## Dambarudhar Mohanta

List of Publications by Year in descending order

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123 papers 1,411 citations

430874 18 h-index 31 g-index

125 all docs

 $\begin{array}{c} 125 \\ \text{docs citations} \end{array}$ 

125 times ranked 1719 citing authors

#	Article	lF	CITATIONS
1	Thorough evaluation of sweet potato starch and lemon-waste pectin based-edible films with nano-titania inclusions for food packaging applications. International Journal of Biological Macromolecules, 2019, 139, 449-458.	7.5	166
2	Formation of nanoscale tungsten oxide structures and colouration characteristics. Bulletin of Materials Science, 2011, 34, 435-442.	1.7	85
3	Biogenic synthesis of silver nanoparticles from <i>Cassia fistula</i> (Linn.): <i>In vitro</i> assessment of their antioxidant, antimicrobial and cytotoxic activities. IET Nanobiotechnology, 2016, 10, 438-444.	3.8	60
4	SHI-induced grain growth and grain fragmentation effects in polymer-embedded CdS quantum dot systems. Materials Letters, 2004, 58, 3694-3699.	2.6	46
5	Defect mediated optical emission of randomly oriented ZnO nanorods and unusual rectifying behavior of Schottky nanojunctions. Journal of Applied Physics, 2011, 110, 054316.	2.5	43
6	Irradiation induced grain growth and surface emission enhancement of chemically tailored ZnS: Mn/PVOH nanoparticles by Cl+9 ion impact. Bulletin of Materials Science, 2003, 26, 289-294.	1.7	37
7	Inorganic fullerene-type WS2 nanoparticles: processing, characterization and its photocatalytic performance on malachite green. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	36
8	Structural and ferroelectric properties of solid-state derived carbonate-free barium titanate (BaTiO3) nanoscale particles. Scripta Materialia, 2009, 61, 891-894.	5.2	32
9	Hydrazine reduced exfoliated graphene/graphene oxide layers andÂmagnetoconductance measurements of Ge-supported graphene layers. Applied Physics A: Materials Science and Processing, 2011, 103, 395-402.	2.3	32
10	Effect of Gd3+ doping on structural, optical and frequency-dependent dielectric response properties of pseudo-cubic BaTiO3 nanostructures. Applied Physics A: Materials Science and Processing, 2014, 115, 1057-1067.	2.3	32
11	Effect of 160MeV Ni12+ ion irradiation on PbS quantum dots. Journal of Luminescence, 2005, 114, 95-100.	3.1	31
12	Structural and optoelectronic properties of Eu2+-doped nanoscale barium titanates of pseudo-cubic form. Journal of Applied Physics, 2012, $112$ , .	2.5	31
13	Rapid hydrothermal route to synthesize cubic-phase gadolinium oxide nanorods. Bulletin of Materials Science, 2014, 37, 789-796.	1.7	28
14	Surface Plasmon Resonance-Based Protein Bio-Sensing Using a Kretschmann Configured Double Prism Arrangement. IEEE Sensors Journal, 2015, 15, 6791-6796.	4.7	25
15	Optical absorption study of 100-MeV chlorine ion-irradiated hydroxyl-free ZnO semiconductor quantum dots. Journal of Applied Physics, 2002, 92, 7149-7152.	2.5	23
16	Fabrication of ZnO nanorods for optoelectronic device applications. Indian Journal of Physics, 2009, 83, 553-558.	1.8	21
17	Directed growth characteristics and optoelectronic properties of Eu-doped ZnO nanorods and urchins. Journal of Applied Physics, 2010, 108, .	2.5	20
18	Effect of 80-MeV nitrogen ion irradiation on ZnO nanoparticles: Mechanism of selective defect related radiative emission features. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 374-379.	1.4	20

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19	Magnetocaloric effect of Gd2O3 nanorods with 5% Eu-substitution. Applied Surface Science, 2019, 491, 779-783.	6.1	20
20	Nutritional assessment study and role of green silver nanoparticles in shelf-life of coconut endosperm to develop as functional food. Saudi Journal of Biological Sciences, 2020, 27, 1280-1288.	3.8	19
21	Development of Tbâ€doped ZnO nanorods: Effect of nitrogen ion irradiation on luminescence and structural evolution. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1859-1863.	1.8	18
22	ZnO nanorod-based UV photodetection and the role of persistent photoconductivity. Philosophical Magazine, 2012, 92, 3909-3919.	1.6	18
23	Oriented attachment (OA) mediated characteristic growth of Gd2O3 nanorods from nanoparticle seeds. Journal of Rare Earths, 2016, 34, 158-165.	4.8	18
24	Production and optoelectronic response of Tb3+activated gadolinium oxide nanocrystalline phosphors. EPJ Applied Physics, 2013, 62, 30401.	0.7	16
25	Structural and optical properties of Mn doped ZnS semiconductor nanostructures. Indian Journal of Physics, 2010, 84, 1361-1367.	1.8	15
26	Microwave-assisted poly(glycidyl methacrylate)-functionalized multiwall carbon nanotubes with a †tendrillar' nanofibrous polyaniline wrapping and their interaction at bio-interface. Carbon, 2013, 55, 34-43.	10.3	15
27	Effective optoelectronic and photocatalytic response of Eu <sup>3+</sup> -doped TiO <sub>2</sub> nanoscale systems synthesized via a rapid condensation technique. Journal of Materials Research, 2013, 28, 1471-1480.	2.6	15
28	Evaluation of optoelectronic response and Raman active modes in Tb3+ and Eu3+-doped gadolinium oxide (Gd2O3) nanoparticle systems. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	14
29	Synthesis, characterization and effect of low energy Ar ion irradiation on gadolinium oxide nanoparticles. Materials Research Bulletin, 2011, 46, 1296-1300.	5.2	13
30	Luminescence and bio-imaging response of thio-glycolic acid (TGA) and sodium dodecyl sulfate (SDS)-coated fluorescent cadmium selenide quantum dots. Journal of Luminescence, 2015, 161, 395-402.	3.1	13
31	Effect of Annealing Temperature on the Morphology and Sensitivity of the Zinc Oxide Nanorods-Based Methane Senor. Acta Metallurgica Sinica (English Letters), 2014, 27, 593-600.	2.9	12
32	Physical and biophysical assessment of highly fluorescent, magnetic quantum dots of a wurtzite-phase manganese selenide system. Nanotechnology, 2014, 25, 275101.	2.6	12
33	Perceptible exciton-to-trion conversion and signature of defect mediated vibronic modes and spin relaxation in nanoscale WS $<$ sub $>$ 2 $<$ /sub $>$ exposed to $\hat{I}^3$ -rays. Nanotechnology, 2020, 31, 285706.	2.6	12
34	Application of Box-Behnken design in optimization of biodiesel yield using WO3/graphene quantum dot (GQD) system and its kinetics analysis. Biomass Conversion and Biorefinery, 2022, 12, 221-232.	4.6	12
35	Biogenic nanosized gold particles: Physico-chemical characterization and its anticancer response against breast cancer. Biotechnology Reports (Amsterdam, Netherlands), 2021, 30, e00612.	4.4	12
36	Time-resolved photoluminescence decay characteristics of bovine serum albumin-conjugated semiconductor nanocrystallites. Journal of Experimental Nanoscience, 2009, 4, 177-191.	2.4	11

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37	Evolution of ZnO nanoparticles and nanorods: aspect ratio dependent optoelectronic properties. EPJ Applied Physics, 2011, 53, 10602.	0.7	11
38	Enhanced magneto-optic activity of magnetite-based ferrofluids subjected to gamma irradiation. Applied Physics A: Materials Science and Processing, 2012, 106, 757-763.	2.3	11
39	Limiting hydrophobic behavior and reflectance response of dragonfly and damselfly wings. Applied Surface Science, 2016, 387, 609-616.	6.1	11
40	<i>Abutilon indicum</i> (L.) Sweet Leaf Extracts Assisted Bio-Inspired Synthesis of Electronically Charged Silver Nano-Particles with Potential Antimicrobial, Antioxidant and Cytotoxic Properties. Materials Focus, 2018, 7, 94-100.	0.4	11
41	Scanning probe microscopy, luminescence and third harmonic generation studies of elongated CdS:Mn nanostructures developed by energetic oxygen-ion-impact. EPJ Applied Physics, 2006, 35, 29-36.	0.7	10
42	Enhanced vacuum-photoconductivity of chemically synthesized ZnO nanostructures. Philosophical Magazine, 2014, 94, 914-924.	1.6	10
43	Interfacial charge transfer mechanism in nanostructured TiO2–ZnS coupled network for single electron device applications. Journal of Applied Physics, 2007, 101, 044302.	2.5	9
44	Rheological Properties of Iron Oxide Based Ferrofluids. , 2009, , .		9
45	Excitation dependent light emission and enhanced photocatalytic response of WS2/C-dot hybrid nanoscale systems. Journal of Luminescence, 2019, 206, 530-539.	3.1	9
46	Influence of ion bombardment on the photoluminescence response of embedded CdS nanoparticles. Open Physics, 2006, 4, .	1.7	8
47	Properties of 80-MeV oxygen ion irradiated ZnS:Mn nanoparticles and exploitation in nanophotonics. Journal of Nanoparticle Research, 2006, 8, 645-652.	1.9	8
48	Synthesis and pore filling mechanism in anatase TiO2 nanostructured network mediated by PbS molecular adsorption. Journal of Applied Physics, 2011, 109, 094904.	2.5	8
49	Photonic Properties of Butterfly Wing Infiltrated with Ag-Nanoparticles. Nanoscience and Nanotechnology Letters, 2011, 3, 458-462.	0.4	8
50	Frequency dependent electrical properties of nano-CdS/Ag junctions. European Physical Journal B, 2005, 45, 63-68.	1.5	7
51	Physical and Biophysical Characteristics of Nanoscale Tungsten Oxide Particles and Their Interaction with Human Genomic DNA. Journal of Nanoscience and Nanotechnology, 2011, 11, 4659-4666.	0.9	7
52	Probing Spin–Spin and Spin-Lattice Relaxation Through Electron Paramagnetic Resonance Study of Nanoscale WO <sub>3â^'<i>x</i></sub> System. Materials Express, 2012, 2, 57-63.	0.5	7
53	Fragmentation of elongated-shaped ZnO nanostructures into spherical particles by swift ion impact. Physica E: Low-Dimensional Systems and Nanostructures, 2013, 54, 288-294.	2.7	7
54	Inverse surface plasmon resonance based effective hydrogen sensing using nanoscale palladium films. Optical Materials, 2015, 39, 273-277.	3.6	7

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55	Black titania: effect of hydrogenation on structural and thermal stability of nanotitania. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	7
56	Revealing mechanical, tribological, and surface-wettability features of nanoscale inorganic fullerene-type tungsten disulfide dispersed in a polymer. Journal of Materials Research, 2019, 34, 3666-3677.	2.6	7
57	Enhanced magnetocaloric effect in terbium-doped gadolinium oxide nanoparticles. Physica B: Condensed Matter, 2019, 570, 324-327.	2.7	7
58	Role of cohesive energy on the interparticle coalescence behavior of dispersed nanoparticles subjected to energetic ion irradiation. Journal of Materials Research, 2010, 25, 814-820.	2.6	6
59	Size quantification of sub-micron ZnSe semiconductor particles by laboratory scattering methods. Indian Journal of Physics, 2010, 84, 705-709.	1.8	6
60	Two Photon Emission and Nonlinear Optical Imaging of Acetonitrile-Treated Quasi-Spherical Nanoscale PbS Systems. IEEE Photonics Journal, 2010, 2, 1060-1068.	2.0	6
61	Magnetically induced optical activity and dichroism of gadolinium oxide nanoparticle–based ferrofluids. Journal of Applied Physics, 2012, 111, 044904.	2.5	6
62	Improved and delayed radiative emission response of Eu-doped BaTiO <sub>3</sub> nanoscale system. EPJ Applied Physics, 2012, 59, 10402.	0.7	6
63	Characteristic spectroscopic properties of $\hat{l}^3$ -irradiated rare-earth oxide-based ferrofluids. Journal of Experimental Nanoscience, 2012, 7, 586-595.	2.4	6
64	Significant Fowler–Nordheim tunneling across ZnO – Nanorod based nanojunctions for nanoelectronic device applications. Current Applied Physics, 2013, 13, 705-709.	2.4	6
65	Creation and regulation of ion channels across reconstituted phospholipid bilayers generated by streptavidin-linked magnetite nanoparticles. Physical Review E, 2014, 89, 012707.	2.1	6
66	Noticeable red emission and Raman active modes in nanoscale gadolinium oxyfluoride (Gd4O3F6) systems with Eu3+ inclusion. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	2.3	6
67	Exfoliated \$\$hbox {WS}_{2}\$\$ WS 2 nanosheets: optical, photocatalytic and nitrogen-adsorption/desorption characteristics. Bulletin of Materials Science, 2018, 41, 1.	1.7	6
68	Emergence of Raman active D- band and unusually suppressed conductivity mediated by nanoscale defects in pencil-lead graphitic systems under 80†keV Xe+ ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2020, 463, 1-6.	1.4	6
69	Photochromism and magneto-optic response of ZnO:Mn semiconductor quantum dots fabricated by microemulsion route. Open Physics, 2008, 6, .	1.7	5
70	Peacock feather supported self assembled ZnO nanostructures for tuning photonic properties. European Physical Journal D, 2011, 61, 463-468.	1.3	5
71	Optical and rheological study of gamma irradiated rare-earth nanoparticle based ferrofluids. Nuclear Instruments & Methods in Physics Research B, 2012, 292, 45-49.	1.4	5
72	Extraction and characterization of mixed phase KNO <sub>2</sub> –KNO <sub>3</sub> nanocrystals derived from flat-leaf green spinach. Physica Scripta, 2013, 87, 015603.	2.5	5

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73	Augmented photocatalytic activity and luminescence response of Tb3+ doped nanoscale titania systems. Journal of Applied Physics, 2014, 116, 144902.	2.5	5
74	Anomalous carrier life-time relaxation mediated by head group interaction in surface anchored MnSe quantum dots conjugated with albumin proteins. Materials Chemistry and Physics, 2017, 187, 46-53.	4.0	5
<b>7</b> 5	Measurement of third order susceptibility by nonresonant nondegenerate four wave mixing in polymer embedded cadmium sulfide quantum dot systems. Optical Materials, 2006, 29, 342-347.	3.6	4
76	Optical emission, vibrational feature, and shear-thinning aspect of Tb3+-doped Gd2O3 nanoparticle-based novel ferrofluids irradiated by gamma photons. Journal of Applied Physics, 2013, 114, 134903.	2.5	4
77	Properties of hydrothermally processed multi-walled titania nanotubes. Physica E: Low-Dimensional Systems and Nanostructures, 2013, 49, 39-43.	2.7	4
78	Teflon impregnated anatase TiO 2 nanoparticles irradiated by 80 keV Xe + ions. Nuclear Instruments & Methods in Physics Research B, 2014, 336, 135-142.	1.4	4
79	Analytical calculation of chain length in ferrofluids. Bulletin of Materials Science, 2015, 38, 221-226.	1.7	4
80	Effect of ion irradiation on nanoscale TiS2systems with suppressed Titania phase. Journal of Physics: Conference Series, 2016, 765, 012007.	0.4	4
81	Surface-wettability and Structural Colouration Property of Certain Rosaceae Cultivars with Off-to-dark Pink Appearances. Journal of Bionic Engineering, 2018, 15, 1012-1024.	5.0	4
82	Evidence of diamond-like carbon phase formation due to 80 keV Xe + ion impact on pencil-lead graphitic systems with oblique angle incidence. Europhysics Letters, 2019, 125, 36003.	2.0	4
83	Highly symmetric and delayed excitonic emission response and space charge-limited current transport in Ͳ-irradiated WSe2 and WS2 nanoflakes. Journal of Materials Research, 2021, 36, 870-883.	2.6	4
84	Featuring exfoliated 2D stacks into fractal-like patterns in WS2/carboxy methyl cellulose nanocomposites. Surfaces and Interfaces, 2022, 29, 101727.	3.0	4
85	Laser-induced photocurrent measurement in quasi-arrayed ZnS quantum dots. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 27, 176-182.	2.7	3
86	Development principles and production of paired PbS quantum dots. EPJ Applied Physics, 2008, 41, 129-132.	0.7	3
87	Influence of Mn incorporation on structural, optical emission and polarization switching aspect of PbO-free nanoscale PbTiO3 systems. Journal of Materials Research, 2012, 27, 2965-2972.	2.6	3
88	Temperature responsive gadolinium oxide nanoparticles for hyperthermia application. AIP Conference Proceedings, 2017, , .	0.4	3
89	Impetuous exfoliation of tungsten disulfide into a few-layer nanoscale form due to super active collagenase biomolecules. Materials Chemistry and Physics, 2020, 250, 123008.	4.0	3
90	Revisiting principles, practices and scope of technologically relevant 2D materials. Journal of Materials Research, 2021, 36, 1961-1979.	2.6	3

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91	Strong Kerr-signals from optically isotropic ZnSe nanocrystals: a study using Mach-Zehnder principles. European Physical Journal D, 2009, 55, 679-683.	1.3	2
92	Interplay of native defect-related photoluminescence response of ZnO nanosticks subjected to 80ÂkeV Ar ion irradiation. Radiation Effects and Defects in Solids, 2011, 166, 884-893.	1.2	2
93	Optimum Mn-doping, effective tetragonality, and correlated luminescence characteristics of PbTiO3nanoparticles. Philosophical Magazine Letters, 2011, 91, 423-431.	1.2	2
94	A Comprehensive View on the Brownian Motion of Quantum Dots in Electrolytic Solution, Lipid Bilayer and Their Aggregated State in the Lipid Biomembrane. Journal of Computational and Theoretical Nanoscience, 2012, 9, 1070-1077.	0.4	2
95	Unusual Rectifying Response of Nanojunctions Using Randomly Oriented Nanorods (RON) of ZnO Irradiated with 80-MeV Oxygen Ions. Journal of Electronic Materials, 2012, 41, 1955-1961.	2.2	2
96	Physical Properties of Nanoscale TiO <sub>2</sub> Related to Ag-Doping and Photochromic Behavior. Nanoscience and Nanotechnology Letters, 2013, 5, 452-456.	0.4	2
97	Manifested luminescence and magnetic responses of stoichiometry dependent Cd1â^' xMnxSe quantum dots. Materials Research Bulletin, 2015, 62, 71-79.	5.2	2
98	Investigation of manifestation of optical properties of butterfly wings with nanoscale zinc oxide incorporation. Journal of Physics: Conference Series, 2016, 765, 012019.	0.4	2
99	Sol-hydrothermally derived gadolinium oxide (Gd <sub>2</sub> O <sub>3</sub> ) nanorods and tamarind-like shape evolution under 80â€MeV C <sup>6+</sup> ion impact. Radiation Effects and Defects in Solids, 2016, 171, 925-935.	1.2	2
100	Interrelated emission and spin–spin relaxation feature mediated by⟨i⟩V⟨/i⟩⟨sub⟩O⟨sub⟩⟨sub⟩+⟨/sup⟩defects in Gd⟨sub⟩2⟨/sub⟩O⟨sub⟩3⟨/sub⟩nanorods subjected to swift ion impact. Philosophical Magazine Letters, 2016, 96, 157-164.	1.2	2
101	Exploring structural colour in uni- and multi-coloured butterfly wings and Ag <sup>+</sup> uptake by scales. Europhysics Letters, 2017, 119, 66003.	2.0	2
102	Influence of mild Cr <sup>3+</sup> doping on the structural, optical, photochromic, and thermochromic reversibility of nano-titania systems. Canadian Journal of Physics, 2019, 97, 347-354.	1.1	2
103	Consequence of surfactant coating on the Raman active modes and highly symmetric blue-emission decay dynamics of cubic phase MnSe quantum dots. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 113, 226-232.	2.7	2
104	Unusually diverse surface-wettability features found in the wings of butterflies across Lepidoptera order and evaluation of generic and vertical gibbosity-based models. Physica Scripta, 2021, 96, 085004.	2.5	2
105	Synthesis, Stabilization of CdSe Quantum Dots and the Role of Rose Water and Citric Environment. Nanoscience and Nanotechnology Letters, 2012, 4, 775-782.	0.4	2
106	Exploiting valence band mapping and select blue-green and red phosphorescence decay of $\hat{l}^3$ -irradiated nanoscale Eu3+: Gd2O3 below concentration quenching. Optical Materials, 2021, 122, 111627.	3.6	2
107	Structural and XPS studies of polyhedral europium doped gadolinium orthovanadate (Eu3+:GdVO4) nanocatalyst for augmented photodegradation against Congo-red. Physica E: Low-Dimensional Systems and Nanostructures, 2022, 143, 115357.	2.7	2
108	Studies of optical properties and SHI irradiation on PbS sensitized nanoporous TiO2 network. Journal of Optics (India), 2009, 38, 169-176.	1.7	1

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109	Physical properties of nanoscale TiO <inf>2</inf> with mild rare earth ion doping., 2013,,.		1
110	Crystallographic, luminescence and photoconductive characteristics of chemically tailored ZnO nanorods. , 2014, , .		1
111	Recording ion channels across soy-extracted lecithin bilayer generated by water-soluble quantum dots. Philosophical Magazine, 2014, 94, 345-357.	1.6	1
112	Comparative study of microscopic, spectroscopic and magneto-optic response of ferrofluids subjected to $\hat{l}^3$ -radiation. Indian Journal of Physics, 2015, 89, 115-121.	1.8	1
113	Noticeable size dispersity and optical stability of sodium dodecyl sulphate (SDS)-coated MnSe quantum dots in extreme natural environment. Applied Physics A: Materials Science and Processing, 2019, 125, 1.	2.3	1
114	Significant red-luminescence from citrate-gel and hydrothermally derived nanoscale Eu3+: Gd2O3 with alkali metal ion (Na+, K+) co-doping. Bulletin of Materials Science, 2022, 45, 1.	1.7	1
115	ZnS:Cr Nanostructures Building Fractals and Their Properties. , 2010, , .		0
116	A Model Approach to Fermi Surface Construction for Metallic Nanostructured Systems. Journal of Computational and Theoretical Nanoscience, 2012, 9, 2057-2061.	0.4	0
117	Atypical thermal transport in Cu nanorods in the diffusive–ballistic crossover. Canadian Journal of Physics, 2016, 94, 1241-1244.	1.1	0
118	Studies on electrophoretically deposited nanostructured barium titanate systems and carrier transport phenomena. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	2.3	0
119	Modified structural and frequency dependent impedance formalism of nanoscale BaTiO3 due to Tb inclusion. AIP Conference Proceedings, $2016,  ,  .$	0.4	0
120	Introduction of Mixed Phase, Modified Emission and Thermal Stability of Nano-titania with Mild Ag Doping. Current Nanomaterials, 2017, 1, 223-230.	0.4	0
121	Observable Vibronic Modes, Visible Luminescence, and Dewetting Response Mediated via Increased Roughness due to Splitting of WS 2 Nanosheets by Energetic Xe + Ions. Physica Status Solidi (B): Basic Research, 2020, 257, 1900546.	1.5	0
122	Imaging Bactericidal Effect of Faceted Ag Nanostructures (FAgN) on Gram Negative, Coli Form <1>Escherichia 1 <1>coli 1 Bacteria. Journal of Bionanoscience, 2014, 8, 248-254.	0.4	0
123	Structural, optical and frequency dependent dielectric studies of nanoscale Na0.5Bi0.5TiO3 processed via non-aqueous route. Materials Today: Proceedings, 2022, , .	1.8	0