

CURRICULUM VITAE

I. ARUL RAYAPPAN
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Areas of research interest:

Luminescence and Electronics-networking.

Personal:

- Name: I. Arul Rayappan
- Date of Birth: 25/05/1962
- Nationality: Indian
- Sex: Male
- Marital status: Married

Education:

- PhD from Gandhigram Rural Institute – Deemed University, Gandhigram, June-2013.
- MPhil from St. Joseph's College, Trichy, 1987.
- MSc from St. Joseph's College, Trichy, 1982-1984
- BSc from St. Xavier's College, Palayamkottai, 1979-1982.

Employment Record:

- Associate professor: St. Joseph's college campus from DEC 1985 to till date :: department of physics.

Administrative Experience:

- Head of the Department of Physics from may 2017 to till date.
- JCICT chief coordinator form may 2014 to till date.
- Nodal officer for Visual Communication from 2012 to till date.
- Board of Visual Communication coordinator from 2012 to 2017.
- Head of the Department of Electronics from May 2009 to May 2012.
- Head of the Department of Electronics from May 2013 to May 2016.
- Board of studies member for Holy cross college, Trichy.
- Board of studies member for St. Xavier's College, Palayamkottai.
- Electronics board of studies chairman for Bharathidasan university from 2016 to 2018.
- Life time member – Luminescence Society of India.

Publications:

Journal publication:

List of Publications

1. *Concentration dependent structural, optical and thermal investigations of Dy³⁺-doped sodium fluoroborate glasses* **I. Arul Rayappan**, K.Marimuthu, S.SurendraBabu, M.Sivaraman, **Journal of Luminescence** 130 (2010) 2407–2412.
2. *Structural and luminescence investigations on Sm³⁺ doped sodium fluoroborate glasses containing alkali/alkaline earth metal oxides* **I. Arul Rayappan**, K. Selvaraju, K. Marimuthu, **Physica B**, 406 (2011) 548–555.
3. *Dysprosium doped lead fluoroborate glasses: Structural, optical, and thermal investigations* **I. Arul Rayappan**, K. Maheshvaran, S. SurendraBabu, K. Marimuthu, **Phys. Status Solidi A**, 209 (2012) 570–578.
4. *Structural and Luminescence behavior of the Er³⁺ doped alkali fluoroborate glasses* **I. Arul Rayappan**, K. Marimuthu, **Journal of Non-Crystalline Solids**, 367 (2013) 43–50.
5. *Luminescence spectra and Structure of Er³⁺ doped alkali borate and fluoroborate glasses* **I. Arul Rayappan**, K.Marimuthu, **Journal of Physics and Chemistry of Solids**, 74 (2013) 1570-1577
6. *Structural, Thermal and Photoluminescence studies on concentration dependent Dy³⁺ doped Alkali Borate glasses* **I. Arul Rayappan**, K.Selvaraju, K. Marimuthu, Abstract book of National Conference on Luminescence and its Applications (NCLA-2010), Page.82
7. *Luminescence and Thermal studies on Er³⁺ doped alkali fluoroborate glasses* **I. Arul Rayappan**, G.Muralidharan, K.Marimuthu, Proceedings of the 4th International Conference on Luminescence and Applications (ICLA-2012), Page 121, **ISBN: 81-6717-806-5**
8. *Structural and Spectroscopic studies on Er³⁺ doped sodium borate and fluoroborate glasses* **I. Arul Rayappan**, K. Selvaraju, K. Marimuthu, Abstract book of 20th - National Laser Symposium (NLS-2012) Page.635

Conference Publications

1. *Structural and Optical Investigation on Dy³⁺ -doped fluoroborate glasses* P. Arun Jeganatha Joseph, K. Maheshvaran, K. Marimuthu, **I. Arul Rayappan**. National Conference on Luminescence and its Applications (NCLA-2016), 18-20 February, 2016. pp. 61-61.
2. *Synthesis and optical studies on composition dependent Dy³⁺ doped alkali fluoroborate glasses* J. Jemma Vinothini, V. Antony Raj, **I. Arul Rayappan** “National Conference on Impact of Nanoscience in Modern Technology” (NCINSMT-16), 21st March 2016. page-33.
3. *Composition dependent structural and optical properties of Dy³⁺ Doped alkali fluoroborate glasses* J. Inicovalanarasi, K. Maheshvaran, **I. Arul Rayappan** “National Conference on Impact of Nanoscience in Modern Technology” (NCINSMT-16), 21st March 2016. page-5.
4. *Concentration dependent structural and optical properties of Dy³⁺ doped Magnesium fluoroborate glasses* A. JosuvaD’Silva, P. Arun Jeganatha Joseph, **I. Arul Rayappan** “National Conference on Impact of Nanoscience in Modern Technology” (NCINSMT-16), 21st March 2016. page-6.

5. *Composition dependent structural and optical properties of Dy³⁺ Doped alkali fluoroborate glasses* J. Inicovalanarasi, K. Mahesvaran, **I. Arul Rayappan** “Second International Conference on Materials Science and Technology” ICMST 2016, 05-08 June 2016. DP612.

6. *Synthesis and optical studies on composition dependent Dy³⁺ doped fluoroborate glasses* J. Jemma vinothini, V. Anthony Raj, **I. Arul Rayappan** “Second International Conference on Materials Science and Technology” ICMST 2016,05-08 June 2016. DP614.

7. *Structural and optical investigations on concentration Dependent Dy³⁺ doped magnesium fluoroborate glasses* A. JosuvaD’silva, P. Arun Jeganatha Joseph, **I. Arul Rayappan** “Second International Conference on Materials Science and Technology” ICMST 2016,05-08 June 2016. DP615.

8. *Structural and Optical Studies on Dy³⁺Doped Zinc Fluoroborate Glasses for UV to Visible Conversion* P. Arun Jeganatha Joseph, K. Maheshvaran, K. Marimuthu, **I. Arul Rayappan** National Conference on Luminescence and its Applications, NCLA-2017 - (IICT) Hyderabad. 9th-11thJanuary, 2017.pp 111-111.

9. *Structural and Optical Investigation on Concentration Dependent Dy³⁺doped fluoroborate glasses.* V. Anthony Raj, K. Maheshvaran, K. Marimuthu, **I. Arul Rayappan** National Conference on Luminescence and its Applications, NCLA-2017 - (IICT) Hyderabad. 9th-11thJanuary, 2017. pp 219-219.

10. *Luminescence studies on alkali-alkaline Dy³⁺ doped lead-alumino-boro-phosphate glasses for white LED’s applications.* V. Vidhya, P. Arun Jeganatha Joseph, K. Maheshvaran, **I. Arul Rayappan** International Conference on Energy, Environment and Advanced Materials for a sustainable future, ICEEAMSF 2017, 23-24 May 2017, OP/AM053, Perundurai, Erode.

11. *Composition dependent structural and optical properties of Dy³⁺ Doped fluoroborophosphate glasses* V. Anthony Raj, A. JosuvaD’silva, J. Jemma vinothini, **I. Arul Rayappan** International Conference on Energy, Environment and Advanced Materials for a sustainable future, ICEEAMSF 2017, 23-24 May 2017, OP/AM054, Perundurai, Erode.

12. *Concentration dependent structural and optical investigations of Dy³⁺doped Lithium Fluoro borophosphate glasses* V. Vidhya, V. Anthony Raj, P. Arun Jeganatha Joseph, **I. Arul Rayappan** International Conference on advanced materials science and technology (ICAMST-2017), 17-19 August, 2017, PP-126, Sathyamangalam, Erode.

13. *Structural and Optical Transitions in Dy³⁺-Doped Borophosphate Glasses for White LED’s Application* P. Arun Jeganatha Joseph, K. Maheshvaran, K. Marimuthu, **I. Arul Rayappan.** *International Conference on Science, Technology and Applications of Rare Earths ICSTAR-2018* September 23-25, 2018. Venue: Fortune Kences Hotel, Tirupati, Andhra Pradesh, India-517 502

14. *Synthesis and Optical Studies on Concentration Dependent Dy³⁺ Doped Fluoroborophosphate Glasses.* V. Anthony Raj, K. Maheshvaran and **I. Arul Rayappan.** *International Conference on Science, Technology and Applications of Rare Earths ICSTAR-2018* September 23-25, 2018. Venue: Fortune Kences Hotel, Tirupati, Andhra Pradesh, India-517 502.

15. *Spectroscopic behavior of Dy³⁺ ions in a Variety of Lithium and Sodium borophosphate Glasses.* A. Josuva D’silva, P. Arun Jeganatha Joseph & **I. Arul Rayappan.** *International Conference on Science, Technology and Applications of Rare Earths ICSTAR-2018* September 23-25, 2018. Venue: Fortune Kences Hotel, Tirupati, Andhra Pradesh, India-517 502.

International Published Papers

International Journal of Scientific Research in Science and Technology (IJSRST) Print ISSN : 2395-6011, Online ISSN : 2395-602X International Conference on Advanced Materials Held on 14, 15 December 2017, Organized by Department of Physics, St. Joseph's College, Trichy, Tamilnadu, India.

Papers presented in ICAM-2017 Conference can be accessed from www.ijsrst.com- Volume 3, Issue 11, November-December-2017

1. Synthesis and Optical Studies on Concentration Dependent Dy³⁺ Doped Lithium Fluoroborate Glasses for W-LED Applications V. Anthony Raj , **I. Arul Rayappan**
2. Structural and Optical Studies on Dy³⁺ Doped Alkali Zinc Fluoroborate Glasses for White Light Stimulation P. Arun Jeganatha Joseph, **I. Arul Rayappan**
3. Synthesis Structural and Optical Studies on Composition Dependent Dy³⁺ doped Fluoroborate Glasses J. Jemma vinothini, K. Maheshvaran, **I. Arul Rayappan**
4. Composition dependent Synthesis, Structural and Optical Properties of Dy³⁺ Doped Fluoroborate Glasses A. Josuva D'Silva, K. Mahesvaran & **I. Arul Rayappan**

62nd DAE Solid State Physics Symposium (DAE SSPS-2017) December 26-30 2017

Venue: DAE Convention Centre, Anushaktinagar, Mumbai, India.

1. *Spectroscopic behavior of composition dependent Dy³⁺ doped alkali fluoroborophosphate glasses* V. Anthony Raj, K. Maheshvaran, A. Josuva D'Silva, and **I. Arul Rayappan** AIP Conference Proceedings **1942**, 070022 (2018); 10.1063/1.5028820. Published by the American Institute of Physics

2. *Optical studies on alkali-alkaline Dy³⁺-doped lead-alumino-boro-phosphate glasses for white LED's application* P. Arun Jeganatha Joseph, J. Jemma Vinothini, K. Maheshvaran, and **I. Arul Rayappan** AIP Conference Proceedings **1942**, 070025 (2018); 10.1063/1.5028823. Published by the American Institute of Physics

63rd DAE Solid State Physics Symposium (DAE SSPS-2018) December 18-22, 2018

Venue: Guru Jambheshwar University of Science and Technology, Hisar, Haryana, India.

1. *Synthesis and Optical Studies on Concentration Dependent Dy³⁺ Doped lithium-Fluoroborophosphate Glasses.* V. Anthony Raj, K. Maheshvaran and **I. Arul Rayappan**. AIP Conference Proceedings **2115(1)**, 030259 (2019); 10. Published by the American Institute of Physics

Prof. Dinesh Varshney memorial National Conference on Physics and Chemistry of Materials 27th - 28th December, 2018, Indore - India

1. Absorption and Emission Analysis of Dy³⁺ Doped Fluoroborate Glasses for White Light Application. *P. Arun Jeganatha Joseph, K. Maheshvaran, and I. Arul Rayappan*. AIP Conference Proceedings **2100 (1)**, 020060 (2019). Published by the American Institute of Physics
2. Synthesis and Optical Studies on Concentration Dependent Dy³⁺ Doped Sodium-borophosphate Glasses. *A. Josuva D'Silva, K. Maheshvaran, and I. Arul Rayappan*. AIP Conference Proceedings **2100 (1)**, 020133 (2019). Published by the American Institute of Physics

Journal publication-2019

1. *Structural and luminescence properties of Dy³⁺-doped alkali fluoroborophosphate glasses for white LEDs applications*. V. Anthony Raj, K. Maheshvaran, K. Marimuthu and **I. Arul Rayappan**. Indian Journal of Physics. (doi.org/10.1007/s12648-019-01587-4.). **Impact factor:** 1.2426. **ISSN:** 0973-1458 (print); 0974-9845 (web)