

# NEHRU MEMORIAL COLLEGE (AUTONOMOUS)

PUTHANAMPATTI-621007

## STAFF PROFILE



**NAME OF THE STAFF : S.BALAMURUGAN**  
**DESIGNATION : ASSISTANT PROFESSOR**  
**DEPARTMENT : PHYSICS**

### CONTACT

**Address** : Department of Physics  
Nehru Memorial College (Autonomous)  
Puthanampatti 621 007  
Tiruchirappalli (Dt),  
Tamil Nadu, India.

**Date of Birth** : 17.04.1981  
**Contact Phone (Office)** : 04327-234227  
**Contact Phone (Mobile)** : 99431-33306  
**Contact e-mail(s)** : sbalamurugan198@ gmail.com

### ACADEMIC QUALIFICATIONS

| Degree | College/University/Board | Year of Passing/ Awarded |
|--------|--------------------------|--------------------------|
| Ph.D   | Anna University, Chennai | 2010                     |
| M.Phil | National College, Trichy | 2006                     |
| M.Sc   | National College, Trichy | 2003                     |
| B.Sc   | National College, Trichy | 2001                     |

### Ph.D Thesis

**Title of the Thesis** : Investigation on Bulk growth of pure and doped KDP single crystal by Sankaranaryanan-Ramasamy method.  
**Place** : Department of Physics  
SSN Engineering College  
Chennai  
**Research Supervisor** : Prof.P.Ramasamy  
**Duration** : July 2006 – September 2010

**POSITION HELD****TEACHING EXPERIENCE**

| S. No. | Institution                                 | Duration                    | No. of Years |     |
|--------|---|-----------------------------|--------------|-----|
|        |   |                             | UG           | PG  |
| 1      | Thanthai Hans Roever College<br>Peramballur | July2004-July2006           | 2            | 2   |
| 2      | Shivani Engineering College<br>Trichy       | Feb2010-Dec 2015            | 05           | Nil |
| 3      | Nehru Memorial College<br>Puthanampatti     | from Dec 2015- till<br>date | 4            | 4   |

**RESEARCH EXPERIENCE (in years) : 10 years****AREA OF RESEARCH : Crystal Growth****RESEARCH GUIDANCE (In Numbers)**

| Program of Study |          | Completed | Ongoing |
|------------------|----------|-----------|---------|
| Research         | M. Phil. | 07        | 4       |
| Project          | PG       | 06        | 1       |

**PUBLICATION(S) (In Numbers)**

| Journal(s)    |          | Proceeding(s) |          |
|---------------|----------|---------------|----------|
| International | National | International | National |
| 5             | -        | -             | -        |

|                                       |       |
|---------------------------------------|-------|
| Cumulative Impact Factor (as per JCR) | 3.152 |
| h-index                               | 05    |
| Total Citations                       | 159   |

**PRESENTATION(S) (In Numbers)**

| Events        | International | National |
|---------------|---------------|----------|
| Conference(s) |               | 10       |
| Seminar(s)    |               |          |

**PARTICIPATION (In Numbers)**

| Events        | International | National |
|---------------|---------------|----------|
| Conference(s) |               |          |
| Seminar(s)    |               | 10       |
| Workshop(s)   |               |          |
| Symposium(s)  |               |          |

**PROFESSIONAL DEVELOPMENT (In Numbers)**

| Orientation Programme(s) | Refresher Course(s) | Faculty Development Programme(s) | Short Term Course(s) | Online Course(s) |
|--------------------------|---------------------|----------------------------------|----------------------|------------------|
| 1                        | 1                   | 4                                |                      |                  |

**DISTINCTIVE ACHIEVEMENT(S) / RECOGNITION(S) / AWARD(S)**

- Best Contributed Paper Award from Indian association for crystal growth, SSN Engineering college, Chennai chapter –January 2009
- Best Contributed Paper Award from Loyola College, Chennai-600 034

**ACADEMIC / ADMINISTRATIVE RESPONSIBILITIES HELD**

- a. Guiding PG and M.Phil students
- b. Lab in-charge for B.Sc (Physics) students

**SERVED AS A RESOURCE PERSON (INVITED TALKS / GUEST LECTURES)**

**Topic:** Growth of unidirectional crystals by Sankaranarayanan–Ramasamy Method

**Date:** 27<sup>th</sup> July 2008

**Place:** Laser Materials Development and Device Division,  
Department of Atomic Energy,  
Raja Ramanna Centre for Advanced Technology (RRCAT),  
Indore-452 013.  
Mathyapradesh, India

**DETAILS OF MEMBERSHIP**

**Academic Bodies (such as Board of Studies etc.,)**

**Life Member, Indian Association for Crystal Growth**

**Member (Student), SPIE (Society for photo optical instrumentation engineers) (2006-2009)**

**EXTENSION ACTIVITIES / OUTREACH PROGRAMME**

1. Coordinator of Redington Foundation (CSR)
2. Organized industrial visit for UG students (2015).
3. Organized industrial visit for PG and UG students (2020).

## DETAILS OF PUBLICATIONS

### (a) JOURNAL(S)

1. Growth of Unidirectional Potassium Dihydrogen Orthophosphate single crystal by SR Method and its Characterization  
**S.Balamurugan**, G.Bhagavannarayana, P.Ramasamy  
Material Letters, 62 (2008) 3963  
**Impact Factor: 2.117**
2. Bulk growth of  $\langle 101 \rangle$  KDP crystal by Sankaranarayanan-Ramasamy method and its Characterization  
**S.Balamurugan**, P.Ramasamy  
Material Chemistry and Physics, 112 (2008) 1-4  
**Impact Factor: 2.353**
3. Growth and characterization of unidirectional  $\langle 100 \rangle$  KDP single crystal by Sankaranarayanan-Ramasamy method  
**S. Balamurugan**, P. Ramasamy  
Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy  
71 (2009) 1979-1983  
**Impact Factor: 1.777**
4. Effect of KCl on the bulk growth KDP crystals by Sankaranarayanan-Ramasamy method  
**S. Balamurugan**, P. Ramasamy, Yutthapong Inkong, Prapun Manyum  
Materials Chemistry and Physics, 113 (2009) 622  
**Impact Factor: 2.353**
5. Investigation of SR method grown  $\langle 001 \rangle$  directed KDP single crystal and its characterization by High-resolution X-ray diffractometry (HRXRD), Laser damage threshold, Optical and Hardness studies  
**S.Balamurugan**, P.Ramasamy, S.K. Sharma, Yutthapong Inkong, Prapun Manyum  
Materials Chemistry and Physics, 117 (2009) 465-470.  
**Impact Factor: 2.353**

## DETAILS OF PRESENTATION(S)

### (Conference(s) / Seminar(s))

1. "Growth and characterization of Li doped KDP single crystal"  
S.Balamurugan, S.Geetha, S.Pari, T.Ravichandran  
"7<sup>th</sup> national conference on solid state ionics"  
Bharathiyar university, Coimbatore
2. "Unidirectional Bulk Growth of Pure and Doped Crystals by Sankaranarayanan- Ramasamy Method"  
S.Balamurugan and P.Ramasamy  
"Second National Symposium on Nonlinear Optical Crystals and Modelling in Crystal Growth"  
Anna University, Chennai, Tamil Nadu, India.
3. "Unidirectional Growth of Pure and additive added KDP crystals by SR method"  
S.Balamurugan, N.Balamurugan and P.Ramasamy  
"Regional Level Seminar Crystal Growth and Nanoscience"  
Aditanar College of Arts and Science, Tiruchendur, Tamil Nadu, India.
4. "Unidirectional growth of  $\langle 100 \rangle$  Potassium Dihydrogen Orthophosphate single crystal by Sankaranarayanan-Ramasamy method"  
S.Balamurugan and P.Ramasamy  
"12<sup>th</sup> National Seminar on Crystal growth", SSN College of Engineering, Chennai,

5. “Investigation of Unidirection KDP single crystal growth by Sankaranarayanan–Ramasamy method”  
S.Balamurugan and P.Ramasamy  
“National Seminar on Recent Advances in Materials Science”  
Department of Physics, Cauvery College For Women, Trichy.
6. “Investigation of KDP single crystals growth by Sankaranarayanan–Ramasamy method”  
S.Balamurugan and P.Ramasamy  
“6<sup>th</sup> National Conference on Emerging Trends in Crystal Growth and Nano Materials”  
Department of Physics, Loyola College, Chennai.
7. Unidirectional KDP single crystal growth by Sankaranarayanan–Ramasamy method and its characterization  
S.Balamurugan, P.Ramasamy  
“Crystal Growth of Laser and Non-Linear Optical Materials”  
Department of Physics, National College, Trichy.
8. Molecular structure, vibrational spectra, HOMD-LUMD, NLO & NMR studies of O-Methoxyphenyl acetonitrile based on DFT quantum chemical calculations  
S.Balamurugan  
12<sup>th</sup> National Conference on science, Engineering and Technology, VIT, Chennai  
2<sup>nd</sup> -3<sup>rd</sup> May 2017.
9. Molecular structure, vibrational spectra, HOMD-LUMD, NLO & NMR studies of P-methoxy phenyl based on DFT quantum chemical calculations  
S.Balamurugan  
National Conference on Nanomaterials, Aringar Anna Govt. Arts College, Namakkal.-20-21 July 2017

## **24. DETAILS OF PROFESSIONAL DEVELOPMENT**

**(Orientation / Refresher Course / FDP / Short Term Course / Online Course)**

### **Orientation Programme attended:**

Place : UGC-HRDC, Bharathidasan University, Trichy  
Duration: 18.05.2018 to 14.06.2018

### **Refresher Course Attended:**

Place : UGC-HRDC, Bharathidasan University, Trichy  
Duration: 23.10.2019 to 05.11.2019