

## ELECTRONIC SUPPORTING INFORMATION

### A methodology for radiolabeling of the endocannabinoid 2-arachidonoylglycerol (2-AG)

Richard I. Duclos, Jr.,\* Meghan Johnston, Subramanian K. Vadivel,  
Alexandros Makriyannis, Sherrye T. Glaser, and S. John Gatley

#### Table of Contents

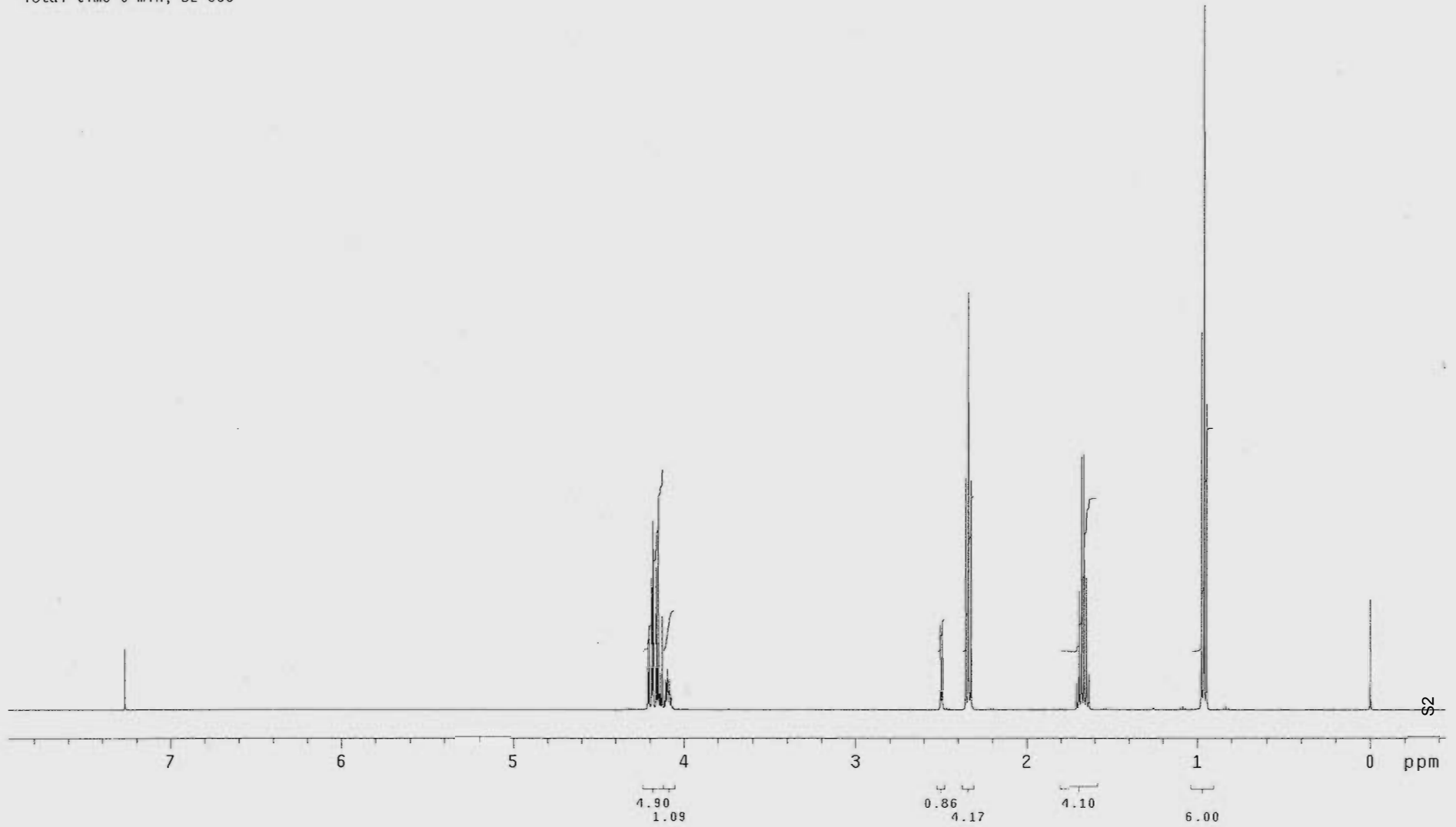
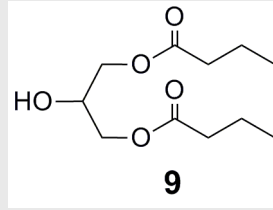
<b>Page S2</b>	<sup>1</sup> H NMR spectrum of 1,3-dibutyrylglycerol ( <b>9</b> )
<b>Page S3</b>	<sup>1</sup> H NMR spectrum of 2-arachidonoyl-1,3-dibutyrylglycerol ( <b>10</b> , BAB)
<b>Page S4</b>	<sup>13</sup> C NMR spectrum of 2-arachidonoyl-1,3-dibutyrylglycerol ( <b>10</b> , BAB)
<b>Page S5</b>	<sup>1</sup> H NMR spectrum of ethyl arachidonate ( <b>12</b> )
<b>Page S6</b>	<sup>1</sup> H NMR spectrum of 2-arachidonoylglycerol ( <b>1</b> , 2-AG)
<b>Page S7</b>	<sup>1</sup> H NMR spectrum of 2-hydroxy-1,3,2-dioxaborinan-5-yl (5'Z,8'Z,11'Z,14'Z)-Icosa-5',8',11',14'-tetraenoate ( <b>4</b> , 2-AG borate ester)
<b>Page S8</b>	<sup>13</sup> C NMR spectrum of 2-hydroxy-1,3,2-dioxaborinan-5-yl (5'Z,8'Z,11'Z,14'Z)-Icosa-5',8',11',14'-tetraenoate ( <b>4</b> , 2-AG borate ester)

1,3-dibutyrate glycerol  
after re-purification  
chloroform

Pulse Sequence: s2pul

Solvent: CDC13  
Ambient temperature  
INOVA-500 "waters500"

Pulse 42.2 degrees  
Acq. time 2.048 sec  
Width 8000.0 Hz  
16 repetitions  
OBSERVE H1, 499.7029680 MHz  
DATA PROCESSING  
FT size 32768  
Total time 0 min, 32 sec



MJ0668 good

chloroform

Pulse Sequence: s2pu1

Solvent: CDC13

Ambient temperature

File: MJ0668good

INOVA-500 "waters500"

Pulse 42.2 degrees

Acq. time 2.048 sec

Width 8000.0 Hz

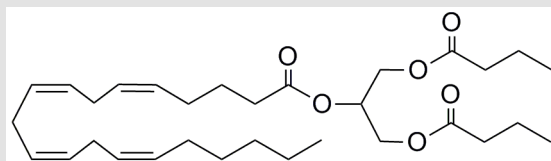
16 repetitions

OBSERVE H1, 499.7029680 MHz

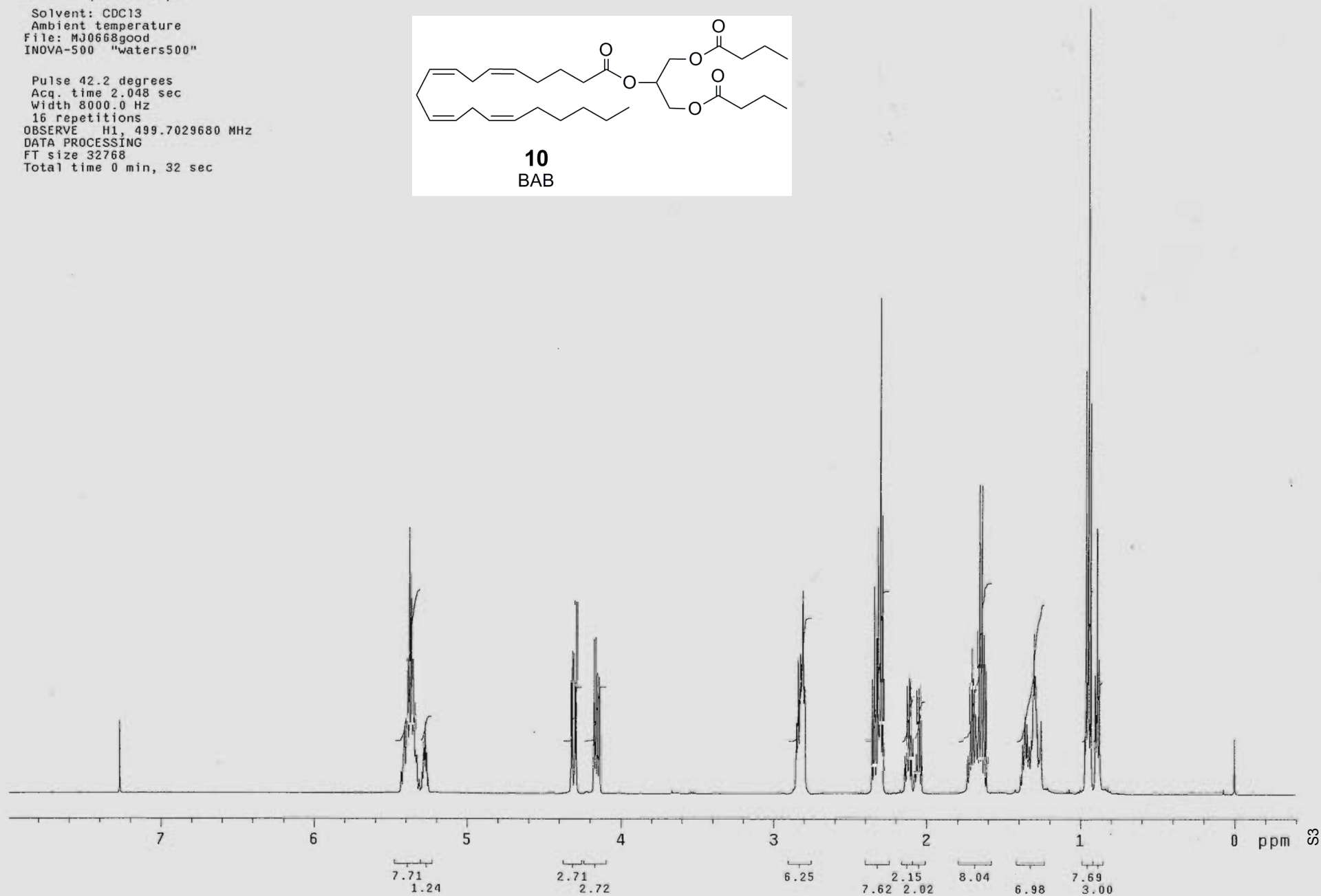
DATA PROCESSING

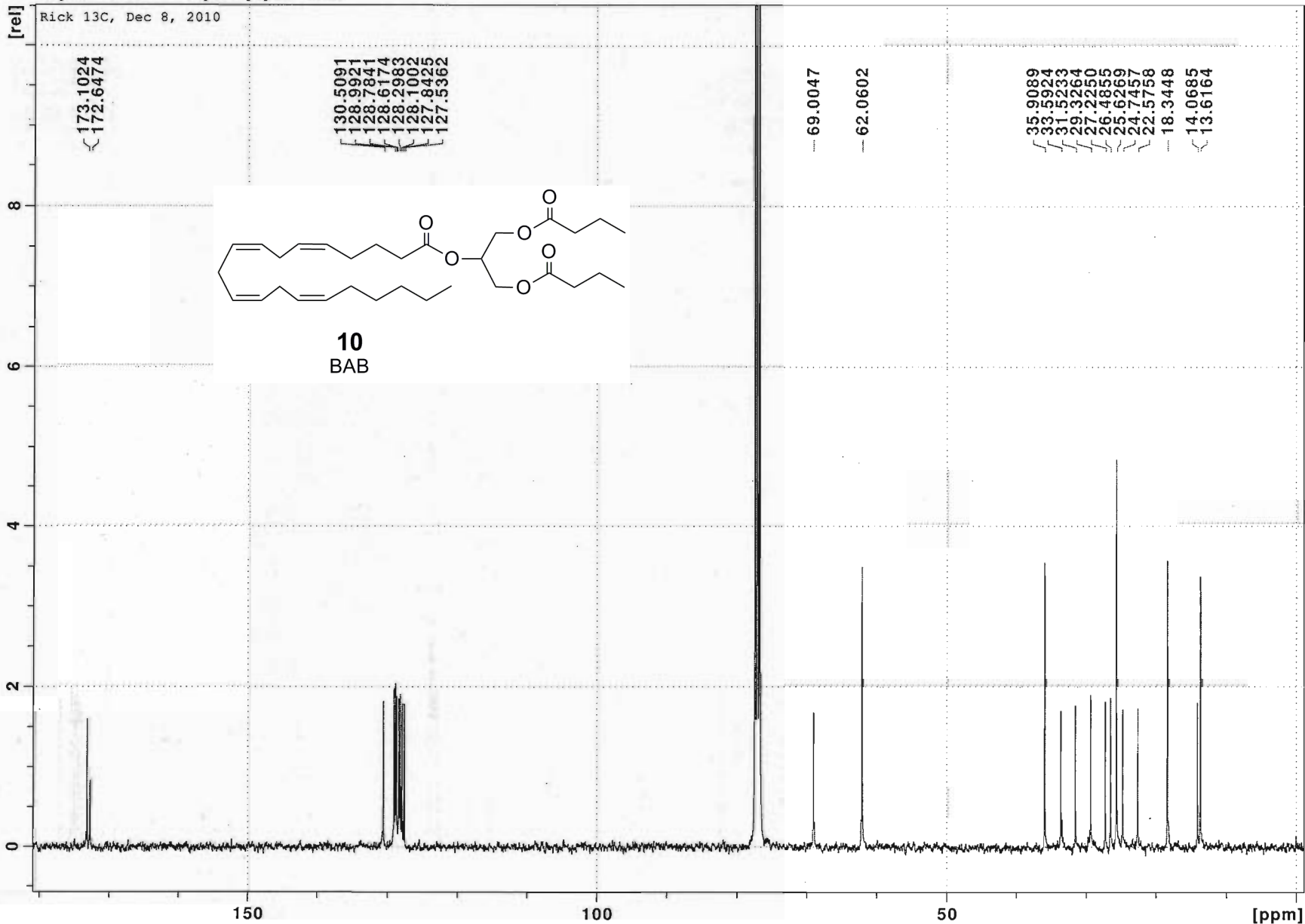
FT size 32768

Total time 0 min, 32 sec



10  
BAB



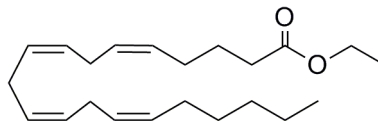


MJ0660 top spot  
chloroform

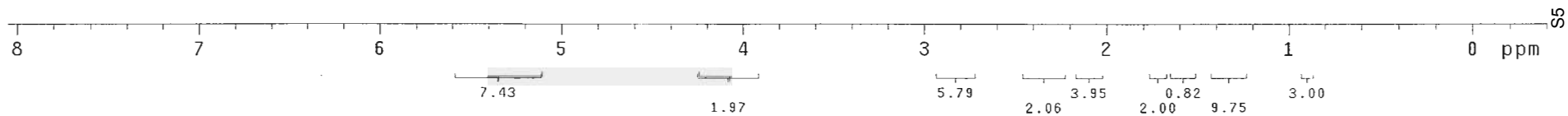
Pulse Sequence: s2pu1

Solvent: CDC13  
Ambient temperature  
File: MJ0660topspot  
INOVA-500 "waters500"

Pulse 42.2 degrees  
Acq. time 2.048 sec  
Width 8000.0 Hz  
16 repetitions  
OBSERVE H1, 499.7029690 MHz  
DATA PROCESSING  
FT size 32768  
Total time 0 min, 32 sec



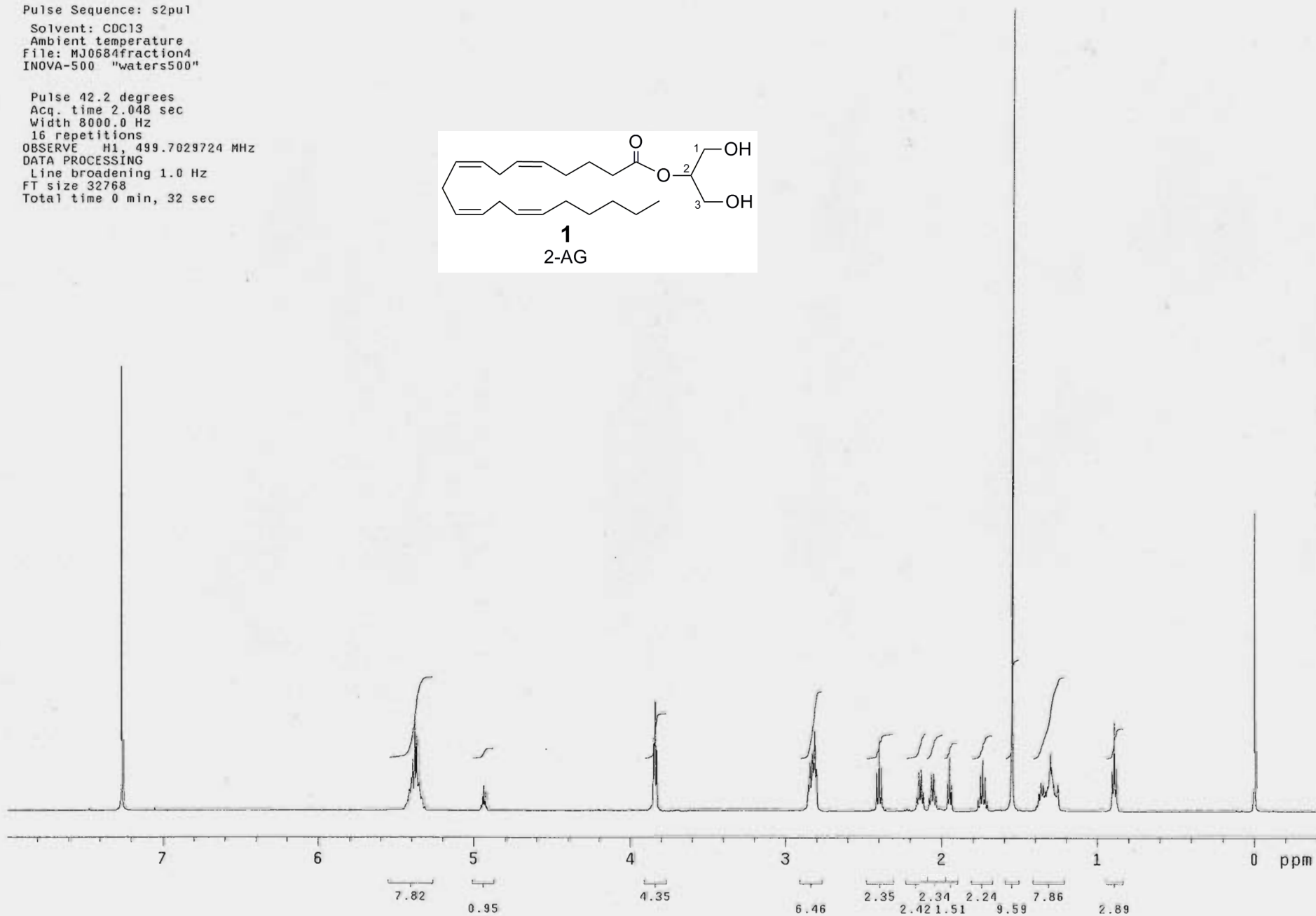
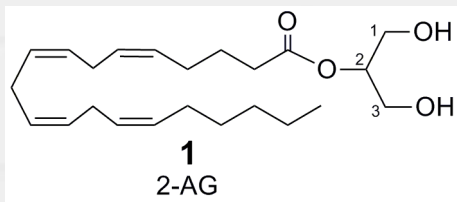
**12**  
ethyl arachidonate

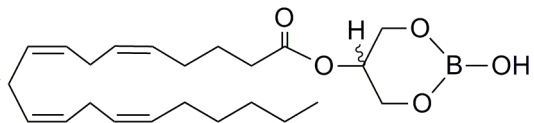


MJ0684  
fraction 4  
chloroform

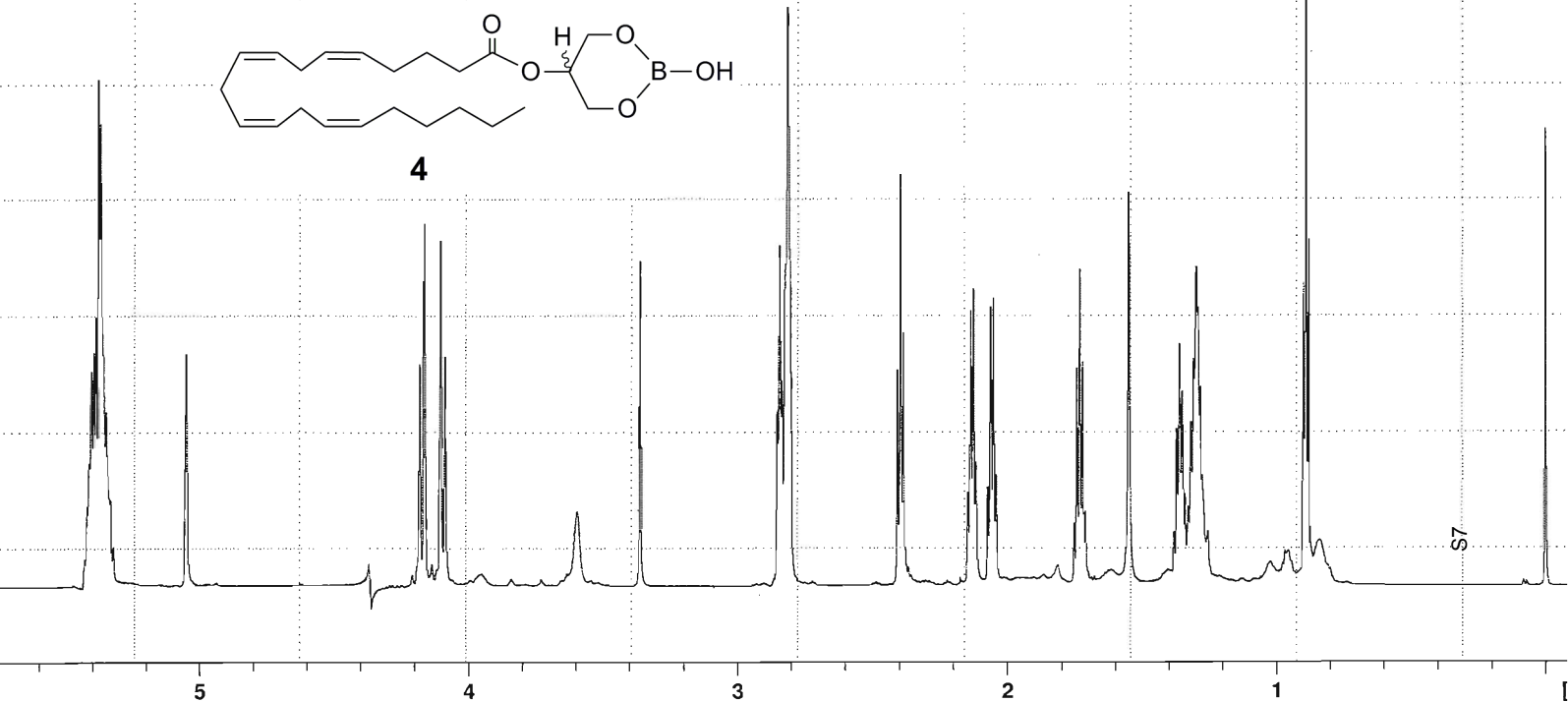
Pulse Sequence: s2pu1  
Solvent: CDC13  
Ambient temperature  
File: MJ0684fraction4  
INOVA-500 "waters500"

Pulse 42.2 degrees  
Acq. time 2.048 sec  
Width 8000.0 Hz  
16 repetitions  
OBSERVE H1, 499.7029724 MHz  
DATA PROCESSING  
Line broadening 1.0 Hz  
FT size 32768  
Total time 0 min, 32 sec





4



173.2274

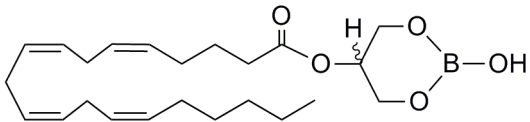
130.7515  
129.2888  
128.9568  
128.8475  
128.5146  
128.3561  
128.0927  
127.7691

77.4131  
77.3342  
77.0505

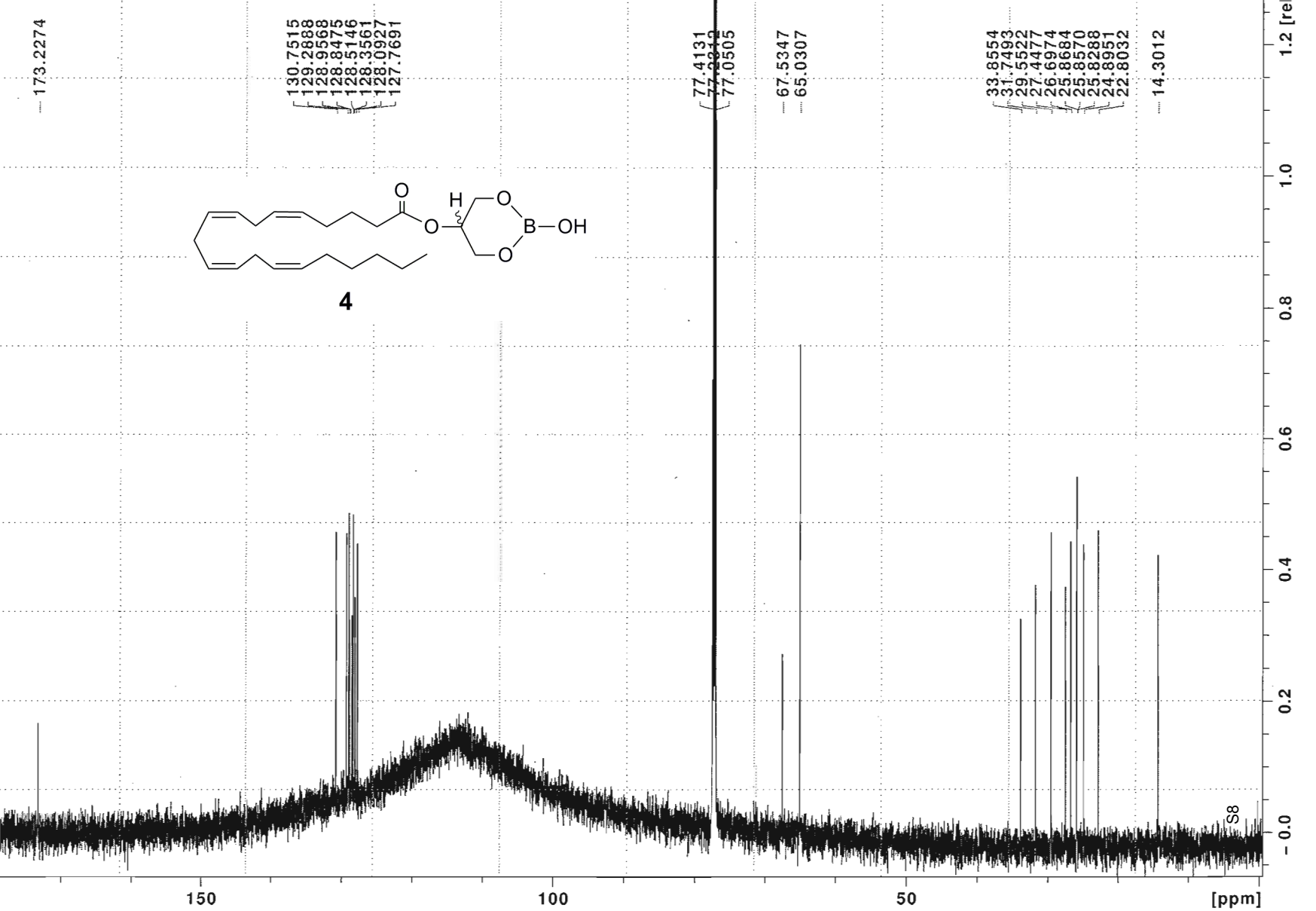
67.5347  
65.0307

33.8554  
31.7493  
29.5522  
27.4477  
26.6974  
25.8684  
25.8570  
25.8288  
24.8951  
22.8032

14.3012



4



S8