



## THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA

### PUBLICATION CERTIFICATE

**Name of Ph.D. Supervisor** Prof.Dinesh Kumar Kanchan

#### **Published Articles/Papers in Journals**

Sr No.	Author(s)	Paper Title	Journal Name & ISSN & Volume No.	Published Year	DOI	Index in Scopus/UGC CARE/Clarivate	Document Submitted?
1	Vaishali Apurva Adhwaryu, Prof. D. K. Kanchan	Effect of Lithium Iodide on transport phenomenon in Lithium Borophosphate glass Electrolyte	Journal Name: Journal of Non-Crystalline Solids,	1-5-2022	<a href="https://doi.org/10.1016/j.jnoncrsol.2022.121474">https://doi.org/10.1016/j.jnoncrsol.2022.121474</a>	In Scopus: Yes, In UGC CARE: Yes, In Clarivate: Yes	Submitted
2	Vaishali Apurva Adhwaryu, Prof. D. K. Kanchan	Ag <sup>+</sup> ion conduction in AgI-Ag <sub>2</sub> O-B <sub>2</sub> O <sub>3</sub> -P <sub>2</sub> O <sub>5</sub> glass electrolyte	Journal Name: Materials Science and Engineering: B,	1-1-2021	<a href="https://doi.org/10.1016/j.mseb.2020.114857">https://doi.org/10.1016/j.mseb.2020.114857</a>	In Scopus: Yes, In UGC CARE: Yes, In Clarivate: Yes	Submitted
3	C.Maheshwaran, D.K.Kanchan, Kuldeep Mishra, Deepak Kumar, Khushbu Gohel	Effect of active MgO nano-particles dispersion in small amount within magnesium-ion conducting polymer electrolyte matrix	Journal Name: Nano-Structures & Nano-Objects , Volume No.: 24	1-9-2020	10.1016/j.nanoso.2020.100587	In Scopus: Yes, In UGC CARE: Yes, In Clarivate: No	Submitted
4	C.Maheshwaran, D.K.Kanchan, Kuldeep Mishra, Deepak Kumar, Khushbu Gohel	Flexible magnesium-ion conducting polymer electrolyte membranes: mechanical, structural, thermal, and electrochemical impedance spectroscopic properties	Journal Name: Journal of Materials Science: Materials in Electronics,	1-7-2020	10.1007/s10854-020-04065-4	In Scopus: Yes, In UGC CARE: Yes, In Clarivate: No	Submitted
5	Deepak Kumar, Khushbu Gohel, D. K. Kanchan, Kuldeep Mishra	Dielectrics and battery studies on flexible nanocomposite gel polymer electrolyte membranes for sodium batteries	Journal Name: Journal of Materials Science: Materials in Electronics (Springer),	1-6-2020	Doi.org/10.1007/s10854-020-03877-8	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Submitted
6	M.H. Oza, D.K.Kanchan, Jaydeep Joshi and M.J Joshi	Structural, DFT, Vibrational Spectroscopic, Thermal Electrical and Magnetic Characterisation of Hydrothermally grown CoCO <sub>3</sub> microcrystals.	Journal Name: Journal of Materials Science: Materials in Electronics,	1-5-2020		In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Sumbitted
7	Oza Mahatta, H.O. Jethva, Dinesh K Kanchan and Mihir Janakrai Joshi	Hydrothermally Synthesized Sphero-cobaltite Nano-Particles	Journal Name: Journal of Superconductivity and Novel Magnetism,	1-4-2020		In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Sumbitted
8	Gohel, Khushbu; Kanchan, Dinesh; Machhi, Hiren ; Soni, Saurabh ; Maheshwaran, C	Gel polymer electrolyte based on PVDF-HFP:PMMA incorporated with propylene carbonate (PC) and diethyl carbonate (DEC) plasticizers : electrical, morphology, structural and electrochemical properties	Journal Name: Materials Research Express ,	1-2-2020		In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Submitted

9	Maheshwaran C, Kanchan Dinesh Kumar, Deepak Kumar, Kuldeep Mishra	Mg2+ conducting Polymer gel electrolyte: Physical and Electrochemical Investigations Maheshwaran C, Kanchan Dinesh Kumar, Deepak Kumar	Journal Name: IONICS (Springer) ,	1-1-2020	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Sumbitted
10	C. Maheshwaran,D.K. Kanchan, Khushbu Gohel, Kuldeep Mishra & Deepak Kumar	Effect of Mg(CF <sub>3</sub> SO <sub>3</sub> ) <sub>2</sub> concentration on structural and electrochemical properties of ionic liquid incorporated polymer electrolyte membranes.	Journal Name: Journal of Solid State Electrochemistry,	1-1-2020	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Submitted
11	Joshi, J.H.,Kalinathan, S., ,Kanchan, D.K.,Joshi, M.J.,Parikh, K.D	Effect of L-threonine on growth and properties of ammonium dihydrogen phosphate crystal	Journal Name: Arabian Journal of Chemistry (Elsevier) , , Volume No.: 13	1-1-2020	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Sumbitted
12	Mahatta Oza, H. O. Jethva, D. K. Kanchan, H. H. Joshi and M. J. Joshi	Structural, magnetic and dielectric studies of siderite nano-particles synthesized by hydrothermal method	Journal Name: Modern Physics Letters B, , Volume No.: 33	1-9-2019	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Sumbitted
13	Pandya, N.D.,Joshi, J.H.,Joshi, M.J.,Kanchan, D.K.,Gandhi, Y.H.,Jethva, H.O.	Effect of Cr <sup>3+</sup> on growth, thermal, photoluminescence and electrical properties of potassium dihydrogen citrate single crystal	Journal Name: Materials Research Express , , Volume No.: 6	1-8-2019	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Sumbitted
14	Khushbu Gohel & D. K. Kanchan	Effect of PC:DEC plasticizers on structural and electrical properties of PVDF–HFP:PMMA based gel polymer electrolyte System.	Journal Name: Journal of Materials Science: Materials in Electronics , ISSN: 0957-4522	1-5-2019	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Submitted
15	Deepak Kumar, D.K. Kanchan	Dielectric and electrochemical studies on carbonate free Na-ion conducting electrolytes for sodium-sulfur batteries	Journal Name: Journal of Energy Storage (Elsevier) , , Volume No.: 22	1-4-2019	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Sumbitted
16	Deepak Kumar, D.K. Kanchan, Shravan Kumar and Kuldeep Mishra	Recent trends on tailoring cathodes for room-temperature Na-S batteries	Journal Name: Materials Science for Energy Technologies, ISSN: 2589-2991, Volume No.: 2	1-4-2019	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Sumbitted
17	Gargi Dave, Dinesh Kanchan and Fouran Singh	Conductivity and Dielectric Behaviour of PEO-PAM-NaCF <sub>3</sub> SO <sub>3</sub> Blend Electrolyte System Irradiated with Swift Heavy O <sub>6</sub> <sup>+</sup> Ion Beam	Journal Name: J Radiation Physics and Chemistry (Elsevier) ,	1-3-2019	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Sumbitted
18	J. H. Joshi ,S. Kalainathan, D. K. Kanchan, M. J. Joshi, K. D. Parikh	Crystal growth, A.C. electrical and nonlinear optical studies of pure and dl-methionine doped ammonium dihydrogen phosphate single crystals	Journal Name: Journal of Materials Science: Materials in Electronics , ISSN: 0957-4522, Volume No.: 30	1-1-2019	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Sumbitted
19	Nikita, K.,Kumar, S.,Aswal, V.K.,Kanchan, D.K.,Murthy, C.N	Porous structure studies of the mixed-matrix polymeric membranes of polyether sulfone incorporated with functionalized multiwalled carbon nanotubes	Journal Name: Desalination and Water Treatment , , Volume No.: 146	1-1-2019	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Sumbitted
20	Khushbu Gohel, D. K. Kanchan, and C. Maheshwaran	Electrical and dielectric properties of PVdF-HFP – PMMA – (PC + DEC)-LiClO <sub>4</sub> based gel polymer electrolyte	Journal Name: AIP Conference Proceedings , , Volume No.: 1942	1-12-2018 10.1063/1.5029212	In Scopus: Yes, In UGC CARE: Yes, In Clarivate: No	Submitted

21	Gargi Dave and D.K. Kanchan (Indian	Dielectric Relaxation and Modulus Studies of PEO-PAM Blend based Sodium Salt Electrolyte System	Journal Name: Journal of Pure & Applied Physics) CSIR In Press,	1-7-2018		In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Submitted
22	Deepak Kumar, Suman B. Kuhar , D.K. Kanchan	Room temperature sodium-sulfur batteries as emerging energy source	Journal Name: Journal of Energy Storage (Elsevier), Journal of Energy Storage , , Volume No.: 18	1-7-2018		In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Submitted
23	Deepak Kumar, Suman B. Kuhar , D.K. Kanchan	Room temperature sodium-sulfur batteries as emerging energy source	Journal Name: Journal of Energy Storage (Elsevier), Journal of Energy Storage , , Volume No.: 18	1-7-2018		In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Submitted
24	Khushbu Gohel and D. K. Kanchan	Ionic conductivity and relaxation studies in PVDF-HFP:PMMA based gel polymer blend electrolyte with LiClO4 salt.	Journal Name: Journal of Advanced Dielectrics (2018) World Scientific,,	1-3-2018		In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Submitted
25	Khushbu Gohel and D. K. Kanchan	Conductivity and dielectric behaviour of lithium ion conducting gel polymer electrolyte	Journal Name: AIP Conference Proceedings , , Volume No.: 2009	1-3-2018	10.1063/1.5052103	In Scopus: Yes, In UGC CARE: Yes, In Clarivate: No	Submitted
26	J H Joshi, DK Kanchan, HO Jethva, MJ Joshi, KD Parikh	Dielectric relaxation, protonic defect, conductivity mechanisms, complex impedance and modulus spectroscopic studies of pure and L-threonine-doped ammonium dihydrogen phosphate	Journal Name: Ionics, , Volume No.: 24	1-2-2018		In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Submitted
27	Khushbu Gohel and D. K. Kanchan	Ionic transport studies in PVDF-HFP-PMMA-(PC+DEC)-LiClO4 gel polymer electrolyte	Journal Name: AIP Conference Proceedings , , Volume No.: 1832	1-12-2017	10.1063/1.4980829	In Scopus: Yes, In UGC CARE: Yes, In Clarivate: Yes	Submitted
28	J. H. Joshi, K. P. Dixit, K.D. Parikh, H. O. Jethva, D. K. Kanchan, S. Kalainathan and M. J. Joshi	Effect of Sr <sup>2+</sup> on growth and properties of ammonium dihydrogen phosphate single crystal	Journal Name: Journal of Materials Science: Materials in Electronics (2018) ,	1-11-2017		In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Submitted
29	Deepak Kumar, Satish Kumar Rajauria, Suman B Kuhar, D.K.Kanchan	109. Progress and Prospects of Sodium-Sulfur Batteries: A Review	Journal Name: Solid State Ionics (Elsevier) 2017, , Volume No.: 312	1-9-2017		In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Submitted
30	J.H. Joshia, D.K. Kanchan, M.J. Joshia, H.O. Jethvaa, K.D. Parikh	108. Dielectric relaxation, complex impedance and modulus spectroscopic studies of mix phase rod like cobalt sulfide nanoparticles	Journal Name: Materials Research Bulletin (Elsevier) 2017, , Volume No.: 93	1-6-2017		In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Submitted
31	Prajakta Joge, D. K. Kanchan, Poonam Sharma, Manish Jayswal, D. K. Awasthi	39. Influence of Swift Heavy O <sup>7+</sup> Ion Irradiation on Conductivity and Relaxation Dynamics of Two Different Blends of PVA:PEO:LiCF <sub>3</sub> SO <sub>3</sub> :EC System.	Journal Name: Advanced Materials Research (Trans Tech Publications, Switzerland)(, ISSN: 1662-8985, Volume No.: 1141	1-11-2016		In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Submitted

32	Prajakta Joge, D. K. Kanchan	40. Influence of Nano-Filler Concentration on Transport Properties of PVA-PEO Blend Systems	Journal Name: Advanced Materials Research (Trans Tech Publications, Switzerland); , ISSN: 1662-8985, Volume No.: 1141	1-11-2016	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Submitted
33	Dharmesh H.Kothari and D.K.Kanchan	38. Study of Lip conduction in $\text{Li}_{1.3}\text{Al}_{0.3}\text{Sc}_x\text{Ti}_{1.7}(\text{PO}_4)_3$ ( $x=0.01, 0.03, 0.05$ and $0.07$ ) NASICON ceramic compound	Journal Name: Physica B , , Volume No.: 494	1-10-2016	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Submitted
34	Dharmesh H.Kothari, & D.K.Kanchan	Effect of doping of trivalent cations $\text{Ga}^{3+}$ , $\text{Sc}^{3+}$ , $\text{Y}^{3+}$ in $\text{Li}_{1.3}\text{Al}_{0.3}\text{Ti}_{1.7}(\text{PO}_4)_3$ (LATP) System on $\text{Li}^{+}$ ion conductivity	Journal Name: Physica B ,	1-6-2016	In Scopus: Yes, In UGC CARE: No, In Clarivate: No	Not Submitted

## Paper Presented in Conference/Symposia/Seminar

Sr No.	Authors	Paper Title	Paper Theme	Organising Body	Date of Publication	Documents Submitted?
1	Khushbu Gohel, D. K. Kanchan, C. Maheshwaran	Structural, Electrochemical and Ion Transport Studies of Plasticized PVDF-HFP-PMMA- $\text{LiClO}_4$ Complex based Nanocomposite Gel Polymer Electrolyte Doped with $\text{Al}_2\text{O}_3$ Nanofiller	6th International Conference on Nanoscience and Nanotechnology (Virtual Conference)	SRM Institute of Science and Technology	1-2-2021	Submitted
2	Vaishali Apurva Adhwaryu	Electrochemical Impedance Spectroscopy of sodium iodide doped sodium borophosphate glass system	Indo-UK International Virtual conference on Advanced Nano-materials for energy and environmental applications (ICANEE 2020)	Alagappa University	17-9-2020	Submitted
3	Vaishali Adhwaryu, Dinesh K Kanchan	Ionic Transport studies in Silver Borophosphate Glass System with Silver Iodide	DAE Solid State Physics Symposium	DAE, Govt of India	25-12-2019	Submitted
4	Gargi Dave, C Maheshwaran and Dinesh K Kanchan	12. Conductivity Enhancement In $\text{Na}^{+}$ -Blend Electrolyte System Via Addition Of (EC+PC) Plasticizers	DAE Solid State Physics Symposium, GJ Univ, Hisar	DAE, Govt of India	25-12-2019	Not Submitted
5	Vaishali Adhwaryu and D.K.Kanchan	Study on effect of $\text{LiI}$ concentration on Dielectric constant and Loss in Lithium Borophosphate Glassy Electrolyte System	13th National Conference on Solid State Ionics	IIT Roorkee	17-12-2019	Submitted
6	Khushbu Gohel and Dinesh K Kanchan	Investigation on Structural, Electrical and conductivity relaxation of Nano-composite gel polymer electrolyte doped with $\text{Al}_2\text{O}_3$ nano-filler.	13th National Conference on Solid State Ionics	IIT Roorkee	17-12-2019	Not Submitted
7	Khushbu Gohel, D. K. Kanchan	Electrochemical properties of PVDF-HFP: PC-DEC with $\text{LiClO}_4$ polymer gel electrolyte membrane	2nd NATIONAL CONFERENCE ON EMERGING TRENDS IN MATERIALS SCIENCE (NCETMS-2019)	PG & RESEARCH DEPARTMENT OF PHYSICS & CHEMISTRY, Government Arts College, Tiruvannamalai	27-9-2019	Submitted
8	Khushbu Gohel and D.K.Kanchan	Lithium ion conducting PVDF-HFP based gel polymer electrolytes: Structural and Electrochemical properties	International Conference on Recent Trends in Nanomaterials for Clean Energy	Applied Physics Department, S.V.National Institute of Technology, Surat	16-2-2019	Submitted
9	Khushbu Gohel, D.K.Kanchan	Experimental investigation of PC-DEC modified PVdF-HFP:PMMA based gel polymer electrolyte	International Symposium on Functional Materials (ISFM-2018): Energy and Biomedical Applications	Punjab University and University of Illinois, Chicago	13-4-2018	Submitted
10	Khushbu Gohel, D.K. Kanchan	Effect of lithium salt and plasticizer on conductivity and ion dynamics behavior in PVDF-HFP-PMMA based gel polymer electrolyte	National Conference on Recent Trends in Materials Science (RTMS-2018)	Department of Physics, Faculty of Science, The M.S.University of Baroda	24-3-2018	Submitted
11	Dharmesh H. Kothari, and D. K. Kanchan	XPS, NMR and electrical studies of $\text{Li}^{+}$ ion conducting yttrium doped NASICON ceramic compounds	National Conference on Advanced Materials and Nanotechnology – 2018 (NOIDA)	Department of Physics and materials sciences & engineering IIIT, Noida	16-3-2018	Not Submitted

12	Khushbu Gohel, and D. K. Kanchan	Conductivity and dielectric behavior of lithium ion conducting gel polymer electrolyte	National Conference on Advanced Materials and Nanotechnology – 2018 (NOIDA)	Department of Physics and materials sciences & engineering JIIT, Noida	16-3-2018	Submitted
13	Gargi Dave and Dinesh Kanchan	Characterization of plasticized PEO-PAM blend polymer electrolyte system	solid state Physics Symposium, AIP Conference Proceedings 1832, 140042 (2017)	DAE, BARC, MUMBAI	28-12-2017	Not Submitted
14	Khushbu Gohel, D.K. Kanchan and C. Maheshwaran	Electrical and Dielectric Properties of PVdF-HFP –PMMA – (PC+DEC)- LiClO <sub>4</sub> Based Gel Polymer Electrolyte	AIP Conf. Proc. 1942, 140081-1–140081-4	DAE, BARC, MUMBAI	28-12-2017	Not Submitted
15	Gargi Dave and Dinesh Kanchan	Conductivity Studies of Blend Polymer Electrolyte System Irradiated with Swift Heavy O <sub>6+</sub> ion beam	solid state Physics Symposium, 2017	DAE, BARC, MUMBAI	28-12-2017	Not Submitted
16	Khushbu Gohel, D. K. Kanchan	Experimental investigation of Lithium ion conducting gel polymer electrolyte	12th NATIONAL CONFERENCE ON SOLID STATE IONICS (NCSSI—12)	BITS, Pillani	22-12-2017	Submitted
17	Khushbu Gohel, D. K. Kanchan	Ionic transport studies in PVDF-HFP-PMMA-(PC+DEC)-LiClO <sub>4</sub> gel polymer electrolyte	61th DAE SOLID STATE PHYSICS SYMPOSIUM	KIIT University, Bhubaneswar	26-12-2016	Submitted
18	Khushbu Gohel, Dharmesh Kothari	Study of Electrical properties of ceramic Li <sub>1.3</sub> Al <sub>0.3</sub> -xMxTi <sub>1.7</sub> (PO <sub>4</sub> ) <sub>3</sub> (M= Sc, Y) NASICON Material	15th Asian Conference on Solid State Ionics (ACSSI2K16)	IIT Patna	27-11-2016	Submitted

I Undersign, agree that all submitted information in above format is true as per my knowledge and belief.

Prof.Dinesh Kumar Kanchan