# Dr. V. Murugesh

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## **Professional Experience and Education**

**Research Associate** (June-2019-till date): Dr. S. P. Singh group, CSIR-IICT, Hyderabad, India.

**Ph. D** (2013-2019) : Dr. S. Suresh group, CSIR-IICT, Hyderabad, India.

M. Sc (2009-2011) : S. V. University, Andra Pradesh, India.

**B. Sc** (2006-2009) : S. V. University, Andra Pradesh, India.

## **Career Achievements**

❖ Best poster presentation award in ACS on Campus-2019, IICT, Hyderabad, India.

- OCD3 Best publication award-2017, IICT, Hyderabad, India.
- Qualified in national level GATE-2013 conducted by IIT Bombay, India (National level entrance exam for higher studies).
- Qualified UGC-JRF in December-2012 conducted by CSIR, India with Rank-69 (National level exam for research fellowship).
- Qualified in APSET-2011 (Qualifying exam per lectureship as an assistant professor in state level).

#### **Publications**

- 1. **V. Murugesh**, Surya Prakash Singh,\* Lead-halides Perovskite Visible Light Photoredox Catalysts for Organic Synthesis, *Chem. Record* **2020**, *20*, 1181–1197; Doi.org/10.1002/tcr.202000049; (**Impact factor: 6.16**).
- 2. A. R. Sahoo, G. Lalitha, V. Murugesh, C. Bruneau, G. V. M. Sharma, S. Suresh, M. Achard, Direct Access to (±)-10-Desbromoarborescidine from Tryptamine and Pentane-1,5-diol. *Asian J. Org. Chem.* **2020**, *9*, 910–913; DOI: 10.1002/ajoc.202000252; (Impact factor: 3.69); (Selected to be featured as a *Front Cover* of the journal).
- 3. Killari Satyam, V. Murugesh, Surisetti Suresh,\* Base-Free van Leusen Reaction of Cyclic Imines in Water: Synthesis of *N*-Fused Imidazo β- Carboline Derivatives; *Org. Biomol. Chem.* **2019**, *17*, 5234–5238; DOI: 10.1039/C9OB00660E; (Impact factor: **3.41**).
- 4. **V. Murugesh,** ,\* A. R. Sahoo, M. Achard, S. Suresh, Synthesis and Functionalization of *N*-Heterocycles Using Transition Metal-Free Cross-Dehydrogenative Coupling (CDC) Approaches. In *Heterocycles via Cross Dehydrogenative Coupling*; Srivastava, A., Jana, C. K.,

- Eds.; Springer: Singapore, **2019**; pp 143–212.
- 5. Owk Obulesu, **V. Murugesh**, Battu Harish, Surisetti Suresh,\* Tandem Aza Michael Addition–Vinylogous Nitroaldol Condensation: Construction of Highly Substituted *N*-Fused 3-Nitropyrazolopyridines; *J. Org. Chem.* **2018**, *83*, 6454–6465; **DOI:**10.1021/acs.joc.8b00746; (**Impact factor: 4.33**).
- 6. V. Murugesh, Christian Bruneau, Mathieu Achard, Apurba Ranjan Sahoo, Gangavaram V. M. Sharma, Surisetti Suresh,\* Ruthenium catalyzed β-C(sp³)–H functionalization on the 'privileged' piperazine nucleus; *Chem. Commun.* 2017, 53, 10448–10451; DOI: 10.1039/c7cc05604d; (Impact factor: 5.99); (This work has been highlighted in *Synfacts*, 2017, 13(11), 1130; DOI: 10.1055/s-0036-1591606).
- 7. Apurba R. Sahoo, Gummidi Lalitha, **V. Murugesh**, Christian Bruneau, Gangavaram V. M. Sharma, Surisetti Suresh, Mathieu Achard, Ruthenium Phosphine–Pyridone Catalyzed Cross-Coupling of Alcohols To form α-Alkylated Ketones; *J. Org. Chem.* **2017**, 82, 10727–10731; **DOI:**10.1021/acs.joc.7b02042; (**Impactfactor: 4.33**).
- 8. **V. Murugesh**, Battu Harish, Minam Adiseshu, Jagadeesh Babu Nanubolu, Surisetti Suresh,\* Tandem Copper-Catalyzed *N*-Arylation—Condensation and van Leusen Reaction: Synthesis of 1,4-Benzodiazepines and Imidazobenzodiazepines (ImBDs); *Adv. Synth. Catal.* **2016**, *358*, 1309–1321; **DOI**: 10.1002/adsc.201501048; (**Impact factor: 5.85**).
- 9. **V. Murugesh**, Christian Bruneau, Mathieu Achard, Apurba Ranjan Sahoo, Gangavaram V. M. Sharma, Surisetti Suresh,\* Ruthenium Catalyzed Regioselective β-C(sp³)–H Functionalization of *N*-Alkyl-*N'-p*-nitrophenyl Substituted Piperazines using Aldehydes as Alkylation Agents; (*Manuscript under revision*).
- 10. Gummidi Lalitha<sup>≠</sup>, **V. Murugesh**,\* Gangavaram V. M. Sharma, Surisetti Suresh,\* Tandem Aza–Michael Addition—Vinylogous Aldol Condensation of 3-Carboxyl Substituted Synthesis of *N*-Fused Pyridine–Quinoline scaffolds; (*Manuscript to be communicated*).
- 11. **V. Murugesh**, Surisetti Suresh,\* Regio, Stereoselective β-C(sp³)–H Functionalization/Activation of Saturated *N*-Hetero Cyclic/Acyclic Scaffolds; (*Manuscript to be communicated*).
- 12. **V. Murugesh**, Surya Prakash Singh, Visible Light Mediated Chemoselective Amination, Haloamination of Benzothiadiazole and Benzoselenadiazole; (*Manuscript to be communicated*).

## **Research Experience and interests**

- $\diamond$  Development of tandem reactions, Site selective, regio selective  $C(sp^3)$ -H bond activations.
- $\diamond$  Development of photoredox mediated methods for bond constructions and N-

heterocyclic compounds.

- ❖ Design and synthesis of organo catalysts like *N*-heterocyclic carbenes and transition metal complexes.
- Design and execution of synthetic methodologies of organic synthesis, synthesis of biologically active 'privileged' scaffolds.

#### **Conferences and Presentations**

- ❖ Tandem Copper-Catalyzed *N*-Arylation—Cyclization of 1,2-Diamines: Straightforward Synthesis of 1,4-Benzodiazepines and Imidazobenzodiazepines (ImBDs) Thereof. V. Murugesh, Battu Harish, Minam Adiseshu, Jagadeesh Babu Nanubolu, and Surisetti Suresh.\* 21st IUPAC International Conference on Organic Synthesis (ICOS 21) in 11<sup>th</sup> Dec-2016 to 16<sup>th</sup> Dec-2016, organized in IIT Bombay, India (Poster presentation).
- ❖ β- C(sp³)-H Functionalization on the 'Privileged' Piperazine Nucleus: Synthesis of Piperazine Fused Indole\_V. Murugesh, C. Bruneau, M. Achard, A. R. Sahoo, G. V. M. Sharma, and Surisetti Suresh.\* 3<sup>rd</sup> International Green Catalysis Symposium in Rennes on March 23 and 24, 2017 at Rennes, France (Poster presentation).

### References

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### Dr. Surya Prakash Singh,

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