

ReactIR™ Applications

Recent Journal Article Publications

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Bio

- Wu, Huiquan, et al. "Real-time monitoring of bioreactor mAb IgG3 cell culture process dynamics via Fourier transform infrared spectroscopy: Implications for and Engineering 9.3 (2015): 386-406.
- Krishnan, R. Akhil, et al. "Proton play in the formation of low molecular weight chitosan (LWCS) by hydrolyzing chitosan with a carbon based solid acid." Carbohydrate Polymers (2016).
- Dong, Weibing, Yue Sun, and Dejing Shang. "Interactions between chensinin-1, a natural antimicrobial peptide derived from rana chensinensis, and lipopolysaccharide." Biopolymers 103.12 (2015): 719-726.

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- Du, Zhongtian, et al. "Studies on the roles of vanadyl sulfate and sodium nitrite in catalytic oxidation of benzyl alcohol with molecular oxygen." Science China Chemistry 58.1 (2015): 114-122.
- Mesas- Sánchez, Laura, and Peter Dinér. "A mechanistic investigation of the kinetic resolution of secondary aromatic alcohols using a ferrocene- based planar chiral 4(dimethylamino) pyridine catalyst." Chemistry–A European Journal 21.14 (2015): 5623-5631.

- Girling, P. Ricardo, et al. "Alternative tandem cyclisation pathways in the reaction between imines and enones." *Tetrahedron* (2016).
- Geng, Yanrong, et al. "Fast and effective glycolysis of poly (ethylene terephthalate) catalyzed by polyoxometalate." *Polymer degradation and stability* 117 (2015): 30-36.
- Xu, Yonghang, et al. "Semi-crystalline terpolymers with varying chain sequence structures derived from CO₂, cyclohexene oxide and ε-caprolactone: one-step synthesis catalyzed by tri-zinc complexes." *Polymer Chemistry* 6.9 (2015): 1533-1540.
- Fu, Wenzhen, et al. "Highly enantioselective nickel- catalyzed intramolecular reductive cyclization of alkynones." *Angewandte Chemie* 127.8 (2015): 2550-2554.
- Liu, Wei-Peng, et al. "Efficient asymmetric transfer hydrogenation of ketones in ethanol with chiral iridium complexes of spiroPAP ligands as catalysts." *Chemical Communications* 51.28 (2015): 6123-6125.
- Varga, Eszter, et al. "Mechanistic investigations of a bifunctional squaramide organocatalyst in asymmetric Michael reaction and observation of stereoselective retro-Michael reaction." *RSC Advances* 5.115 (2015): 95079-95086.
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- Derrah, Eric J., et al. "Ru (II)-Triphos catalyzed amination of alcohols with ammonia via ionic species." *Organometallics* 34.10 (2015): 1872-1881.
- Dürr, Alexander B., et al. "Nickel-catalyzed trifluoromethylthiolation of Csp²-O bonds." *Chemical Science* 7.2 (2016): 1076-1081.
- Chatterjee, Debabrata, and Papiya Sarkar. "Ru(II) (edta) catalyzed hydrogenation of bicarbonate to formate." *Journal of Coordination Chemistry* 69.4 (2016): 650-655.
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Continuous Flow Chemistry

- Kobayashi, Shū. "Flow "fine" synthesis: high yielding and selective organic synthesis by flow methods." *Chemistry—An Asian Journal* (2015).
- Sans, Victor, and Leroy Cronin. "Towards dial- α -molecule by integrating continuous flow, analytics and self-optimisation." *Chemical Society Reviews* 45.8 (2016): 2032-2043.
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Crystallization

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- Liu, Wei-Peng, et al. "Efficient asymmetric transfer hydrogenation of ketones in ethanol with chiral iridium complexes of spiroPAP ligands as catalysts." *Chemical Communications* 51.28 (2015): 6123-6125.

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Organic Chemistry

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Organometallic Chemistry

- Zeng, Xing-Ping, et al. "Activation of chiral (salen) AlCl complex by phosphorane for highly enantioselective cyanosilylation of ketones and enones." *Journal of the American Chemical Society* (2015).
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PAT

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Polymerization

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