Supplementary Material

Electrochemically induced tandem Knoevenagel-Michael assembling of aldehydes with kojic acid: direct and efficient arylbis[3-hydroxy-6-(hydroxymethyl)-4-oxo-4H-pyran-2-yl]methanes formation

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1H and 13C NMR spectra of novel 2,2′-[(aryl)methylene]bis[3-hydroxy-6-(hydroxymethyl)-4H-pyran-4-ones] 2c,d,f-m with tetramethylsilane (TMS) as internal standard .................................................................S2
Chemical shifts ($\delta$) are reported in parts per million (ppm) downfield of TMS.

$2,2'\text{-}[(4\text{-}Ethylphenyl)methylene]\text{bis}[3\text{-}hydroxy\text{-}6\text{-}(hydroxymethyl)\text{-}4H\text{-}pyran\text{-}4\text{-}one]$ (2c)
2,2'-(4-Tert-butyphenyl)methylene]bis[3-hydroxy-6-(hydroxymethyl)-4H-pyran-4-one] (2d)
2,2'-[(2,5-Dimethoxyphenyl)methylene]bis[3-hydroxy-6-(hydroxymethyl)-4H-pyran-4-one] (2f)

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2,2'-(3-Fluorophenyl)methylene]bis[3-hydroxy-6-(hydroxymethyl)-4H-pyran-4-one] (2g)
2,2'-[(4-Fluorophenyl)methylene]bis[3-hydroxy-6-(hydroxymethyl)-4H-pyran-4-one] (2h)

© Zelinsky Institute of Organic Chemistry, Moscow. Braken AH99 87 (71 MHz (OCH) CDCl3), 13C spectroscopy. (OCH) 83.89 ± 0.05 ppm. (HOC) 81.17 ppm. 19F IR (500 MHz, CDCl3) 378.14, 368.03, 356.01, 344.09, 332.07, 320.05, 308.03, 296.01 ppm.
2,2'-[(2-Chlorophenyl)methylene]bis[3-hydroxy-6-(hydroxymethyl)-4H-pyran-4-one] (2i)
2,2'\-[(4-Chlorophenyl)methylene]bis[3-hydroxy-6-(hydroxymethyl)-4H-pyran-4-one] (2j)
2,2'-[(1-Naphthyl)methylene]bis[3-hydroxy-6-(hydroxymethyl)-4H-pyran-4-one] (2k).
2,2'\-
[{(Pyridin-3-yl)methylene}bis[3-hydroxy-6-(hydroxymethyl)-4H-pyran-4-one] (2l).
2,2'-[(2-Furyl)methylene]bis[3-hydroxy-6-(hydroxymethyl)-4H-pyran-4-one] (2m).