



Dr A Alexandar

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Expertise

Condensed Matter Physics

Dr. Alexandar has been working on single-crystalline materials for optical limiting, and NLO applications, and DFT. In the year 2024, he has published 4 research articles with an average impact factor of 3.2. He received JRF and SRF during his Ph.D. and the Best Researcher award in Science from St. Joseph's College in 2024, and Best Paper Presentation award in 2023. He received the Best Project Proposal Report Writer award from DST SERCSchool. He installed three 1KVA windmill recently

Work experience

1. St. Josephs College 2019 — Present

Assistant Professor
Tiruchirappalli

2. ANUGRAHA INSTITUTE OF SOCIAL SCIENCES, DINDIGUL 2017 — 2019

Assistant Professor
Dindigul

3. Periyar EVR College 2015 — 2017

Senior Research Fellow
Trichy

4. Periyar EVR College 2013 — 2015

Junior Research Fellow
Trichy

Education

1. PhD in Physics - 2019

Bharathidasan University

2. M.Sc Physics - 2013

St. Joseph's College, Tiruchirappalli-2

3. B.Ed - 2011

St. Xaviers college of Education, Palayamkottai

4. B. Sc Physics - 2010

Arul Anandar College, Madurai

5. Certificate Course - 2009

Arul Anandar College

6. Certificate Course - 2008

Arul Anandar College

Honours and Awards

1. Best Researcher in Science - 2024

St. Joseph's College, Trichy

2. Best Research Paper Presentation award - 2023

International conference, Jamal Mohammad college, Trichy

3. Managing Editor - 2017

Asian Journal of Physics

4. Best Proposal Report Writer - 2015

DST SERC School, SSN Institutions, Chennai

5. Best Student Award during M.Sc Physics - 2013

St. Joseph's College, Trichy

Research Project

Desing and installation of small scale windmill , funded by Ministry of Education

Role: Co-PI

Year 2022, Amount 100000

National Science Day Exhibition 2023 funded by TNSCST

Role: Coordinator

Year 2023, Amount 20000

Recent developments in Neutrino Astrophysics funded by Indian Academy of Science, Bangalore

Role: Coordinator

Year 2023, Amount 200500

Science academies refresher course on theoretical physics funded by Indian Academy of Science, Bangalore

Role: Co-PI

Year 2022, Amount 705000

Desing and installation of 1 KW windmill funded by Ministry of Education

Role: Co-PI

Year 2021, Amount 100000

National level workshop on intellectual property rights and research proposal writing

Role: Coordinator

Year 2018, Amount 20000

Synthesis, Growth and Characterization of Single Crystals of 4-Nitrophenol Derivatives for II and III order NLO, Piezoelectric, Biomedical and Device Fabrication Applications

Role: Principal Investigator

Year 2023, Amount 55000

Desing and installation of Vertical axis wind turbine funded by Ministry of Education

Role: Principal Investigator

Year 2024, Amount 100000

Membership In Professional Bodies

1. Asian Journal of Physics, 2019
Managing Editor
2. Indian Crystal Growth Association, 2017
Life Member
3. Indian Spectroscopy Society, 2017
Life Member

Membership In Committees

1. JSC start up centre , 2023
Member
2. Executive committee, Teaching staff Association, 2023
Member
3. Abdul Kalam science club, 2022
Coordinator

Patent

1. Portable type vertical axis windmill
Inventor(s): A. Alexandar, Assignee: St. Joseph's college, trichy
Published: 0000-00-00

Publication

1. Introduction to wind energy (Book) ISBN No-978-93-89384-86-4

A. ALEXANDAR, N. Vijayan

Introduction to wind energy, Volume , Year 2024, Pages ISBN No-978-93-89384-86-4

2. "Growth and optoelectronic characterizations of potassium hydrogen phthalate single crystals for Two-photon absorption and optical limiting applications"

A Alexandar; B Sahaya Infant Lasalle; Muthu Senthil Pandian; I Johnson; S Rex Rosario; G. Kavitha; T.C. Sabari Girisun

Journal of Materials Science: Materials in Electronics, Springer, Volume , Year 2024, Pages

3. Growth and characterizations of anthracene single crystal for optical limiting and optoelectronics applications: a scintillation material

Alexandar, A., Lasalle, B.S.I., Pandian, M.S. et al

Materials science: materials in Electronics, Springer, Volume 35, Year 2024, Pages 142

4. Growth, strain, energy gap, optical, mechanical, piezoelectric, and morphology analyses of 2-Methylimidazole (2MI) Single Crystal for NLO Device Fabrication. J. Nonlinear Opt. Phys. Mater.

A. Alexandar, B. Sahaya Infant Lasalle, M.S. Pandian,

Journal of Nonlinear Optical Physics & Materials, Volume , Year 2024, Pages

5. Investigations on growth, XRD, strain, FTIR, UV-Vis NIR, photoluminescence, SHG, and Z-scan analyses of L-cysteine picrate single crystal for NLO and optical limiting applications. Inorg. Chem. Commun. 159, 111751 (2024).

A. Alexandar, I. Johnson, A. Maggie Dayana, T.C. Sabari Girisun, B. Sahaya Infant Lasalle, M.S. Pandian
Inorganic-chemistry-communications, Volume 159, Year 2024, Pages 111751

6. Suvarasiyamana Ariviyal UnmaihaI (Book)

A. Alexandar

Vetrimozhi Publishers, Volume , Year 2021, Pages

7. Synthesis, Growth, Mechanical, Optical, Piezoelectric and NLO studies of L- Arginine Phosphate Monohydrate (LAP) single crystals for NLO application

W. Nirmala, A. Patrick Prabhu, M. Murugan, A. Lakshmi, A. Alexandar

JASC: Journal of Applied Science and Computations, Volume 7, Year 2020, Pages 86

8. Nucleation, growth, dielectric, polarizability, and Z-scan analysis of nicotinium tartrate & L-tartaric acid nicotinamide single crystals for third order NLO application: A comparative study

A. Alexandar, P. Rameshkumar

Optik, , Volume 168, Year 2018, Pages 944-955

9. Second and third order nonlinear optical single crystalline materials: A Review

A Alexandar, P Rameshkumar

ASIAN JOURNAL OF PHYSICS, Volume 27, Year 2018, Pages 57-86

10. Growth, structural, dielectric, photoluminescence and Z-scan analysis of

L-methioninium picrate (LMP) single crystals

A Alexandar, S Sakthy Priya, K Balakrishnan, P Surendran, A Lakshmanan and P Rameshkumar,
ASIAN JOURNAL OF PHYSICS, Volume 27, Year 2018, Pages 143-152

11. **Investigations on nucleation, HRXRD, optical, piezoelectric, polarizability and Z-scan analysis of l-arginine maleate dihydrate single crystals**
S Sakthy Priya, A Alexandar, P Surendran, A Lakshmanan, P Rameshkumar, P Sagayaraj
Optical Materials, Volume 66, Year 2017, Pages 434-441
12. **Studies on growth and characterization of nicotinium tartrate single crystal: An efficient organic nonlinear optical material**
A Alexandar, A Lakshmanan, S Sakthy Priya, P Surendran, P Rameshkumar, M Antony Arockiaraj
Journal of Nonlinear Optical Physics & Materials, Volume 26, Year 2017, Pages 1750004
13. **Alexandar, A new design for low-cost windmill for electricity production,**
A. ALEXANDAR
Int J of Nano Corr Sci and Engg, Volume 4, Year 2017, Pages 166-175
14. **Studies on growth, structural, optical, etching and nonlinear optical properties of L- arginine maleate dihydrate single crystal for NLO application**
A. Alexandar, P. Rameshkumar
International Journal of Scientific & Engineering Research, Volume 8, Year 2017, Pages 41-45
15. **Growth, structural, optical, piezoelectric and etching analysis of L-lysine p-nitrophenolate monohydrate single crystals**
A Alexandar, A Lakshmanan, S Sakthy Priya, P Surendran, P Rameshkumar
International Journal of Modern Physics B, Volume 31, Year 2017, Pages 1750174
16. **Growth and characterizations of L-methioninium picrate single crystal for nonlinear optical applications**
A Alexandar, P Surendran, S Sakthy Priya, A Lakshmanan, P Rameshkumar
Journal of Nonlinear Optical Physics & Materials, Volume 25, Year 2016, Pages 1650052
17. **Studies on growth and characterization of nonlinear optical L-tartaric acid-nicotinamide single crystal**
A Alexandar, P Surendran, S Sakthy Priya, A Lakshmanan, P Rameshkumar
Journal of Nonlinear Optical Physics & Materials, Volume 25, Year 2016, Pages 1650037