

Supporting Information.

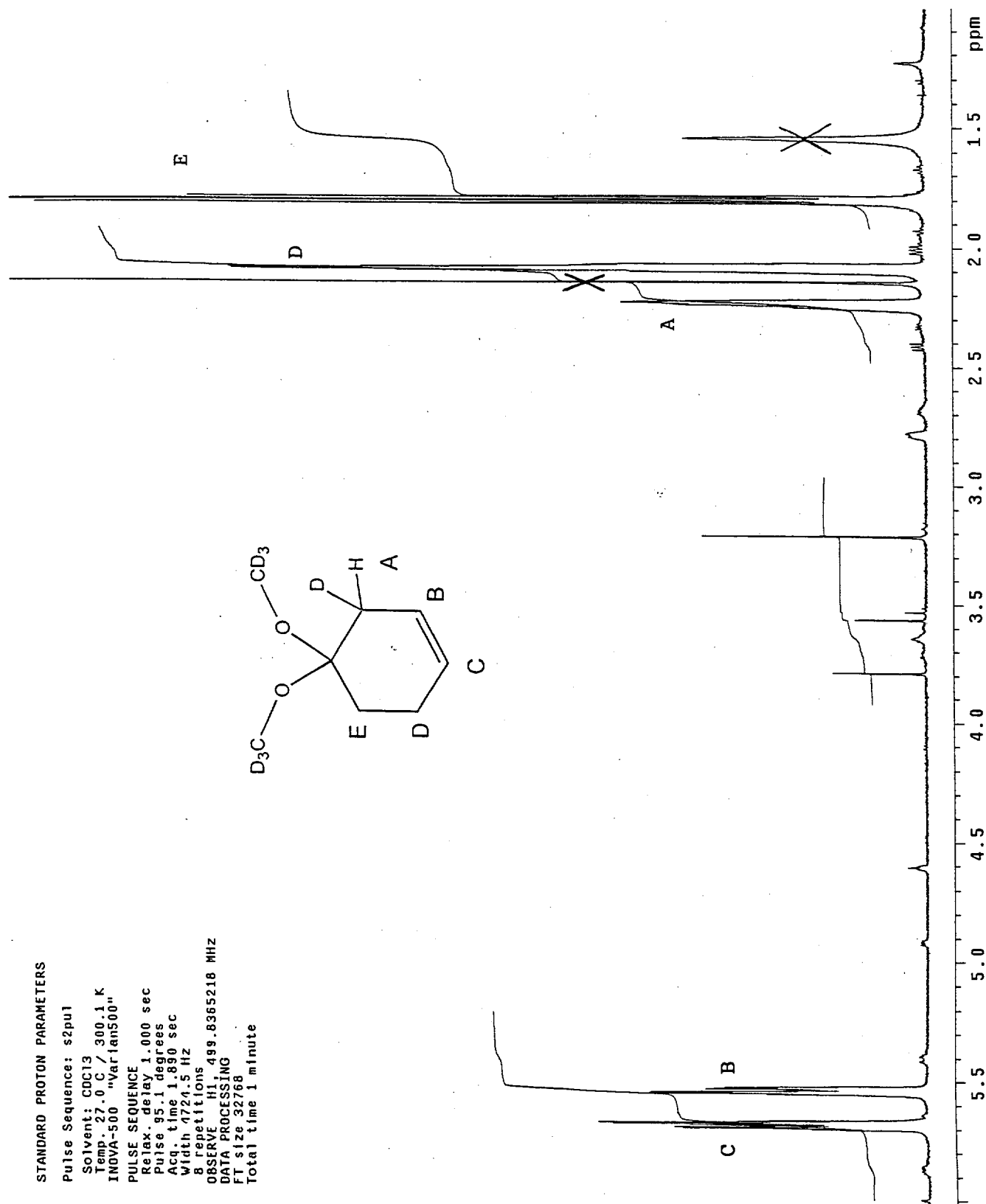
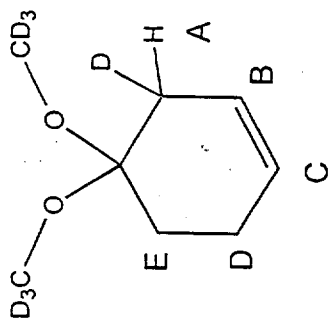
Cyclohexa-3-eneone dimethyl ketal, 5. 10 mg **1** (Aldrich, purified by preparative gas chromatography at 90 C on a 12 ft 0.25 inch 20% Carbowax 20M column) was dissolved in 0.6 ml dry methanol-d₄, and approximately 0.1 mg *p*-toluenesulfonic acid was added. The reaction was followed by NMR and/or GC (15 meter DB-1 megabore column). The reaction was quenched by the addition of excess sodium bicarbonate, and product isolated by preparative gas chromatography at 110 C on a 12 ft 0.25 inch 20% Carbowax 20M column. No change in the product mixture was observed following addition of the base. NMR spectra were identical to those of independently synthesized material generated from 1-methoxy-1,4-cyclohexadiene using the procedure of Lambert.²

Spectra Included in package:

¹H NMR, ¹³C NMR, and ¹H COSY of deuterated product purified by preparative gas chromatography.

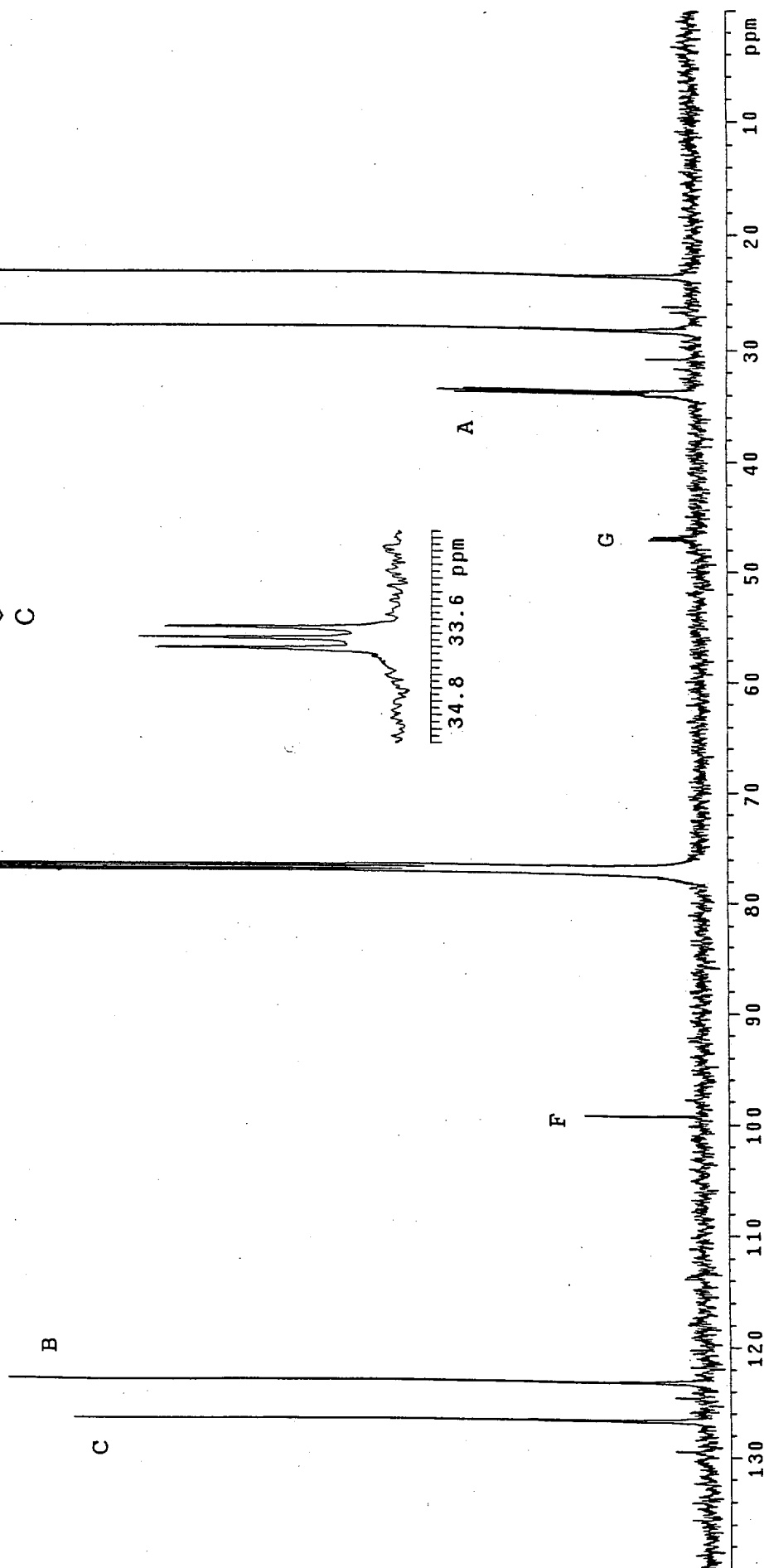
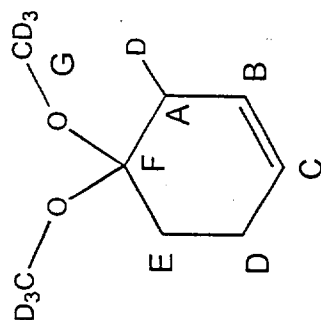
STANDARD PROTON PARAMETERS

Pulse Sequence: s2pul
 Solvent: CDCl₃
 Temp. 27.0 C / 300.1 K
 INOVA-500 "Varian500"
 PULSE SEQUENCE
 Relax. delay 1.000 sec
 Pulse 95.1 degrees
 Acq. time 1.890 sec
 Width 4724.5 Hz
 8 repetitions
 OBSERVE H1 499.8365218 MHz
 DATA PROCESSING
 FT size 32768
 Total time 1 minute



STANDARD CARBON PARAMETERS

Pulse Sequence: s2pul1
 Solvent: CDC13
 Temp. 27.0 C / 300.1 K
 User: 1-14-87
 INOVA-500 "Varian500"
 PULSE SEQUENCE
 Relax. delay 5.000 sec
 Pulse 51.9 degrees
 Acq. time 1.300 sec
 Width 25000.0 Hz
 6000 repetitions
 OBSERVE C13, 125.6839885 MHz
 DECOUPLE H1, 499.8390036 MHz
 Power 30 db
 continuously on
 WALTZ-16 modulated
 DATA PROCESSING
 Line broadening 2.9 Hz
 FT size 65536
 Total time 10.5 hours



STANDARD PROTON PARAMETERS

Pulse Sequence: gcosy
 Solvent: CDCl3
 Temp: 27.0 C / 300.1 K
 INOVA-500 "Varian500"
 PULSE SEQUENCE: gcosy
 Relax. delay 1.000 sec
 Acq. time 0.170 sec
 Width 3020.2 Hz
 2D Width 3020.2 Hz
 4 repetitions
 128 increments
 OBSERVE F1, 499.8365218 MHz
 DATA PROCESSING
 Sine bell 0.085 sec
 F1 DATA PROCESSING
 Sine bell 0.021 sec
 FT size 1024 x 1024
 Total time 10 minutes

