



DR. K. R. JUSTIN THOMAS

ASSOCIATE PROFESOR | DEPARTMENT OF CHEMISTRY, INDIAN
INSTITUTE OF TECHNOLOGY ROORKEE, INDIA

HIGHLIGHTS

- Published **150** research articles
- h-index: **41**
- Implemented seven sponsored research projects
- Authored 09 US patents
- CRSI bronze medal, 2018
- Fellow of Royal Society of Chemistry (FRSC)

SELECTED ARTICLES

- ✓ *Chem. Commun.*, **2017**, 53, 11802-11805.
- ✓ *J. Mater. Chem. C*, **2017**, 5, 709-726.
- ✓ *J. Mater. Chem. C*, **2016**, 4, 4246-4258.
- ✓ *J. Org. Chem.*, **2016**, 81, 640-653.
- ✓ *J. Org. Chem.*, **2015**, 80, 5812-5823.
- ✓ *J. Mater. Chem. C*, **2015**, 3, 2182-2194.
- ✓ *ACS Appl. Mater. Interfaces*, **2015**, 7, 2249-2262.
- ✓ *J. Mater. Chem. A*, **2014**, 2, 5766-5779.
- ✓ *J. Org. Chem.*, **2014**, 79, 3159-3172.
- ✓ *ACS Appl. Mater. Interfaces*, **2014**, 6, 2528-2539.

PROFESSIONAL EXPERIENCE

ASSOCIATE PROFESSOR • INDIAN INSTITUTE OF TECHNOLOGY ROORKEE • OCT 23, 2012 – TO DATE

Eight Ph.D students completed under my supervision.
Implemented three projects. Published 50 research papers.

ASSISTANT PROFESSOR • INDIAN INSTITUTE OF TECHNOLOGY ROORKEE • MAR 18, 2006 – OCT 22, 2012

Two Ph.D. students completed under my supervision. Implemented three projects. Published 31 research papers.

POST-DOCTORAL FELLOW • ACADEMIA SINICA, TAIPEI, TAIWAN • OCT 1997 – APR 2003 & JUNE 2004 – FEB 2006

Developed organic and organometallic materials for organic light-emitting diodes and dye-sensitized solar cells. Co-authored 41 research articles.

POST-DOCTORAL FELLOW • UNIVERSITY OF MASSACHUSETTS, AMHERST, USA • MAY 2003 – MAY 2004

Synthesized dendrimers and small molecules containing donor-acceptor chromophores. Co-authored 4 research articles.

EDUCATION

Ph.D. • 1995 • INDIAN INSTITUTE OF TECHNOLOGY KANPUR

Specialization: Inorganic Heterocycles & Coordination Chemistry

M.Sc. • 1990 • AMERICAN COLLEGE MADURAI

Specialization: Chemistry; Marks: 71%

B.Sc. • 1988 • MADURAI KAMARAJ UNIVERSITY

Specialization: Chemistry, Physics & Mathematics; Marks: 85.7%



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RECENT PUBLICATIONS

1. Tuning the photophysical and electroluminescence properties in asymmetrically tetrasubstituted bipolar carbazoles by functional group disposition,
R. K. Konidena, K. R. J. Thomas, A. Pathak, D. K. Dubey, S. Sahoo, J.-H. Jou, *ACS Appl. Mater. Interfaces*, **2018**, (DOI: 10.1021/acsami.8b04566)
2. Fine-Tuning of Photophysical and Electroluminescence Properties of Benzothiadiazole-Based Emitters by Methyl Substitution,
A. Pathak, K. R. J. Thomas, M. Singh, J.-H. Jou, *J. Org. Chem.*, **2017**, *82*, 11512-11523. (DOI: 10.1021/acs.joc.7b02127)
3. New Molecular Design Based on Hybridized Local and Charge Transfer Fluorescence for Highly Efficient (> 6%) Deep-Blue Organic Light Emitting Diodes,
R. K. Konidena, K. R. J. Thomas, D. K. Dubey, S. Sahoo, J.-H. Jou, *Chem. Commun.*, **2017**, *53*, 11802-11805. (DOI: 10.1039/C7CC07139F)
4. Photophysics, electrochemistry, morphology and bioimaging applications of new 1,8-naphthalimide derivatives containing different chromophores,
A. Saini, K. R. J. Thomas, A. Sachdev and P. Gopinath, *Chem. Asian J.* **2017**, *5*, 2612-2622. (DOI: 10.1002/asia.201700968)
5. Star-Shaped Asymmetrically Substituted Blue Emitting Carbazoles: Synthesis, Photophysical, Electrochemical and Theoretical Investigations,
R. K. Konidena, K. R. J. Thomas, *ChemistrySelect*, **2017**, *2*, 7514-7524. (DOI: 10.1002/slct.201701336)
6. Multi-substituted deep-blue emitting carbazoles: a comparative study on photophysical and electroluminescence characteristics,
R. K. Konidena, K. R. J. Thomas, S. Sahoo, D. K. Dubey, J.-H. Jou, *J. Mater. Chem. C*, **2017**, *5*, 709-726. (DOI: 10.1039/C6TC04870F)
7. Thienylphenothiazine Integrated Pyrenes: An Account on the Influence of Substitution Pattern on Optical and Electroluminescent Properties,
R. K. Konidena, K. R. J. Thomas, M. Singh and J.-H. Jou, *J. Mater. Chem. C*, **2016**, *4*, 4246-4258. (DOI: 10.1039/C6TC00354K)
8. Benzimidazole-Branched Isomeric Dyes: Effect of Molecular Constitution on Photophysical, Electrochemical and Photovoltaic Properties,
G. B. Bodedla, K. R. J. Thomas, M.-S. Fan, K.-C. Ho, *J. Org. Chem.*, **2016**, *81*, 640-653. (DOI: 10.1021/acs.joc.5b02590)



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