Brief Biodata

Name: Dr. Anoop K. M

Designation:	**Scientist**
DP No. and Name:	#4.01, Photovoltaic Metrology
DU No. and Name:	#4.0, Advanced Materials and Device Metrology
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Date of Joining CSIR-NPL:	07-08-2025
Phone ***(office)***	-

Research Area/ Interest

Photovoltaics, Reference Solar Cells, Fabrication and Stability of Solar Cells, Recycling of Waste Photovoltaic Modules, etc.

Educational Qualifications

(Please write latest qualification first)

Degree	Subject	University/ Institute	Year
Ph.D	Solar Energy Physics	Ben-Gurion University of the Negev	2020
MSc	Physics	NIT Calicut	2013

Academic / Research Experience

Grade / Post	Institute	Duration		Research Field
		From	To	
Assistant Professor of Physics	Mar Thoma College Chungathara	08-02-2021	31-08-2022	
Post Doctoral Researcher	Centre For Nano and Material Sciences, Jain University	14-09-2022	06-11-23	Thermal and light stability of perovskite solar cells

Post Doctoral Researcher	IIT Bombay	14-11-2023	06-05-2024	Indigenous Development of Monolithic Perovskite Module Manufacturing by Printing
Assistant Professor of Physics	Mar Thoma College Chungathara	06-06-2024	31-03-2025	

No. of Publications: 14

No. of Publications in SCI Journals	No. of Publications in non-SCI Journals	No. of Publications in Conference Proceedings	Books	Total
11		3		14

Selected Publications

1. **M, A.K**., Khenkin, M.V., Giacomo, F.D., Galagan, Y., Rahmany, S., Etgar, L., Katz, E.A., Visoly-Fisher, I., 2020. Bias-Dependent Stability of Perovskite Solar Cells Studied Using Natural and Concentrated Sunlight. **Sol. RRL 4. IF: 8.582.**
2. Khenkin, M.V., **M, A.K**., Visoly-Fisher, I., Galagan, Y., Giacomo, F.D., Patil, B.R., Sherafatipour, G., Turkovic, V., Rubahn, H.-G., Madsen, M., Merckx, T., Uytterhoeven, G., Bastos, J.P.A., Aernouts, T., Brunetti, F., Lira-Cantu, M., Katz, E.A., 2018. Reconsidering figures of merit for performance and stability of perovskite photovoltaics. **Energy Environ. Sci.** 11, 739–743**. IF: 38.53.**
3. Khenkin, M.V., **K. M., A**., Visoly-Fisher, I., Kolusheva, S., Galagan, Y., Di Giacomo, F., Vukovic, O., Patil, B.R., Sherafatipour, G., Turkovic, V., Rubahn, H.-G., Madsen, M., Mazanik, A.V., Katz, E.A., 2018. Dynamics of Photoinduced Degradation of Perovskite Photovoltaics: From Reversible to Irreversible Processes**. ACS Appl. Energy Mater**. 1, 799–806, **IF: 5.76.**
4. Khenkin, M.V., **M, A.K**., Katz, E.A., Visoly-Fisher, I., 2019. Bias-dependent degradation of various solar cells: lessons for stability of perovskite photovoltaics. **Energy Environ. Sci.** 12, 550–558. **IF: 38.53.**
5. A.T., **M, A.K**., Pai, R.K., 2015. Hexagonal columnar liquid crystals as a processing additive to a P3HT:PCBM photoactive layer. **New J. Chem**. 39, 8439–8445. **IF: 3.288.**
6. Siram, R.B.K., Khenkin, M.V., Niazov-Elkan, A., **M, A.K**., Weissman, H., Katz, E.A., Visoly-Fisher, I., Rybtchinski, B., 2019. Hybrid organic nanocrystal/carbon nanotube film electrodes for air- and photo-stable perovskite photovoltaics. **Nanoscale** 11, 3733–3740. **IF: 7.79.**
7. **M, A,K**., Pai , Light-Harvesting Antenna System for Molecular Electronics | IEEE Journals & Magazine | IEEE J**.** of photovoltaics, 1570-1575. **IF: 3.052.**
8. Khenkin, M.V., **K.M., A**., Visoly-Fisher, I., Di Giacomo, F., Dogan, I., Patil, B.R., Turkovic,

V., Madsen, M., Galagan, Y., Ulbrich, C., Katz, E.A., 2020. Peculiarities of perovskite photovoltaics degradation and how to account for them in stability studies, in: 2020 47th **IEEE Photovoltaic Specialists Conference** (PVSC).

9. R. K. Pai, B Hemavathi, TN Ahipa, **KM Anoop**, Solvent-induced surface morphology of polymer honeycomb thin films for power generating solar windows - Pai - 2016 - **Environmental Progress & Sustainable Energy**, 1207-1214. **IF: 1.989.**
10. **Anoop, K.M**., Jose, R., Shiju, K., Manuvel, J., Predeep, P., 2013. Insitu polymerised polyaniline-polyisoprene composite for micro electronic application. AIP Conf. Proc. 1536, 1141–1142. **IF: 0.415.**
11. **Anoop, K. M**.; Ahipa, T. N. Recent Advancements in the Hole Transporting Layers of Perovskite Solar Cells. *Sol. Energy* **2023**, *263*, 111937. https://doi.org/10.1016/j.solener.2023.111937. **IF: 7.1**
12. **Anoop, K. M**.; Chetri, R.; Ahipa, T. N. Solvent Optimization on Novel Organic Passivating Layer for the Effective Passivation of Perovskite Films. Mater. Sci. Semicond. Process. 2024, 174, 108184. https://doi.org/10.1016/j.mssp.2024.108184 (IF: 4.51).
13. Visoly-Fisher, I.; Turkovic, V.; Melvin, A. A.; Khenkin, M. V.; **Anoop, K. M**.; Etgar, L.; Aharon, S.; Katz, E.; Galagan, Y. O.; Giacomo, F. D.; Madsen, M.; Patil, B. R.; Sherafatipour, G.; Misra, R. K. Stability of Organic-Inorganic Perovskite Photovoltaic Materials and Devices under Natural- and Concentrated- Sunlight. **2018**, undefined-undefined. https://doi.org/10.29363/nanoge.hopv.2018.033.
14. **K. M., A.**; Devadiga, D.; M. S., S.; T. N., A. Advancements in Preventing Sn2+ Oxidation in Tin-Based Perovskite Solar Cells: A Review. *Phys. Status Solidi A* **2025**, *222* (7), 2400569. https://doi.org/10.1002/pssa.202400569.