

ABSTRACT

In this present work, Tetrahydrocannabinol (THC) which is the major active constituent of cannabis sativa and is responsible mainly for its psychoactive and medicinal properties, was isolated first by column chromatography (silica gel, mesh size 60). The pure THC (**1**) thus obtained was followed by substitution of different electrophiles at hydroxyl group (**2a-j**). The purity of all the compounds was confirmed by thin layer chromatography. All these synthesized compounds were illustrated and identified through IR, EI-MS and ¹H-NMR spectra. The bioactivities of these synthetic compounds were evaluated against lipoxygenase (LOX), acetylcholinesterase (AChE) and butyrylcholinesterase (BChE) enzymes and found that these compounds show prominent activities against butyrylcholinesterase (BChE).