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The synthesis of iminothiophenone-fused quinolines and evaluation of their serendipitous reactions

[Morteza Shiri](#),^{a*} Zeinab Faghihi,^a Hossein A. Oskouei,^a Majid M. Heravi,^a Shima Fazelzadeh,^a Behrouz Notash^b

^a Department of Chemistry, Faculty of physics and Chemistry, Alzahra University, Vanak, Tehran 1993893973, Iran.
Fax: +98 21 88041344, mshiri@alzahra.ac.ir.

^b Department of Chemistry, Faculty of \ Chemistry, Shahid Beheshti University, Tehran.

Abstract

The novel synthesis of tricyclic 2-(cyclohexylimino)thieno[2,3-b]quinolin-3(2H)-ones from the reaction of 2mercaptoquinoline-3-carbaldehydes and isocyanides in methanol without using any additive is described. This protocol proceeds with high atom economy through the formation of C–S and C–C bond and then oxidation via tandem reaction. Moreover, some other remarkable aspects of this reaction such like the hydrolysis and a three-component reaction with aromatic amine to afford a highly conjugated schiff base is also investigated.

Keywords: Aromatic amines, Atom economy, C-C bonds, Isocyanides, Schiff-base, Tandem reaction.
Three component reactions.