

## CURRICULUM VITAE

### Personal:

1. Name & Correspondence address: Dr. B. K. Bettadaiah,  
Principal Scientist,  
Spice and Flavour Science Department  
CSIR-Central Food Technological Research  
Institute, Mysore-570 020, India
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Ph(off):91-821-2512352, Mob: 9880324823
3. Institution: CSIR-Central Food Technological Research  
Institute
4. Academic qualification:

Degree	University	Year	Subjects	Class/Division
B.Sc.	University of Mysore	1994	Physics, Chemistry, Mathematics	First class
M.Sc.	University of Mysore	1997	Chemistry (Organic)	First class
Ph.D.	University of Mysore	2004	Title: ' <i>Studies on New Synthetic Strategies for O- and S-Derivatives of Monoterpenes</i> '	
Post-doc	France	2005-06	<i>Racemization of l-2-amino-1-butanol: Production of ethambutol, an antituberculosis drug</i>	

### 5. Ph.D. Information:

**Title:** '*Studies on New Synthetic Strategies for O- and S-Derivatives of Monoterpenes*'

**Guide:** Dr. P. Srinivas, Scientist, Spice and Flavour Science Department  
CSIR-Central Food Technological Research Institute, Mysore-570 020, India  
Ph.D. awarded by University of Mysore

## 6. Professional experience (Post Ph.D.)

Post	Organization	Period	Place	Job description
Associate Scientist	Aurigene Discovery Tech Ltd	Aug 2005 to Feb 2006	Bangalore, India	External project on synthesis of scaffolds and development of library of anti-diabetic compounds
Senior Scientist	M/s Sigma-Aldrich Chemicals Ltd	Feb 2006 to Jan 2010	Bangalore, India	Project management team member, Project quotes and Custom synthesis of library chemicals
Scientist (Assistant Professor)	CSIR-Central Food Technological Research Institute	11-01-2010 to 10-01-2014	Mysuru, India	Chemical synthesis of active nutraceutical and their derivatives. Study of bioactivity and understanding the structure-activity relationship. Teaching and guiding postgraduates and doctoral students for masters and Ph. D degrees.
Senior Scientist (Assistant Professor)	CSIR-Central Food Technological Research Institute	11-01-2014 to 10-01-2019	Mysuru, India	Leading various R&D projects  Understanding the structure-activity relationship of spice bioactive, phytochemicals and their synthetic derivatives. Stability and application of phytochemicals in the food and pharmaceutical field. Teaching and guiding postgraduates and doctoral students for masters and Ph. D degrees.
Principal Scientist (Associate Professor)	CSIR-Central Food Technological Research Institute	10-01-2019 to Present	Mysuru, India	Leading R&D projects  Understanding the structure-activity relationship of spice bioactive, phytochemicals and their synthetic derivatives. Stability and application of phytochemicals in the food and pharmaceutical field. Teaching and guiding

				postgraduates and doctoral students for masters and Ph. D degrees.
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### 7. Professional recognition:

- i) University gold medal for highest marks in Physics at graduation level
- ii) University gold medals and cash prize for first class with distinction in **Organic chemistry at Master's level**
- iii) Awarded Junior Research Fellowship and Senior Research Fellowship by CSIR (1998 and 2001)
- iv) First prize for the poster presentation at the **5<sup>th</sup> International Food Convention, 2003**, held at Central Food Technological Research Institute, Mysore, India.
- v) Best research publication award **2017** by CSIR-CFTRI

### 8. Guidance:

Ph.D.: 03 (Completed)  
 Ph.D.: 02 (On going)  
 M.Sc.: 12 (Completed)  
 B. Tech: 01 (Completed)  
 M. Tech: 01 (Completed)

### 9. Teaching: (10 years)

Ph.D. (Academy of Scientific and Industrial Research)  
 MSc (Food Tech)  
 Short Term Courses  
 International School of Milling Technology

### Publications

1. Synthesis, characterization and anti-inflammatory properties of karanjin (*Pongamia pinnata* seed) and its derivatives M.J.Rekha, B.K.Bettadaiah\*, S.P.Muthukumar, K.Govindaraju\*, *Bioorganic Chemistry*, **2021**, 104471.
2. Zerumbone augments cognitive enhancement potentials of EPA+DHA: insight from a hyperlipidaemic rat model, Vinayak Uppin , Pooja Acharya , Bettadaiah Bheemanakere Kempaiah and Ramaprasad Ravichandra Talahalli, *British Journal of Nutrition*, **2020**, 1353-1360.
3. Hyperlipidemia Downregulate Brain Antioxidant Defense Enzymes and Neurotrophins in Rats: Assessment of the Modulatory Potential of EPA+DHA and Zerumbone Vinayak Uppin, Pooja Acharya, **Kempaiah Bettadaiah Bheemanakere**, and

- Ramaprasad Ravichandra Talahalli\*, *Molecular Nutrition and Food Research*, **2020**, 200381.
4. Chemical composition, nutraceuticals characterization, NMR confirmation of squalene and antioxidant activities of *Basella Rubra* L. seed oil, S. Sravan Kumar, V. Manasa, A. W. Tumaney, B. K. Bettadaiah, S. R. Chaudhari, P. Giridhar, *RSC Advances*, **2020**, 31863-31873.
  5. A feasible method for isolation of pongamol from karanja (*Pongamia pinnata*) seed and its anti-inflammatory activity, M.J. Rekha, **B.K. Bettadaiah\*** T.C. Sindhu Kanyaa, K. Govindarajua,\* *Industrial Crops and Products*, **2020**, 112720.
  6. S.C. Santosh Kumar, P.S. Negi, J.R. Manjunatha, **B.K. Bettadaiah\*** (2017). "Synthesis, antibacterial and antimutagenic activity of zerumbone bicarbonyl analogues" **Food Chemistry**, 221, 576–581.
  7. An Improved Route to the Preparation of 6-, 8-, 10-Gingerols N. Vijendra Kumar, S. C. Santosh Kumar, P. Srinivas & **B. K. Bettadaiah\***, *Organic Preparations and Procedures International*, **2015**, 47:443–448
  8. Microwave assisted bi-functional activation of  $\beta$ -bromo-*tert*-alcohol, Nandini Kannan, Manjunatha Javagal Rangaswamy and **Bettadaiah Bheemanakere Kempaiah\***, *Journal of Chemical Sciences*, 127(8), **2015**, 1405–1410.
  9. RuO<sub>4</sub> catalyzed dihydroxylation for the synthesis of mixed medium chain triacylglycerols, K. Nandini, P. Srinivas, and **B.K. Bettadaiah\***, *Tetrahedron Letters*, **2015**, 56, 2704–2706.
  10. Assessing the antimicrobial activities of Ocins, Shilja Choyam, Dhanashree Lokesh, **Bettadaiah Bheemanakere Kempaiah** and Rajagopal Kammara\*, *Frontiers in Microbiology*, 6, **2015**, article 1034, 1-8, doi: 10.3389/fmicb.2015.01034.
  11. Structure-function activity of dehydrozingerone and its derivatives as antioxidant and antimicrobial compounds, Ismail Rahath Kubra, **Bheemanakere Kempaiah Bettadaiah**, Pushpa Srinivas Murthy & Lingamallu Jagan Mohan Rao, *J. Food Science Tech.*, **2014**, 51, 245–255.
  12. Synthesis and quorum sensing inhibitory activity of key phenolic compounds of ginger and their derivatives, N. Vijendra Kumar, Pushpa S. Murthy, J.R. Manjunatha, **B.K. Bettadaiah\***, *Food Chemistry* **2014**, 159, 451–457.
  13. Eco-friendly kinetic separation of trans-limonene and carvomenthene oxides, S C Santosh Kumar, J R Manjunatha, P Srinivas and **B K Bettadaiah\***, *Journal Chemical Science*, **2014**, 126, 875–880.
  14. A convenient practical synthesis of alkyl and aryl oxime esters, S. C. Santosh Kumar, N. Vijendra Kumar, P. Srinivas and **B. K. Bettadaiah**, *Synthesis*, **2014**, 1847-1852.
  15. ZnBr<sub>2</sub>-Catalyzed and Microwave-Assisted Synthesis of 2,3-Unsaturated Glucosides of Hindered Phenols and Alcohols, D. James Bound, **B. K. Bettadaiah** & P. Srinivas\*, *Synthetic Communications*, **2014**, 44, 2565–2576.

16. Microwave-assisted synthesis of alkyl thiocyanates D. James Bound, **B. K. Bettadaiah**, P. Srinivas, *Synth. Commun.* **2013**, 43, 1138-1144.
17. Synthesis of quinoline derivatives of tetrahydrocurcumin and zingerone and evaluation of their antioxidant and antibacterial attributes J.R. Manjunatha, **B.K. Bettadaiah**, P.S. Negi, P. Srinivas, *Food Chemistry* **2013** 136, 650–658.
18. Synthesis of amino acid conjugates of tetrahydrocurcumin and evaluation of their antibacterial and anti-mutagenic properties J.R. Manjunatha, **B.K. Bettadaiah**, P.S. Negi, P. Srinivas, *Food Chemistry* **2013**, 139, 332–338.
19. Antibacterial and antimutagenic activities of novel zerumbone analogues, S.C. Santosh Kumar, P. Srinivas, P.S. Negi, **B.K. Bettadaiah**, *Food Chemistry* **2013**, 141, 1097–1103.
20. Vijendra Kumar, N., Srinivas, P., **Bettadaiah, B.K.**, New scalable and eco-friendly synthesis of gingerols, *Tetrahedron Letters* **2012**, 53, 2993–2995.
21. HPLC Method for Determination of Acetylated Arjunolic acid-A derivative of Arjunolic acid from Terminalia arjuna and their Antioxidant Activity, Devaraj Reddy KN, Sadashiva MP, Mahesh M, **Bettadaiah BK**, Geetha NP. *International Journal of Research in Phytochemistry and Pharmacology*, **2012**, 2(4), 188-193.
22. HPLC Method for Determination of p-coumaric acid from the Medicinal Herb Leptadinia reticulate N. P. Geetha<sup>1</sup>, M. Mahesh, **B. K. Bettadaiah**, R. K. Kini, H. S. Prakash. *International Journal of Phytomedicine* **2011**, 3, 319-324.
23. In vivo growth inhibitory and anti-angiogenic effects of synthetic novel dienone cyclopropoxy curcumin analogs on mouse Ehrlich ascites tumor, H. Chandru, a A. C. Sharada, **B. K. Bettadaiah**, C. S. Ananda Kumar, K. S. Rangappa, Sunila and K. Jayashree, *Bioorganic & Medicinal Chemistry* **2007** 15, 7696–7703.
24. Regio-specific ring opening of terpene and aryl substituted epoxides with Br<sub>2</sub>/DMS reagent **Bettadaiah, B. K.**; Srinivas, P. *Indian. J. Chem. Sec. B*, **2004**, 43B, 1339.
25. Photo-assisted kinetic resolution of diastereomeric limonene and carvomenthene oxides in methanol in the presence of Lewis acids, **Bettadaiah, B. K.**; Srinivas, P. *Journal of Photochemistry and Photobiology A: Chemistry*, **2004**, 167, 137.
26. Direct conversion of *tert*-β-bromo alcohols to ketones with Zinc Sulfide and DMSO, **Bettadaiah, B. K.**; Gurudutt, K. N.; Srinivas, P. *J. Org. Chem.* **2003**, 68, 2460.
27. ZnCl<sub>2</sub> catalyzed Ferrier reaction; Synthesis of 2,3-unsaturated 1-*O*- glucopyranosides of allylic, benzylic and tertiary alcohols, **Bettadaiah, B. K.**; Srinivas, P. *Tetrahedron Lett.* **2003**, 44, 7257.
28. Ultrasound assisted nucleophilic substitution of tertiary alkyl halides with Zinc and Titanium thiocyanate, **Bettadaiah, B. K.**; Gurudutt, K. N.; Srinivas, P. *Synth. Commun.* **2003**, 33(13), 2393.
29. An expedient synthesis of allylic/secondary bromides from dehydration of *tert*-β-bromo alcohols, **Bettadaiah, B. K.**; Srinivas, P. *Synth. Commun.* **2003**, 33(20), 3615.