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Name: Dr Dinu Alexander

Designation and Department: Assistant Professor

Department of Physics, Nirmala college, Muvattupuzha

Date of Joining:1/12/2020

Contact info: Vellackakudiyil (H),Mulappuram P.O,
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personal if required):dinu@nirmalacollege.ac.in

Teaching Experience: 2 years in Govt. Engineering
college, Idukki as guest lecturer & 1year in Newmann
college, Thodupuzha as guest lecturer

Academic Credentials – From Degree to the highest
academic qualification

PhD from School of Pure & applied Physics Mahatma
Gandhi University Kottayam (Awarded in December
2019)

Topic: Synthesis ,Structural and spectroscopic
characterization of nanocrystalline Dy/Tb/Eu oxalates

Mphil: Bishop Heber college , Trichy

Topic: Title: Preparation and
Characterization of CuO Thin Films by
Spray Pyrolysis Technique for Ethanol
Gas Sensing Application.

B.Ed degree- N.S.S. Training College, Changanacherry

M.Sc Physics – S.B. College Changanacherry

B.Sc Physics - Assumption College, Changanacherry

Research Interests:

Crystal Growth , Thin films, Nano phosphor materials, Fluorescence Spectroscopy, Single crystal structure analysis:

Awards and Recognitions :

1. Research Fellowship (Basic Science research-RFSMS) awarded by Council of Scientific and Industrial Research, Govt. of India for the academic year 2015-2020.
2. Best student in III DC physics from Assumption college changanacherry.
3. Secured first prize in poster presentation at the International Meeting on Highly Correlated Systems (IMHCS-2017) held at School of Pure and Applied Physics, Mahatma Gandhi University ,Kottayam.

Details of Publications/ Book Chapter in international journals:**Book Chapter:- Internatinal**

Dinu Alexander and Cyriac Joseph, Rare earth oxalates: A promising optical material without luminescence quenching, Optical and Molecular Physics, theoretical principles and experimental methods, August, 2020.

Sl. No.	Title	Name of Journal	International/ National	Whether UGC approved (as per the current list of UGC approved Journals)	ISSN No.	Month and year of publication	Impact factor
1	Facile synthesis of Sm/Eu codoped CeO ₂ ultrafine nanocrystals and oxygen vacancy site dependent photoluminescence	Optical Materials	International	Yes	0925-3467	December, 2015	2.687
2	Photoluminescence properties of fully concentrated Terbium oxalate: A novel efficient green emitting phosphor	Materials Letters	International	Yes	0167-577X	February, 2017	3.019
3	Microstructural characterization and optical properties of green emitting hexagonal and monoclinic CePO ₄ :Tb	Materials Research Express	International	Yes	2053-1591	February, 2017	1.449
4	NUV /blue LED excitable intense green emitting terbium doped lanthanum molybdate nanophosphors for white LED	Journal of Materials Science:	International	Yes	0957-4522	December, 2017	2.195

	application	Materials in Electronics					
5	Synthesis and optical characterization of sub - 5 nm Terbium oxalate nanocrystals: A novel intense green emitting Phosphor	Dyes and Pigments	International	Yes	0143-7208	January, 2018	4.018
6	Effect of annealing temperature on the luminescence of Ce _{1-x} PO ₄ :Tb ³⁺ nanocrystals: A novel theoretical model and experimental verification	Journal of Materials Science	International	Yes	0022-2461	January, 2018	3.442
7	Efficient green luminescence of terbium oxalate crystals: A case study with Judd-Ofelt theory and single crystal structure analysis and the effect of dehydration on luminescence	Journal of Solid State Chemistry	International	Yes	0022-4596	June, 2018	2.29
8	Energy transfer driven tunable emission of Tb/Eu codoped lanthanum molybdate nanophosphors	Optical Materials	International	Yes	0925-3467	June, 2018	2.687
9	<u>Eu³⁺ activated terbium oxalate nanocrystals: A novel luminescent material with delayed concentration quenching and tunable multicolour emission</u>	Optical Materials	International	Yes	0925-3467	December, 2018	2.687
10	Structural and spectroscopic investigations on the quenching free luminescence of Europium oxalate nanocrystals	Acta Crystallographica Section C	International	Yes	2053-2296	May, 2019	0.93
Sl. No.	Title	Name of Journal	International/ National	Whether UGC approved (as per the current list of UGC approved Journals)	ISSN No.	Month and year of publication	
11	Effect of doping concentration and annealing temperature on the luminescence of novel orange red emitting CePO ₄ :Sm nanocrystals	Journal of Luminescence	International	Yes	0022-2313	May, 2019	2.961
12	Sm ³⁺ doped tetragonal lanthanum molybdate : A novel host sensitized reddish orange emitting nanophosphor	Journal of Luminescence	International	Yes	0022-2313	July, 2019	2.961
13	Novel white light emitting Dysprosium oxalate nanocrystals: Competing luminescence quenching by the features of Dy-Oxalate layered structure	Journal of Alloys and Compounds	International	Yes	0925-8388	October, 2019	4.175
14	A reddish Orange emitting samarium doped Na ₃ Y(VO ₄) ₂ nanocrystals for single phased UV excitable white light applications.	Journal of Solid State Chemistry	International	Yes	0022-4596	December, 2019	2.29
15	Intrinsic red luminescence of Eu activated Lanthanum Molybdate: Insights into the spectroscopic features using Judd-Oflet theoretical analysis	Journal of Physics and Chemistry of Solids	International	Yes	0022-3697	February, 2020	2.752

16	Novel blue emitting Tm activated Lanthanum Molybdate: Investigations on luminescence behavior and Judd-Ofelt theoretical analysis	Optical Materials	International	Yes	0925-3467	February, 2020	2.687
17	High purity blue photoluminescence in thulium activated NaYVO ₄ nanocrystals via host sensitization,	Journal of luminescence	International	Yes	0022-2313	July,2020	2.961
18	A new potential green emitting erbium activated α - Na ₃ Y(VO ₄) ₂ nanocrystals for UV-excitable single phase pc-WLED application,	SN applied science	International	Yes	42452-02-28732	May,2020	
19	Synthesis, Structural , and luminescence characterization of single phased Tm ³⁺ /Dy ³⁺ co doped Na ₃ Y (VO ₄) ₂ nanocrystals	Journal of crystal growth	International	Yes	0022-0248	NOV 2020	1.632
20	Electron spin relaxations of Tb ³⁺ and Tm ³⁺ ions ,	Applied Magnetic Resonance	International	Yes	16137507	JULY 2020	0.843

Research Papers Presented in various Conferences/Seminars/Symposia

(1) Dinu Alexander, Biju P.R, Cyriac Joseph, “Synthesis and Photoluminescence Properties of Green Emitting Terbium Oxalate Decahydrate Nanocrystals”, The International Meeting on Highly Correlated Systems (IMHCS-2017), Mahatma Gandhi University, Kottayam 686 560, Kerala, India, March 24-26, 2017.

(2) Dinu Alexander, P R Biju and Cyriac Joseph, “Synthesis and spectroscopic characterization of fully concentrated Terbium oxalate nanocrystals”, International Conference on Photochemistry and its applications (ICPA 2017), Inter University Instrumentation Centre (IUIIC), School of Environmental Sciences, Advanced Centre of Environmental Studies and Sustainable Development (ACESSD), Mahatma Gandhi University, Kottayam Kerala, India, November 10-13, 2017.

(3) Dinu Alexander, Kukku Thomas , Sisira S, Biju P.R, Cyriac Joseph, “Structural and spectroscopic characterization of fully concentrated green emitting Terbium oxalate single crystals”, National Laser Symposium (NLS-26), Bhabha Atomic Research Centre, Mumbai, December 20-23, 2017.

(4) Dinu Alexander, P R Biju and Cyriac Joseph, “ Photoluminescence properties of Terbium oxalate single crystals”, National seminar on advanced materials - ADMAT 2018, Mahatma Gandhi University Kottayam, Kerala, March 23-24, 2018.

(5) Dinu Alexander, Ajeesh Kumar S, Kukku Thomas, P R Biju and Cyriac Joseph, “Multicolour emission in Eu^{3+} activated Terbium oxalate nanocrystals via Tb^{3+} - Eu^{3+} energy transfer”, International conference on Science, Technology and Applications of Rare earths (ICSTAR-2018), September 23-25, 2018, Tirupati, India

(6) Dinu Alexander, A.Jennifer Christy, K.Jeyadheepan, A.Moses EzhilRaj, “Preparation and Characterization of CuO Thin Films Prepared by Spray Pyrolysis Technique for Ethanol Gas Sensing Application, Asian Journal of Applied Sciences 7 (2014) 671-684.