Supplementary Information for

One-pot synthesis of coumarins unsubstituted on the pyranic nucleus catalysed by a Wells–Dawson heteropolyacid ($H_6P_2W_{18}O_{62}$)

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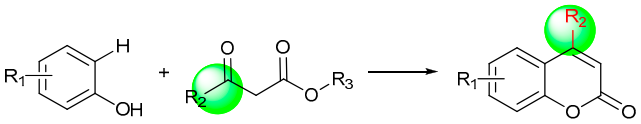


Figure S1. Synthesis of coumarins by reaction of phenols with β-keto esters

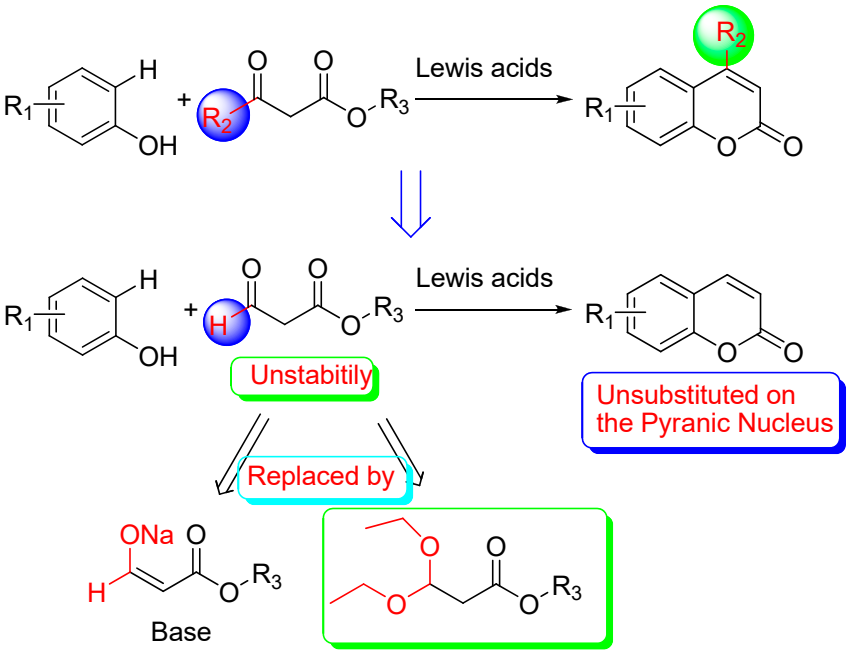
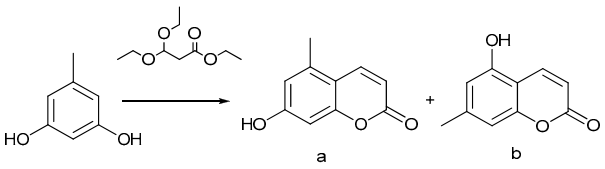
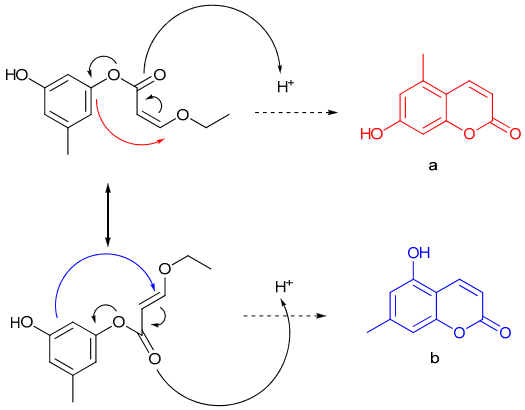


Figure S2. The idea of this work

Table S1. Isomer ratios of coumarin produced from 5-methylbenzene-1, 3-diol



Entry	T(°C)	Yield	Ratio (a:b)
1	80	74	2:1
2	90	88	3:1
3	100	86	6.7:1



Reaction conditions: Phenol (5 mmol), ethyl 3, 3-diethoxypropionate (7.5 mmol) stirred at 90 °C, Under solvent-free conditions. GC yield