

List of Publications

1. Sarkale, A. M.; Maurya, V.; Giri, S.; Appayee, C.* "Stereodivergent Synthesis of Chiral Paraconic Acids via Dynamic Kinetic Resolution of 3-Acylsuccinimides" *Org. Lett.* **2019**, Article ASAP.
2. Kutwal, M. S.; Dev, S.; **Appayee, C.*** "Catalytic Regioselective γ -Methylenation of α,β -Unsaturated Aldehydes Using Formaldehyde via Vinylogous Aldol Condensation" *Org. Lett.* **2019**, 21, 2509-2513. (*Among the most downloaded articles in April 2019*)
3. Padmaja, V. M. D.; Jangra, S.; **Appayee, C.*** "Highly Regioselective α -Alkylation of $\alpha,\beta,\gamma,\delta$ -Unsaturated Aldehydes" *Org. Biomol. Chem.* **2019**, 17, 1714–1717. (*Invited Article for a themed collection "New Talent"*)
4. Maurya, V.; **Appayee, C.*** "Catalytic Asymmetric Synthesis of 3,4-Disubstituted Cyclohexadiene Carbaldehydes: Formal Total Synthesis of Cyclobakuchiols A and C" *Org. Lett.* **2018**, 20, 4111-4115. (*Highlighted in Synfacts 2018*, 14, 0978)
5. Sarkale, A. M.; Kumar, A.; **Appayee, C.*** "Organocatalytic Approach for Short Asymmetric Synthesis of (R)-Paraconyl Alcohol: Application to the Total Syntheses of IM-2, SCB2, and A-Factor γ -Butyrolactone Autoregulators" *J. Org. Chem.* **2018**, 83, 4167-4172.
6. Kutwal, M. S.; **Appayee, C.*** "Front Cover: Highly Regio- and Enantioselective γ -Alkylation of Linear α,β -Unsaturated Aldehydes" *Eu. J. Org. Chem.* **2017**, 29.
7. Kutwal, M. S.; **Appayee, C.*** "Highly Regio- and Enantioselective γ -Alkylation of Linear α,β -Unsaturated Aldehydes" *Eu. J. Org. Chem.* **2017**, 4230-4234. (*featured in the virtual issue "Emerging Investigators from India"*)

Previous Publications

8. **Appayee, C.**; Breslow, R.* Deuterium studies reveal a new mechanism for the formose reaction involving hydride shifts. *J. Am. Chem. Soc.* **2014**, 136, 3720–3723.
9. Chen, W.; Li, H.; Widowsky, J. R.; **Appayee, C.**; Venkataraman, L.*; Breslow, R.* Aromaticity decreases single-molecule junction conductance. *J. Am. Chem. Soc.* **2014**, 136, 918–920.
10. Jones, J. H.; **Appayee, C.**; Brenner-Moyer, S. E.* One-pot preparation of enantiopure fluorinated β -amino acid precursors. *Eur. J. Org. Chem.* **2014**, 5273–5280.

11. Breslow, R.*; Ramalingam, V.; **Appayee, C.** Catalysis of glyceraldehyde synthesis by primary or secondary amino acids under prebiotic conditions as a function of pH. *Origins Life Evol. Biospheres* **2013**, 1–7.
12. Breslow, R.*; **Appayee, C.** Transketolase reaction under credible prebiotic conditions. *Proc. Natl. Acad. Sci. USA* **2013**, 110, 4184–4187.
13. **Appayee, C.**; Fraboni, A. J.; Brenner-Moyer, S. E.* γ -Amino alcohols via organocascade reactions involving dienamine catalysis. *J. Org. Chem.* **2012**, 77, 8828–8834.
14. **Appayee, C.**; Brenner-Moyer, S. E.* Organocatalytic enantioselective olefin aminofluorination. *Org. Lett.* **2010**, 12, 3356–3359. (Highlighted in *Synfacts* **2010**, 9, 1070.)
15. Takenaka, N.*; Chen, J.; Captain, B.*; Sarangthem, R.; **Chandrakumar, A.** Helical chiral 2-aminopyridinium ions: A new class of hydrogen bond donor catalysts. *J. Am. Chem. Soc.* **2010**, 132, 4536–4537. (Highlighted in *Synfacts* **2010**, 6, 0712.)
16. Prasad, K. R.*; **Chandrakumar, A.**; Dikundwar, A. G.; and Guru Row, T. N. Polymorphism in a TADDOL analogue induced by the presence of a chiral impurity. *CrystEngComm* **2010**, 12, 3452–3454.
17. Prasad, K. R.*; **Chandrakumar, A.** Stereoselective synthesis of cytotoxic anhydrophytosphingosine pachastrissamine [jaspine B]. *J. Org. Chem.* **2007**, 72, 6312–6315.
18. Prasad, K. R.*; **Chandrakumar, A.** Stereoselective syntheses of γ -alkyl (aryl)- α,β -dihydroxy- γ -butyrolactones and naturally occurring lipid guggultetrol. *Tetrahedron*, **2007**, 63, 1798–1805.
19. Prasad, K. R.*; **Chandrakumar, A.**; Anbarasan, P. Asymmetric synthesis of both enantiomers of α -methyl- α -methoxyphenylacetic acid from L-(+)-tartaric acid: Formal enantioselective synthesis of insect pheromone (-)-frontalin. *Tetrahedron: Asymmetry*, **2006**, 17, 1979–1984.
20. Prasad, K. R.*; **Chandrakumar, A.** Nucleophilic addition reactions of 1,4-diketones derived from tartaric acid: Synthesis of TADDOL analogues. *Synthesis*, **2006**, 2159–2166.
21. Prasad, K. R.*; **Chandrakumar, A.** Asymmetric synthesis of α -methoxyarylacetic acid derivatives. *Tetrahedron: Asymmetry*, **2005**, 16, 1897–1900.