

Titanium Dioxide Nanoparticles Catalyzed Synthesis of Hantzsch Esters and Polyhydroquinoline Derivatives

Mahmood TAJBAKSH1,* , Ehsan ALAEE2, Heshmatollah ALINEZHAD1, Mohammad KHANIAN1, Fatemeh JAHANI 1, Samad KHAKSAR3, Parizad REZAAEE1, Mahgol TAJBAKSH1

1Department of Organic Chemistry, Faculty of Chemistry, University of Mazandaran, Babolsar 47415, Iran; 2Gorgan Medical University, Gorgan, Iran; 3Chemistry Department, Islamic Azad University, Ayatollah Amoli Branch, Amol P.O. Box 678, Iran

Mahmood TAJBAKSH1,* , Ehsan ALAEE2, Heshmatollah ALINEZHAD1, Mohammad KHANIAN1, Fatemeh JAHANI 1, Samad KHAKSAR3, Parizad REZAAEE1, Mahgol TAJBAKSH1

1Department of Organic Chemistry, Faculty of Chemistry, University of Mazandaran, Babolsar 47415, Iran; 2Gorgan Medical University, Gorgan, Iran; 3Chemistry Department, Islamic Azad University, Ayatollah Amoli Branch, Amol P.O. Box 678, Iran

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摘要 1,4-Dihydropyridine and polyhydroquinoline derivatives have been prepared efficiently in a one-pot synthesis via Hantzsch condensation using nanosized titanium dioxide as a heterogeneous catalyst. The present methodology offers several advantages such as excellent yields, short reaction times (30 – 120 min), environmentally benign, and mild reaction conditions. The catalyst can be readily separated from the reaction products and recovered in excellent purity for direct reuse.

关键词: [titanium dioxide nanoparticles](#) [Hantzsch reaction](#) [1,4-dihydropyridine](#) [polyhydroquinoline](#)

Abstract: 1,4-Dihydropyridine and polyhydroquinoline derivatives have been prepared efficiently in a one-pot synthesis via Hantzsch condensation using nanosized titanium dioxide as a heterogeneous catalyst. The present methodology offers several advantages such as excellent yields, short reaction times (30 – 120 min), environmentally benign, and mild reaction conditions. The catalyst can be readily separated from the reaction products and recovered in excellent purity for direct reuse.

Keywords: [titanium dioxide nanoparticles](#), [Hantzsch reaction](#), [1,4-dihydropyridine](#), [polyhydroquinoline](#)

收稿日期: 2012-03-25; 出版日期: 2012-08-17

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引用本文:

Mahmood TAJBAKSH, Ehsan ALAEE, Heshmatollah ALINEZHAD等 .Titanium Dioxide Nanoparticles Catalyzed Synthesis of Hantzsch Esters and Polyhydroquinoline Derivatives[J] 催化学报, 2012,V33(9): 1517-1522

Mahmood TAJBAKSH, Ehsan ALAEE, Heshmatollah ALINEZHAD etc .Titanium Dioxide Nanoparticles Catalyzed Synthesis of Hantzsch Esters and Polyhydroquinoline Derivatives[J] Chinese Journal of Catalysis, 2012,V33(9): 1517-1522

链接本文:

[http://www.chxb.cn/CN/10.1016/S1872-2067\(11\)60435-X](http://www.chxb.cn/CN/10.1016/S1872-2067(11)60435-X) 或 <http://www.chxb.cn/CN/Y2012/V33/I9/1517>

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