2021, 79, 105441.	16.0	5
3	High Light Outcoupling Efficiency from Periodically Corrugated OLEDs. ACS Omega, 2021, 6, 9291-9301.	3.5	15
4	Simulation of enhanced light extraction from periodic, disordered, and quasi-periodic OLED structures. Journal of the Optical Society of America B: Optical Physics, 2021, 38, C144.	2.1	4
5	Mechano-Triboelectric Analysis of Surface Charge Generation on Replica-Molded Elastomeric Nanodomes. Micromachines, 2021, 12, 1460.	2.9	3
6	Antioxidant and anti-inflammatory activity of Heritiera fomes (Buch.-Ham), a mangrove plant of the Sundarbans. Advances in Traditional Medicine, 2020, 20, 189-197.	2.0	17
7	Antioxidant and antibacterial activity of three herbs belonging to Zingiber genus of Bangladesh. Advances in Traditional Medicine, 2020, 20, 343-350.	2.0	4
8	A framework for glass-box physics rule learner and its application to nano-scale phenomena. Communications Physics, 2020, 3, .	5.3	6
9	(Invited) Novel Optical Phenomena in Nanoplasmonic Arrays. ECS Meeting Abstracts, 2020, MA2020-01, 1082-1082.	0.0	0
10	Defects in SiC for Quantum Computing. MRS Advances, 2019, 4, 2217-2222.	0.9	4
11	Concordance of antioxidant and anti-inflammatory activity in Xylocarpus granatum (Koen). Journal of the Bangladesh Agricultural University, 2019, 17, 466-475.	0.1	3
12	Nanoscale Modulation of Friction and Triboelectrification via Surface Nanotexturing. Nano Letters, 2019, 19, 850-856.	9.1	11
13	Quantum size effects and tunable visible photoluminescence in a-Si:H/nc-Si:H superlattices. Journal of Materials Science: Materials in Electronics, 2019, 30, 4696-4704.	2.2	1
14	Bioactivity analysis of Sarcolobus globosus Wall., a mangrove plant of the Sundarbans. Journal of the Bangladesh Agricultural University, 2019, 17, 476-482.	0.1	0
15	Replica molding-based nanopatterning of tribocharge on elastomer with application to electrohydrodynamic nanolithography. Nature Communications, 2018, 9, 974.	12.8	23
16	Blue photon management by inhouse grown ZnO:Al cathode for enhanced photostability in polymer solar cells. Solar Energy Materials and Solar Cells, 2018, 179, 95-101.	6.2	16
17	Enhanced Light Extraction from OLEDs Fabricated on Patterned Plastic Substrates. Advanced Optical Materials, 2018, 6, 1701244.	7.3	31
18	Infrared emission of a freestanding plasmonic membrane. Applied Physics Letters, 2018, 112, .	3.3	1

#	ARTICLE	IF	CITATIONS
19	Spatial-temporal spectroscopy characterizations and electronic structure of methylammonium perovskites. MRS Communications, 2018, 8, 961-969.	1.8	10
20	Utilizing microsphere-based enhanced-intensity laser ablation for nanopatterning polymers. , 2017, , .		0
21	Plasmonic Enhancement: Photoluminescence Enhancement of CuInS ₂ Quantum Dots in Solution Coupled to Plasmonic Gold Nanocup Array (Small 33/2017). Small, 2017, 13, .	10.0	0
22	Photoluminescence Enhancement of CuInS ₂ Quantum Dots in Solution Coupled to Plasmonic Gold Nanocup Array. Small, 2017, 13, 1700660.	10.0	17
23	Light management in perovskite solar cells and organic LEDs with microlens arrays. Optics Express, 2017, 25, 10704.	3.4	72
24	Nano-Photonic Structures for Light Trapping in Ultra-Thin Crystalline Silicon Solar Cells. Nanomaterials, 2017, 7, 17.	4.1	46
25	Unusual infrared absorption increases in photo-degraded organic films. Nanoscale, 2017, 9, 8665-8673.	5.6	8
26	Nanoscale patterning of biopolymers for functional biosurfaces and controlled drug release. Nanoscale, 2016, 8, 18654-18664.	5.6	15
27	Extraordinary optical transmission in nanopatterned ultrathin metal films without holes. Nanoscale, 2016, 8, 4657-4666.	5.6	20
28	Investigation of Antibacterial, Cytotoxic and Antioxidant Properties of the Mangrove Plant <i>Xylocarpus mekongensis</i>. Advances in Bioscience and Biotechnology (Print), 2016, 07, 205-213.	0.7	2
29	Reducing optical losses in organic solar cells using microlens arrays: theoretical and experimental investigation of microlens dimensions. Physical Chemistry Chemical Physics, 2015, 17, 3723-3730.	2.8	25
30	Tunable Near UV Microcavity OLED Arrays: Characterization and Analytical Applications. Advanced Functional Materials, 2015, 25, 1226-1232.	14.9	32
31	Atomic Pathways Underlying Light-Induced Changes in Organic Solar Cell Materials. Journal of Physical Chemistry C, 2015, 119, 20265-20271.	3.1	21
32	Utilizing Wide Band Gap, High Dielectric Constant Nanoparticles as Additives in Organic Solar Cells. Journal of Physical Chemistry C, 2015, 119, 23883-23889.	3.1	4
33	Nano-photonic organic solar cell architecture for advanced light management utilizing dual photonic crystals. Proceedings of SPIE, 2015, , .	0.8	2
34	Ab Initio Simulation of Charge Transfer at the Semiconductor Quantum Dot/TiO ₂ Interface in Quantum Dot-Sensitized Solar Cells. Particle and Particle Systems Characterization, 2015, 32, 80-90.	2.3	33
35	Nanophotonic Organic Solar Cell Architecture for Advanced Light Trapping with Dual Photonic Crystals. ACS Photonics, 2014, 1, 840-847.	6.6	39
36	Enhancement of solar cells with photonic and plasmonic crystals - overcoming the Lambertian limit. Journal of Materials Research, 2013, 28, 1021-1030.	2.6	7

#	ARTICLE	IF	CITATIONS
37	Nano-photonic light trapping near the Lambertian limit in organic solar cell architectures. Optics Express, 2013, 21, A841.	3.4	10
38	Photonic and plasmonic crystal based enhancement of solar cells- overcoming the Lambertian classical $4n^2$ limit. Materials Research Society Symposia Proceedings, 2012, 1426, 137-147.	0.1	0
39	Light-trapping in Thin Film Silicon Solar Cells with a Combination of Periodic and Randomly Textured Back-reflectors. Materials Research Society Symposia Proceedings, 2012, 1426, 117-123.	0.1	1
40	Photonic and plasmonic crystal based enhancement of solar cells – Theory of overcoming the Lambertian limit. Journal of Non-Crystalline Solids, 2012, 358, 2289-2294.	3.1	9
41	Comparison of optical properties of periodic photonic-plasmonic and randomly textured back reflectors for nc-Si solar cells. Journal of Non-Crystalline Solids, 2012, 358, 2313-2318.	3.1	5
42	A photonic-plasmonic structure for enhancing light absorption in thin film solar cells. Applied Physics Letters, 2011, 99, .	3.3	102
43	Nano-crystalline silicon solar cell architecture with absorption at the classical $4n^2$ limit. Optics Express, 2011, 19, A664.	3.4	62
44	MoO ₃ as combined hole injection layer and tapered spacer in combinatorial multicolor microcavity organic light emitting diodes. Applied Physics Letters, 2011, 99, .	3.3	22
45	Simulation and modelling of photonic and plasmonic crystal back reflectors for efficient light trapping. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 667-670.	1.8	21
46	Enhanced Absorption in Amorphous Silicon Solar Cells Using Plasmonic and Photonic Crystals – Measurement and Simulation. Materials Research Society Symposia Proceedings, 2010, 1248, 503.	0.1	0
47	Photonic Crystal Back Reflectors for Enhanced Absorption in Amorphous Silicon Solar Cells. Materials Research Society Symposia Proceedings, 2010, 1245, 1.	0.1	0
48	Fabrication of Photonic Crystal based Back Reflectors for Light Management and Enhanced Absorption in Amorphous Silicon Solar Cells. Materials Research Society Symposia Proceedings, 2009, 1153, 1.	0.1	2
49	Sharp Absorption and High Temperature Thermal Emission from Simple Metallic Photonic Crystals. Materials Research Society Symposia Proceedings, 2009, 1162, 1.	0.1	0
50	Photonic crystal based back reflectors for light management and enhanced absorption in amorphous silicon solar cells. Applied Physics Letters, 2009, 95, .	3.3	83
51	High Temperature Plasmonic Photonic Crystal MEMS Emitter. Materials Research Society Symposia Proceedings, 2009, 1162, 1.	0.1	2
52	Waveguide circuits in three-dimensional photonic crystals. Photonics and Nanostructures - Fundamentals and Applications, 2008, 6, 134-141.	2.0	7
53	Photonic crystal enhanced light-trapping in thin film solar cells. Journal of Applied Physics, 2008, 103, .	2.5	305
54	Enhanced photon harvesting in a-Si:H solar cells with photonic crystals. Conference Record of the IEEE Photovoltaic Specialists Conference, 2008, , .	0.0	0

#	ARTICLE	IF	CITATIONS
55	Improved Photon Absorption in a-Si:H Solar Cells using Photonic Crystal Architectures. Materials Research Society Symposia Proceedings, 2008, 1066, 1.	0.1	1
56	Harvesting Photons in Thin Film Solar Cells with Photonic Crystals. Materials Research Society Symposia Proceedings, 2008, 1101, 1.	0.1	1
57	Enhancing Light-trapping and Efficiency of Solar Cells with Photonic Crystals. Materials Research Society Symposia Proceedings, 2007, 989, 2.	0.1	14
58	Theory of Thermal Emissivity and Enhanced Absorption in Sub-wavelength Metallo-Dielectric Photonic Crystals. Materials Research Society Symposia Proceedings, 2007, 1014, 1.	0.1	0
59	Simulations of Sub-wavelength Metallo-dielectric Photonic Crystals for Gas Sensing. Materials Research Society Symposia Proceedings, 2006, 952, 2.	0.1	0
60	Simulation of Realistic Core-shell Silicon Nanowires. Materials Research Society Symposia Proceedings, 2006, 910, 4.	0.1	1
61	Add-drop filters in three-dimensional layer-by-layer photonic crystals using waveguides and resonant cavities. Applied Physics Letters, 2006, 89, 231103.	3.3	23
62	Simulation of hydrogen evolution from nano-crystalline silicon. Journal of Non-Crystalline Solids, 2004, 333, 44-47.	3.1	16
63	Visible Frequency Thin Film Photonic Crystals from Colloidal Systems of Nanocrystalline Titania and Polystyrene Microspheres. Journal of the American Ceramic Society, 2002, 85, 1383-1386.	3.8	20
64	Antioxidant, Anti-inflammatory, and Anticoagulation Properties of <i>Aegiceras corniculatum</i> and <i>Acanthus ilicifolius</i> . Pharmaceutical and Biomedical Research, 0, , .	0.2	3
65	Assessment of Antioxidant, Antibacterial, and Preliminary Cytotoxic Properties of <i>Brownlowia Tersa</i> . Journal of Herbs, Spices and Medicinal Plants, 0, , 1-14.	1.1	0