

## RESUME

Name : **Dr. S. ABRAHAM RAJASEKAR**

Father's Name : N. SIMON

Date of Birth : 22.08.1968

Sex : Male

Address for Communication : Mr. N.Simon,  
1/127, B3, 2<sup>nd</sup> Street,  
S. Kambuppattu, Pavithram,  
Thiruvannamalai Tk & Dt. Pin: 606806  
Email: sa\_rajsekar@yahoo.co.in  
Mobile No. 9840225905

Educational Qualifications : M.Sc M.Phil. M.Ed. PGDCA., M.Sc (Psy), Ph.D.,

Additional Qualifications : Trained in Oracle and Visual Basic at  
LCC, Cuddalore.

### ACADEMIC CREDENTIALS:

| Examination Passed      | Name of the Institution     | University                | Year of Passing  | % of Marks and Class Obtained |
|-------------------------|-----------------------------|---------------------------|------------------|-------------------------------|
| Ph.D<br>(Physics)       | Loyola College,<br>Chennai. | Madras<br>University      | December<br>2004 | Highly<br>Commended           |
| M.Phil<br>(Physics)     | Loyola College,<br>Chennai. | Madras<br>University      | December<br>1994 | 79.0<br>First Class           |
| M.Sc<br>(Physics)       | Loyola College,<br>Chennai. | Madras<br>University      | April<br>1992    | 69.0<br>First Class           |
| B.Sc<br>(Physics)       | Loyola College,<br>Chennai. | Madras<br>University      | April<br>1990    | 68.0<br>First Class           |
| P.G.D.C.A               | Pondicherry<br>University   | Pondicherry<br>University | January<br>1999  | 75.27<br>First Class          |
| M.Ed                    | Annamalai<br>University     | Annamalai<br>University   | May<br>1996      | 65.7<br>First Class           |
| M. Sc.,<br>(Psychology) | Madras<br>University        | Madras<br>University      | December<br>2010 | Second<br>Class               |

**PROFESSIONAL EXPERIENCES:**

| Period                  | Designation         | Institution  | No. of             |                     |
|-------------------------|---------------------|--|--------------------|---------------------|
|                         |                     |  | Years              | Months              |
| Apr'2007 – Till date    | Lecturer            | Sir Theagaraya College,<br>Chennai.                        | 6                  | 6                   |
| June '2005 –March 2007  | Senior Lecturer     | VIT University,<br>Vellore                                 | 1                  | 10                  |
| Oct' 99 - May' 2005     | Lecturer<br>(H.O.D) | Magna College of<br>Engineering, Chennai.                  | 5                  | 08                  |
| July ' 94 - Sep' 99     | Lecturer            | St. Joseph's College of<br>Arts and Science,<br>Cuddalore. | 5                  | 03                  |
| <b>Total Experience</b> |                     |  | <b>19</b><br>Years | <b>03</b><br>Months |

**ORIENTATION / REFRESHER COURSES ATTENDED:**

1. Attended an orientation course organized by Academic Staff College, University of Madras from 01/11/2008 to 28/11/2008.
2. Attended a refresher course in Nanosciences organized by Academic Staff College, University of Madras from 18.11.2010 to 08.12.2010.
3. Attended a refresher course in Physics organized by Academic Staff College, University of Madras from 27.08.2013 to 16.09.2013

**SEMINAR & WORKSHOPS ATTENDED:**

1. Participated in the Short Term Training Programme under Continuing Education Programme on “**INSTRUMENTAL METHODS OF ANALYSIS FOR ENGINEERS AND SCIENTISTS**” at **Regional Sophisticated Instrumentation Centre** from 10.12.2001 to 14.12.2001 organized by **Indian Institute of Technology**, Chennai.
2. Participated in the workshop on “**SCIENCE COMMUNICATION & INTERACTIVE SCIENCE LEARNING FOR COLLEGE TEACHERS,**” held at Chennai on 30<sup>th</sup> October

2000, organized by **Education Australia (The Australian National University, Canberra)**.

3. Participated in the Short Term Training Programme on “**RECENT TRENDS IN ANALYTICAL INSTRUMENTATION**” held at **S.R.M Engineering College**, Kattankulathur on 1<sup>st</sup> and 2<sup>nd</sup> April 2005.
4. Organizing committee member, **National Laser symposium -2005** at VIT University, Vellore.
5. Organizing committee member, **XII Annual Conference on Medical Physics and Radiation Safety -2006** at VIT University, Vellore.
6. Attended **faculty development programme** organized by the Academic Staff College, VIT University, Vellore on 9<sup>th</sup>, 10<sup>th</sup>, 14<sup>th</sup>, and 15<sup>th</sup> June 2005.
7. Attended **soft skills training programme** conducted by Academic Staff College, VIT University, Vellore from 17.7.2006 to 28.9.2006.

**DETAILS OF RESEACH WORK:**

**a). TITLE OF THE THESIS / DISSERTATION :**

| <b>Sl.No.</b> | <b>Degree</b> | <b>Title of Dissertation / Thesis</b>  |
|---------------|---------------|--|
| 1             | Ph.D          | Investigation on the role of metallic dopants ( $Mg^{2+}$ , $Ba^{2+}$ and $Ca^{2+}$ ) on the growth, optical, thermal, mechanical and dielectric properties of potassium pentaborate (KB5) single crystals |
| 2             | M.Phil        | Analysis of pharmaceutical products by spectroscopic methods.  |
| 3             | M.Sc          | Growth and Characterization of solution grown mixed crystals of alkali halides.  |

**b). RESEARCH EXPERIENCE:** Eleven Years

**c). AREA OF RESEARCH: Materials Science** - Solid State Physics – Crystal Growth –  
Nonlinear optical materials

**d). PUBLICATIONS IN THE INTERNATIONAL JOURNALS**

1. Growth and Characterization of pure and doped potassium pentaborate (KB5) single crystals. **S. A. Rajasekar**, K. Thamizharasan, A. Joseph Arul Pragasam, J. Packiam Julius and P. Sagayaraj. Journal of Crystal Growth 247(2003)199.
2. The role of metallic dopants on the optical and photoconductivity properties of pure and doped potassium pentaborate(KB5) single crystals. **S. Abraham Rajasekar**, K. Thamizharasan, Joe G.M. Jesudurai, D. Prem Anand and P. Sagayaraj. Materials Chemistry and Physics, 84(2004)157.
3. Growth, Microhardness and Optical characterization of L-arginine hydrofluoride (LAHF) single crystals. J. Packiam Julius, **S.A. Rajasekar**, A. Joseph Arul Pragasam, V. Joseph and P. Sagayaraj. Materials Science and Engineering B, 107(2004)259.
4. Studies on Growth and characterization of L-arginium formate (LAF) single crystals. J. Packiam Julius, A. Joseph Arul Pragasam, **S.A. Rajasekar**, S. Selvakumar, A. Stephen. and P. Sagayaraj, Journal of Crystal Growth 267(2004)619.
5. Microhardness, FTIR and transmission spectral studies of  $Mg^{2+}$  and  $Zn^{2+}$  doped nonlinear optical BTCC single crystals. S. Selvakumar, J. Packiam Julius, **S.A. Rajasekar**, A. Ramanand, and P. Sagayaraj. Materials Chemistry and Physics, 89(2005)244.
6. Crystallization and characterization of L-histidinium perchlorate single crystal. Reena Ittyachan, S.Xavier Jesu Raja, **S.A. Rajasekar** and P. Sagayaraj Materials Chemistry and Physics, 90(2005)10.
7. Thermal, dielectric and photoconductivity studies on pure,  $Mg^{2+}$  and  $Zn^{2+}$  doped BTCC single crystals. S. Selvakumar, **S.A. Rajasekar**, K. Thamizharasan,

- S. Sivanesan, A. Ramanand and P. Sagayaraj, *Materials Chemistry and Physics*, 93(2005)356.
8. Growth and characterization of pure, benzophenone and iodine doped benzoyl glycine single crystals. D. Prem Anand, M. Gulam Mohamed, **S.A. Rajasekar**, S. Selvakumar, A. Joseph Arul Pragasam and P. Sagayaraj. *Materials Chemistry and Physics*, 97(2006)501.
  9. Growth and characterization of an organometallic nonlinear optical crystal of manganese mercury thiocyanate (MMTC). Ginson.P. Joseph, J. Philip, K. Rajarajan, **S.A. Rajasekar**, A. Joseph Arul Pragasam, K. Thamizharasan, S.M. Ravi Kumar and P. Sagayaraj. *Journal of Crystal Growth*, 296(2006) 51-57
  10. Growth and Characterization of a Novel Organometallic Nonlinear Optical Crystal: Bis(Thiourea) Cadmium Formate. S. Selvakumar, S. M. Ravi Kumar, K. Rajarajan, A. Joseph Arul Pragasam, **S. A. Rajasekar**, K. Thamizharasan, and P. Sagayaraj. *Crystal growth and design*, Vol. 6, No. 11, 2607-2610 (2006).
  11. Growth and characterization of L-histidine hydrochloride monohydrate single crystals. J. Madhavan, S. Aruna, P. C. Thomas<sup>1</sup>, M. Vimalan, **S. A. Rajasekar**, and P. Sagayaraj. *Cryst. Res. Technol.* 42, No. 1, 59 – 64 (2007).
  12. Growth and characterization of pure and doped bis(thiourea) cadmium acetate single crystals. S. Selvakumar, S.M. Ravikumar, Ginson P. Joseph, K. Rajarajan, J. Madhavan, **S. A. Rajasekar**, and P. Sagayaraj. *Cryst. Materials Chemistry and Physics*, 103(2007)153-157.

e). **PUBLICATION IN THE NATIONAL JOURNAL**

1. Growth, optical and thermal studies of L-arginine perchlorate<sup>3/4</sup>A promising nonlinear optical single crystal. S Aruna, A Anuradha , Preema C Thomas, M Gulam Mohamed, **S A Rajasekar**, M Vimalan,G Mani & P Sagayaraj. *Indian Journal of Pure and Applied Physics*, 45(2007)524.