

## Department of Chemistry

<b>Name</b>	<b>Dr. Rajamouli Boddula</b>
<b>Address</b>	A-28, Avirbhew Society – 2, Chikuwadi, Pandesara, Udhna, Surat, Gujarat, 394221, India
<b>Designation</b>	<b>Assistant Professor,</b> Department of Chemistry, Uka Tarsadia University, Maliba Campus, Gopal Vidyanagar, Bardoli Dist: Surat, Gujarat, INDIA, 394 350.
<b>Email</b>	<a href="mailto:rajamouli.boddula@utu.ac.in">rajamouli.boddula@utu.ac.in</a> <a href="mailto:rajamouliboddula@gmail.com">rajamouliboddula@gmail.com</a>
<b>Qualification</b>	<b>Ph.D.</b> - Chemistry, National Institute of Technology, Rourkela, Odisha, India, 2017.  <b>M.Sc.</b> - Chemistry (Organic Chemistry), Smt. Jaasti Bullammai P.G. College, Andhra University, Andhra Pradesh (A. P.), India, 2010.  <b>B.Sc.</b> - Chemistry with Botany and Zoology, Masterji Degree & P.G. College, Kakathiya University, Telangana, India, 2008
<b>Area of interest</b>	<ul style="list-style-type: none"> <li>✓ Design and synthesis of luminescent organic fluorophores</li> <li>✓ Lanthanide (Eu(III) and/or Ir(III)) complexes for optoelectronics (LEDs/OLEDs).</li> <li>✓ Molecular sensor</li> <li>✓ Functional dye</li> <li>✓ Theoretical (computational) calculations (DFT, TD-DFT).</li> </ul>
<b>Teaching / Industrial / Relevant Experience</b>	<ul style="list-style-type: none"> <li>✓ <b>Assistant Professor</b>, Uka Tarsadia University, Bardoli (Dec-2017 to till date)</li> <li>✓ <b>Research Assistant/SRF</b> (INSPIRE, Department of Science and Technology (DST)), National Institute of Technology Rourkela, Odisha, India (Aug 2017 - Nov 2017).</li> <li>✓ <b>Senior Research Fellow</b>, NIT Rourkela, Odisha, India (Sep 2015 - June 2017).</li> <li>✓ <b>Senior Research Fellow</b> (Board of Research in Nuclear Sciences (BRNS), DAE) NIT Rourkela, India (Jan 2015 - Aug 2015).</li> <li>✓ <b>Junior Research Fellow</b> (Board of Research in Nuclear Sciences, DAE), NIT Rourkela, India (Jan 2013 - Dec 2014).</li> <li>✓ <b>Senior chemist</b>, Process R&amp;D, GVK Biosciences Private Limited, Hyderabad, India (July 2012 - Dec 2012).</li> <li>✓ <b>Junior chemist</b>, Process R&amp;D, GVK Biosciences Private Limited, Hyderabad, India (July 2011- July 2012).</li> <li>✓ <b>Lecturer</b>, 1 year (July 2010 - July 2011).</li> </ul> <p style="text-align: center;"><b>Teaching - 1.5Y (till), Research - 5Y, Industry - 1.6Y</b></p>
<b>Current Position</b>	Assistant Professor

## Department of Chemistry

<b>Achievements</b>	<ul style="list-style-type: none"> <li>✚ Outstanding achievement award (exceptional performance) in GVK Biosciences Private Limited, 2012.</li> <li>✚ Qualified in Graduate Aptitude Test in Engineering (GATE) in Chemistry, 2011.</li> <li>✚ <b>Travel Grants</b> received from NIT Rourkela (Institute grant); BRNS, DAE; INSPIRE, DST (project) for attending national and international conferences.</li> <li>✚ <b>State Merit Scholarship</b> - Intermediate, B.Sc and M.Sc.</li> <li>✚ <b>Appreciation</b> - Best and active participant in school as well as in college level.</li> </ul>
<b>List of Publications</b>	<ol style="list-style-type: none"> <li>1. <b>B. Rajamouli</b>, S. Kasturi, S. Giri and V. Sivakumar, “Controlled energy transfer from ligand to Eu(III) ion: A unique strategy to obtain bright white light emission and their versatile applications”, <i>Inorg. Chem.</i>, 2017, 56, 10127–10130.</li> <li>2. <b>B. Rajamouli</b>, and V. Sivakumar, “Effect of carbazole functionalization with a spacer moiety in the phenanthroimidazole bipolar ligand in a europium(III) complex on its luminescence properties: combined experimental and theoretical study”, <i>New J. Chem.</i>, 2017, 41, 1017- 1027.</li> <li>3. <b>B. Rajamouli</b>, C. S. Dwaraka Viswanath, S. Giri, C. K. Jayasankar and V. Sivakumar, “Carbazole functionalized new bipolar ligand for monochromatic red light emitting Europium(III) complex: combined experimental and theoretical study”, <i>New J. Chem.</i>, 2017, 41, 3112-3123.</li> <li>4. <b>B. Rajamouli</b> and V. Sivakumar, “Eu(III) complexes for LEDs based on carbazole- and fluorene-functionalized phenanthroimidazole ancillary ligands: Detailed photophysical and theoretical study”, <i>Chemistry Select</i>, 2017, 2, 4138–4149.</li> <li>5. <b>B. Rajamouli</b>, Rachna Devi, Abhijeet Mohanty, Venkata Krishnan and V. Sivakumar, “Effects of electron withdrawing groups in imidazole-phenanthroline ligands and their influence on photophysical properties of Eu(III) complexes for white light emitting diodes”, <i>New J. Chem.</i>, 2017, 41, 9826–9839.</li> <li>6. S. Kasturi, <b>B. Rajamouli</b> and V. Sivakumar, “Versatile luminescent Europium(III)–<math>\beta</math>-diketonate-imidazo-bipyridyl complexes intended for white LEDs: A detailed photo-physical and theoretical study”, <i>Inorg. Chem.</i>, 2017, 56, 9376–9390.</li> <li>7. <b>B. Rajamouli</b> and V. Sivakumar, “White light emissive bipolar ligand and their Eu<sup>III</sup> complex for white/red light emitting</li> </ol>

<p><b>Book Chapter:</b></p>	<p>diodes”, <i>J. Photochem. Photobio. A</i>, 2017, 347, 26-40.</p> <p><b>8. B. Rajamouli</b>, P. Sood, S. Giri, V. Krishnan and V. Sivakumar, “A dual characteristic bidentate ligand for ternary mono nuclear Europium(III) molecular complex: synthesis, photophysical, electrochemical and theoretical study”, <i>Eur. J. Inorg. Chem.</i>, 2016, 24, 3900- 3911.</p> <p><b>Communication under Process:</b></p> <p><b>9. B. Rajamouli</b> and V. Sivakumar, “Bi-nuclear luminescent Europium(III) molecular complexes for white light emitting diodes: Experimental and theoretical study”, 2018.</p> <p><b>10. S. Kasturi, B. Rajamouli</b>, K. Aravind Babu, S. Giri, M. J. Allen and V. Sivakumar, “Effect of N-conjugation in imidazo-bipyridyl ancillary ligands, their energy transfer impact on Eu(III)-<math>\beta</math>-diketonate complexes for white LEDs” 2018.</p> <p><b>11. B. Rajamouli</b> and V. Sivakumar, Effects of N1-substitution in imidazole-phenanthroline ancillary ligands on photophysical properties for Eu(III) complexes, 2018.</p> <p>V. Sivakumar and <b>Rajamouli B.</b>, <i>Molecular designing of Luminescent Europium Metal Complexes for OLEDs: An Overview</i>, 2018, Pan Stanford Publishing, Singapore (<i>Title of Book: Synthesis of Phosphors and their Applications</i>).</p>
<p><b>Seminar/ Conference / Work shop</b></p>	<p><b>In National Conference Proceeding:</b></p> <ol style="list-style-type: none"> <li>1) National seminar on the Promise of Nanoscience, 6-7<sup>th</sup> March 2009, P. B. Siddhartha College, Vijayawada, Andhra Pradesh, India – <i>Participant</i>.</li> <li>2) Advances in Chemistry and their Biological and Industrial Relevance (ACBIR-2014), 10-11<sup>th</sup> January 2014, NIT Rourkela, Odisha, India – <i>Participant and Volunteer</i>.</li> <li>3) <b>B. Rajamouli</b> and V.Sivakumar, “Synthesis and photophysical studies of multifunctional Europium molecular complex for OLEDs”, in National Conference on Luminescence and its applications (NCLA) February 5-7<sup>th</sup>, 2014, Rani Durgavati University, Jabalpur, M. P., India – <i>Poster presentation</i>.</li> <li>4) T. Jairam, <b>B. Rajamouli</b>, K. Aravind and V. Sivakumar, “Synthesis and photophysical studies of new triphenylamine - phenantroline based bipolar material for phosphorescent OLED” NIT- Tiruchirappalli, September 12–13<sup>th</sup>, 2015, Tamilnadu, India - <i>Poster presentation</i>.</li> <li>5) <b>B. Rajamouli</b> and V. Sivakumar, “Carbazole consequences in</li> </ol>

	<p>Europium complexes for phosphorescent OLEDs”, in Research Scholar Week (RSW), February 12-14<sup>th</sup>, 2016, NIT Rourkela, Odisha, India – <i>Poster presentation</i>.</p> <p>6) <b>B. Rajamouli</b> and V.Sivakumar, “Synthesis of binuclear nuclear Eu<sup>III</sup> complex and their photophysical study for phosphorescent OLEDs”, in NCLA, February 18-20<sup>th</sup>, 2016, Department of Physics, Rastrasant tukadoji maharaj nagpur university, Nagpur, India – <i>Poster presentation</i>.</p> <p>7) <b>B. Rajamouli</b> and V.Sivakumar, “New ternary Europium(III) molecular complex for OLEDs: combined experimental and theoretical study”, in NCLA, January 9-11<sup>th</sup>, 2017, ICT, CSIR laboratory, Hyderabad (T.S), India – <i>Poster presentation</i>.</p> <p>8) <b>B. Rajamouli</b> and V. Sivakumar, “Tunable luminescent Europium molecular complexes for lighting applications: Experimental and theoretical study”, in RSW, February 21–23<sup>rd</sup>, 2017, NIT Rourkela, Odisha, India – <i>Poster presentation</i>.</p> <p>9) Rachna Devi, <b>B. Rajamouli</b> and V. Sivakumar, “Design, synthesis and photophysical properties of bi-dentate ligand for Dy(III) complexes” in NCLA-2017, Jan 9-11<sup>th</sup>, ICT-Hyderabad, India – <i>Poster presentation</i>.</p> <p>10) <b>B. Rajamouli</b>, 54th Annual Convention of Chemists 2017, Indian Chemical Society Kolkata, hosted by Department of Chemistry, UTU – Uka Tarsadia University, Maliba Campus, Surat, Gujarat, India, December 23-25<sup>th</sup>, 2017 - <i>Participation (as a session member)</i>.</p> <p><b>In International Conference Proceeding:</b></p> <p>1) <b>B. Rajamouli</b> and V.Sivakumar, “Design and synthesis of bipolar ligands for Eu molecular complexes and their photophysical study” 8<sup>th</sup> Singapore International Chemistry Conference- 2014 (SICC8), 14-17<sup>th</sup> Dec 2014, University Town Campus, Singapore – <i>Oral presentation</i>.</p> <p>2) <b>B. Rajamouli</b> and V.Sivakumar, “Synthesis of multifunctional europium molecular complex for phosphorescent OLEDs” in The International Conference on Luminescence (ICL), 13-18<sup>th</sup> July 2014, Wroclaw, Poland – <i>Poster Presentation</i>.</p> <p>3) <b>B. Rajamouli</b> and V.Sivakumar, “Synthesis of carbazole derivatives of Europium molecular complexes for phosphorescent OLEDs” in International Conference on Luminescence and its applications (ICLA), February 9-12<sup>th</sup>, 2015, Dr. M.R. Doreswamy</p>
--	--

<p><b>Extra curriculum activities</b></p>	<p>Auditorium, PES University, Bangalore, K.P., India – <b>Poster presentation.</b></p> <p>4) <b>B. Rajamouli</b> and V.Sivakumar, “Smart red radiating Eu(III) molecular materials for energy efficient phosphorescent OLEDs” Sustainable Energy Technology for Smart and Clean Cities (SETS&amp;CC–2016), July 27-29<sup>th</sup>, 2016, Amara Raja Auditorium, Karkambadi, Tirupathi, Andhra Pradesh, India – <b>Oral presentation.</b></p> <p>5) Rachana Devi, <b>B. Rajamouli</b> and V. Sivakumar, “Experimental and theoretical investigation of bi and tri nuclear EuIII complexes for red/white emitting LEDs” in 8<sup>th</sup> East Asia Symposium on Functional Dyes and Advanced Materials (EAS8), September 20-22, 2017, CSIR-NIIST, Thiruvananthapuram, Kerala, India – <b>Poster presentation.</b></p> <p><b>Work Shop:</b></p> <p>1) <b>B.Rajamouli</b>, Workshop - Short Course on “Flexible Electronics” 7–12<sup>th</sup> July 2014, Samtel Centre for Display Technologies (SCDT), IIT Kanpur, Uttar Pradesh (U.P), India.</p> <p>2) <b>B.Rajamouli</b>, Workshop – “Challenges in Synthetic Chemistry and its Industrial Applications (CSCIA)”, sponsored by TEQIP-II, NIT Rourkela, Odisha, India (2017).</p> <p>❖ <b>Organising member</b> for INSPIRE SCIENCE CAMP, Nov 30–Dec 5, 2013 in NITR, Odisha, India sponsored by DST-INSPIRE, India (No. of Participants: 400).</p> <p>❖ <b>Organising member</b> for INSPIRE SCIENCE CAMP, Dec 6–11, 2014 in NITR, Odisha, India sponsored by DST-INSPIRE, India (No. of Participants: 250).</p> <p>❖ <b>Organiser</b> for INSPIRE SCIENCE CAMP, Dec 6–11, 2015 in NITR, Odisha, India sponsored by DST-INSPIRE, India (No. of Participants: 300).</p> <p><b>Project(s) handled (worked):</b></p> <p>➤ <b>Rational design and synthesis of Iridium based molecular materials for organic electronics</b>, sponsored by INSPIRE, Department of Science and Technology (DST) India, Jan 2013 – Dec 2017.</p> <p>➤ <b>Rational design and synthesis of optoelectronic lanthanide based molecular materials for OLEDs</b>, sponsored by Board of Research in Nuclear Sciences (BRNS), DAE India, Jan 2013 – Sep 2015.</p>
---	---