

CURRICULUM VITAE

Dr. S. MUNIYAPPAN

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EDUCATIONAL QUALIFICATION

- M. Sc., B. Ed., M. Phil., Ph. D.

WORKING EXPERIENCE

S.No .	Positions held	Name of the Institute	From	To	Duration
1	Assistant Professor	PG Department of Physics, Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai, Tamil Nadu, India	Nov-2021	Present	Present
2	Post Doctoral Fellow	SSN Research Centre, SSN College of Engineering, Chennai, Tamil Nadu, India	Jan-2021	Sep-2021	9 Months
2	Research Scholar	Pachaiyappa's College, Chennai, Tamil Nadu, India	Jan-2015	Jul - 2019	4.5 years

AWARDS/RECOGNITION

- Received **Best Poster Presentation Award** in International Conference on Smart Materials (ICSM -2015) during 11-12, February 2015 organized by Sacred Heart College, Tirupattur.

- Received **Best Poster Presentation Award** in 23rd National Seminar Growth and Applications (XXIII NSCGA - 2019 during 28-30, January 2019 organized by Bharathiar University in association with Indian Association for Crystal Growth (IACG), Coimbatore.

EDUCATIONAL DETAILS

Degree/ Examination	Month & Year of Passing	School/Institute	Percentage (%)
Ph. D., Physics	July- 2019	Pachaiyappa's College, University of Madras, Chennai.	Highly Commended (By Thesis)
M. Phil., Physics	August- 2013	Loyola College, Chennai.	80.70
M.Sc., Physics	April-2012	Pachaiyappa's College, Chennai.	74.90
B.Ed., Physical Sciences	June-2010	Lakshmi College of Education, Gandhigram, Dindigul District.	74.30
B.Sc., Physics	April-2009	Gandhigram Rural University, Gandhigram, Dindigul District	73.94
H.Sc.,	March-2006	John Paul Higher Secondary School, Dindigul.	79.91
S.S.L.C.,	April-2004	MSP Solai Nadar Memorial Higher Secondary School, Dindigul.	87.60

PROJECT WORKS COMPLETED

- Worked in a project entitled “**Investigation on diverse properties of cadmium sulphide quantum dots and titanate nanotubes: Suitability of materials for quantum dot sensitized solar cell application**” during my **Ph. D.**
- Worked in a project entitled “**Effect of pH on synthesis of TiO₂ nanotubes by electrochemical anodization**” during my **M. Phil.**
- Worked in a project entitled “**CTAB assisted hydrothermal synthesis of zinc-oxide nanoparticles**” during my **M. Sc.**
- Worked in a project entitled “**Synthesis, structural and spectral analysis of europium doped alkali fluoro borate glasses**” during my **B.Sc.**

PUBLICATIONS

- [1] Oleic acid capped cadmium sulphide (CdS) quantum dots: Discussions on synthesis, structural, optical and morphological behavior
S. Muniyappan, P. Murugakoothan, **Materials Letters**, (2018), Vol. 220, pp. 277-280. **IF: 2.68**
- [2] Effective chemical route for the synthesis of thiophenol stabilized cadmium sulphide (CdS) quantum dots: compact discussions on the structural, morphological, optical and dielectric properties
S. Muniyappan, T. Solaiyammal, K. Sudhakar, S. Nandhini, P. Murugakoothan, **Journal of Material Science: Materials in Electronics**, (2018), Vol. 29, pp. 2899–2906. **IF: 2.32**
- [3] Conventional hydrothermal synthesis of titanate nanotubes: Systematic discussions on structural, optical, thermal and morphological properties
S. Muniyappan, T. Solaiyammal, K. Sudhakar, A. Karthigeyan, P. Murugakoothan, **Modern Electronic Materials**, (2017), Vol. 3, pp. 174–178.
- [4] Influence of annealing temperature on structural, morphological and optical properties of CTAB assisted cadmium sulphide (CdS) quantum dots: Promising candidate for quantum dot sensitized solar cell (QDSSC) applications

S. Muniyappan, T. Solaiyammal, B. Gomathi thanga keerthana, P. Vivek, P. Murugakoothan, **Journal of Materials Science: Materials in Electronics**, (2017), Vol. 28, pp. 11317-11324.

IF: 2.32

- [5] Effect of pH on synthesis of TiO₂ nanotubes by electrochemical anodization
S. Muniyappan, Shibu Joseph, Manovah David, P. Sagayaraj, P. Murugakoothan, **Indo-Asian Journal of Multidisciplinary Research**, (2015), Vol. 1, pp. 418-421.

- [6] Synthesis of Ag and the effect of Ag on the efficiency of TiO₂ based dye sensitized solar cell
T. Solaiyammal, **S. Muniyappan**, B.Gomathi Thanga Keerthana, Siva sankar nemala, Parag Bhargava, P. Murugakoothan, **Journal of Material Science: Materials in Electronics**, (2017), Vol. 28, pp. 15423-15434.

IF: 2.32

- [7] Hydrothermal synthesis and characterization of TiO₂ nanostructures prepared using different solvents
B. Gomathi Thanga Keerthana, T. Solaiyammal, **S. Muniyappan**, P. Murugakoothan, **Materials Letters**, (2018), Vol. 220, pp. 20-23.

IF: 2.68

- [8] Systematic discussion on structural, optical, mechanical, electrical and its application to NLO devices of a semi-organic single crystal: Guanidinium tetrafluoroborate (GFB)
S. Nandhini, K. Sudhakar, **S. Muniyappan**, P. Murugakoothan, **Journal of Optics and Laser technology**, (2018), Vol. 105, pp. 249-256

IF: 2.50

- [9] Synthesis, crystal growth, optical, thermal and mechanical properties of a nonlinear optical single crystal: Ammonium sulfate hydrogen sulphamate (ASHS)
K. Sudhakar, S. Nandhini, **S. Muniyappan**, P. Murugakoothan, **Applied Physics A**, (2018), Vol. 124, pp. 334

IF: 1.60

- [10] Structural and optical properties of polyvinyl pyrrolidone (PVP) capped cadmium sulphide (CdS) nanoparticles: Potential entity for optoelectronic

device applications

S. Muniyappan, K. Sudhakar, P. Murugakoothan, **Science and Technological Research Journal**, (2018), Vol. 1, pp. 60-64.

- [11] Green Synthesis of Silver nanoparticles using *pipe nigrum* extract for Dye Sensitized Solar Cell Applications
T. Solaiyammal, **S. Muniyappan**, B. Gomathi Thanga Keerthana, K. Perumal, P. Murugakoothan, **Science and Technological Research Journal**, (2018), Vol. 1, pp. 53-59.
- [12] Synthesis, structural, optical, morphological and elemental characterization of CTAB capped CdS quantum dots by facile chemical precipitation technique
S. Muniyappan, V. M. Arivunithi, T. Solaiyammal, K. Sudhakar, R. Roop Kumar, P. Murugakoothan, **Springer Proceedings in Physics**, (2017), Vol. 189, pp. 341-348
- [13] Exploration on structural and luminescent properties of cadmium sulphide (CdS) nanoparticles for laser device applications
S. Muniyappan, P. Murugakoothan, **National Laser Symposium Proceedings**, (2017) (Accepted).
- [14] 3-mercaptopropionic acid (3-MPA) capped cadmium sulphide (CdS) nanoparticles for laser device applications: Structural and luminescent properties
S. Muniyappan, P. Murugakoothan, **National Laser Symposium Proceedings (2018)** (Accepted).
- [15] Growth and characterization of a potential organic NLO single crystal: Guanidinium 4-Aminobenzene Sulfonate (GuAS)
S. Nandhini, K. Sudhakar, **S. Muniyappan**, P. Murugakoothan, **Materials Today Proceedings**, (2019), Vol. 8, pp. 256-263
- [16] A methodical approach to physico-chemical analysis of Bis (potassium hydrogen l-malate).malic acid - A semi-organic single crystal for nonlinear optical applications
K. Sudhakar, **S. Muniyappan**, P. Murugakoothan, **Optical Materials**, (2019), Vol. 96, pp. 109182

- [17] Quantum chemical analysis on supramolecular assemblies of guanidinium tetrafluoroborate (GFB) crystal structure: Emission and NLO behavior
S.Nandhini, **S.Muniyappan**, Venkadeshkumar Ramar, Karthikeyan Balasubramanian, P.Murugakoothan, **Journal of Molecular Structure**, (2019), Vol. 1198, pp. 126859 **IF: 2.12**
- [18] Effect of different polyvinylpyrrolidone and 3-mercaptopropionic acid concentrations on structural, morphological, and optical properties of cadmium sulfide quantum dots
S. Muniyappan, S. Anand, A. Manikandan, P. Karuppasamy, Muthu Senthil Pandian, P. Ramasamy and P. Murugakoothan, **Journal of Material Science: Materials in Electronics**, (2021),
DOI: <https://doi.org/10.1007/s10854-021-07341-z> **IF: 2.32**

PAPERS PRESENTED IN NATIONAL/INTERNATIONAL CONFERENCES

- [1] Effect of pH on synthesis of TiO₂ nanotubes by electrochemical anodization
International Conference on Smart Materials (ICSM -2015) during 11-12, February 2015 organized by Sacred Heart College, Tirupattur – Secured the 1st prize for poster presentation.
S. Muniyappan, Shibu Joseph, Manovah David, P.Sagayaraj,
P. Murugakoothan
- [2] Effect of pH on synthesis of TiO₂ nanotubes by electrochemical Anodization
19th National Seminar on Crystal Growth (XIX NSCG-2015) during 12-14, March 2015 organized by VIT University in association with Indian Association for Crystal Growth (IACG), Vellore.
S. Muniyappan, P. Murugakoothan
- [3] Effect of pH on synthesis of TiO₂ nanotubes by electrochemical anodization for solar cell applications
National Conference on Materials Science and Technology (NCMST-2015) during 6-8, July 2015 organized by Indian Institute of Space Science and Technology, Thiruvananthapuram.
S. Muniyappan, P. Murugakoothan

[4] Synthesis, Structural, Optical Morphological and Elemental Characterization of CTAB capped CdS Quantum Dots by Facile Chemical Precipitation Technique
International Conference on Recent Trends in Materials Science and Applications (ICRTMSA-2016) on 29th January, 2016 organized by Jamal Mohamed College, Tiruchirappalli.

S. Muniyappan, P. Murugaakoothan

[5] Synthesis and Characterization of CTAB assisted cadmium sulphide (CdS) nanoparticles
National Conference on Materials Science and Technology (NCMST-2016) during 12-14, July, 2016 organized by Indian Institute of Space Science and Technology, Thiruvananthapuram.

S. Muniyappan, P. Murugakoothan

[6] Synthesis, structural and optical properties of thiophenol stabilized cadmium sulphide (CdS) nanoparticles
Chennai Nanogathering 2017, National Conference on Nanomaterials and Nanobiotechnology during 7-8, February 2017 organized by National Centre for Nanoscience and Nanotechnology, University of Madras, Chennai.

S. Muniyappan, P. Murugakoothan

[7] Influence of annealing temperature on structural, morphological and optical properties of CTAB assisted cadmium sulphide (CdS) quantum dots: Promising candidate for quantum dot sensitized solar cell (QDSSC) applications
21st National Seminar on Crystal Growth and Applications (21st NSCGA) during 6-8, March 2017 organized by National College in association with Indian Association for Crystal Growth (IACG), Tiruchirappalli.

S. Muniyappan, P. Murugakoothan

[8] Oleic acid capped cadmium sulphide (CdS) quantum dots for photovoltaic device applications
International Symposium on Nanomaterials for Clean Energy and Health Applications (ISNCHA-2017) during 6-8, December 2017 organized by

Coimbatore Institute of Technology, Coimbatore.

S. Muniyappan, P. Murugakoothan

- [9] Exploration on structural and luminescent properties of cadmium sulphide (CdS) nanoparticles for laser device applications

National Laser Symposium (NLS-26) during 20-23rd December 2017 organized by Bhabha Atomic Research Centre, Mumbai.

S. Muniyappan, P. Murugakoothan

- [10] Effective chemical route for the synthesis of thiophenol stabilized cadmium sulphide (CdS) quantum dots: Compact discussions on the structural, morphological, optical and dielectric properties

22nd National Seminar on Crystal Growth and Applications (XXII NSCGA - 2018 during 29-31, January 2018 organized by Sacred Heart College in association with Indian Association for Crystal Growth (IACG), Tirupattur.

S. Muniyappan, T. Solaiyammal, K. Sudhakar, S. Nandhini, P. Murugakoothan

- [11] Structural and optical properties of polyvinyl pyrrolidone (PVP) capped cadmium sulphide (CdS) nanoparticles: Potential entity for optoelectronic device applications

National Conference on Recent Trends in Physics of Materials – 2018 (NCRTPM-2018) during 9-10, February 2018 organized by PG and Research Department of Physics, Pachaiyappa's College, Chennai.

S. Muniyappan, P. Murugakoothan

- [12] Structural and optical properties of 3-mercaptopropionic acid (3-MPA) capped cadmium sulphide (CdS) nanoparticles

International Symposium on Crystallography and Advanced Materials (ISCAM-2018) during 26-27, March 2018 organized by Department of Crystallography & Biophysics, University of Madras, Chennai.

S. Muniyappan, P. Murugakoothan

- [13]. Exploration on 3-mercaptopropionic acid capped cadmium sulphide quantum dots for photovoltaic device applications : Structural, morphological and optical properties

International Conference on Nanomaterials for Energy, Environment and Healthcare Applications (ANEH-2018) during August 31st – September 1, 2018

organized by KSR College of Arts and Science, Tiruchengode in association with Swansea University, United Kingdom.

S. Muniyappan, P. Murugakoothan

- [14] 3-mercaptopropionic acid (3-MPA) capped cadmium sulphide (CdS) nanoparticles for laser device applications: Structural and luminescent properties

National Laser Symposium (NLS-27) during 3-6th December 2018 organized by Raja Ramanna Centre for Advanced Technology, Indore.

S. Muniyappan, P. Murugakoothan

- [15] Effect of 3-mercaptopropionic acid (3-MPA) concentration on structural, morphological and optical properties of cadmium sulphide (cds) quantum dots
23rd National Seminar on Crystal Growth and Applications (XXIII NSCGA - 2019 during 28-30, January 2019 organized by Bharathiar University in association with Indian Association for Crystal Growth (IACG), Coimbatore.

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WORKSHOP ATTENDED

- Participated in the workshop on **“Spectroscopy and its Perspectives”** during 10-12, September 2015 organized by Sacred Heart College, Tirupattur.
- Participated in the workshop on **“National Workshop and Hands on Training Program on Thin Film Solar Cells”** during 11-12, November 2016 organized by Centre for Nanoscience and Technology, Anna University, Chennai.
- Participated in the workshop on **“UGC XII Plan Short term course on State of the art Analytical Equipment”** during 9-10, January 2017 organized by Crystal Growth Centre, Anna University, Chennai.
- Participated in the workshop on **“Advanced Materials Characterization Techniques”** on 16th February 2018 organized by Rajalakshmi Engineering College, Chennai.

AREA OF INTEREST

- Quantum Dots
- Optical Spectroscopy and Electron Microscopy

MEMBER OF PROFESSIONAL ASSOCIATION

- Member of “**Indian Association for Crystal Growth**”

INSTRUMENTS HANDLED

- UV-Visible Spectrometer,
- Photoluminescence Spectrophotometer.

TECHNICAL SKILLS

- Languages : Basics of C and C++
- Certification : Post Graduate Diploma in Computer Programmin
Programming

EXTRA CURRICULAR ACTIVITIES

- Member of **National Service Scheme** and actively participated in TWO Camps during B.Sc.
- Participated in the 5 days **State Level Adventure Trekking Programme** during the year 2009.

REFERENCES

Prof. R. Jayavel,
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Dr. P. Murugakoothan
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Pachaiyappa's College,
Chennai – 600 030
Tamil Nadu
India
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murugakoothan03@yahoo.co.in
Phone: +91-9444447586

PERSONAL DETAILS

- Father's Name : P. Subramani
- Mother's Name : S. Bathma
- Date of Birth : 5th April 1989
- Gender : Male
- Nationality : Indian
- Religion : Hindu
- Community : BC
- Marital status : Married
- Languages known : Tamil, English
- Permanent Address : 2/718, Rajakkapatti, Collectorate (PO),
Dindigul-624 004, Tamil Nadu, India.

I hereby declare that the above particulars are true to the best of my knowledge and belief.

[S. MUNIYAPPAN]