

# Animesh Jha

## List of Publications by Year in descending order

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109  
papers

3,323  
citations

147566

31  
h-index

155451

55  
g-index

125  
all docs

125  
docs citations

125  
times ranked

2361  
citing authors

#	ARTICLE	IF	CITATIONS
1	Rare-earth ion doped TeO <sub>2</sub> and GeO <sub>2</sub> glasses as laser materials. Progress in Materials Science, 2012, 57, 1426-1491.	16.0	374
2	Structural origin of spectral broadening of 1.5- $\mu$ m emission in Er <sup>3+</sup> -doped tellurite glasses. Physical Review B, 2000, 62, 6215-6227.	1.1	262
3	Tellurite Glasses for Broadband Amplifiers and Integrated Optics. Journal of the American Ceramic Society, 2002, 85, 1391-1395.	1.9	135
4	Three-dimensional mid-infrared photonic circuits in chalcogenide glass. Optics Letters, 2012, 37, 392.	1.7	129
5	Efficient $\sim 2 \mu$ m Tm <sup>3+</sup> -doped tellurite fiber laser. Optics Letters, 2008, 33, 402.	1.7	123
6	Review on structural, thermal, optical and spectroscopic properties of tellurium oxide based glasses for fibre optic and waveguide applications. International Materials Reviews, 2012, 57, 357-382.	9.4	116
7	Tm <sup>3+</sup> -doped tellurite glass for a broadband amplifier at 147 $\mu$ m. Applied Optics, 2000, 39, 4979.	2.1	115
8	Infrared emission and energy transfer in Tm <sup>3+</sup> , Tm <sup>3+</sup> -Ho <sup>3+</sup> and Tm <sup>3+</sup> -Yb <sup>3+</sup> -doped tellurite fibre. Optics Express, 2007, 15, 6546.	1.7	98
9	Tungsten-tellurite a host glass for broadband EDFA. Optics Communications, 2002, 205, 101-105.	1.0	90
10	The influence of F <sup>-</sup> ion doping on the fluorescence (4I <sub>13/2</sub> $\rightarrow$ 4I <sub>15/2</sub> ) line shape broadening in Er <sup>3+</sup> -doped oxyfluoride silicate glasses. Optical Materials, 2004, 25, 321-333.	1.7	75
11	Supercontinuum generation in an ultrafast laser inscribed chalcogenide glass waveguide. Optics Express, 2007, 15, 15776.	1.7	75
12	Enhancement in pump inversion efficiency at 980 nm in Er <sup>3+</sup> , Er <sup>3+</sup> /Eu <sup>3+</sup> and Er <sup>3+</sup> /Ce <sup>3+</sup> -doped tellurite glass fibers. Optics Express, 2006, 14, 5050.	1.7	73
13	A Yb <sup>3+</sup> /Tm <sup>3+</sup> /Ho <sup>3+</sup> triply-doped tellurite fibre laser. Optics Express, 2008, 16, 10690.	1.7	73
14	Separation and recovery of critical metal ions using ionic liquids. Advances in Manufacturing, 2016, 4, 33-46.	3.2	71
15	Tm <sup>3+</sup> /Ho <sup>3+</sup> codoped tellurite fiber laser. Optics Letters, 2008, 33, 1282.	1.7	65
16	Compositional effects and spectroscopy of rare earths (Er <sup>3+</sup> , Tm <sup>3+</sup> , and Nd <sup>3+</sup> ) in tellurite glasses. Comptes Rendus Chimie, 2002, 5, 921-938.	0.2	57
17	Er <sup>3+</sup> -doped boro-tellurite glass for optical amplification in the 1530-1580nm. Journal of Applied Physics, 2008, 103, .	1.1	54
18	Comparative study of alkali roasting and leaching of chromite ores and titaniferous minerals. Hydrometallurgy, 2016, 165, 213-226.	1.8	54

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19	Reclamation of reactive metal oxides from complex minerals using alkali roasting and leaching – an improved approach to process engineering. <i>Green Chemistry</i> , 2015, 17, 2059-2080.	4.6	53
20	Investigation on germanium oxide-based glasses for infrared optical fibre development. <i>Optical Materials</i> , 2009, 31, 1701-1706.	1.7	48
21	Near infrared spectroscopic investigation of Tm <sup>3+</sup> +Yb <sup>3+</sup> co-doped tellurite glasses. <i>Journal of Non-Crystalline Solids</i> , 2004, 345-346, 349-353.	1.5	47
22	980-nm diode-pumped Tm <sup>3+</sup> +Yb <sup>3+</sup> -codoped tellurite fiber for S-band amplification. <i>Optics Letters</i> , 2005, 30, 1437.	1.7	46
23	Raman spectra and structure of fluoroaluminophosphate glasses. <i>Journal of Non-Crystalline Solids</i> , 2001, 284, 43-48.	1.5	44
24	The physical chemistry of thermal decomposition of South African chromite minerals. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2005, 36, 75-84.	1.0	40
25	Thermal sensitivity of tellurite and germanate optical fibers. <i>Optics Express</i> , 2007, 15, 8857.	1.7	39
26	Engineering of a Ge–Te–Se glass fibre evanescent wave spectroscopic (FEWS) mid-IR chemical sensor for the analysis of food and pharmaceutical products. <i>Sensors and Actuators B: Chemical</i> , 2015, 206, 159-169.	4.0	38
27	Numerical Rate Equation Modeling of a $\mu\text{-Tm}^{3+}/\text{Ho}^{3+}$ Co-Doped Tellurite Fiber Laser. <i>Journal of Lightwave Technology</i> , 2009, 27, 4280-4288.	2.7	36
28	Spectroscopic properties of Sm <sup>3+</sup> -doped oxide and fluoride glasses for efficient visible lasers (560–660nm). <i>Optics Communications</i> , 2008, 281, 4370-4373.	1.0	34
29	Enhanced 2.0 $\mu\text{m}$ emission and energy transfer in Yb <sup>3+</sup> /Ho <sup>3+</sup> /Ce <sup>3+</sup> triply doped tellurite glass. <i>Journal of Non-Crystalline Solids</i> , 2012, 358, 1644-1648.	1.5	34
30	Role of ion migrations in ultrafast laser written tellurite glass waveguides. <i>Optics Express</i> , 2014, 22, 15298.	1.7	34
31	Kinetics and Reaction Mechanism of Soda Ash Roasting of Ilmenite Ore for the Extraction of Titanium Dioxide. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2007, 38, 939-948.	1.0	33
32	1G <sub>4</sub> lifetimes, optical and thermal characteristics of Pr-doped GeS <sub>2</sub> -chalcogenide glasses. <i>Journal of Non-Crystalline Solids</i> , 1996, 196, 314-319.	1.5	30
33	Fiber Bragg gratings inscribed using 800nm femtosecond laser and a phase mask in single and multi-core mid-IR glass fibers. <i>Optics Express</i> , 2009, 17, 7540.	1.7	29
34	Effect of nano-scale crystal field on the broadening of Er <sup>3+</sup> emission in sodium tellurite glass ceramics. <i>Optics Express</i> , 2008, 16, 13526.	1.7	28
35	Fluorogermanate glass with reduced content of OH-groups for infrared fiber optics. <i>Journal of Non-Crystalline Solids</i> , 2009, 355, 2015-2019.	1.5	27
36	Inorganic glasses as Kerr-like media. <i>Current Opinion in Solid State and Materials Science</i> , 2001, 5, 475-479.	5.6	25

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37	Kinetics of hydrochloric acid leaching of niobium from TiO <sub>2</sub> residues. <i>International Journal of Mineral Processing</i> , 2016, 157, 1-6.	2.6	25
38	Raman spectroscopy of endoscopic colonic biopsies from patients with ulcerative colitis to identify mucosal inflammation and healing. <i>Biomedical Optics Express</i> , 2016, 7, 2022.	1.5	23
39	Femtosecond pulsed laser deposition of silicon thin films. <i>Nanoscale Research Letters</i> , 2013, 8, 272.	3.1	21
40	Target dependent femtosecond laser plasma implantation dynamics in enabling silica for high density erbium doping. <i>Scientific Reports</i> , 2015, 5, 14037.	1.6	21
41	Theoretical Modeling of a $\text{Sm}^{2+}$ - $\text{Mn}^{3+}$ -Doped Tellurite Fiber Laser: The Influence of Cross Relaxation. <i>Journal of Lightwave Technology</i> , 2009, 27, 4026-4032.	2.7	20
42	Alkali roasting of bismuth ilmenite: rare earths recovery and physico-chemical changes. <i>Open Chemistry</i> , 2015, 13, .	1.0	20
43	Pr <sup>3+</sup> -doped fluoride glass for a 589nm fibre laser. <i>Journal of Luminescence</i> , 2000, 91, 133-138.	1.5	18
44	Selective separation of rare earths and impurities from ilmenite ore by addition of K <sup>+</sup> and Al <sup>3+</sup> ions. <i>Hydrometallurgy</i> , 2009, 95, 254-261.	1.8	18
45	The Structural, Thermal, and Optical Analyses of Multicomponent Germanium Oxide Glasses for Engineering Mid-Infrared Fiber Chemical Sensing. <i>Journal of the American Ceramic Society</i> , 2010, 93, 3259-3266.	1.9	17
46	Structural, Spectroscopic, and Excitonic Dynamic Characterization in Atomically Thin Yb <sup>3+</sup> -Doped MoS <sub>2</sub> , Fabricated by Femtosecond Pulsed Laser Deposition. <i>Advanced Optical Materials</i> , 2019, 7, 1900753.	3.6	17
47	An Origami-Based Soft Robotic Actuator for Upper Gastrointestinal Endoscopic Applications. <i>Frontiers in Robotics and AI</i> , 2021, 8, 664720.	2.0	17
48	Kinetics of glass formation of heavy metal fluoride melts. <i>Journal of Non-Crystalline Solids</i> , 1991, 134, 157-168.	1.5	16
49	Spectroscopic characterization of signal gain and pump ESA in short-lengths of RE-doped tellurite fibers. <i>Journal of Non-Crystalline Solids</i> , 2007, 353, 1407-1413.	1.5	16
50	$\lambda_{421}$ $\text{Mn}^{3+}/\text{Yb}^{3+}$ -doped tellurite fibre laser. <i>Journal of Materials Science: Materials in Electronics</i> , 2009, 20, 317-320.	1.1	14
51	Doping silica beyond limits with laser plasma for active photonic materials. <i>Optical Materials Express</i> , 2015, 5, 2849.	1.6	14
52	Phase equilibria in the metal-sulfur-oxygen system and selective reduction of metal oxides and sulfides: Part I. The carbothermic reduction and calcination of complex mineral sulfides. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 1996, 27, 829-840.	1.0	13
53	Investigation on the kinetics of devitrification of GeS <sub>2</sub> -based glasses. <i>Journal of Materials Research</i> , 2005, 20, 856-863.	1.2	13
54	Raman gain in modified tellurite glasses and thin films. <i>Optics Communications</i> , 2012, 285, 2646-2649.	1.0	13

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55	Reduction of OH <sup>&lt;sup&gt;âˆ’&lt;/sup&gt;</sup> ions in tellurite glasses using chlorine and oxygen gases. Journal of Materials Research, 2013, 28, 3226-3233.	1.2	13
56	Characterisation of spectroscopic and magneto-optical faraday rotation in Mn <sup>2+</sup> -doped CdS quantum dots in a silicate glass. Journal of Alloys and Compounds, 2020, 817, 152696.	2.8	13
57	Analysis of the osteogenic and mechanical characteristics of iron (Fe <sup>2+</sup> /Fe <sup>3+</sup> )-doped $\beta$ -calcium pyrophosphate. Materials Science and Engineering C, 2020, 115, 111053.	3.8	13
58	Electrospun and 3D printed polymeric materials for one-stage critical-size long bone defect regeneration inspired by the Masquelet technique: Recent Advances. Injury, 2022, 53, S2-S12.	0.7	13
59	Interrelationships between the structural, spectroscopic, and antibacterial properties of nanoscale (<math>\leq 50\text{\AA}</math>) cerium oxides. Scientific Reports, 2021, 11, 20875.	1.6	12
60	Active glass-polymer superlattice structure for photonic integration. Nanotechnology, 2012, 23, 225302.	1.3	11
61	Tm <sup>3+</sup> -doped silicon thin film and waveguides for mid-infrared sources. Applied Physics Letters, 2012, 101, .	1.5	11
62	Active glass waveguide amplifier on GaAs by UV-pulsed laser deposition and femtosecond laser inscription. Laser Physics Letters, 2012, 9, 329-339.	0.6	11
63	Enhancement in optical and microstructure properties of Er <sup>3+</sup> -doped phospho-tellurite glass thin film. Optical Materials, 2012, 34, 1272-1276.	1.7	11
64	An investigation on hydrofluoric (HF) acid-free extraction for niobium oxide (Nb <sub>2</sub> O <sub>5</sub> ) and tantalum oxide (Ta <sub>2</sub> O <sub>5</sub> ) from columbite/tantalite concentrates using alkali reductive roasting. Minerals Engineering, 2021, 173, 107183.	1.8	11
65	Towards sustainable processing of columbite group minerals: elucidating the relation between dielectric properties and physico-chemical transformations in the mineral phase. Scientific Reports, 2017, 7, 18016.	1.6	10
66	Adhesives for treatment of bone fractures: A review of the state-of-the art. Injury, 2022, 53, S20-S25.	0.7	10
67	Rare-earth doped glass waveguides for visible, near-IR and mid-IR lasers and amplifiers. Journal of Materials Science: Materials in Electronics, 2007, 18, 315-320.	1.1	9
68	Tellurite glass thin films on silica and polymer using UV (193-nm) pulsed laser ablation. Journal Physics D: Applied Physics, 2011, 44, 095501.	1.3	9
69	A comparison of methods for the estimation of the enthalpy of formation of rare earth compounds. Physical Chemistry Chemical Physics, 2021, 23, 24273-24281.	1.3	9
70	Influence of vapor-phase reaction on the reduction of OH <sup>&amp;H</sup> absorption bands in GeS <sub>2</sub> -based glasses for infrared optics. Journal of Materials Research, 2000, 15, 2864-2874.	1.2	8
71	Visible emissions at 592 and 613 nm in Er <sup>3+</sup> -Eu <sup>3+</sup> -codoped tellurite fibers. Optics Communications, 2004, 239, 403-408.	1.0	8
72	Characterization of Rare-Earth Oxide Photoactivated Calcium Phosphate Minerals for Resurfacing Teeth. Journal of the American Ceramic Society, 2012, 95, 2716-2724.	1.9	8

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73	Erbium-ion Doped Tellurite Glass Fibers and Waveguides Devices and Future Prospective: Part II. International Journal of Applied Glass Science, 2013, 4, 202-213.	1.0	8
74	Lasers Utilising Tellurite Glass-Based Gain Media. Springer Series in Materials Science, 2017, , 101-130.	0.4	8
75	A novel reductive alkali roasting of chromite ores for carcinogen-free Cr <sup>6+</sup> -ion extraction of chromium oxide (Cr <sub>2</sub> O <sub>3</sub> ) – A clean route to chromium product manufacturing!. Journal of Hazardous Materials, 2021, 403, 123589.	6.5	8
76	Spectroscopic Properties of Rare Earth Metal Ion Doped Tellurium Oxide Glasses and Fibres. Journal of Optics (India), 2004, 33, 157-170.	0.8	7
77	A Short Review on the Pulsed Laser Deposition of Er <sup>3+</sup> Ion Doped Oxide Glass Thin Films for Integrated Optics. Transactions of the Indian Ceramic Society, 2010, 69, 207-221.	0.4	7
78	Leaching studies of alkali roasted bomarilmnente and anatase during the processing of synthetic rutile. Hydrometallurgy, 2015, 152, 113-119.	1.8	7
79	Formation of Chromium-Containing Molten Salt Phase during Roasting of Chromite Ore with Sodium and Potassium Hydroxides. Journal for Manufacturing Science and Production, 2016, 16, 215-225.	0.1	6
80	Effect of Pb-ions on the kinetics of devitrification and viscosities of AlF <sub>3</sub> -based glasses for waveguide fabrication. Journal of Non-Crystalline Solids, 2007, 353, 1283-1286.	1.5	5
81	Effect of Yb <sup>3+</sup> on the Structural and Visible to Near-Infrared Wavelength Photoluminescence Properties in Sm <sup>3+</sup> -Yb <sup>3+</sup> -Codoped Barium Fluorotellurite Glasses. Materials, 2022, 15, 3314.	1.3	5
82	Fabrication of Multicore Tellurite Glass Optical Fibres. , 2007, , .		4
83	Erbium-ion Doped Tellurite Glasss Fibers and Waveguides Devices and Future Prospective: PART I. International Journal of Applied Glass Science, 2013, 4, 192-201.	1.0	4
84	Glass-polymer superlattice for integrated optics. Optical Engineering, 2014, 53, 071818.	0.5	4
85	Lattice strain dependent optical transitions in Ho <sup>3+</sup> -ion doped barium strontium titanate thin films. Journal of Materials Science: Materials in Electronics, 2009, 20, 190-194.	1.1	3
86	High-Tg GeS <sub>2</sub> based glasses for chemical sensing applications. Journal of Materials Science: Materials in Electronics, 2009, 20, 202-206.	1.1	3
87	Recent advances in mid-IR optical fibres for chemical and biological sensing in the 2-15µm spectral range. , 2009, , .		3
88	Engineering rare-earth-doped heavy metal oxide glasses for 2-5 µm lasers. , 2010, , .		3
89	The alkali roasting of complex oxide minerals for high purity chemicals-beyond the Le Chatelier era into the 21st century. Jom, 2011, 63, 39-42.	0.9	3
90	Influence of the Alkali-promoted phase transformation in monazite for selective recovery of rare-oxides using deep eutectic solvents. Minerals Engineering, 2022, 182, 107564.	1.8	3

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91	High quality erbium doped tellurite glass films using ultrafast laser deposition. , 2009, , .		2
92	Mid-infrared emission from Dy <sup>3+</sup> -doped tellurite bulk glass and waveguides. , 2012, , .		1
93	Optical, optoelectronic and photonic materials and applications. Semiconductor Science and Technology, 2015, 30, 040301.	1.0	1
94	A Novel Low-Energy Route for the Extraction of Copper and Cobalt Metals/Alloys from the Zambian Sulphide Concentrates. , 0, , 77-87.		1
95	Low Temperature Sulphidization of Cu-Co SLAG in the Presence of Calcium Sulphide. , 2015, , 105-113.		1
96	Inorganic Glasses for Pulsed-Laser Based Waveguide Engineering for Integrated Optics. , 2022, , .		1
97	Accelerated Electro-Reduction of TiO <sub>2</sub> to Metallic Ti in a CaCl <sub>2</sub> Bath Using an Inert Intermetallic Anode. Journal of the Indian Institute of Science, 2022, 102, 127-137.	0.9	1
98	Suppression of up-conversion luminescence in Er <sup>3+</sup> -codoped oxyfluoride silicate glass. , 2008, , .		0
99	Two micron tellurite fibre lasers. , 2011, , .		0
100	Tellurite glass and fiber development for Mid-IR transport and supercontinuum applications. , 2011, , .		0
101	Kinetic and Thermodynamic Analysis of the Reduction of Oxides of Cu and Co in a SiO <sub>2</sub> -CaO-(Al <sub>2</sub> O <sub>3</sub> ) Tj ETQq1 1 0.784314 rgBT /Overlock		0
102	Measurement of non-isothermal oxygen potentials in a Cu-Fe-Ca-S-O liquid during reduction of chalcopyrite in lime and carbon mixtures. Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy, 2014, 123, 21-28.	0.6	0
103	Platform manufacturing technique for next generation integrated photonic components. , 2015, , .		0
104	Fabrication of low-OH GeS <sub>2</sub> glasses and multimode fibres for mid-IR applications. , 2017, , .		0
105	Near-IR Laser and Raman Spectroscopy of Colon Mucosal Tissues: A Comparative Study on Metabolite Characterisations for Early Diagnosis of Inflammation and Ulceration. , 2018, , .		0
106	Spectroscopic and Structural Properties of Yb <sup>3+</sup> -Doped and Undoped 2D-MoS <sub>2</sub> Thin Films for Optoelectronic and Photonic Device Applications. , 2019, , .		0
107	Metabolite Identification of Helicobacter Pylori Supernatant Using Near-IR Raman Spectroscopy. , 2020, , .		0
108	Physical Chemistry of Roasting and Leaching Reactions for Chromium Chemical Manufacturing and Its Impact on the Environment – A Review. , 2013, , 225-236.		0

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109	Characterization of Physico-Chemical Changes during the Alkali Roasting of Niobium and Tantalum Oxides. , 2015, , 51-58.		0