

Abstract

An unusual and facile approach for the synthesis of 2-benzofuranyl-3-hydroxyacetones from 6-acetoxy- β -pyrones and phenols is presented. The synthetic sequence involves a cascade transacetalisation, Fries-type O \rightarrow C rearrangement followed by Michael addition and ring opening aromatisation. Versatility of this method was further demonstrated via the synthesis of 4,4a-dihydropyrano[3,2-b]benzofuran-3-ones, furo[3,2-c]coumarins, and spiro[benzofuran-2,2'-furan]-4'-ones. The unexpected cascade event would also provide new possible considerations in the β -pyrone-involved organic synthesis.