
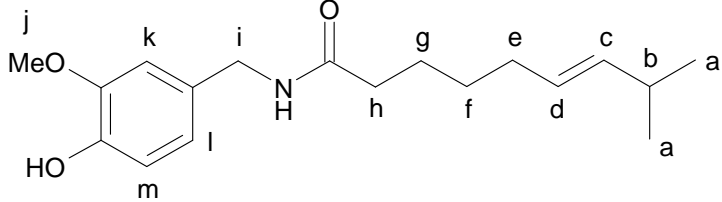


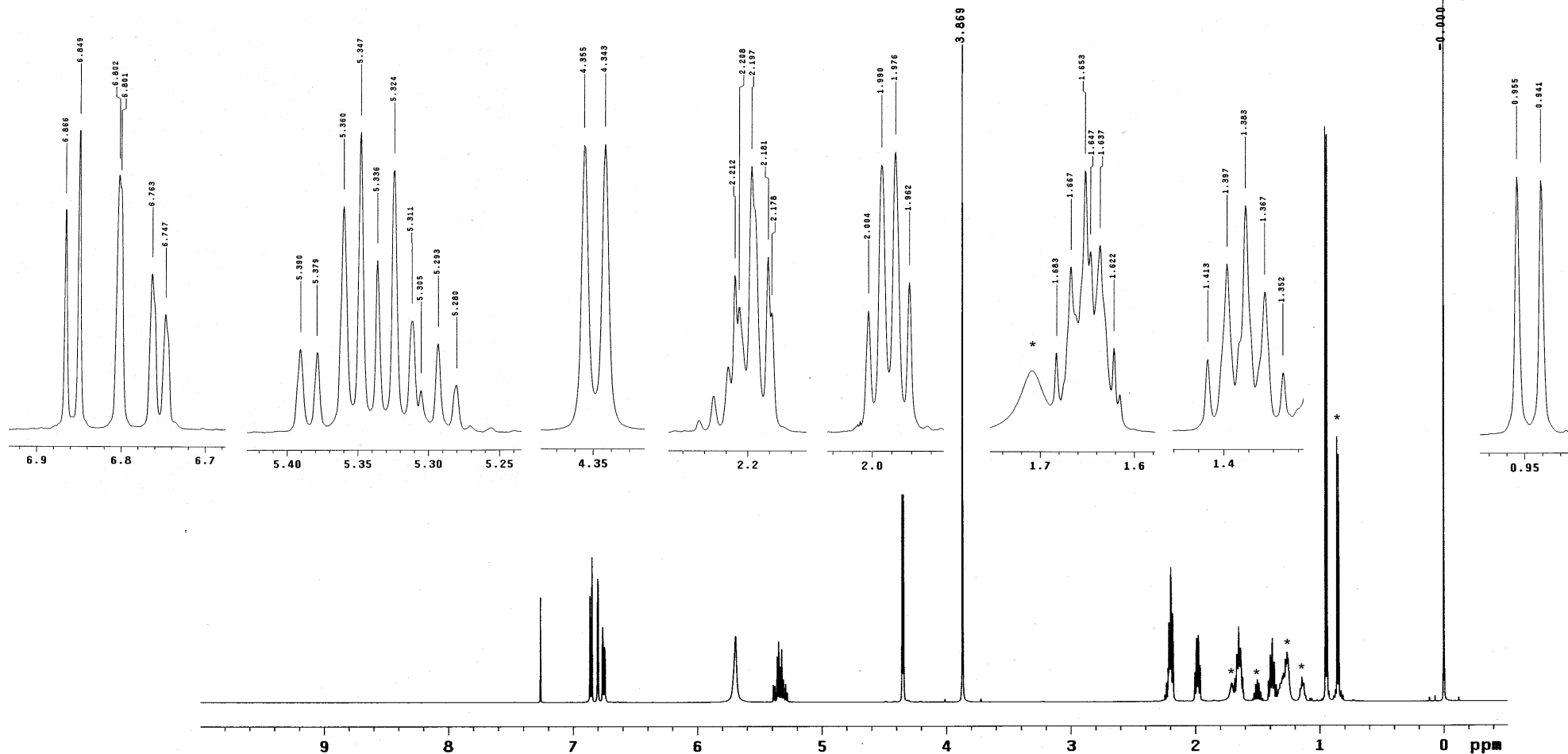
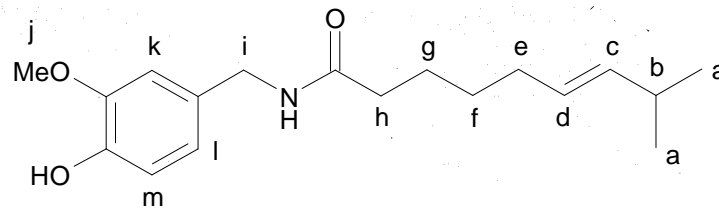
NMR SPECTROMETRY

<b>Contributor's name and address:</b>		Verification Laboratory
Secretariat identification code	25-3-0001r (p1/2)	DSO National Laboratories
Signature		11 Stockport Road Singapore 117605
<b>Chemical information:</b>		
Chemical name	Capsaicin	
Schedule number		
CAS registry number	404-86-4	
Chemical structure with numbering of atoms		
Molecular formula	C <sub>18</sub> H <sub>27</sub> NO <sub>3</sub>	
<b>Sample information:</b>		
Sample purity	natural	
Sample concentration	21 mg/mL	
Solvent	CDCl <sub>3</sub>	
pH	-	
Source	TCI (Tokyo Kasei)	
Reference chemical shift	TMS (internal), 0 ppm	
<b>Instrument information:</b>		
Manufacturer	Varian, Inc.	
Model	Inova 500 MHz	
Spectrometer frequency	500 MHz	
Software version	VNMR version 6.1C	
<b>Experimental information:</b>		
Nucleus measured	<sup>1</sup> H	
Sample temperature	25 °C	
Spectral width (Hz)	5252.1	
Data points in Fourier transformed spectrum	32768	
Repetition time	12 s	
Pulse angle (μs and degrees)	3.462 μs, 45°	
Date of experiment	1 Jun 2005	
Data points in FID	31480	
Number of scans	16	
Baseline correction	Yes	
<b>Spectral information:</b>		
Chemical shifts (ppm) assigned except for acidic protons	Ha = 0.95, Hb = 2.21, Hc = 5.37, Hd = 5.31, He = 1.98, Hf = 1.38, Hg = 1.65, Hh = 2.20, Hi = 4.35, Hj = 3.87, Hk = 6.80, Hl = 6.75, Hm = 6.86	
Coupling constants (Hz)	J(a,b) = 6.73, J(b,c) = 5.93, J(c,d) = 15.39, J(d,e) = 6.09, J(g,h) = 7.69, J(l,m) = 8.01	

25-3-0001r (p2/2)

**Capsaicin (C<sub>18</sub>H<sub>27</sub>NO<sub>3</sub>)**  
[404-86-4]

**<sup>1</sup>H NMR**



Res.Freq: 499.662 MHz  
Solvent: CDCl<sub>3</sub>  
Temperature: 25°C  
Concentration: 21 mg/mL  
Reference: TMS (internal)  
Spectral Width: 5252.1 Hz  
Data points [FID]: 31480  
Data points [Spectrum]: 32768

Pulse width: 3.462 μs, 45°  
Number of Scans: 16  
Line broadening: no  
Rep. time: 12 s  
Resolution: 0.3 Hz (TMS)  
Baseline correction: Yes  
Instrument: Varian INOVA 500

Nuc δ[ppm]	J[Hz]	Nuc δ[ppm]	J[Hz]
a: 0.95	J(a,b) = 6.73	h: 2.20	
b: 2.21	J(b,c) = 5.93	i: 4.35	
c: 5.37	J(c,d) = 15.39	j: 3.87	
d: 5.31	J(d,e) = 6.09	k: 6.80	
e: 1.98		l: 6.75	J(l,m) = 8.01
f: 1.38		m: 6.86	
g: 1.65	J(g,h) = 7.69		