

Dr. S. RANJITH, M.Sc., Ph.D
Associate Professor
Department of Physics
SRM Institute of Science and Technology
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Scopus ID: 25825364000



ACADEMIC DETAILS

Ph.D (Physics) -Presidency College, Chennai, University of Madras - December 2012

M.Sc (BioPhysics) - University of Madras - 2007

B.Sc (Physics)- Presidency College, Chennai - 2005

TEACHING EXPERIENCE

Working as an Assistant Professor (Senior Grade) in the Department of Physics, SRM Institute of Science and Technology, Ramapuram Campus, Chennai from 5th July 2013 to till date.

Total Teaching Experience: **10.8 Years**

BROAD AREA OF RESEARCH

Experimental:

Crystallography & Biophysics

Topics of Interest:

X-ray Crystallography
Synthesis of Natural compounds
Protein Purification
Crystal Growth
Molecular Docking

RECOGNITION AS RESEARCH SUPERVISOR

Recognized as a “Research Supervisor” for guiding research scholars for the award of Ph.D degree in SRM Institute of Science and Technology, Kattankulathur under the Faculty of Science and Humanities in the area of Physics and Materials Science.

No. of Candidate’s awarded with Ph.D : 1

Mr. R. Nagaraj Completed Ph.D on 24th February 2023

PUBLICATIONS IN REPUTED INTERNATIONAL JOURNALS

1. Synthesis, crystal growth, structural and physicochemical properties of N-methylurea benzoic acid single crystal for non-linear optical applications

T. Bharanidharan, A. Senthil, **S. Ranjith**

Journal of Molecular Structure, Volume 1281, 5 June 2023, 135136

2. Studies on the DFT calculations and molecular docking of versatile molecular sensor 1-(6-Aminopyridin-2-yl) -3-(4-nitrophenyl) urea

K. Sathesh Kumar, N. Haridharan, **S. Ranjith**, A. Nataraj

Chemical Physics Impact, Volume 6, June 2023, 100139

3. Structural investigations of halogen substituted 1,4-dihydropyridine derivatives: Crystallographic and computational studies

JayashreeEthiraj, **Ranjith Sekar**, BhaskaranShankar, Moola JogheeNanjan,

R.K.Sankaranarayanan, Khanh B.Vu

Journal of Molecular Structure, Volume 1251, 5 March 2022, 132008

4. Crystallographic and computational investigations of structural properties in phenyl and methoxy phenyl substituted 1,4 dihydropyridine derivatives

JayashreeEthiraj, R.Ajin, R.K.Sankaranarayanan, **Ranjith Sekar**, Dhinakaran Veeman, Moola Joghee Nanjan, Jithin John Varghese

Journal of Molecular Structure, Volume 1254, 15 April 2022, 132378

5. Realizing enhanced down-conversion photoluminescence and Judd–Ofelt parameters of novel reddish-orange emitting $\text{KBaScSi}_3\text{O}_9:\text{xSm}^{3+}$ silicate phosphors

R.Nagaraj, R.Vijayakumar, N.Karunagaran, Arumugam Raja, **S.Ranjith**

Materials Science and Engineering: B, Volume 276, February 2022, 115537

6. Influence of Dy^{3+} ion concentration on photoluminescence and energy transfer mechanism of promising $\text{KBaScSi}_3\text{O}_9$ phosphors for warm white LEDs

R.Nagaraj, Vijayakumar Rajagopal, ArumugamRaja, **S.Ranjith**

Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy

Volume 264, 5 January 2022, 120212

7. Synthesis and luminescence properties of novel red-emitting Eu³⁺ ions doped silicate phosphors for photonic applications
R. Nagaraj, Arumugam Raja, **S. Ranjith**
Journal of Alloys and Compounds, Volume 827, 25 June 2020, 154289.
8. Investigation on structural, optical, thermal and mechanical properties of 1,3-dinitrobenzene (1,3-DNB) single crystal.
R. Nagaraj, K. Ramachandran, K. Aravindh, **S. Ranjith**
Journal of Molecular Structure, Volume 1205, April 2020, 127525.
9. 4-(4-Chlorophenyl)-1,2,3-selenadiazole
K. Ravichandran, **S. Ranjith**, S. Sankari, Beemaroo and M. N. Ponnuswamy
IUCrData (2018). 3, x180462
10. Crystal structure of piperazine-1,4-dium bis(4-aminobenzenesulfonate)
K. S. Kumar, **S. Ranjith**, S. Sudhakar, P. Srinivasan and M. N. Ponnuswamy
Acta Cryst. (2015), E71, o1084-o1085.
11. Synthesis, growth, characterization, structure and molecular docking studies of 1-[(E)-{[4-(morpholin-4-yl)phenyl]imino}methyl]naphthalen-2-ol single crystal: A potential antimicrobial agent.
S. Ranjith, P. Sugumar, G. Rajagopal, M. Udayakumar, M. N. Ponnuswamy.
Journal of Molecular Structure. (2014), 21-28, 1065-1066.
12. Synthesis of novel 7-alkynylindazole derivatives: Molecular and Crystal Structure of 7-(pent-1-ynyl)-1H-indazole. S. Venugopal, **S. Ranjith**, N. Devanna, J. Ramanathan. Journal of Chemical Research, January (2014), pp, 12-15(4).
13. N'-[(E)-(3-bromo-5-chloro-2-hydroxyphenyl)methylidene]furan-2-carbohydrazide
A. Sundar, **S. Ranjith**, G. Rajagopal. Acta Cryst. (2014), E70, o670.
14. Crystal structure of 1-cyclopropanecarbonyl-3-methyl-2,6-di-*p*-tolylpiperidin-4-one
A. Kamaraj, **S. Ranjith**, R. Rajkumar, G. Mohanraj and K. Krishnasamy
Acta Cryst. (2014). E70, o1056-o1057
15. Isolation and Biological Activities of Natural Compound (1S,2S)-1,3-dihydroxy-1-(4-nitrophenyl)propan-2-yl dichloroacetate from marine *Streptomyces* sp LCJ85 and its structure Elucidation by X-ray Diffraction method.
G. Mohanraj, T. Sekar, **S. Ranjith**, T. Srinivasan, V. Silambarasan, D. Velmurugan.
Journal of Biotechnology, Bioinformatics and Bioengineering (2014), 1(1): 1-1
16. 5-Methylphenanthro[2,3-*b*]thiophene
S. Ranjith, A. Subbiah Pandi, V. Dhayalan and A. K. Mohanakrishnan
Acta Cryst. (2011). E67, o1243.

17. Phenyl(1-phenylsulfonyl-1H-indol-2-yl)-methanone
S. Ranjith, A. SubbiahPandi, E. Govindan, V. Dhayalan and A. K. Mohanakrishnan. Acta Cryst. (2011). E67, o844.
18. Phenyl(3-methyl-1-phenylsulfonyl-1H-indol-2-yl)methanone
S. Ranjith, A. SubbiahPandi, V. Dhayalan and A. K. Mohanakrishnan Acta Cryst. (2011). E67, o1242.
19. 2-(4-Chlorophenyl)-1,5-diphenyl-3-tosylimidazolidin-4-one
S. Ranjith, A. SubbiahPandi, K. Namitharan and K. Pitchumani Acta Cryst. (2011). E67, o843.
20. 3-Ethyl-5-(4-methoxyphenoxy)-2-(pyridin-4-yl)-3H-imidazo[4,5-b]pyridine
S. Ranjith, A. SubbiahPandi, A. D. Suresh and K. Pitchumani Acta Cryst. (2011). E67, o843.
21. Diethyl 2-{{3-(2-methoxybenzyl)thiophen-2-yl}methylidene}malonate
S. Ranjith, K. Sakthi Murugesan, A. SubbiahPandi, V. Dhayalan and A. K. Mohanakrishnan. Acta Cryst. (2011). E67, o1688.
22. 2-(4-chlorophenyl)-5-cyclohexenyl-1-phenyl-3-tosylimidazolidin-4-one
S. Ranjith, K. SakthiMurugesan, A. SubbiahPandi, K. Namitharan and K. Pitchumani. Acta Cryst. (2011). E67, o2071.
23. 1-Benzyl-2,5-diphenyl-3-tosylimidazolidin-4-one
K. SakthiMurugesan, **S. Ranjith**, A. SubbiahPandi, K. Namitharan and K. Pitchumani. Acta Cryst. (2011). E67, o2359.
24. (E)-1-[4-(Prop-2-yn-1-yloxy)phenyl]-3-(3,4,5-trimethoxyphenyl)prop-2-en-1-one
S. Ranjith, A. Thirunarayanan, S. Raja, P. Rajakumar and A. SubbiahPandi Acta Cryst. (2010). E66, o2261- o2262.
25. 2-Bromo-4-chloro-6-{{(E)-[4-(diethylamino)phenyl]iminomethyl}phenol
K.Manvizhi, **S. Ranjith**, K. Parthiban, G. Rajagopal and A. SubbiahPandi Acta Cryst. (2010). E66, o2422.
26. 3-[2-(9-Ethyl-9H-carbazol-3-yl)-6-methyl-3-quinolyl]propan-1-ol
S. Murugavel, **S. Ranjith**, A. SubbiahPandi, G. Periyasami and R. Raghunathan Acta Cryst. (2009). E65, o139-o140.
27. Ethyl 2-[N-(2-formylphenyl)benzenesulfonamido]acetate
S. Ranjith, P. Sugumar, R. Sureshbabu, A. K. Mohanakrishnan and M. N. Ponnuswamy. Acta Cryst. (2009). E65, o483.
28. 4,5-Bis(1H-imidazol-1-ylmethyl)acridine monohydrate.
S. Thenmozhi, **S. Ranjith**, S. Raja, P. Rajakumar and A. SubbiahPandi.

Acta Cryst. (2009). E65, o2211.

29. Diethyl 2-(2-nitrobenzylidene)malonate.
S. Thenmozhi, **S. Ranjith**, A. SubbiahPandi, V. Dhayalan and
A.K. Mohanakrishnan. Acta Cryst. (2009).E65, o2209.

30. 3,3'-(p-Phenylene)bis(3,4-dihydro-2H-1,3-benzoxazine)
S. Ranjith, S. Thenmozhi, R. Manikannan, S. Muthusubramanian and
A. SubbiahPandi. Acta Cryst. (2009). E65, o581.

31. N-(2-Formylphenyl)benzenesulfonamide.
S. Thenmozhi, **S. Ranjith**, A. SubbiahPandi, V. Dhayalan and
A.K. Mohanakrishnan. Acta Cryst. (2009). E65, o2210.

32. Naphthalene-2,3-diylbis[(2-thienyl)-methanone].
S. Thenmozhi, A.SubbiahPandi, **S. Ranjith**, J. ArulClement and
A. K. MohanaKrishnan. Acta Cryst. (2008). E64, o2432.

33. 5,7-Bis(1-benzothiophene-2-yl)-2,3-dihydrothieno[3,4-b][1,4]dioxine
P. Sugumar, **S. Ranjith**, J. Arul Clement, A. K. Mohanakrishnan and
M. N. Ponnuswamy. Acta Cryst. (2008). E64, o1049.

NPTEL COURSE COMPLETED

NPTEL Online Certification Course “Biomedical nanotechnology” 4 weeks, Aug-Sept, 2021

ELITE - NPTEL Online Certification Course “Nanotechnology In Agriculture” 8 weeks, Feb-April, 2022

ELITE - NPTEL Online Certification Course “Physics of Renewable Energy Systems” 12 weeks, July-Oct, 2022

NPTEL Online Certification Course “Renewable Energy Engineering - Solar, Wind and Biomass Energy System” 12 weeks, Jan-April, 2023.

MEMBERSHIPS

Indian Association for Crystal Growth
Indian Science Congress Association