

Supporting Information

for

Use of costic acid, a natural extract from *Dittrichia viscosa*, for the control of *Varroa destructor*, a parasite of the European honey bee

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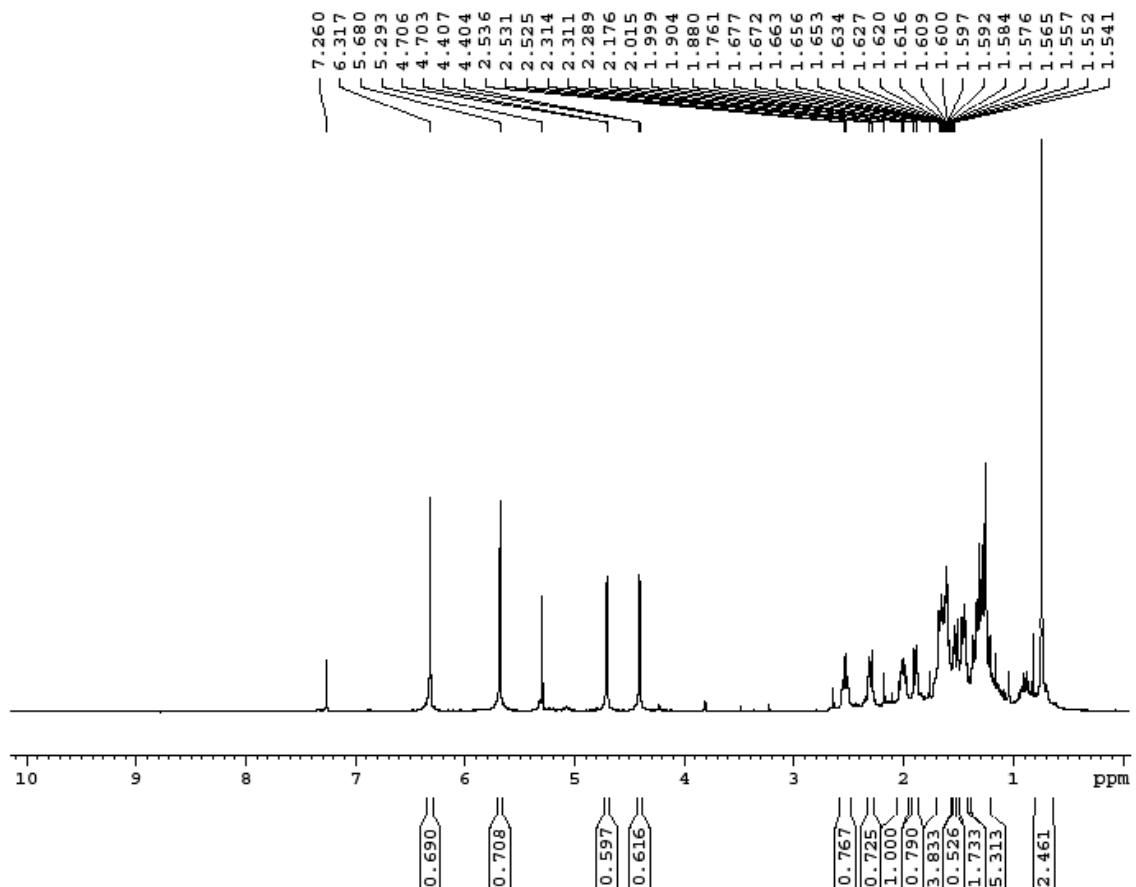
* Corresponding author

NMR, IR and MS spectra of costic acid

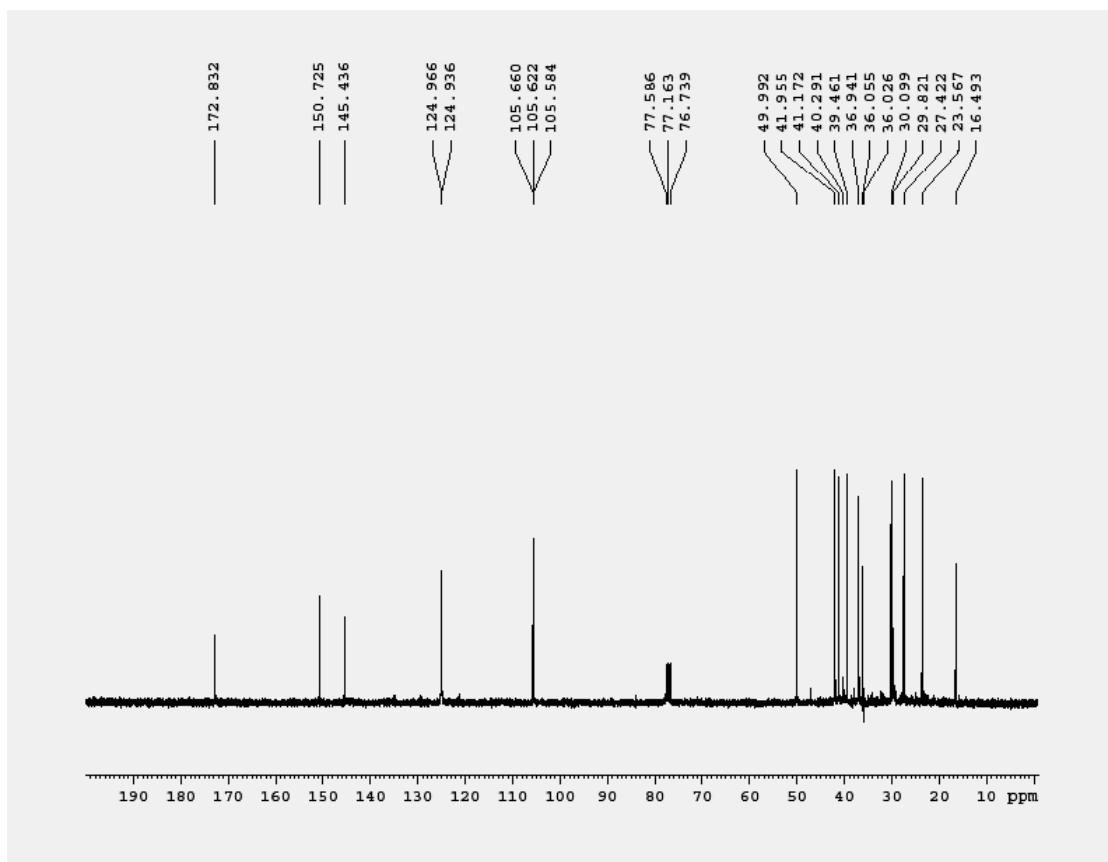
Table of contents:

¹ H NMR of costic acid	S2
¹³ C NMR of costic acid	S3
DEPT 45°, 90° and 135° spectra of costic acid	S4
COSY spectrum of costic acid	S5
COSY spectrum of costic acid (0.0–4.5 ppm)	S6
HMBC spectrum of costic acid	S7
HMBC spectrum of costic acid (¹³ C: 0–65 ppm; ¹ H: 0.0–2.6 ppm)	S8
HMQC spectrum of costic acid	S9
HMQC spectrum of costic acid (¹³ C: 0–65 ppm; ¹ H: 0.0–2.6 ppm)	S10
NOESY spectrum of costic acid	S11
NOESY spectrum of costic acid (0.7–3.1 ppm)	S12
FTIR spectrum of costic acid	S13
Mass spectrum of costic acid	S14

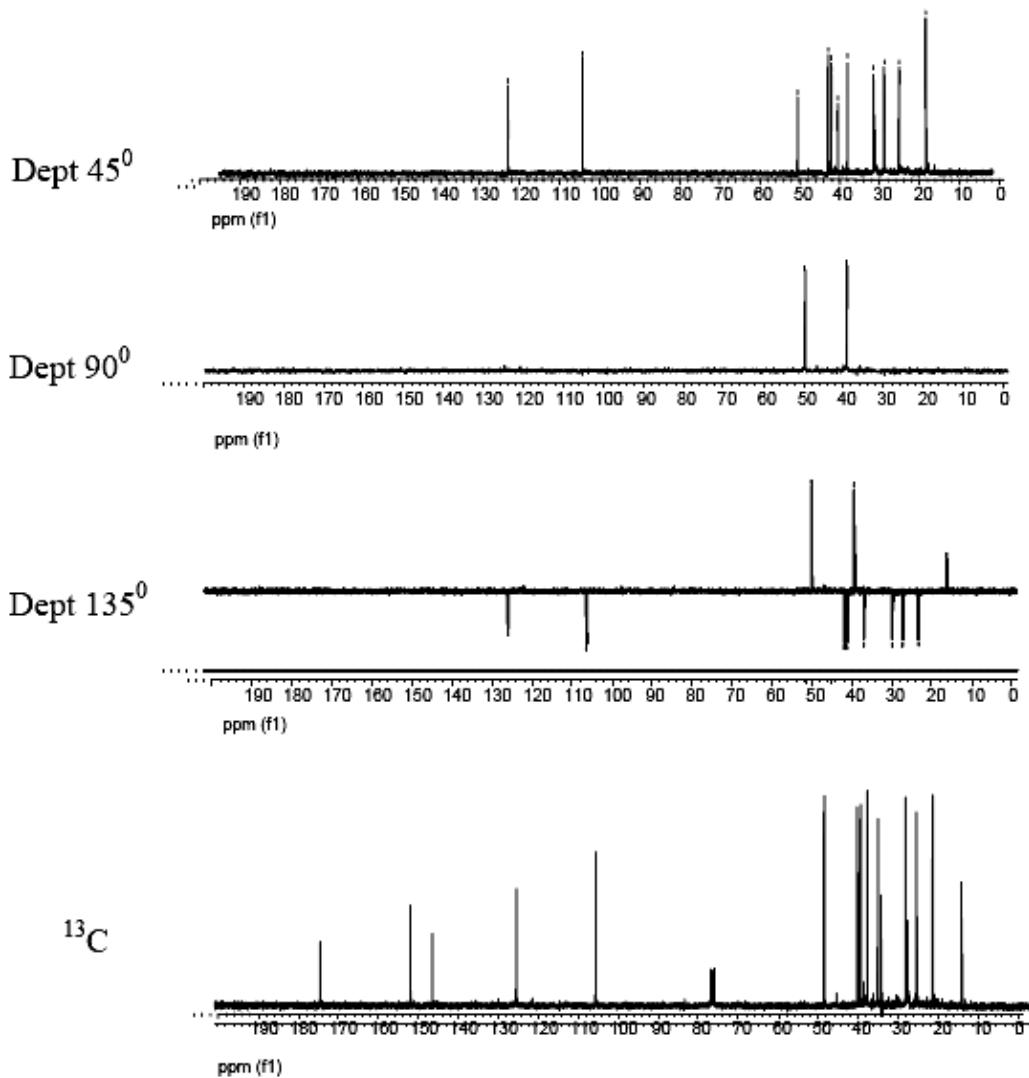
¹H NMR of costic acid



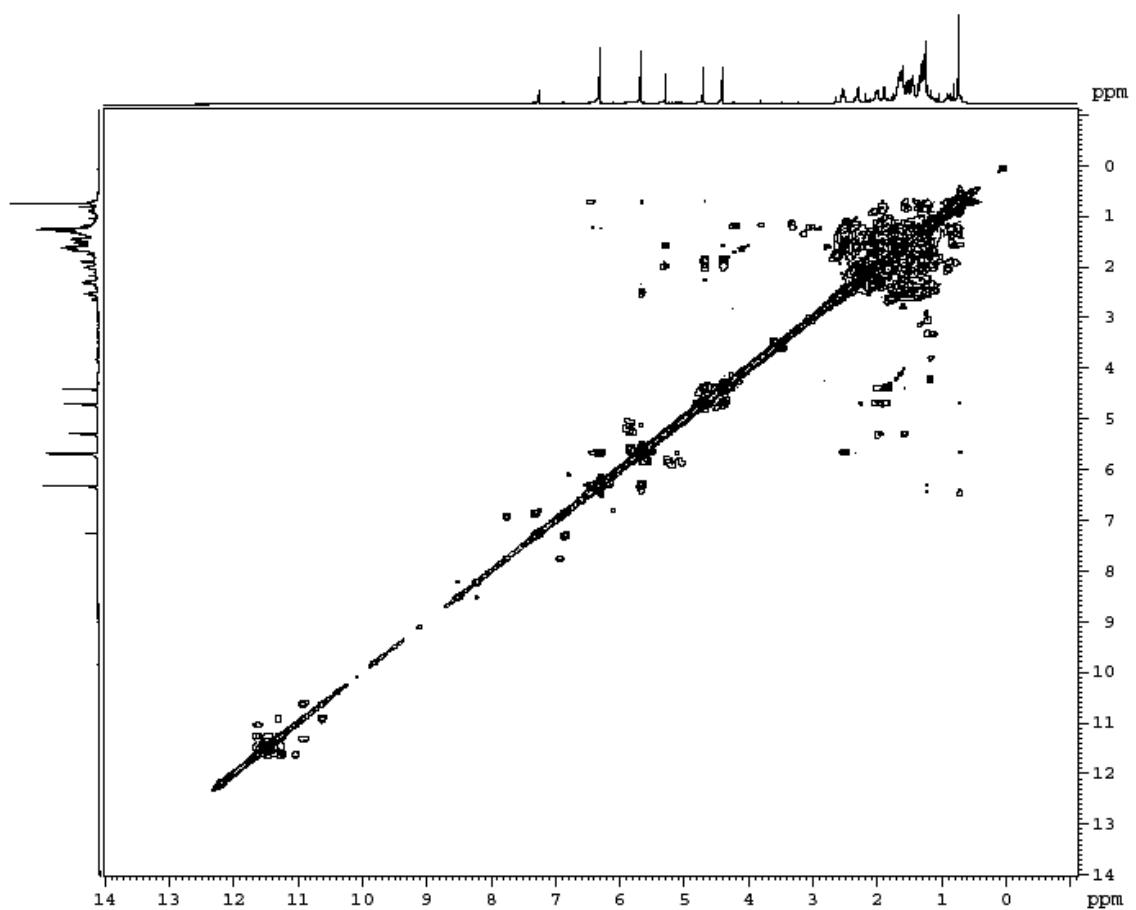
¹³C NMR of costic acid



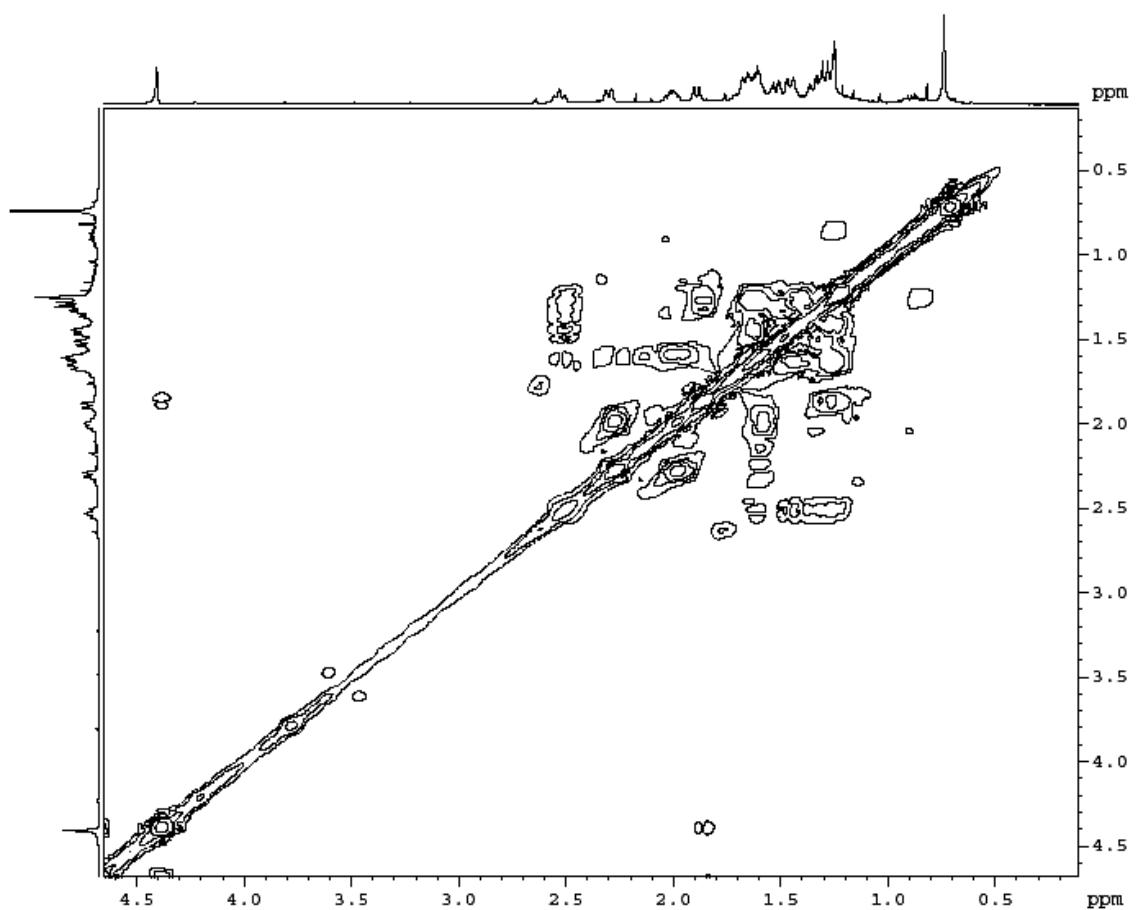
DEPT 45°, 90° and 135° spectra of costic acid



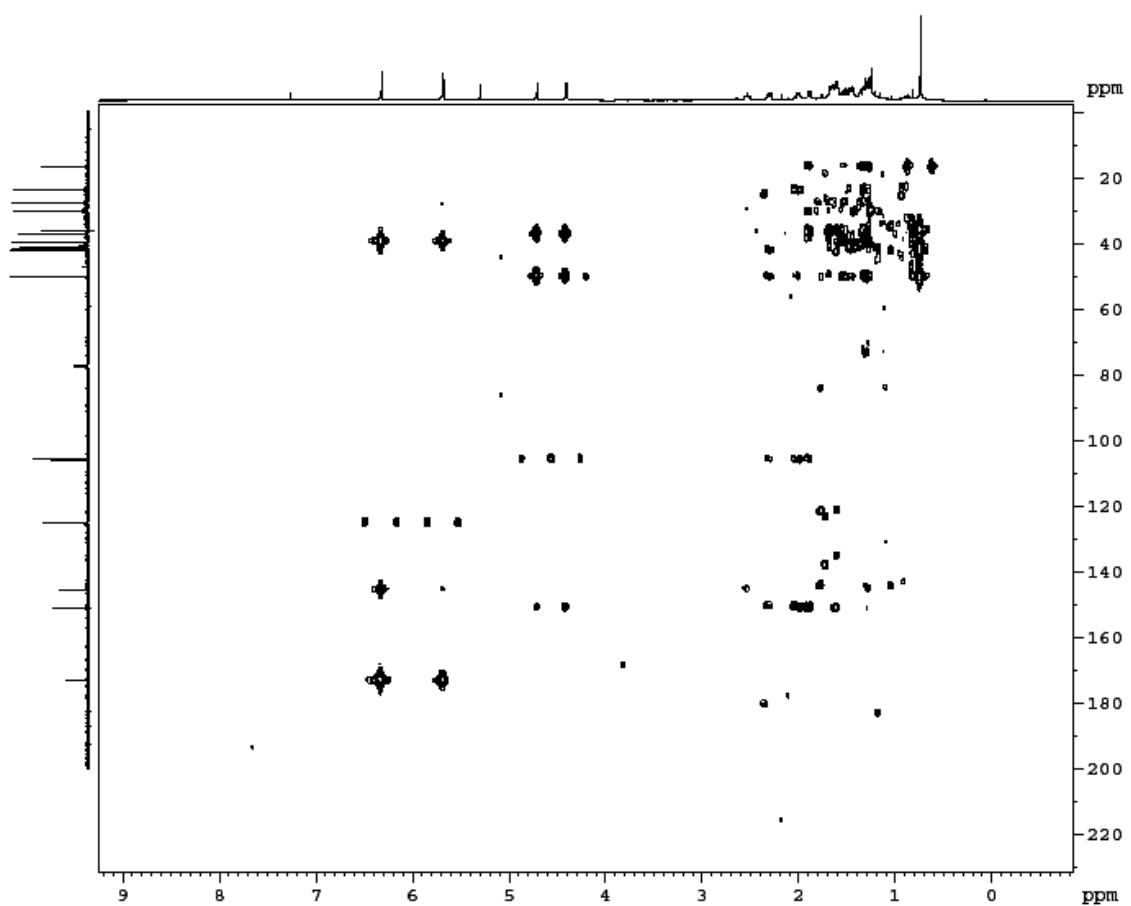
COSY spectrum of costic acid



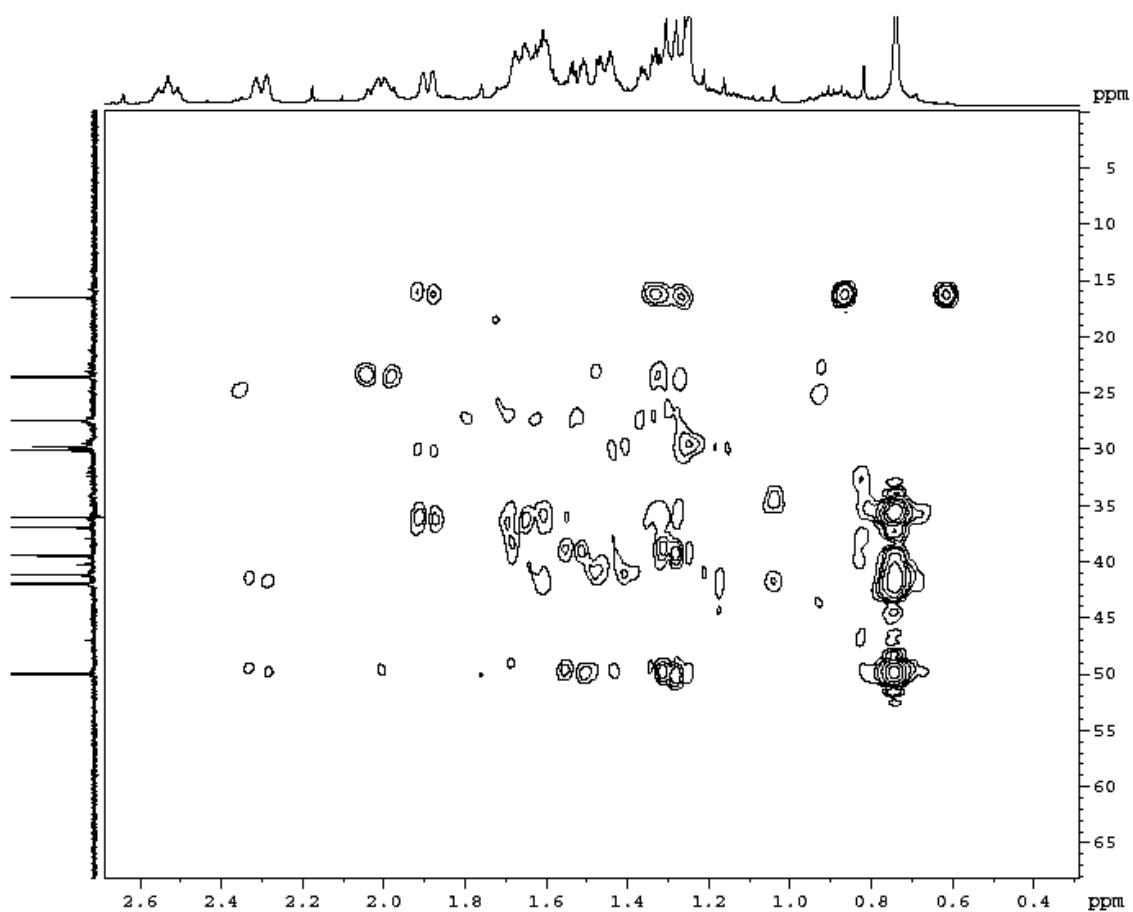
COSY spectrum of costic acid (0.0–4.5 ppm)



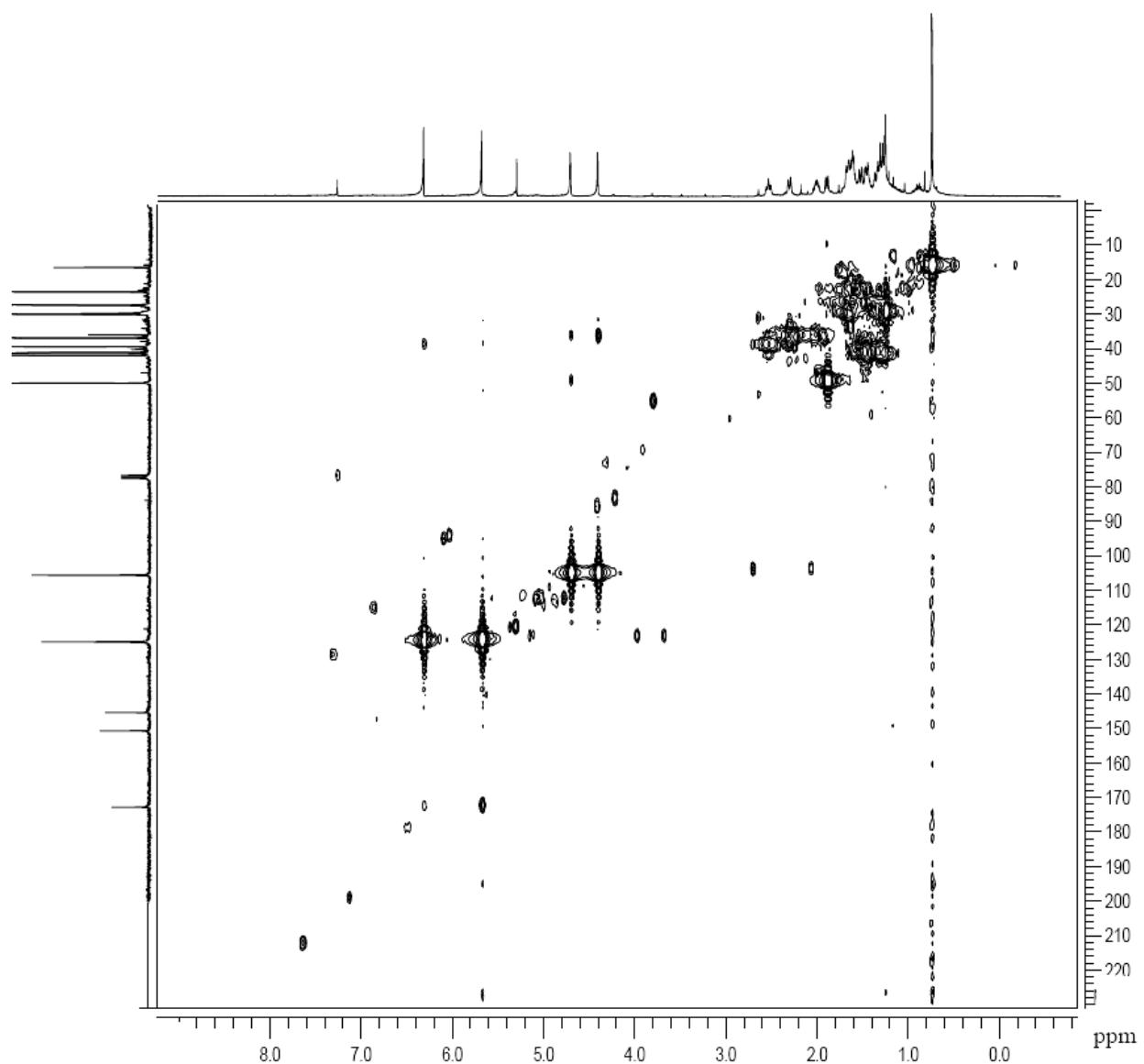
HMBC spectrum of costic acid



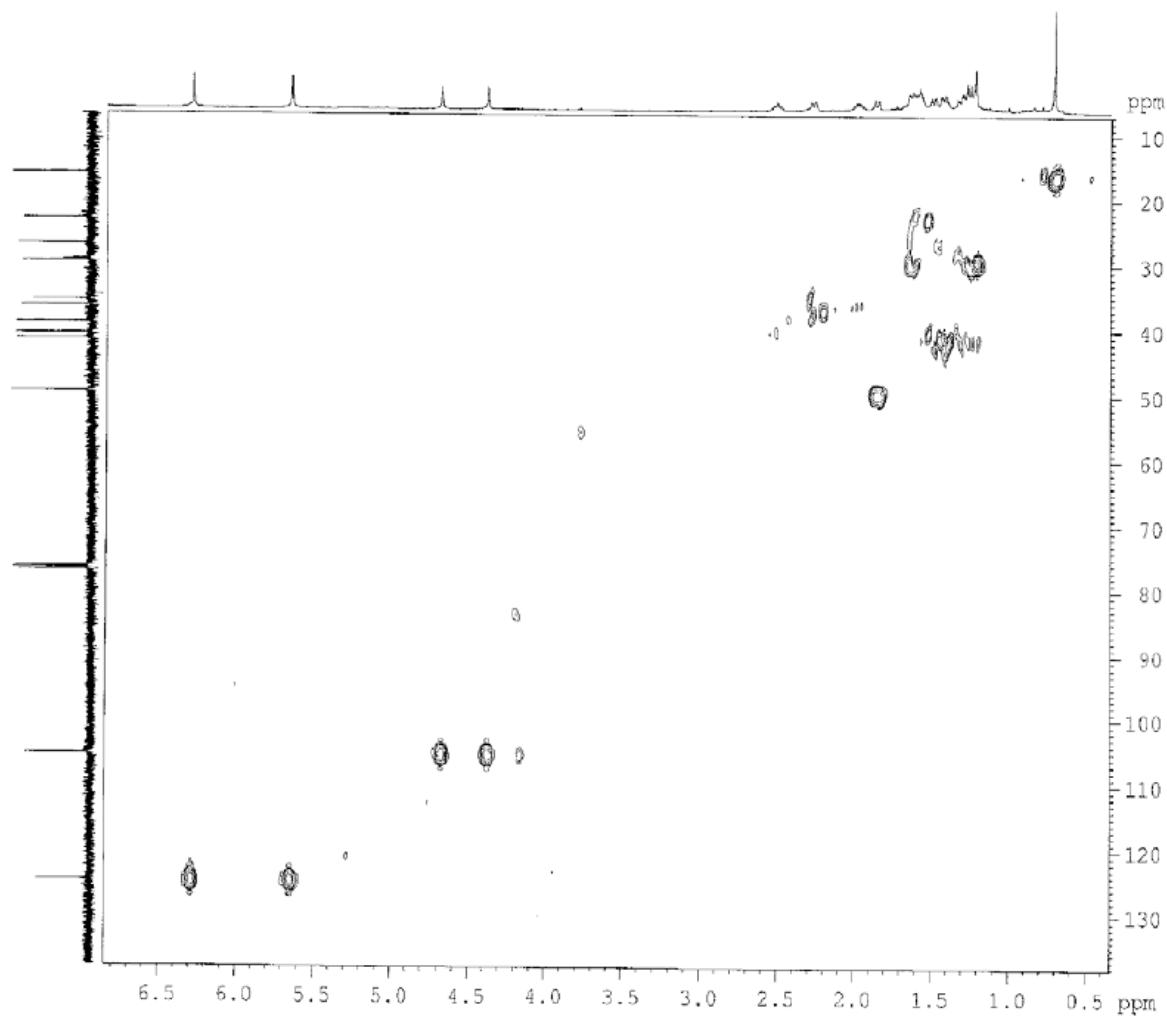
HMBC spectrum of costic acid (^{13}C : 0–65 ppm; ^1H : 0.0–2.6 ppm)



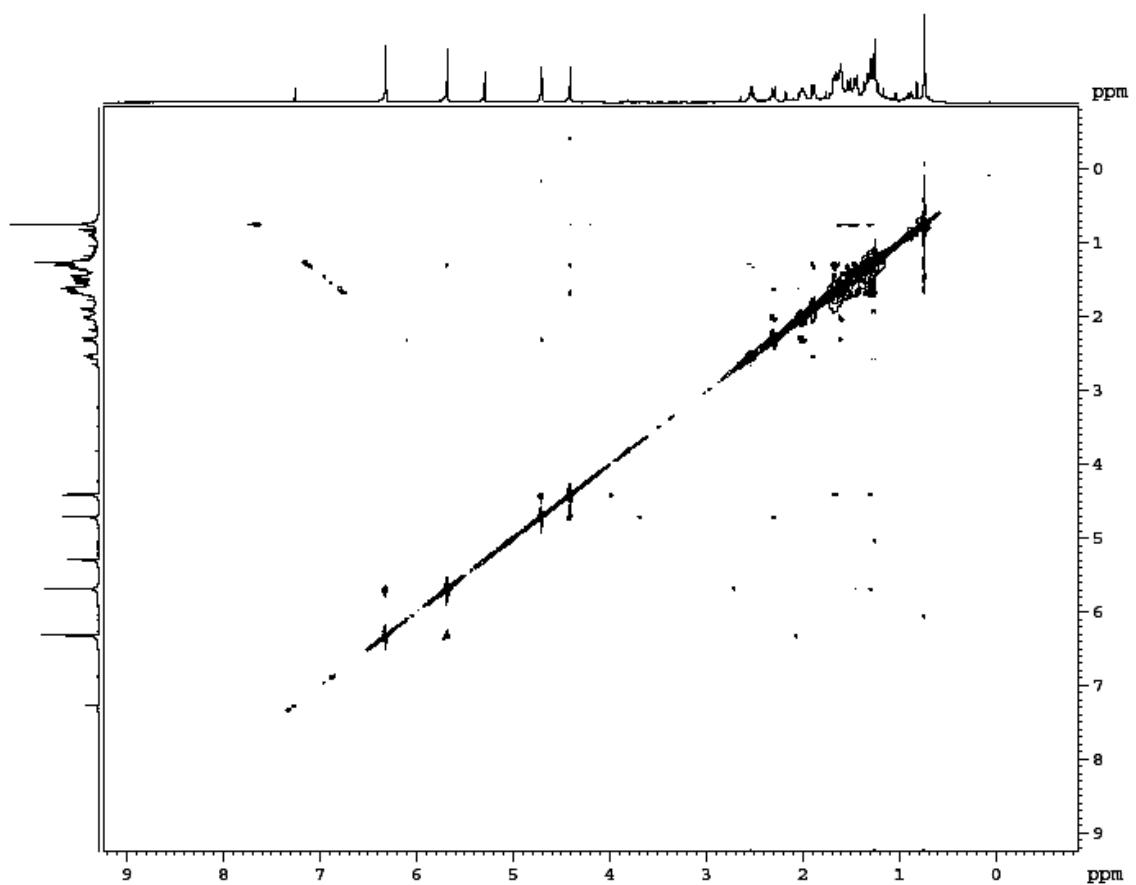
HSQC spectrum of costic acid



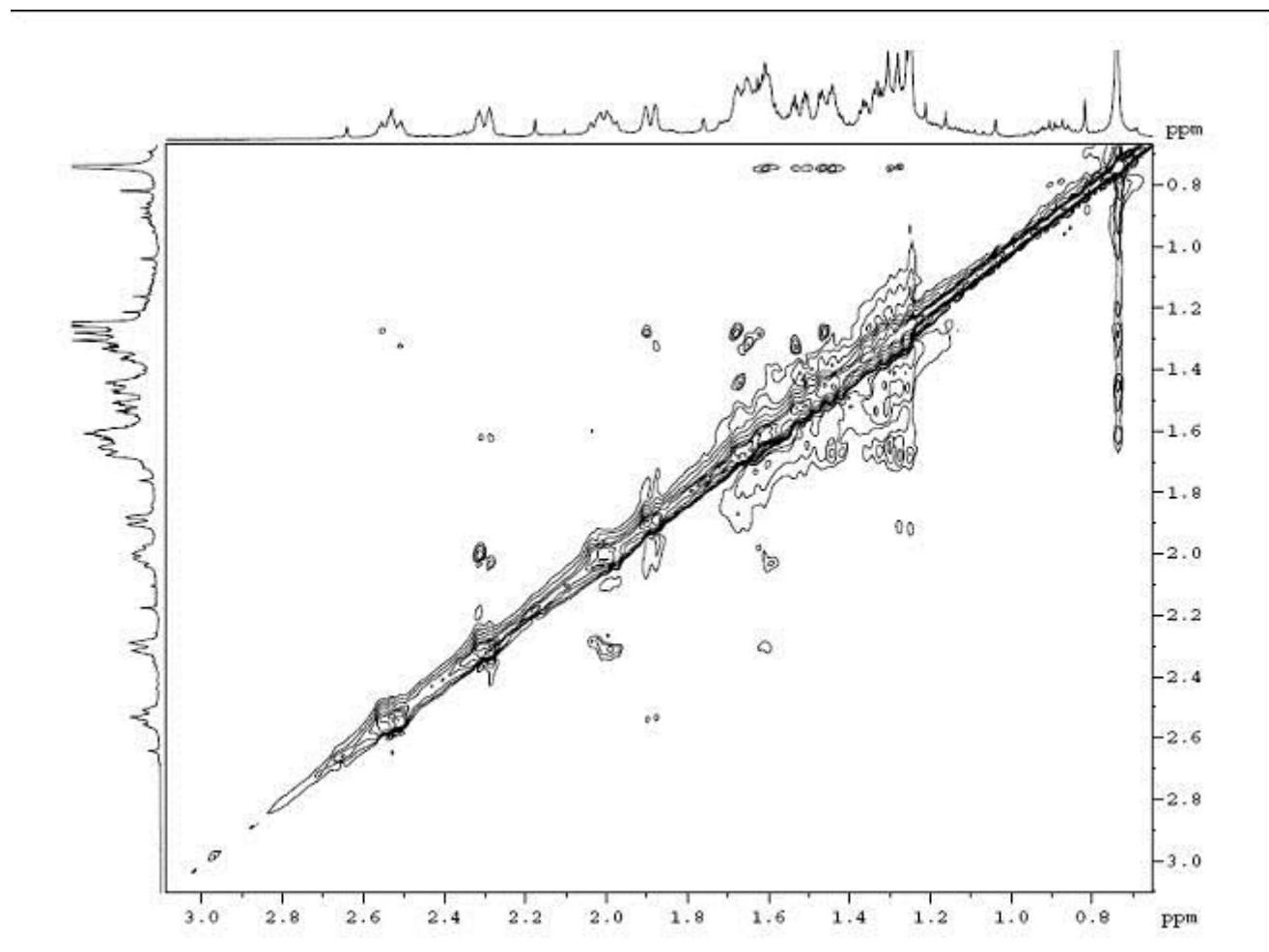
HSQC spectrum of costic acid (^{13}C : 0–65 ppm; ^1H : 0.0–2.6 ppm)



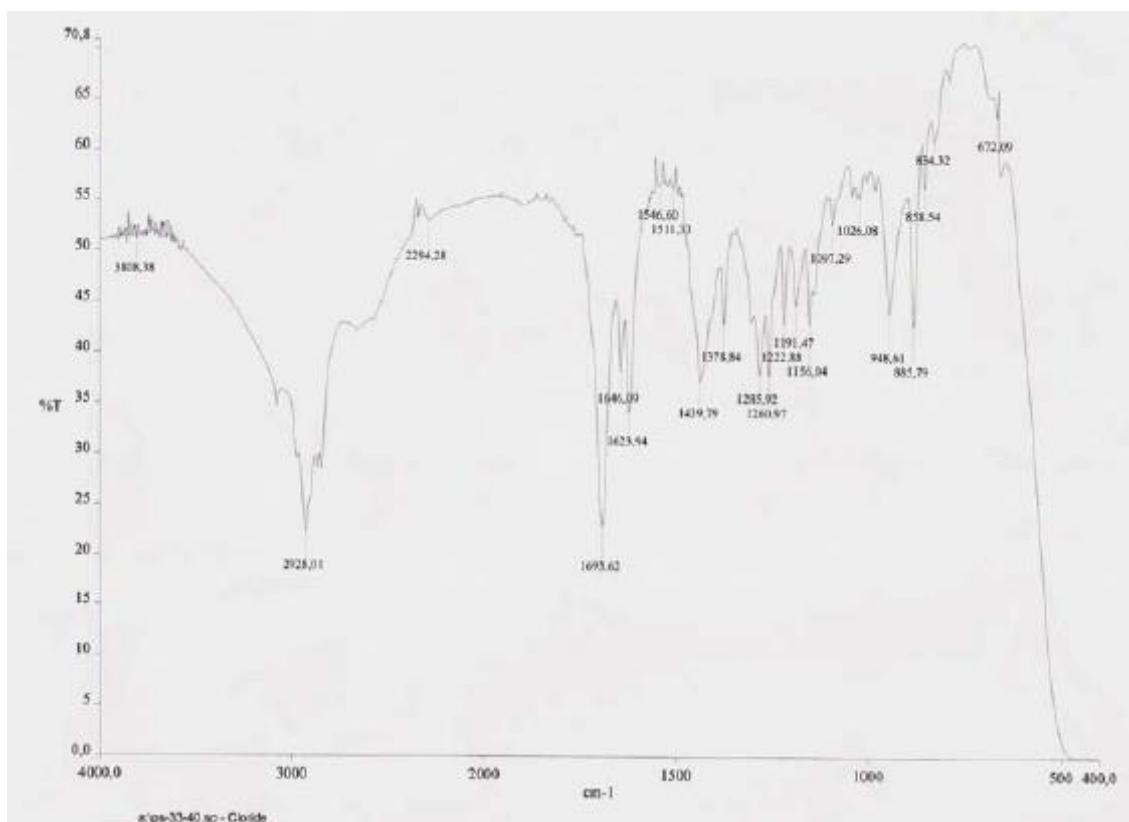
NOESY spectrum of costic acid



NOESY spectrum of costic acid (0.7–3.1 ppm)



FTIR spectrum of costic acid



Mass spectrum of costic acid

