



个人简介:

姓名: 臧洪俊 出生年月: 1974年9月
技术职务: 教授 专业及学历: 有机化学, 博士
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工作及教育经历:

2011年-至今, 天津工业大学化学与化工学院, 教授
2014年7月至2015年3月美国 Colorado State University 访问学者
2004年7月至2011年12月天津工业大学环境与化学工程学院工作, 历经讲师, 副教授, 教授。
2001年9月至2004年7月南开大学元素有机所学习, 获得博士学位。
1994年9月至2001年7月, 河北大学化学系学习, 获得学士和硕士学位

研究方向:

1. 功能性离子液体的设计合成及其应用
2. 生物质催化降解转化为能源化学品
3. 绿色化学与材料化学

主持及参加的科研项目:

1. 酸性离子液体催化降解甲壳素生物质定向制备高附加值化学品 3-乙酰氨基-5-乙酰咪喃的研究, 天津市自然科学基金面上项目, 起止年月: 2018年10月-2021年9月 (主持, 在研)

2. 基于酸性离子液体溶解/催化双重作用的甲壳素/壳聚糖绿色转化制备 5-羟甲基糠醛及其反应机理研究(21406166), 国家自然科学基金, 起止年月: 2015.01-2017.12, (主持, 结题)
3. 基于酸性离子液体溶解/催化双重作用的壳聚糖可控性降解规律研究 (21346001), 国家自然科学基金, 起止年月: 2014.01-2014.12, (主持, 完成)
4. 新型噻唑类化合物的设计与合成, 与美国研究所合作的项目 (主持, 在研)
5. 基于离子液体的纺制壳聚糖/纤维素抗菌纤维的基础研究, 天津市自然科学基金重点项目, 起止年月: 2011 年 4 月-2014 年 3 月 (主持, 完成)
6. 离子液体的设计合成及其用于纤维素膜的制备, 天津市自然科学基金面上项目, 起止年月: 2007 年 4 月-2010 年 3 月 (主持, 完成)
7. 新型药物的开发(2009), 与南开大学元素有机所合作的横向项目.(主持, 完成)
8. RAFT 活性自由基聚合制备结构明确的高分子量丙烯腈聚合物 (20804044), 国家自然科学基金 (第三, 参加, 完成)

代表性学术论文:

1. **Hongjun Zang***; Wang, Kang; Zhang, Mingchuan; Catalytic coupling of biomass-derived aldehydes into intermediates for biofuels and materials, *Catalysis Science & Technology*, 2018, 8, 1777-1798
2. Xie, Ruirui; **Zang, Hongjun***; Ding, Hongying, *Journal of molecular liquids*, 2018, 249: 486-493
3. **Hongjun Zang***, Songbai Yu, Pengfei Yu, Hongying Ding, Yannan Du, Yuchan Yang, and Yiwen Zhang, Hydrothermal conversion of N-acetyl-d-glucosamine to 5-hydroxymethylfurfural using ionic liquid as a recycled catalyst in a water-dimethyl sulfoxide mixture. *Carbohydrate Research*, 2017. 442: p. 1-8.
4. Mingchuan Zhang, **Hongjun Zang***, Bin Ma, Xiaolei Zhang, Ruirui Xie, and Bowen ChengGreen Synthesis of 5-Hydroxymethylfurfural from Chitosan Biomass Catalyzed by Benzimidazole-Based Ionic Liquids, *Chemistry Select* 2017, 2, 10323–10328
5. Song-BaiYu, **Hong-Jun Zang***, Xiao-Li Yang, Ming-Chuan Zhang, Rui-Rui Xie, Highly efficient preparation of 5-hydroxymethylfurfural from sucrose using ionic liquids and heteropolyacidcatalysts in dimethyl sulfoxide–water mixed solvent; *Chinese Chemical Letters*, 2017, 28(7), 1479-1484
6. 张明川, **臧洪俊***, 余松柏, 颜丙, 蒋奕, 谢瑞瑞, 甲壳素生物质转化为高附加值化合物研究进展, *化工进展*, 2017, 36 (3), 863-871.
7. Yu, Songbai; **Zang Hongjun***; Chen, Song et al, Efficient conversion of chitin biomass

- into 5-hydroxymethylfurfural over metal salts catalysts in dimethyl sulfoxide-water mixture under hydrothermal conditions, *Polymer Degradation and Stability*, 2016, 134, 105-114.
8. Yi Jiang, **Hongjun Zang***, Sheng Han, Bing Yan, Songbai Yu, and Bowen Cheng, Direct conversion of chitosan to 5-hydroxymethylfurfural in water using Brønsted-Lewis acidic ionic liquids as catalysts. *RSC Adv.*, 2016, 6, 103774-103781.
 9. Bing Yan, **Hongjun Zang***, Yi Jiang, Songbai Yu and Eugene Y.-X. Chen, Recyclable montmorillonite-supported thiazolium ionic liquids for high-yielding and solvent-free upgrading of furfural and 5-hydroxymethylfurfural to C10 and C12 furoins, *RSC Advances*, 2016, 6, 76707-76715
 10. Mingguang Li, **Hongjun Zang***, Jiaxuan Feng, Qing Yan, Nianqin Yu, Xiaolong Shi, Bowen Cheng, Efficient conversion of chitosan into 5-hydroxymethylfurfural via hydrothermal synthesis in ionic liquids aqueous solution, *Polymer Degradation and Stability*, 2015, 121, 331-339.
 11. **Hongjun Zang***, Eugene Y. X. Chen, Organocatalytic Upgrading of Furfural and 5-Hydroxymethylfurfural to C10 and C12 Furoins with Quantitative Yield and Atom-Efficiency, *International Journal of Molecular Sciences*, 2015, 16, 7143-7158.
 12. Qing Yan, **Hongjun Zang***, Changchun Wu, Jiaxuan Feng, Mingguang Li, Mingchuan Zhang, Lejun Wang, Bowen Cheng, Synthesis, characterization and catalytic application of novel ionic liquids based on thiazolium cation, 2015, *Journal of Molecular Liquids*, 2015, 204, 156-161.
 13. Jiaxuan Feng, **Hongjun Zang***, Qing Yan, Mingguang Li, Xinqiang Jiang and Bowen Cheng, Dissolution and utilization of chitosan in a 1-carboxymethyl-3-methylimidazolium hydrochloride ionic salt aqueous solution, *Journal of Applied Polymer Science*, 2015, 132(22), 41965
 14. Yan Qing, **Hongjun Zang***, Feng Jiaxuan, et al. An efficient method for the synthesis of 3-arylbenzo[f]quinoline-1, 2-dicarboxylate catalyzed by SnCl₂. *Research on Chemical Intermediates*, 2015, 65(5), 714-720.
 15. Kemeng Ji, Jiguang Deng, **Hongjun Zang**, Jiahui Han, Hamidreza Arandiyani, Hongxing Dai, Fabrication and high photocatalytic performance of noble metal nanoparticles supported on 3DOM InVO₄-BiVO₄ for the visible-light-driven degradation of rhodamine B and methylene blue, *Applied Catalysis B: Environmental*, 2015, 165, 285-295
 16. Kemeng Ji, Hongxing Dai, Jiguang Deng, **Hongjun Zang**, Hamidreza Arandiyani, Shaohua Xie, Huanggen Yang, 3DOM BiVO₄ supported silver bromide and noble metals: High-performance photocatalysts for the visible-light-driven degradation of 4-chlorophenol, *Applied Catalysis B: Environmental*, 2015, 168: 274-282
 17. 吴长春, 臧洪俊*, 李大庆, 程博闻, 酸性离子液体水溶液中壳聚糖的氧化降解, *高分子*

材料科学与工程, 2014, 30(4), 75-79.

18. Li, Daqing ; **Zang, Hongjun***; Wu, Changchun, 1-Methylimidazolium hydrogen sulfate catalyzed convenient synthesis of 2,5-dimethyl-N-substituted pyrroles under ultrasonic irradiation, *Ultrasonics Sonochemistry*, 2013, 20(5), 1144-1148,
19. 李大庆, **臧洪俊***, 吴长春, 卢波, 程博闻, 超声波辐射下离子液体催化合成 4-羟基-6-甲基-[1-(苯基亚氨基)乙基]-2H-吡喃-2-酮衍生物, *有机化学*, 2012, 32(11), 2193-2197.
20. **Zang Hongjun***; Zhang Yong; Cheng Bowen, An Efficient and Green One-pot Synthesis of 12-Aryl-8,9,10,12-tetrahydrobenzo[a]xanthen-11-one Derivatives Promoted by Sulfamic Acid in [BMIM]BF₄ Ionic Liquid, *Chinese Journal of Chemistry*, 2012, 30(2), 362-366.
21. **Zang Hongjun***, Su Qihong, Mo Yingming, Cheng Bowen, Ionic liquid under ultrasonic irradiation towards a facile synthesis of pyrazolone derivatives, *Ultrasonics Sonochemistry*, 2011,18, 68-72
22. **Zang Hongjun***, Zhang Yong; Mo Yingming, Cheng, Bowen, Ultrasound-promoted one-pot synthesis of 7-aryl-7,10,11,12-tetrahydrobenzo[c]acridin-8(9H)-one derivatives, *Synthetic communications*, 2011,41, 3207-3214.
23. **Zang Hongjun***, Su Quihong; Guo Song; Mo Yingming, Cheng Bowen, An Efficient One-pot Synthesis of Pyrazolone Derivatives Promoted by Acidic Ionic Liquid , *Chinese Journal of chemistry*,2011, 29(10), 2202-2204.

代表性专利:

1. 双酸性离子液体催化甲壳素及其单体N-乙酰氨基葡萄糖转化为3-乙酰氨基-5-乙酰呋喃, 中国专利: 201811226684.1
2. Brønsted-Lewis 双酸性离子液体催化壳聚糖降解为5-羟甲基糠醛, 中国专利: 201610898465.2
3. 一种N-乙酰氨基葡萄糖转化制备5-羟甲基糠醛的方法, 中国专利: 201610898535.4
4. 一种催化转化甲壳素及其单体N-乙酰氨基葡萄糖制备3-乙酰氨基-5-乙酰基呋喃的方法, 中国专利: 201711133416.0
5. 钨酸、钼酸季铵盐催化C10和C12糠偶姻制备 α -呋喃基二酮, 中国专利: 201711133325.7