

List of Patents : Granted & published

S. No.	Patent Title	Name of Applicant(s)	Patent No	date of filing	Agency Country	status
1	Ammonia gas sensor and a method for manufacturing the same	Avishek Maity, Arup Kumar Raychaudhuri, Barnali Ghosh	201731000270	Filed on 03/01/2017	India	Granted : Grant no: 316234 dated 31/07/2019
2	A method to grow single crystalline sharp nano needles of piezoelectric materials	Ankita Ghatak, Snehamoyee Hazra, A.K. Raychaudhuri, Barnali Ghosh	201931015347	22/04/2019	India	Granted : 351816 granted on 20th Nov 2020
3	A technique to regenerate ferroelectric phase by surface and subsurface engineering of BaTiO ₃ thin films	Ankita Ghatak, Subhamita Sengupta, Shaili Sett, Arup Kumar Raychaudhuri, Barnali Ghosh	201731036353 A	12/10/2017	India	Granted Grant No. 368228 Granted on 31/5/2021
4.	Flexible thin film transistor using electric double layer as gate dielectric and a method of fabrication thereof	Rishi Ram Ghimire, Chandan Samanta, Barnali Ghosh, Arup Kumar Raychaudhuri	201731015268	Filed on 29/04/2017	India	FER submitted (March 2021)
5.	Advancement in methodology and system to Control Isotopic Fractionations in Carbon Containing Gases	Samik Roy Moulik, Abhijit Maity, Mithun Pal, Manik Pradhan, Barnali Ghosh	201731017087	Filed on 16/05/2017	India	FER submitted
6.	A Gas-sensing system for selective detection of (Nitric Oxide) NO gas and a method for fabricating the same	Sanchi Maithani, Abhijit Maity, Chandan Samanta, Kaustuv Das, Barnali Ghosh, Manik Pradhan, Arup Kumar	201731038036	Filed on 26/10/2017	India	FER submitted (Dec 2020)

		Raychaudhuri				
7.	A paper based ammonia gas selective sensor with electrical read out and a method for manufacturing the same	Avisek Maity, Arup Kumar Raychaudhuri, Barnali Ghosh	201831001993 A	17/01/2018	India	FER submitted

Publication in peer-reviewed Journals:

Year 2022-23

62. Anomalous Hall effect in topological Weyl and nodal-line semimetal Heusler compound Co₂VAI

Sudipta Chatterjee, JyotirmaySau, Subrata Ghosh, SaheliSamanta, **Barnali Ghosh**, Manoranjan Kumar and Kalyan Mandal J. Phys.: Condens. Matter 51 (2023) 035601

61. Enhanced piezoelectric response in BTO NWs-PVDF composite through tuning of polar phase content

SnehamoyeeHazra, AnkitaGhatak , Arnab Ghosh , SubhamitaSengupta, A K Raychaudhuri and **Barnali Ghosh** Nanotechnology 34 (2023) 045405

60 Piezoelectric Nanogenerators based on Lead ZirconateTitanate nanostructures: an insight into the effect of potential barrier and morphology on the output power generation;

SnehamoyeeHazra, SubhamitaSengupta, SoumyaranjanRatha, AnkitaGhatak, A K Raychaudhuri and **Barnali Ghosh**; *Nanotechnology* ,33 (2022) 155403

59. Gated Photo detector with bi-polar Response from Single Crystal Halide Perovskite Using Polymeric Electrolyte as Gate Dielectric;

AvisekMaity, Sudipta Chatterjee, Arup Kumar Raychaudhuri,**Barnali Ghosh** ACS Appl. Electron. Mater. 2022, 4, 9, 4298–4305

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58. Effect of structural deformations on the transport properties of half-doped manganite nanowires: An insight through high resolution image simulation;

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