

2-异(口恶)唑啉等氮杂环化合物在二铬酸氢四吡啶合镍(II)氧化下的脱氢芳构化反应

王炳祥,何婷,李邴,胡宏纹

南京师范大学化学与环境科学学院;南京大学化学与化工学院

收稿日期 修回日期 网络版发布日期 接受日期

摘要 研究了3, 5-二芳基-4, 5-二氢异(口恶)唑啉化合物(1a~3c)和1, 3, 5-三苯基-4, 5-二氢吡啉化合物(5)分别在二铬酸氢四吡啶合镍(II) [(Py)₄Ni(HCrO₄)₂]氧化下脱氢反应的结果;研究了在[(Py)₄Ni(HCrO₄)₂]存在下,吡啉叶立德、唑啉叶立德或异唑啉叶立德分别和缺电子烯烃反应,一步法合成中氮茛苈生物 9a~9b, 11a~11b, 13的结果,发现金属配合物氧化剂二铬酸氢四吡啶合镍(II)可用于多类杂环化合物的脱氢芳构化。

关键词 [异恶唑 P](#) [吡唑 P](#) [吡啶 P](#) [脱氢](#) [芳构化](#)

分类号 [0621](#)

Aromatization of 2-Isoxazolines and Some N-Containing Heterocyclic Compounds by Tetrakis-pyridine Nickel (II) Dichromate

Wang Bingxiang, He Ting, Li Cun, Hu Hongwen

College of Chemistry and Environment Science, Nanjing Normal University; Department of Chemistry, Nanjing University

Abstract Aromatization of 3,5-diaryl-4,5-dihydroisoxazoles (1a ~ 1e), 1,4-dihydropyridines (3a ~ 3c) and 1,3,5-triphenyl-4,5-dihydropyrazole (5) were promoted by tetrakis-pyridine nickel(II) dichromate to yield the corresponding 3,5-diarylisoxazoles (2a ~ 2e) in moderate yields (52% ~ 72%), pyridine derivatives (4a ~ 4b) in moderate to high yields (79% ~ 88%) and 1,3,5-triphenylpyrazole (6) in 81% yield, respectively. A one-pot procedure was developed to prepare the derivatives of indolizines 9a ~ 9b, 11a ~ 11b and 13 in moderate to high yields (84% ~ 93%) by the reaction of pyridinium JV-ylides, isoquinolinium iV-ylides or quinolinium iV-ylides with electron-deficient 8a~8b in the presence of tetrakispyridine nickel (II) dichromate (TPND). The results showed that TPND possesses very good activities on the aromatization of N-containing heterocyclic compounds.

Key words [ISOXAZOLE P](#) [PYRAZOLE P](#) [PYRIDINE P](#) [DEHYDROGENATION](#) [AROMATIZATION](#)

DOI:

通讯作者

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(0KB\)](#)

▶ [\[HTML全文\]\(0KB\)](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中 包含“异恶唑 P”的相关文章](#)

▶ 本文作者相关文章

- [王炳祥](#)
- [何婷](#)
- [李邴](#)
- [胡宏纹](#)