

# Bhera Ram Tak

## List of Publications by Year in descending order

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19  
papers

596  
citations

687220

13  
h-index

839398

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19  
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19  
docs citations

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times ranked

537  
citing authors

#	ARTICLE	IF	CITATIONS
1	High-temperature photocurrent mechanism of $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> based metal-semiconductor-metal solar-blind photodetectors. Journal of Applied Physics, 2019, 125, .	1.1	77
2	Point defects induced work function modulation of $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> . Applied Surface Science, 2019, 465, 973-978.	3.1	71
3	Recent advances in the growth of gallium oxide thin films employing various growth techniques—a review. Journal Physics D: Applied Physics, 2021, 54, 453002.	1.3	68
4	Giant UV Photoresponse of GaN-Based Photodetectors by Surface Modification Using Phenol-Functionalized Porphyrin Organic Molecules. ACS Applied Materials & Interfaces, 2019, 11, 12017-12026.	4.0	59
5	Wearable Gallium Oxide Solar-Blind Photodetectors on Muscovite Mica Having Ultrahigh Photoresponsivity and Detectivity with Added High-Temperature Functionalities. ACS Applied Electronic Materials, 2019, 1, 2463-2470.	2.0	48
6	Gamma Irradiation Effect on Performance of $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> Metal-Semiconductor-Metal Solar-Blind Photodetectors for Space Applications. ECS Journal of Solid State Science and Technology, 2019, 8, Q3149-Q3153.	0.9	42
7	Surface Modification of AlN Using Organic Molecular Layer for Improved Deep UV Photodetector Performance. ACS Applied Electronic Materials, 2020, 2, 739-746.	2.0	36
8	Photovoltaic and flexible deep ultraviolet wavelength detector based on novel $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> /muscovite heteroepitaxy. Scientific Reports, 2020, 10, 16098.	1.6	32
9	Temperature-Dependent Electrical Characteristics of Ni/Au Vertical Schottky Barrier Diodes on $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> Epilayers. ECS Journal of Solid State Science and Technology, 2020, 9, 055004.	0.9	32
10	Swift heavy ion irradiation-induced modifications in the electrical and surface properties of $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> . Applied Physics Letters, 2020, 117, .	1.5	27
11	Ultra-Low Noise and Self-Powered $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> Deep Ultraviolet Photodetector Array with Large Linear Dynamic Range. ACS Applied Electronic Materials, 2021, 3, 2145-2151.	2.0	25
12	Study of the photoresponse behavior of a high barrier Pd/MoS <sub>2</sub> /Pd photodetector. Journal Physics D: Applied Physics, 2019, 52, 325102.	1.3	22
13	Radiation sustenance of HfO <sub>2</sub> / $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> metal-oxide-semiconductor capacitors: gamma irradiation study. Semiconductor Science and Technology, 2020, 35, 055024.	1.0	16
14	Enhanced Performance of MSM UV Photodetectors by Molecular Modification of Gallium Nitride Using Porphyrin Organic Molecules. IEEE Transactions on Electron Devices, 2019, 66, 2036-2039.	1.6	9
15	Wide range temperature-dependent (80–630 K) study of Hall effect and the Seebeck coefficient of $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> single crystals. Applied Physics Letters, 2021, 118, .	1.5	9
16	Deep-Level Traps Responsible for Persistent Photocurrent in Pulsed-Laser-Deposited $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> Thin Films. Crystals, 2021, 11, 1046.	1.0	9
17	Electronic excitation-induced tunneling and charge-trapping explored by in situ electrical characterization in Ni/HfO <sub>2</sub> / $\text{In}^{2+}$ -Ga <sub>2</sub> O <sub>3</sub> metal-oxide-semiconductor capacitors. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2022, 281, 115716.	1.7	6
18	Temperature-Driven Perturbations in Growth Kinetics, Structural and Optical Properties of NiO Thin Films. Physica Status Solidi (A) Applications and Materials Science, 2021, 218, 2100241.	0.8	5

#	ARTICLE	IF	CITATIONS
19	Improvement in Self-Powered GaN-based Symmetric Metal-Semiconductor-Metal Ultraviolet Photodetectors by Using Phenol-Functionalized Porphyrin Organic Molecules. , 2018, , .		3