


## Brief Biodata

**Name:** Dr. Srinivasa Rao Ragam

Designation:	Principal Scientist	
DP No. and Name:	Centre for Calibration and Testing	
DU No. and Name:	Directorate	
Email:	ragamsr@nplindia.org	
Date of Joining CSIR-NPL:	04.03.2013	
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### Research Area/ Interest

Major Areas of specialization : (i) Photonics (ii) Nonlinear Optics (iii) Semiconductors  
Specific Areas of specialization: (i) Terahertz Technology (ii) Solid-state Lasers  
(iii) Laser Spectroscopy

### Educational Qualifications

Degree	Subject	University/ Institute	Year
Ph.D	Engineering	Tohoku University, Sendai, JAPAN	2009
M.Sc (Tech)	Electronics	University of Hyderabad (HCU)	2003
M.Sc	Electronics	University of Hyderabad (HCU)	2002
B.Sc	Electronics	Andhra Loyola College, A.P	2000

### Academic / Research Experience

Grade / Post	Institute	Duration		Research Field
		From	To	
Principal Scientist	CSIR-National Physical Laboratory	04.03.2021	Till Date	Metrology, Photonics
Senior Scientist	CSIR-National Physical Laboratory	04.03.2017	03.03.2021	Photonics, Nonlinear Optics
Scientist	CSIR-National Physical Laboratory	04.03.2013	03.03.2017	Photonics, Materials Science
RIKEN Fellow	RIKEN, Japan	Feb. 2012	Feb. 2013	Terahertz (THz) TDS, BWO source
Visiting Scientist	Lehigh University, USA	Nov. 2009	Oct. 2012	Compact solid-state lasers, THz sources

**No. of Publications: 60**

No. of Publications in SCI Journals	No. of Publications in non-SCI Journals	No. of Publications in Conference Proceedings	Books	Total
21	Nil	36	3 (chapters)	60

**Selected Publications**

1. Ragam. S, Tanabe. T, Oyama. Y, Watanabe. K, Dezaki. H, Comparison of CW THz wave spectrometer with laser diode excitation and pulsed THz wave spectrometer with Cr: forsterite sources based on difference frequency generation of near-infrared lasers in GaP, *JOURNAL OF INFRARED MILLIMETER AND TERAHERTZ WAVES*, Vol. 31(10), pp. 1164-1170, OCT 2010.
2. Ragam. S, Tanabe. T, Saito. K, Oyama. Y, Nishizawa. J, Enhancement of CW THz wave power under noncollinear phase-matching conditions in difference frequency generation, *JOURNAL OF LIGHTWAVE TECHNOLOGY*, Vol. 27(15), pp. 3057-3061, AUG 2009.
3. Zhao. P, Ragam. S, Ding. YJ, Zotova. IB, Terahertz intracavity generation from output coupler consisting of stacked GaP plates, *APPLIED PHYSICS LETTERS*, Vol. 101(2), pp. 021107, JUL 2012.
4. Zhao. P, Ragam. S, Ding. YJ, Zotova. IB, Mu. XD, Lee. HC, Meissner. SK, Meissner. H, Singly resonant optical parametric oscillator based on adhesive-free-bonded periodically inverted KTiOPO4 plates: terahertz generation by mixing a pair of idler waves, *OPTICS LETTERS*, Vol. 37(7), pp. 1283-1285, APR 2012.
5. Zhao. P, Ragam. S, Ding. YJ, Zotova. IB, Investigation of terahertz generation from passively Q-switched dual-frequency laser pulses, *OPTICS LETTERS*, Vol. 36(24), pp. 4818-4820, DEC 2011.
6. Ding. YJ, Zhao. P, Ragam. S, Li. D, Zotova. IB, Recent progress on terahertz generation based on difference frequency generation: from power scaling to compact and portable sources, *CHINESE OPTICS LETTERS*, Vol. 9(11), pp. 110004, NOV 2011.
7. Ding. YJ, Zhao. P, Ragam. S, Li. D, Zotova. IB, Review on parametric generation of terahertz wave: from maximum conversion efficiency to new route to compact and portable sources, *JOURNAL OF NONLINEAR OPTICAL PHYSICS & MATERIALS*, Vol. 20(3), pp. 249-270, SEP 2011.
8. Tanabe. T, Ragam. S, Oyama. Y, Continuous wave terahertz wave spectrometer based on diode laser pumping: Potential applications in high resolution spectroscopy, *REVIEW OF SCIENTIFIC INSTRUMENTS*, Vol. 80(11), pp. 113105, NOV 2009.

**Patents**

No. of Patents: 3 (1 US patent, 2 Japanese patents)

**Current Activities**

(Not more than 100 words)

Managing day to day activities of Centre for Calibration and Testing

### Honour(s)/Award(s)/ Fellowship(s)

- Technology Transfer Award at CSIR-NPL (2017)
- RIKEN FPR Fellowship from Japanese Government (2011).
- US National Science Foundation Fellowship (2009).
- Global COE (Centre of Excellence), MEXT, Japan (2007).
- Mombukagusho Scholarship from Japanese Government (2005).
- Research Fellowship from ISRO (2003).
- Received Gold medal in Undergraduate, Acharya Nagarjuna University (2000).

### Contributions to AcSIR

NA

### Membership of Professional Societies/ Institutions

Metrology Society of India. Life Member

### Any other Information

*(Not more than 100 words)*

#### **R &D Projects:**

- Successfully completed a consultancy project CNP160132 entitled” Development of blue laser at 457 nm based on SHG” funded by DRDO-Dehradun. Project completion date: 06<sup>th</sup> June, 2018.
- Successfully completed a consultancy project CNP150132 entitled” Development of a THz spectroscopy system using DFG” funded by DRDO-IRDE. Project completion date: 04<sup>th</sup> February, 2016.
- **High-end Equipment Handled:** Bolometer, Lock-in-amplifier, External cavity and Distributed feedback Laser diodes, High power fiber-amplifiers, Solid-state lasers, OPO and OPA, Ultrafast Ti-sapphire lasers/ amplifiers, Backward- wave oscillator (BWO) and TUNNET diode.