

## A convenient synthesis of 8-hydroxy-1-tetralones from naphthalene-1,8-diol

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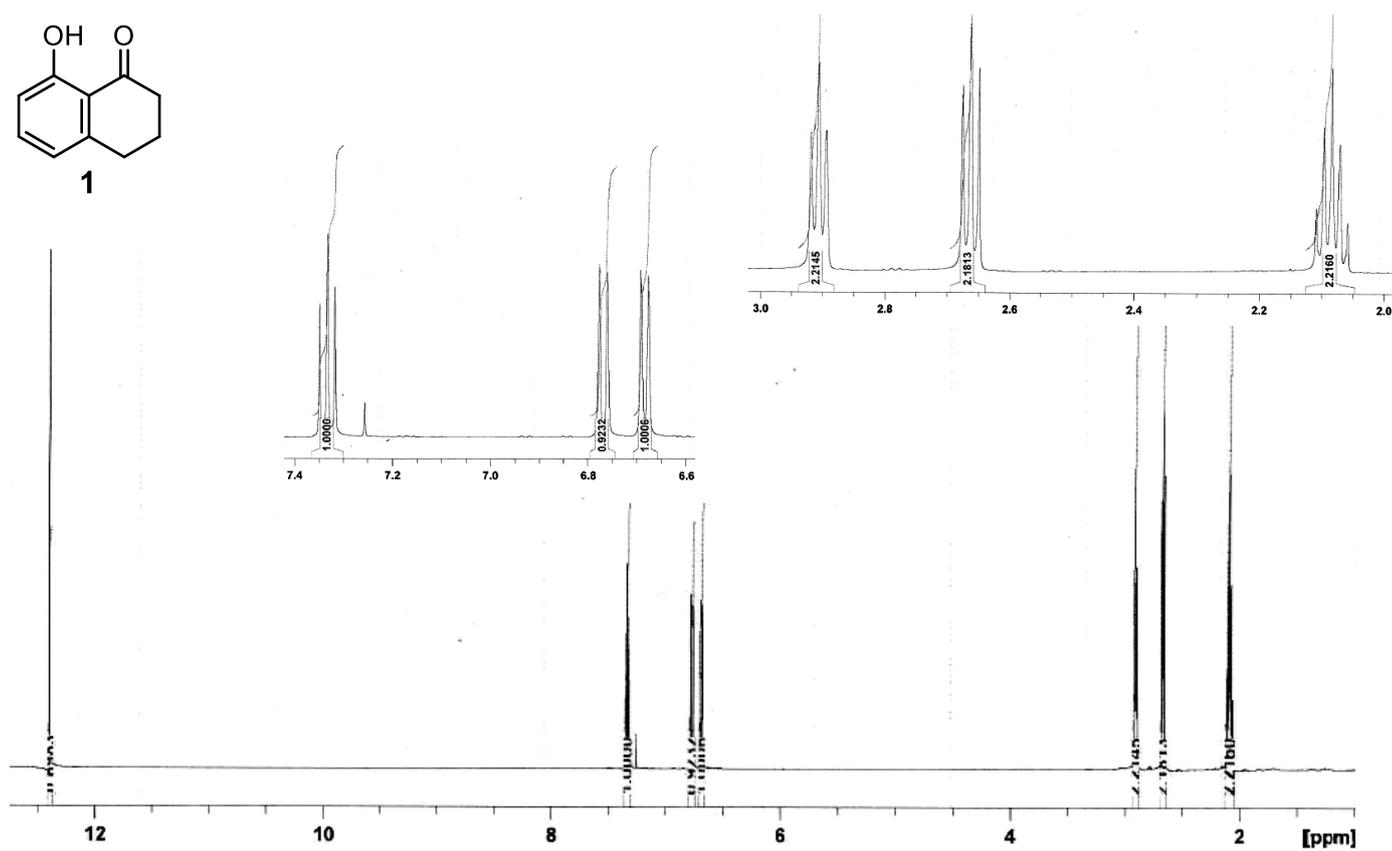
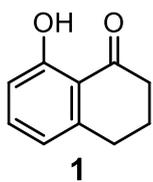
#### Materials and equipment

Anhydrous aluminum bromide and aluminum chloride (purity 98-99%), benzene, cyclohexane and 1,8-naphthalenediol (purity 95%) were purchased from chemical suppliers and used as received.

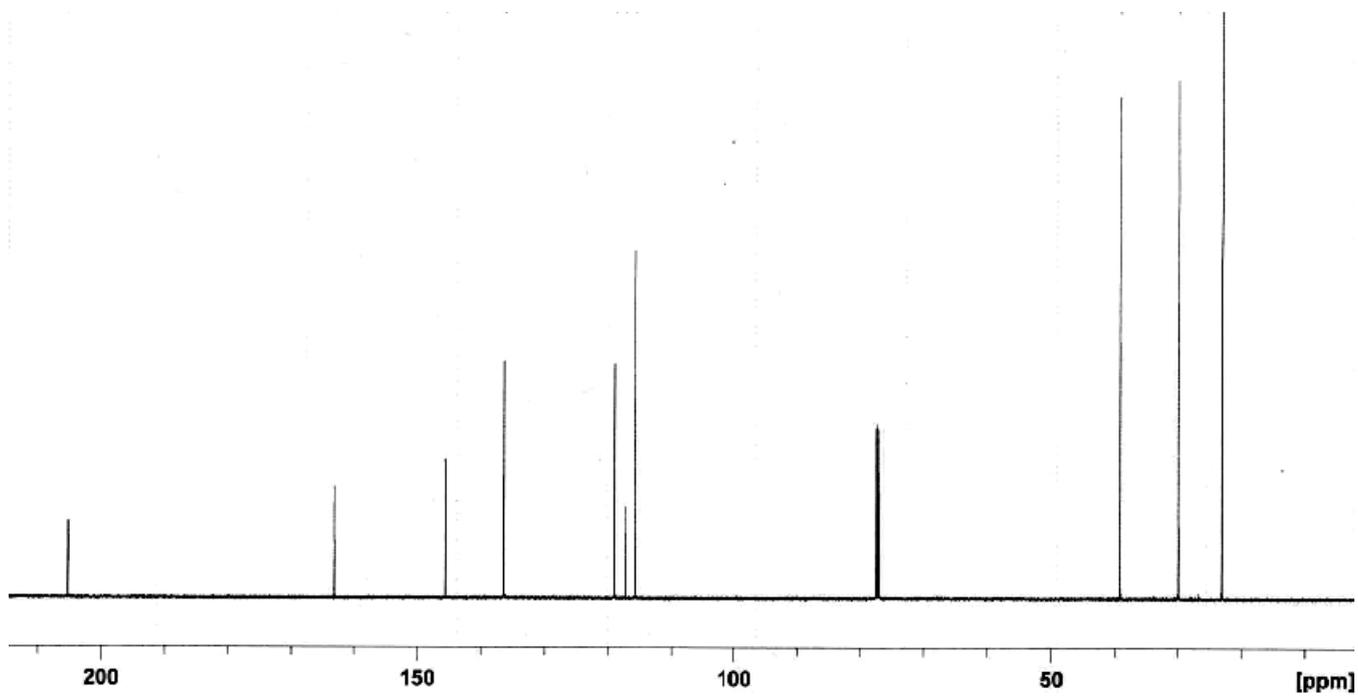
The <sup>1</sup>H and <sup>13</sup>C NMR spectra were recorded on a Bruker AVANCE III 500 spectrometer at 500 and 125 MHz, respectively. The chemical shifts were measured relative to the solvent signals (CDCl<sub>3</sub> δ 7.26 ppm and δ<sub>C</sub> 77.16 ppm). Column chromatography was carried out on silica gel.

Mass and accurate mass (HRMS) spectra were measured in the joint use center “Chemical Service Center of Joint Use” of SB RAS (N. N. Vorozhtsov Novosibirsk Institute of Organic Chemistry) using a high resolution DFS Thermo Scientific mass-spectrometer.

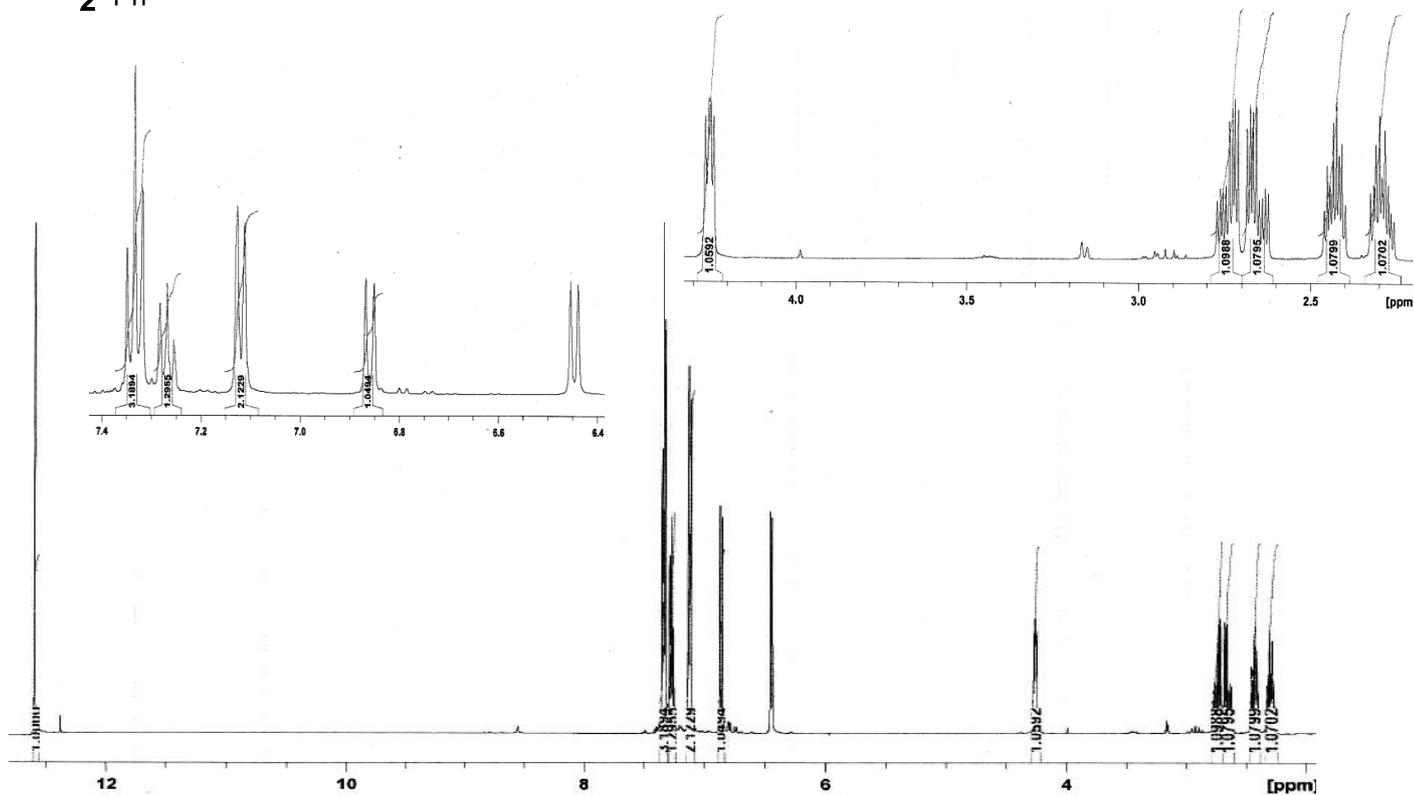
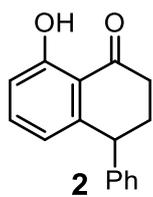
GC-MS data were acquired on an Agilent 6890N/5973N EI/PCI instrument using a HP-5MS column; the temperature was programmed from 50 to 280°C, 10 K/min. The temperature of the vaporizer was 280°C.



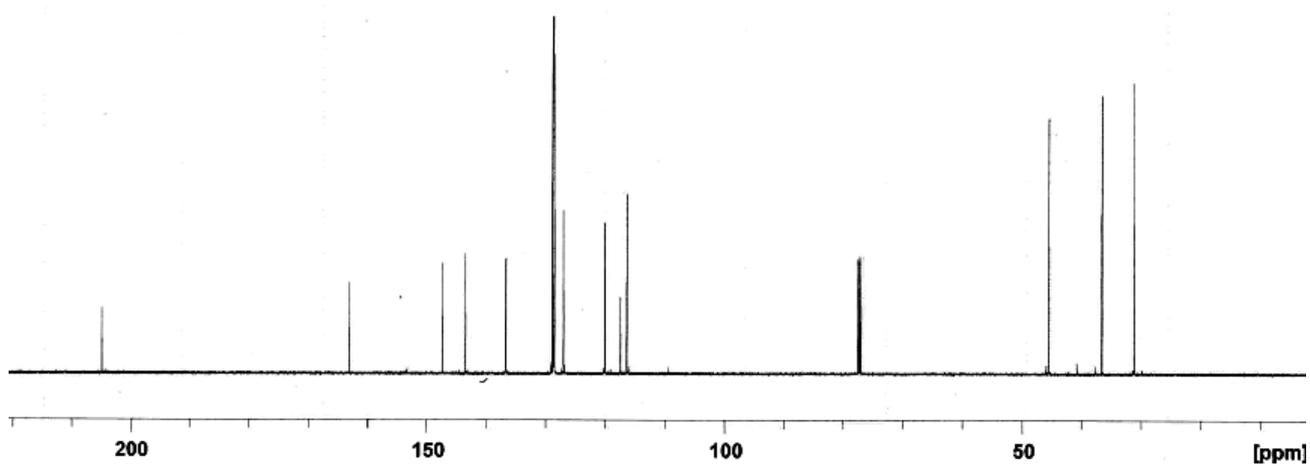
$^1\text{H}$  NMR spectrum of compound **1** (500 MHz,  $\text{CDCl}_3$ )



$^{13}\text{C}$  NMR spectrum of compound **1** (125 MHz,  $\text{CDCl}_3$ )



$^1\text{H}$  NMR spectrum of compound **2** (500 MHz,  $\text{CDCl}_3$ )



$^{13}\text{C}$  NMR spectrum of compound **2** (125 MHz,  $\text{CDCl}_3$ )