Synthesis and characterization of some new fluoroquinolone-barbiturate hybrid systems

Abstract

New hybrid molecules containing fluoroquinolone- barbiturate moieties were synthesized via simple routes, followed by characterization using various spectroscopic approaches. The THF solvent molecule was incorporated into compounds 2 and 3 through its oxygen atom based on its nucleophilicity. Facile displacement of the chloride ion in 4-oxoquinoline-3-carbonyl chloride by the nucleophilic methylene carbon of 1,3-dialkylbarbiturate/ thiobarbiturate afforded the respective hybrids 5 and 6.