


Brief Biodata

Name: Dr. Kamlesh Kumar Maurya

Designation:	Senior Principal Scientist	
DP No. and Name:	7.01, PME	
DU No. and Name:	7.0, Directorate	
Email:	kkmaurya@nplindia.org	
Date of Joining CSIR-NPL:	12 August 1997	
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Research Area/ Interest

Growth of scientifically important single crystals and high-resolution X-ray diffractometry (HRXRD) studies of as-grown and processed single crystals, epitaxial multilayers, and polycrystalline thin films. XRR and GIXRD for single layer and multilayer thin films.

Educational Qualifications

(Please write latest qualification first)

Degree	Subject	University/ Institute	Year
Ph.D.	Physics	Banaras Hindu University, Varanasi	1993
M.Sc.	Solid-State Physics	Banaras Hindu University, Varanasi	1988
B.Sc. (Hons.)	Physics (Hons.)	Banaras Hindu University, Varanasi	1985

Academic / Research Experience

Grade / Post	Institute	Duration		Research Field
		From	To	
Gr IV (1), Junior Scientist	NPL	12/08/1997	11/08/2002	HRXRD
Gr IV (2), Scientist	NPL	12/08/2002	11/08/2006	HRXRD
Gr IV (3), Senior Scientist	NPL	12/08/2006	11/08/2010	HRXRD
Gr IV (4), Principal Scientist	NPL	12/08/2010	11/08/2016	HRXRD
Gr IV (5) Senior Principal Scientist	NPL	12/08/2016	Contd.	HRXRD

No. of Publications:

No. of Publications in SCI Journals	No. of Publications in non-SCI Journals	No. of Publications in Conference Proceedings	Books	Total
115	--	16	04	--

Selected Publications

1. Study of growth and broadband FMR spectroscopy in PLD grown $Y_3Fe_5O_{12}/Gd_3Ga_5O_{12}$ thin films, S Satapathy, RP Pant, **KK Maurya**; Journal of Physics D: Applied Physics 55 (43), 435004, 2022 IF=3.4
<https://orcid.org/0000-0003-1304-2130>
2. Efficient Sb_2Se_3 solar cell with a higher fill factor: A theoretical approach based on thickness and temperature; Mamta, **KK Maurya**, and VN Singh; Solar Energy, Volume 230, Pages 803-809, 2021, IF=7.2;
<https://doi.org/10.1016/j.solener.2021.11.002>
3. Sb_2Se_3 versus Sb_2S_3 solar cell: A numerical simulation; Mamta, **KK Maurya**, and VN Singh; Solar Energy, 228, Pages 540-549, 2021, IF=7.2
<https://doi.org/10.1016/j.solener.2021.09.080>
4. A review on properties, applications, and deposition techniques of antimony selenide; Mamta, Yogesh Singh, **KK Maurya**, VN Singh; Solar Energy Materials and Solar Cells, 230, Pg. 111223, 2021, IF=7.3 <https://doi.org/10.1016/j.solmat.2021.111223>
5. High temperature impedance spectroscopy study of $KTaO_3$ (001) single crystal; Jyoti Kaswan, Vikas N. Thakur, Sandeep Singh, Pallavi Kushwaha, **K.K. Maurya**, Ashok Kumar, A.K. Shukla; Journal of Alloys and Compounds, 863, Pg. 158317 2021, IF=6.4
<https://doi.org/10.1016/j.jallcom.2020.1>
6. Crystal structure, Hirshfeld surface analysis and thermal behavior of diisopropylammonium succinate, a novel third-order nonlinear optical crystal; Mahak Vij, Harsh Yadav, Nikita Vashistha, Manju Kumari, Hemant Kumar Verma, Prashant Kumar & **K. K. Maurya**; Journal of Materials Science, 55, Pg. 16913, 2020 IF=4.7
<https://doi.org/10.1007/s10853-020-05181-6>
7. Remarkable effect of l-Ascorbic acid on crystal morphology, structural, crystalline perfection, optical, photoluminescence and dielectric properties of Zinc (tris) thiourea sulphate (ZTS) single crystals, Mohd Shkir, V Ganesh, S AlFaify, IS Yahia, **KK Maurya**; Arabian Journal of Chemistry, 13, Pg. 1490-1498, 2020 IF=6.2
<https://doi.org/10.1016/j.arabj.2017.12.001>
8. Comprehensive study on l-Proline Lithium Chloride Monohydrate single crystal: A semiorganic material for nonlinear optical applications, Kanika Thukral, N Vijayan, D Haranath, **KK Maurya**, J Philip, V Jayarama Krishnan, Arabian Journal of Chemistry, 12, Pg. 3193-3201, 2019 IF=6.2
<https://doi.org/10.1016/j.arabj.2015.08.022>
9. Silicon surface passivation using thin HfO_2 films by atomic layer deposition Jhuma Gope, Neha Batra, Jagannath Panigrahi, Rajbir Singh, **KK Maurya**, Ritu Srivastava, PK Singh, Applied Surface Science, 357, Pg. 635-642, 2015 IF=7.4

<https://doi.org/10.1016/j.apsusc.2015.09.020>

10. High resolution X-ray and electron microscopy characterization of PZT thin films prepared by RF magnetron sputtering, **KK Maurya**, SK Halder, Suchitra Sen, Ankita Bose, Sandip Bysakh, Applied surface science, 313, pg. 196-206, 2014 IF=7.4

<https://doi.org/10.1016/j.apsusc.2014.05.184>

11. Low temperature growth of GaN epitaxial layers on sapphire (0001) by pulsed laser deposition using liquid gallium target, M Senthil Kumar, SS Kushvaha, **KK Maurya**, Science of Advanced Materials, 6, Pg. 1215-1220, 2014 IF= 7.4

<https://doi.org/10.1166/sam.2014.1895>

Patents

NIL

Current Activities

(Not more than 100 words)

Currently heading PME, ISTAG, BDG and CFCT along with ongoing R&D work on HRXRD for single crystals and thin films.

Honour(s)/Award(s)/ Fellowship(s)

Outstanding Performance Award, and the good worker award from NPL

Contributions to AcSIR

Teaching faculty in AcSIR and guiding PhD students.

Membership of Professional Societies/ Institutions

S.No	Name of Professional Body	Country	Membership type	Membership Number
1.	Instrument Society of India	India	Life Member 1997	LM No. 859
2.	Material Research Society of India	India	Life Member, 1999	LM B277
3.	Swadeshi Science Movement of India	India	Life Member, 2000	LM No. M'SSMD-205
4.	Indian Crystallographic Association	India	Life Member, 2001	LM 202
5.	Metrology Society of India	India	Life Member, 2002	Membership No- M634
6.	Indian Society of Analytical Scientists	India	Life Member, 2009	LM No.-LMT-2009/09
7.	The Indian Science Congress Association	India	Life member-2011	Membership No-L17008

Any other Information

(Not more than 100 words)

- 1) Presently working as Head, of Planning Monitoring & Evaluation (PME), International S&T Affair Group, Business Development Group (BDG), and Center for Calibration and Testing (CFCT)
- 2) Former Head, of the X-ray Analysis section
- 3) Former Deputy Head of Bhartiya Nirdeshak Dravya (BND) Division
- 4) Former Head of Outreach Bhartiya Nirdeshak Dravya (BND)