

CURRICULUM VITAE of Dr.K.MARIMUTHU



1. Present Position

*Assistant Professor
Department of Physics
Gandhigram Rural University
Gandhigram -624 302
Dindigul - Dist
Tamilnadu, India
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2. Academic Qualifications

Ph.D., : Gandhigram Rural University, Gandhigram - 2002

P.G.D.C.A., : Madurai Kamaraj University, Madurai - 1999

M.Sc., : Bharathidasan University, Tiruchirappalli - 1994

B.Sc., : Bharathidasan University, Tiruchirappalli - 1992

3. Teaching & Research experience

Teaching : 6 years

Research : 10 years

4. Current area of Research

1. Phosphors
2. Luminescence studies on Glasses and Ceramics

5. Membership in Professional bodies

1. Life member - Luminescence Society of India
2. Life member - Indian Society for Technical Education

6. Membership Academic bodies

1. Member, Board of studies in Physics, Gandhigram Rural University, Gandhigram.

7. No. of Ph.D's Guiding : Four

8. Participation in Extra-curricular activities:

- NSS program officer
- Red Ribbon Club-Program officer
- Deputy warden

9. List of Projects Completed/ On going

Sl. No	Title of Project	Sponsoring Agency	Sum Assured	Period	Status
1.	Luminescence and Energy Transfer Studies on Ln^{3+} ions in Oxide Glasses for the Development of Blue, Green Lasers	DRDO	4.90 lakhs	2011-2012	On going

10. International Assignments

1. Served as a resource person in the in-service teachers training programme organized by Asst. High Commission of India, Kandy and the Ministry of Education Central Province, Hatton, Sri Lanka, December 05-14, 2009.
2. Served as a resource person in the in-service teachers training programme organized by Asst. High Commission of India, Kandy and the Ministry of Education Central Province, Hatton, Sri Lanka, August 10-19, 2010.

11. List of Publications

11.1. International Journals:

1. A compressing machine for briquetting biomass waste into usable fuel
K.Marimuthu, S.Arumugam, S.Ramamurthy and E.Savarimuthu – *Boiling Point*. 43 Autumn (1999) 8.
2. Apatites and Britholites, are they akin – as probed by Eu^{3+} luminescence?
K.Marimuthu, L.C. Nehru, A.Mani, R.Ramesh, G.Muralidharan and R.Jagannathan – *J.Physics: Condens.matter* 13 (2001) 553.
3. Ce^{3+} - doped stillwellites: a new luminescent system with strong ion lattice coupling
L.C. Nehru, **K.Marimuthu**, M.Jayachandran, Chung-Hsin Lu and R.Jagannathan - *J.Physics. D:Appl.Phys.* 34 (2001) 2599.
4. A drying model and performance analysis of a forced solar hot air drying chamber for castor capsules
K.Marimuthu, M.Sivaraman, S.Arumugam, *International Journal of Integrated Energy systems*, Vol1, (2009) 145.
5. Structural and Optical studies of Eu^{3+} ions in alkali borate glasses

K. Marimuthu, S. Surendra Babu, G. Muralidharan, S.Arumugam, C. K. Jayasankar – *Physica Status Solidi a*, 206 (2009) 131.

6. *Structural and Spectroscopic investigations on Eu³⁺ doped alkali fluoroborate glasses*

K.Marimuthu, R.T.Karunakaran, S.Surendra Babu, G.Muralidharan, S.Arumugam, C.K.Jayasankar, *Solid State Sciences* 11 (2009) 1297.

7. *Structural, Optical and Thermal investigations on Dy³⁺ doped NaF- Li₂O-B₂O₃ glasses,*

R.T.Karunakaran, **K.Marimuthu**, S.Surendra Babu, S.Arumugam, *Physica B*, 404 (2009) 3995.

8. *Dysprosium doped alkali fluoroborate glasses – Thermal, structural and optical investigations,*

R.T.Karunakaran, **K.Marimuthu**, S.Surendra Babu, S.Arumugam, *Journal of Luminescence*, 130 (2010) 1067.

9. *Structural, Optical absorption and Luminescence properties of Nd³⁺ ions in Na₂O-NaF borate glasses,*

R.T.Karunakaran, **K.Marimuthu**, S.Surendra Babu, S.Arumugam, *Optical Materials*, 32 (2010) 1035.

10. *Structural, optical and thermal studies of Eu³⁺ ions in lithium fluoroborate glasses,*

R.T.Karunakaran, **K.Marimuthu**, S.Surendra Babu, S.Arumugam, *Solid State Sciences*, 11 (2009) 1882.

11. *Composition dependent structural and optical properties of Sm³⁺ doped sodium borate and sodium fluoroborate glasses.*

S.Shanmuga Sundari, **K. Marimuthu**, M.Sivraman, S. Surendra Babu, *Journal of Luminescence*, 130 (2010) 1313.

12. *Concentration dependent structural, optical and thermal investigations of Dy³⁺ doped sodium fluoroborate glasses.*

I.Arul Rayppan, **K. Marimuthu**, S. Surendra Babu, M.Sivraman *Journal of Luminescence*, 130 (2010) 2407.

13. 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 (2010) 548.
14. Structural and optical investigations on Dy³⁺ doped boro-tellurite glasses
K. Maheshvaran, **K. Marimuthu**, *Journal of Alloys and Compounds* 509 (2011) 7427.
15. Composition dependent structural and optical properties of Sm³⁺ doped boro-tellurite glasses
K. Maheshvaran, K.Linganna, **K.Marimuthu**, *Journal of Luminescence* 131 (2011) 2746.
16. Thermal, Structural and Spectroscopic investigations on Eu³⁺ doped boro-tellurite glasses
K.Selvaraju, **K.Marimuthu**, T.K.Seshagiri, S.V.Godbole, Accepted for publication in *Journal of Material Chemistry and Physics* (10.1016/j.matchemphys.2011.09.006)

11.2. National Journals:

1. Microprocessor based stepper controlled beam and total solar radiation measuring system
K.Marimuthu, S.Venkataraman and G.Muralidharan – *BULL IAPT* July, (2001) 211-214.
2. Microprocessor based sound pressure recorder
K.Marimuthu, G.Muralidharan, P.Vickraman, K.Sasi Kumar and A.Edward Durai – *J.Curr.Sci* 3(1), (2003) 125-128 .
3. Microprocessor based capacitance meter
Ramya Krishnan, **K.Marimuthu**, G.Muralidharan, E.Savarimuthu and S.Ramamurthy – *BULL IAPT* June 2004.

4. *Microprocessor based solar insolation recorder*

K.Marimuthu, S.Venkataraman, R.V.Senthilkumar and A.Pandi –
J.Instrum.Soc.India, 29 (4) 187-190.

12. Short term courses attended

1. *Attended Eighth Annual Convention of ISTE- on Innovations in Engineering Education – Trends and Focus at PSNA college of Engineering and Technology, Dindigul during 28th & 29th October 2005*
2. *Attended UGC sponsored Workshop on Solar Energy Systems and Utilization organized by Department of Physics, Gandhigram Rural Institute-Deemed University, Gandhigram during 25th & 26th March 2004.*
3. *Attended UGC and UNICEF sponsored National Workshop on Promotion of Life Skills Among Adolescents organized by Department of Home Science, Gandhigram Rural Institute-Deemed University, Gandhigram during 23rd to 25th January 2006.*
4. *Participated in the NSS Orientation programme for Programme officers at Avinashilingam University from 24.10.07 to 02.11.07.*
5. *Attended UGC sponsored Refresher Course in Physical Sciences held at Academic Staff college, Bharathiar Universty, Coimbatore between 18.01.2008 to 07.02.2008.*
6. *Attended UGC sponsored State level Workshop on Optical Communication organized by Department of Physics, Gandhigram Rural Institute-Deemed University, Gandhigram during 28th & 29th March 2008.*
7. *Attended BRNS-DAE sponsored 73rd BRNS-IANCAS National Workshop on Radiochemistry and Applications of radioisotopes organized by Department of Physics, Gandhigram*

Rural Institute-Deemed University, Gandhigram during 20th to 26th September 2010.

8. Attended UGC sponsored Refresher Course in Renewable Energy at Rural Energy Centre, Gandhigram Rural Institute- Deemed university, Gandhigram between 01.12.2010 to 22.12.2010
9. Attended Two days Theme meeting on “Laser Glass Science & technology” organized by Department of Physics, Srivenkateswara University, Tirupati, India during March 1st and 2nd , 2011.

13. Papers presented in International / National Conferences /Symposia

1. Microprocessor based stepper controlled Beam and Total solar radiation measuring system

Proceedings of the 23rd National Renewable energy convention '99 “Renewable Energies on Energy Efficiency for sustainable Development” held at Devi Ahilya Vishwavidyalaya, Indore during 20-22nd December 1999.

K.Marimuthu, S.Venkatraman, G.Muralidharan

2. Effect of bandgap shrinkage on the graded band gap solar cell

Proceedings of the 23rd National Renewable energy convention '99 “Renewable Energies an Energy Efficiency for sustainable Development” held at Devi Ahilya Vishwavidyalaya, Indore during 20-22nd December 1999.

K.M.Ajith, **K.Marimuthu**, K.Jayakumar

3. Photoluminescence of Sm³⁺ ions in sodium borate and sodium fluoroborate glasses

National Conference on Advanced Materials, Devices and Technologies (NCAMDT-2008), held at Department of Physics,

Srivenkateswara University, Tirupati, India during February 20-22, 2008.

K.Marimuthu, S.Surendra Babu, G.Muralidharan,
C.K.Jayasankar

4. *Spectroscopic investigations on Eu³⁺ doped alkali fluoroborate glasses*

53rd DAE Solid State Symposia (DAE-SSPS 2008), organized by BARC, Mumbai during 16th to 20th December 2008.

K.Marimuthu, S.Surendra Babu, G.Muralidharan, S.Arumugam
C.K.Jayasankar

5. *Structural and Optical studies of Nd³⁺ ions in sodium borate and sodium fluoroborate glasses*

International conference on Active/Smart Materials held at Thiagarajar college of Engineering, Madurai, India during 7th to 9th January 2009

R.T.Karunakaran, **K.Marimuthu**, S.Surendra Babu, S.Arumugam

6. *Photoluminescence and FTIR of Dy³⁺ in Sodium Lithium Fluoroborate glasses*

National conference on Luminescence and its Applications (NCLA-2009) held at Jadavpur University (JU) Kolkata, India during 19th to 21st February 2009

R.T.Karunakaran, **K.Marimuthu**, S.Surendra Babu,
S.Arumugam, G.Muralidharan, C.K.Jayasankar

7. *Spectroscopic investigations on Dysprosium doped Alkali Fluoroborate glasses*

National conference on Luminescence and its Applications (NCLA-2009) held at Jadavpur University (JU) Kolkata, India during 19th to 20th February 2009

*R.T.Karunakaran, **K.Marimuthu**, S.Surendra Babu, S.Arumugam*

8. *A drying model and performance analysis of a forced solar hot air drying chamber for castor capsules*

National conference on Energy Security for Rural Development held at Gandhigram Rural University (GRU)TamilNadu, India on 26th March 2009

***K.Marimuthu**, M.Sivaraman, S.Arumugam*

9. *Luminescence studies on Dy³⁺ doped Sodium Fluoroborate glasses*

National conference on Luminescence and its Applications (NCLA-2010) held at Gandhigram Rural Institute-Deemed University, Gandhigram, India during 9th to 11st February 2010

*S.Arunkumar, K.Maheshwaran, **K.Marimuthu***

10. *Structural, Thermal and Photoluminescence studies on concentration dependent Dy³⁺ doped Alkali Borate glasses*

National conference on Luminescence and its Applications (NCLA-2010) held at Gandhigram Rural Institute-Deemed University, Gandhigram, India during 9th to 11st February 2010

*I.Arul Rayappan, K.Selvaraju, **K.Marimuthu***

11. *Spectroscopic studies on Eu³⁺ doped Boro-tellurite glasses*

55th DAE Solid State Symposia (DAE-SSPS 2010), organized by BRNS, at Manipal University, Manipal during 26th to 30th December 2010.

*K.Selvaraju, **K.Marimuthu***

12. *Structural and Optical Studies on Dy³⁺ Doped Boro-Tellurite Glasses*

55th DAE Solid State Symposia (DAE-SSPS 2010), organized by BRNS, at Manipal University, Manipal during 26th to 30th December 2010.

*K.Maheshwaran, **K.Marimuthu***

13. *Structural and Optical properties of Sm³⁺ doped Boro-tellurite glasses*

International Conference Advanced Materials and Applications, (ICAMA-2011) organized by Kalasalingam University, Virudhunagar, India during 4th and 5th March 2011.

*K.Maheshwaran, **K.Marimuthu***

14. *Structural and Optical studies on Er³⁺ doped Boro-tellurite glasses*

International Conference Advanced Materials and Applications, (ICAMA-2011) organized by Kalasalingam University, Virudhunagar, India during 4th and 5th March 2011.

*K.Selvaraju, **K.Marimuthu***

14. Personal details

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|--------------------------|---------------------|
| 1. Date of Birth | : 04.09.1972 |
| 2. Sex | : Male |
| 3. Nationality | : Indian |
| 4. Religion | : Hindu |
| 5. Marital status | : Married |

6. Residential address

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