

PROFORMA FOR BIO-DATA



- 1 Name and full correspondence address : Dr. R JAYAPRAKASAM, Associate Professor (Retd.) 8/2, Karthik-yazhini illam, Near KGR hospital, Sathyamangalam-638 401, Erode (Dt)
- 2 Email(s) and contact number(s) : E.Mail:JP_BITSATHY@YAHOO.COM & Mobile: [+91 9442706189](tel:+919442706189); [+91 6383832105](tel:+916383832105)
- 3 Institution : Bannari Amman Institute of Technology, Sathyamangalam, Erode-638 401, Tamilnadu, India.
- 4 Date of Birth : 15-05-1961
- 5 Gender (M/F/T) : Male
- 6 Category Gen/SC/ST/OBC : OBC
- 7 Whether differently abled (Yes/No) : NO

8. Academic Qualification (Undergraduate Onwards)

S.No	Degree	Year	Subject	University/Institution	% of marks
1	B.Sc	1983	Chemistry	Government Anna College Attur/Madras	67
2	M.Sc	1985	Chemistry	St.Joseph College Trich/Bharathidasan	65
3	M.Phil	1987	Chemistry	Annamalai University, Annamalainagar	62

9. Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award.

Chemical and biological studies of some selected plants Dr.A .G. Ramachandran Nair's, Pondicherry University, Pondicherry (Central University), 1994

10. Work experience

S.No.	Positions held	Name of the Institute	From	To
1	Lecturer	Bannari Amman Institute of Technology, Sathy	02-09-1996	01-08-2001
2	Senior Lecturer	Bannari Amman Institute of Technology, Sathy	01-08-2001	01-08-2004
3	Assistant Professor	Bannari Amman Institute of Technology, Sathy	01-08-2004	01-01-2011
4	Assistant Professor Level III	Bannari Amman Institute of Technology, Sathy	01-01-2011	01-05-2011

5	Associate Professor	Bannari Amman Institute of Technology, Sathy	01-05-2011	10-3-2020
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11. Teaching Experience : **23 years 6 months.**

12. Date of Retirement : **12.03.2020**

13. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant.

S.No	Name of Award	Awarding Agency	Year
1	JRF	IIT Madras	1987
2	Research Associate	Annamalai University	1992

14. Publications (List of papers published in SCI Journals, in year wise descending order).

- Ramya A, Balasubramanian V, **Jayaprakasam R**, Vijayakumar V. N, "Observation of induced luminescence and thermochromism in achiral hydrogen bonded liquid crystal complexes", Zeitschrift für Physikalische Chemie, De Gruyter, DOI:<https://doi.org/10.1515/zpch-2020-1602>, Apr 2020
- S Sundaram, P Subhasri, **R Jayaprakasam**, V N Vijayakumar, "Thermal and Optical Characterization of Multiple Hydrogen Bonded Liquid Crystals Derived from Mesogenic and Non-Mesogenic Compounds: Experimental and Theoretical (DFT) Studies, Canadian journal of Physics, Vol. 98, No. 5 : pp. 413-424;; July 2020
- P. Subhasri, V. Balasubramanian, T. Vasanthi, S. Balamuralikrishnan, **R. Jayaprakasam** & V. N. Vijayakumar, "Optical modulation studies of multiwall carbon nanotube dispersed in hydrogen bonded ferroelectric liquid crystal mixture for electro-optic devices", International Journal of Ferroelectrics, Taylor & Francis, Vol.558, Issue-4, pp.187-198, May 2020.
- Sathya, L., Subhasri, P., Vasanthi, T., Vijayakumar, V. N., **Jayaprakasam, R.**, Chandra, L., Thermal and optical characterization of multiple hydrogen bonded liquid crystals and its display device applications, Russian Journal of Physical Chemistry A, Springer, Vol. 12, pp.2414-2423, Decembet 2019.
- Vasanthi T, Balasubramanian V, Subhasri P, **Jayaprakasam R**, Vijayakumar V N, "Experimental and DFT Studies on Thermochromism Induced Binary HBLC Mixture", International Journal of Brazilian Journal of Physics (BJP), Vol.41, Issue 4, pp. 1-13, November 2019
- A Ramya, **R Jayaprakasam**, T. Chitravel and V. N. Vijayakumar, "Theoretical and experimental studies on optically tunable hydrogen bonded liquid crystal complex derived from mesogenic and non-mesogenic aromatic compound" Molecular Crystals and Liquid Crystal, Vol. 668, Issue 1, pp. 59–77, January 2019.
- T. Vasanthi, P. Subhasri, **R. Jayaprakasam**, V. N. Vijayakumar, "Experimental and computational studies on induced thermochromic effect and re-entrant smectic phase in linear double hydrogen-bonded binary liquid crystal mixtures", Phase transition, Vol. 92, Issue 3, pp. 229-248, June 2019.
- P. Subhasri, T. Vasanthi, **R. Jayaprakasam**, V. N. Vijayakumar, "Investigation on induced non-tilted smectic a* and thermochromic effect in tilted smectic c* phase of linear double hydrogen bonded ferroelectric liquid crystals", Journal of Korean Physical Society, Vol. 74, Issue 4, pp. 368-373, Feb-2019.
- S. Sundaram, K. Asokan, **R. Jayaprakasam**, T. S. Senthil, V. N. Vijayakumar, "Gamma radiation induced higher order smectic phases in the multiple hydrogen bonded liquid crystal

- complex”, *Journal of Advanced Research in Dynamical & Control Systems*, Vol. 10, Issue 10, pp. 458-479, 2018.
10. S. Sundaram, **R. Jayaprakasam**, T. S. Senthil, V. N. Vijayakumar, “Observation Of Induced Higher Order Smectic Phase From Multiple Hydrogen Bonded Liquid Crystal Complex Of Citric Acid And Pentyloxybenzoic Acid” *VSRD International Journal of Technical & Non-Technical*, Vol. 9, Issue 2, pp. 77-88, July 2018.
 11. P. Subhasri, **R. Jayaprakasam**, V. N. Vijayakumar, “Experimental And Computational (DFT) Studies On Induced Orthogonal Smectic A* Phase In Hydrogen Bonded Ferroelectric Liquid Crystals” *International Journal of Modern Physics B*, vol. 32, pp. 1850223-1-1850223-23, August-2018.
 12. P. Subhasri, D. Venugopal, **R. Jayaprakasam**, T. Chitravel, V. N. Vijayakumar, “Observation of Paramorphic Phenomenon and Non-tilted Orthogonal Smectic Phases in Hydrogen Bonded Ferroelectric Liquid Crystals for Optical Filtering Applications” *Physica B*, Vol. 539, pp. 78-87, June 2018.
 13. S. Sundaram, **R. Jayaprakasam**, M. Dhandapani, T. S. Senthil, V. N. Vijayakumar, “Theoretical (DFT) and Experimental studies on Multiple Hydrogen Bonded Liquid Crystals comprising between Aliphatic and Aromatic acids”, *Journal of Molecular Liquids*, Vol. 243, pp. 14-21, October 2017.
 14. S. Sundaram, **R. Jayaprakasam**, R. Praveena, T. R. Rajasekaran, T. S. Senthil, V. N. Vijayakumar, “Study of Variation in Thermal Width of Nematic and Induced Smectic Ordering Phase of Citric acid (CA) and 4-Heptyloxybenzoic acid (7OBA) Hydrogen Bonded Liquid Crystal Complexes”, *International journal of Modern Physics B*, Vol. 31, pp. 1850013-1-1850013-16, September 2017.
 15. S. Sundaram, P. Subhasri, T.R. Rajasekaran, **R. Jayaprakasam**, T. S. Senthil, V. N. Vijayakumar, “Induced smectic X phase through intermolecular hydrogen bonded liquid crystals formed between citric acid and p-n-(octyloxy)benzoic acid”, *Brazilian Journal of Physics*, Vol. 47, pp. 382-392, August 2017.
 16. S. Sundaram, P. Subhasri, T. R. Rajasekaran, **R. Jayaprakasam**, T. S. Senthil, V. N. Vijayakumar, “Observation of Induced New Smectic Phase in Supramolecular Hydrogen Bonded Liquid Crystals Between Mesogenic and Non-Mesogenic Aliphatic Compounds”, *Journal of Ferroelectrics*, Vol. 510, Issue.1, pp. 103-120, June 2017.
 17. S. Sundaram, P. Subhasri, T. Vasanthi, T. S. Senthil, **R. Jayaprakasam**, V. N. Vijayakumar, “Experimental investigation on the effect of mesogenic ratio in hydrogen-bonded liquid crystal complexes”, *Journal of dispersion Science and Technology*, Vol. 38, Issue.12, pp. 1811-1816, January 2017.
 18. S. Sundaram, T. Vasanthi, P. Subhasri, T. R. Rajasekaran, K. Baskar, **R. Jayaprakasam**, T. S. Senthil, V. N. Vijayakumar, “Thermal and optical studies on induced smectic phases of inter molecular hydrogen bonded liquid crystals between decyloxy benzoic acid and citric acid”, *Molecular Crystals and Liquid Crystals*, Vol. 648, Issue.1, pp. 148-161, June 2017.
 19. T. Ranjeeth kumar, S. Sundaram, T. Chitravel, **R. Jayaprakasam**, V. N. Vijayakumar, “Design, Synthesis and characterization of hydrogen bonded binary liquid crystal complex from 4-methoxycinnamic acid and 4-hexyloxybenzoic acid (4MCA:6OBA)”, *Zeitschrift fur Physikalische Chemie*, Vol. 231, No. 11-12, pp. 1875–1890, 2017.
 20. T. Ranjeeth kumar, S. Sundaram, T. Vasanthi, P. Subhasri, T. Chitravel, T. S. Senthil, **R. Jayaprakasam**, V. N. Vijayakumar, “Investigation on Thermal and Optical Properties of Hydrogen Bonded Binary Liquid Crystals”. *Brazilian Journal of Physics*, Vol. 46, pp. 649-657, December 2016.
 21. T. Mahalingam, T. Venkatachalam, **R. Jayaprakasam**, V. N. Vijayakumar, “Structural and thermo-optic studies on linear double hydrogen bonded ferroelectric liquid crystal homologous series”. *Molecular Crystals and Liquid Crystals*, Vol 641, Issue 1, pp. 10-26, December 2016.
 22. T. Mahalingam, T. Venkatachalam, **R. Jayaprakasam**, V. N. Vijayakumar, “Design and synthesis of hydrogen bonded binary mixture liquid crystals” *Ferroelectrics*, Vol. 502, pp. 119-129, November 2016.

23. M. Santhosh, T. Chitravel, **R. Jayaprakasam**, V. N. Vijayakumar, "Phase Behavior Studies on ZnS Nanoparticles Doped Liquid Crystal Mixture" Zeitschrift für Physikalische Chemie, Vol. 230, Issue 10, pp. 1551-1559, April 2016.
24. T. Mahalingam, T. Venkatachalam, **R. Jayaprakasam**, V. N. Vijayakumar, "Optical, thermal studies on binary and ternary hydrogen bonded liquid crystal complexes" Brazilian Journal of Physics, Vol. 46, Issue 3, pp. 273-281, June 2016.
25. T. Mahalingam, T. Venkatachalam, **R. Jayaprakasam**, V. N. Vijayakumar, "Phase behaviour studies of intermolecular hydrogen bonded binary liquid crystal complex", International journal of Chem Tech Research, Vol.8, No.8, pp. 325-332, 2015.
26. M Hamburger, G Dudan, AGR Nair, **R Jayaprakasam**, K Hostettmann "An antifungal triterpenoid from Mollugo pentaphylla" Phytochemistry 28 (6), 1767-1768.

15. Books/Reports/Chapters/General articles etc.

S.No	Title	Author's Name	Publisher	Year of Publication
1	Engineering Chemistry I& II	Dr. R.Sivakumar, Dr. R.Jayaprakasam , Dr. N. Sivakumar	Tata McGraw Hill Education Private Limited	2012