Electronic Supplementary information

for

Synthesis and characterization of a highly stable dendritic catechol-tripod bearing Technetium-99m

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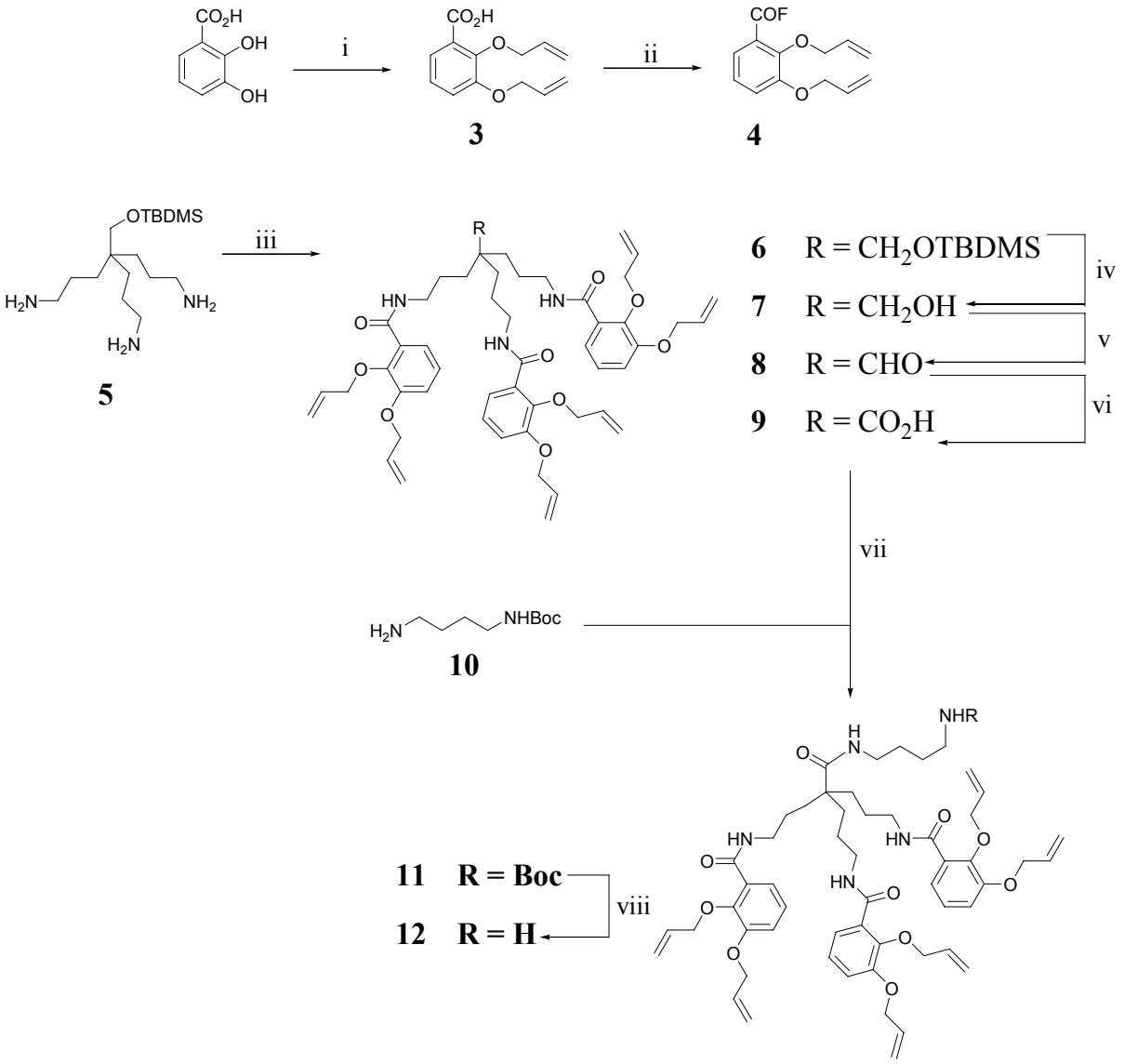
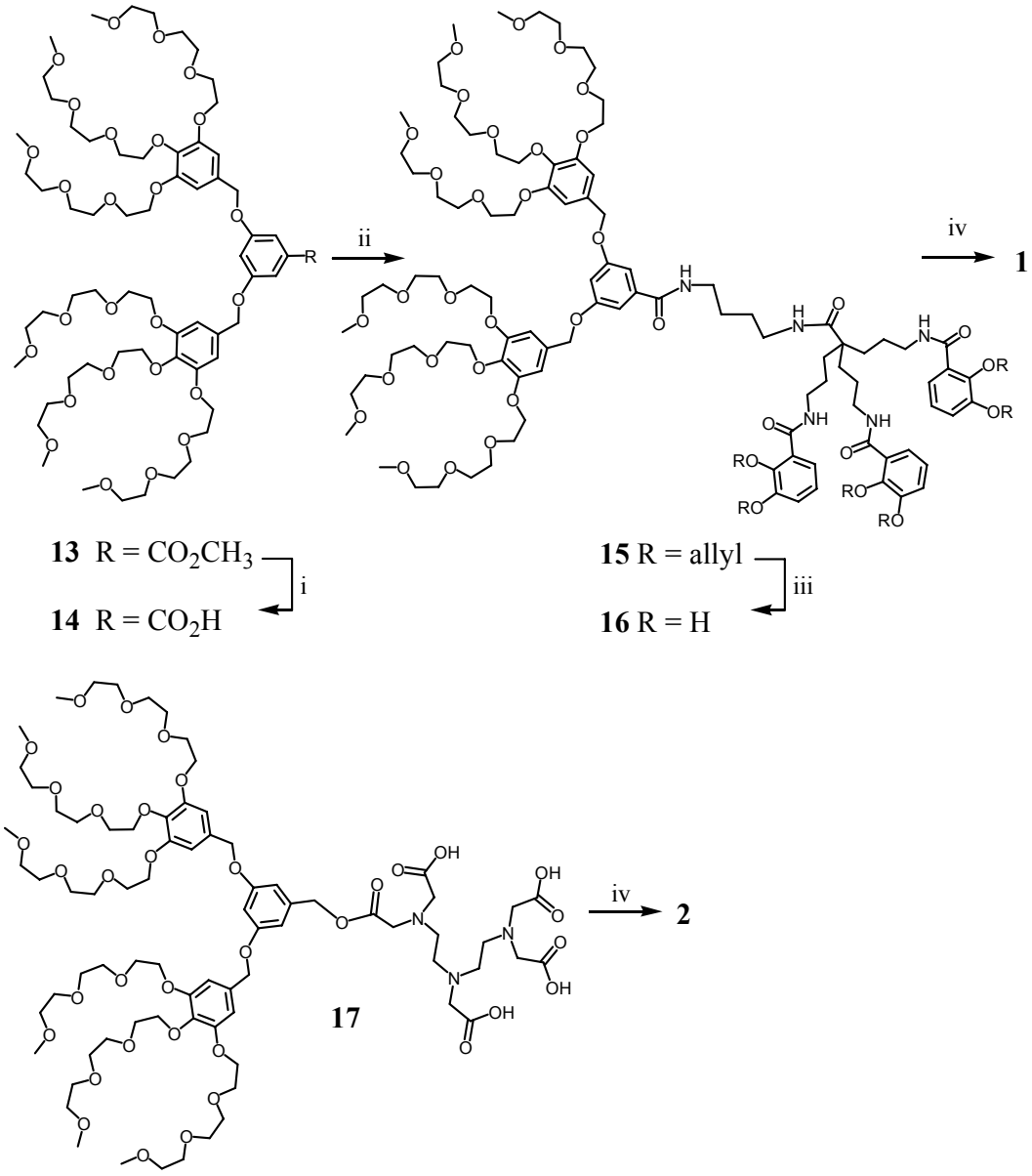
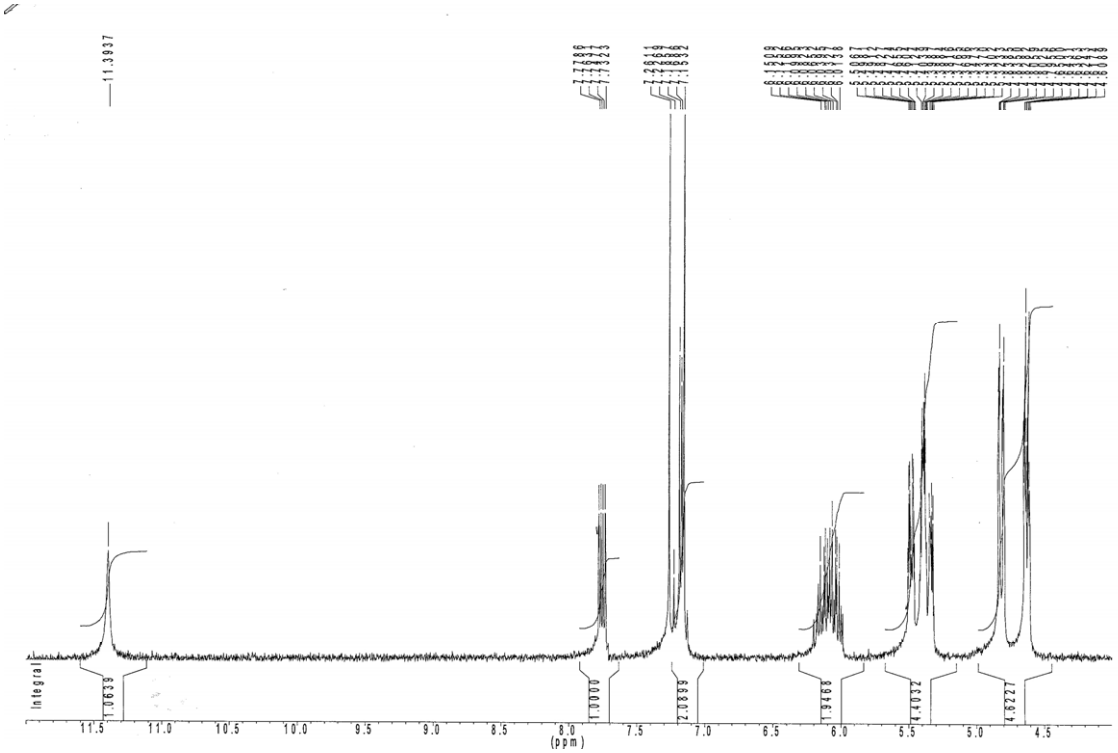
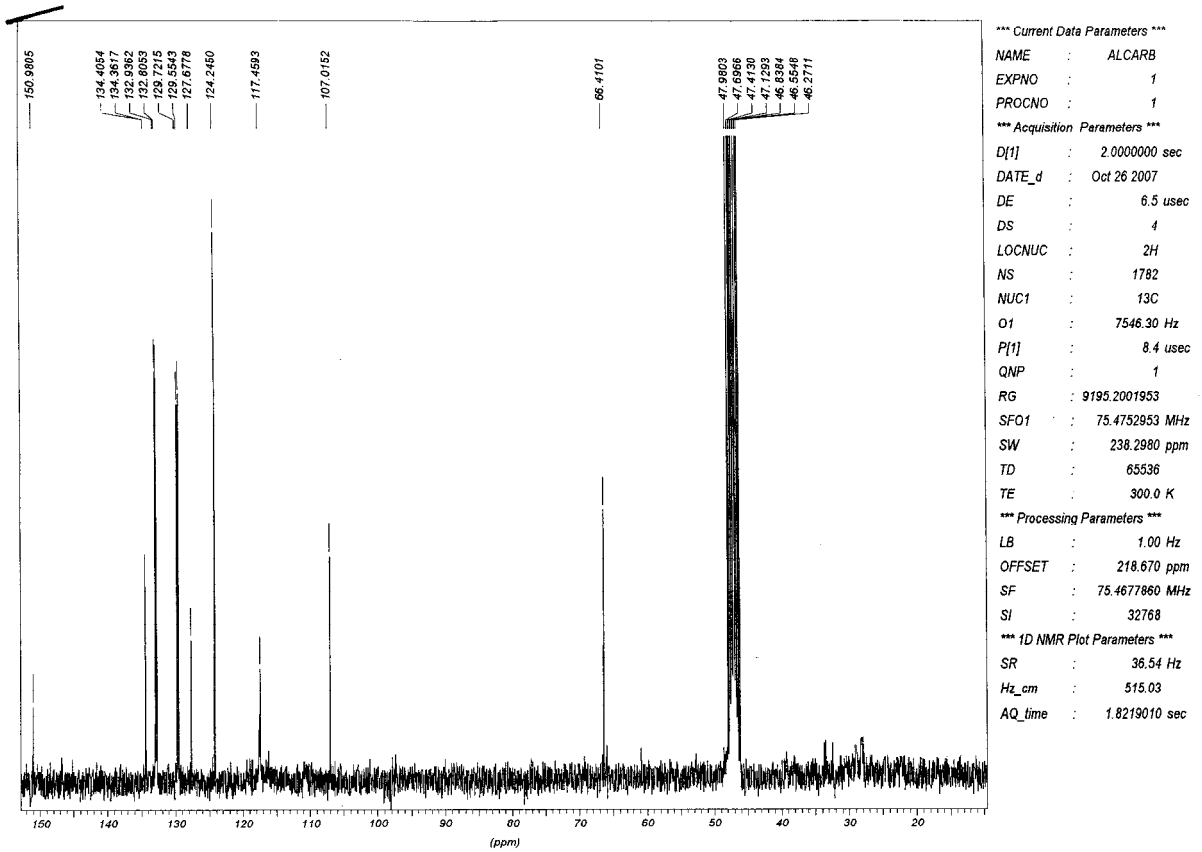

CO2H
OH
OH
i
CO2H
O
O
ii
COF
O
O
3
4
OTBDMS
H2N
NH2
H2N
5
iii
R
HN
HN
HN
O
O
O
O
O
O
O
O
O
6 R = CH2OTBDMS
7 R = CH2OH
8 R = CHO
9 R = CO2H
iv
v
vi
vii
H2N
NHBoc
10
NHR
H
N
O
HN
HN
HN
O
O
O
O
O
O
O
O
O
11 R = Boc
12 R = H
viii

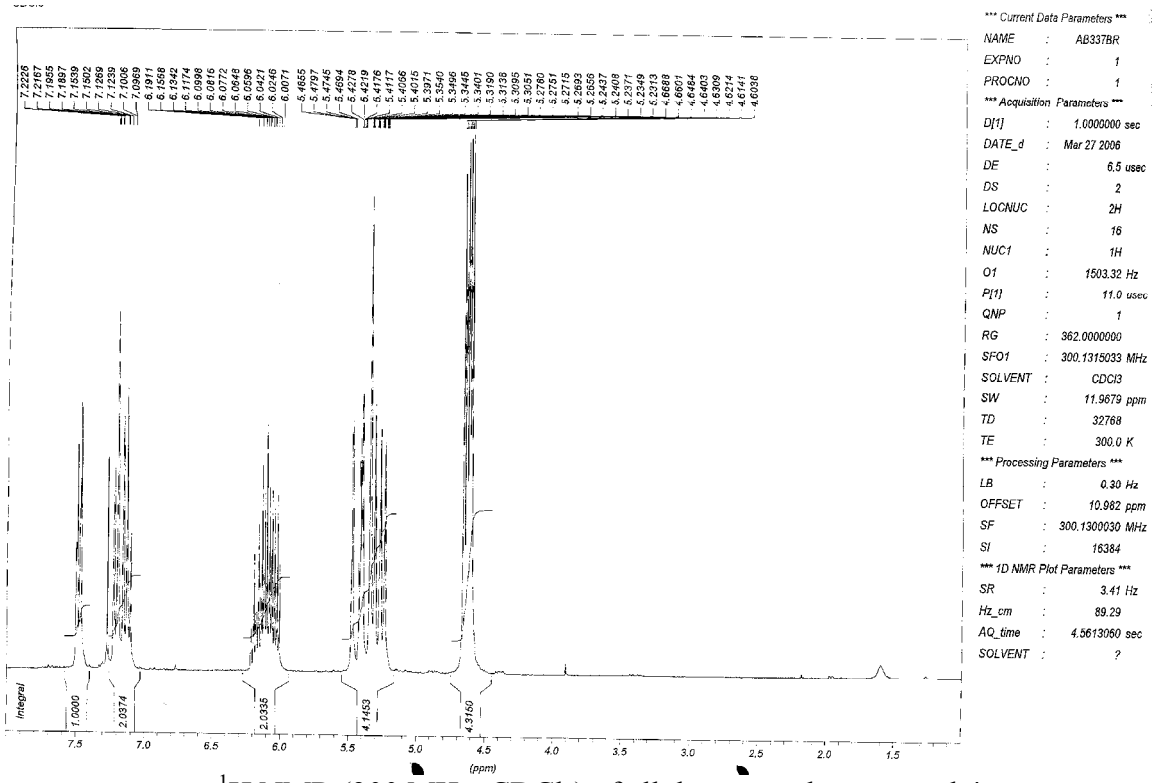

ii
iv
1
13 R = CO2CH3
i
14 R = CO2H
15 R = allyl
iii
16 R = H
iv
2
17



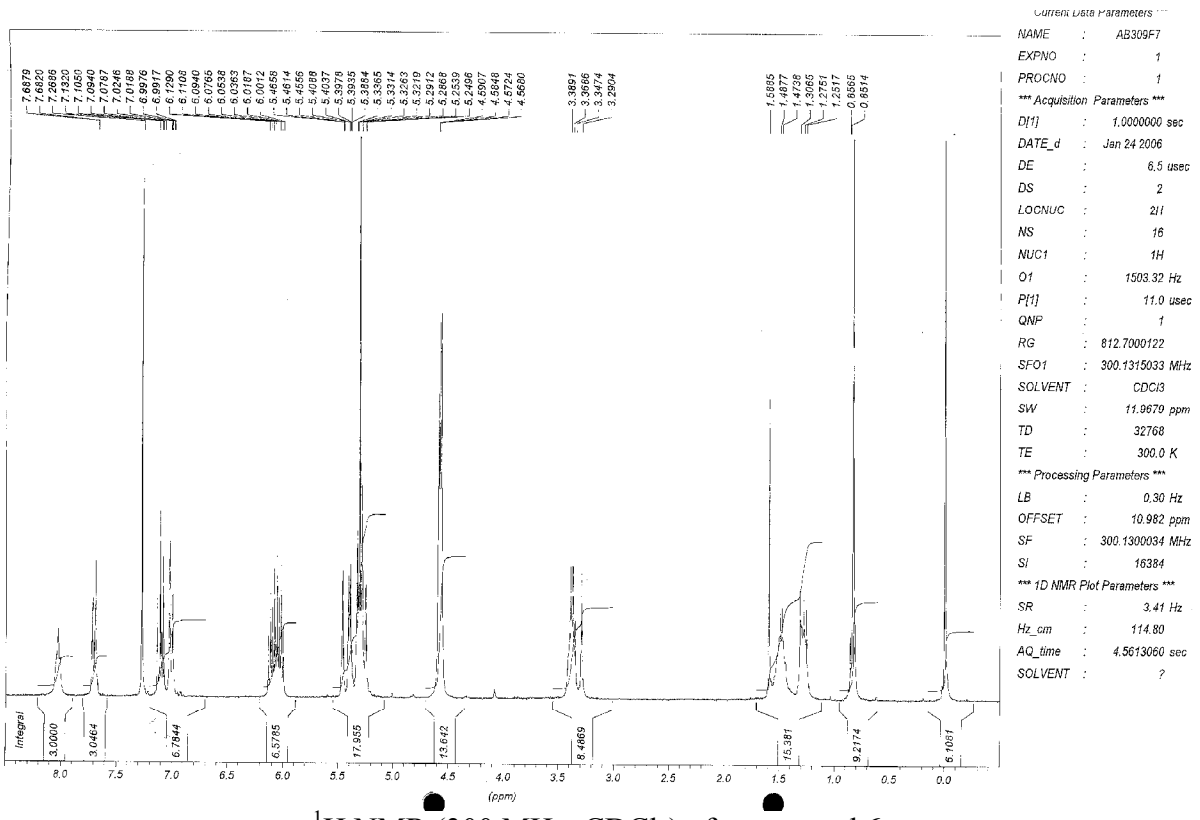
^{1}H NMR (300 MHz, $CDCl_3$) of allyl-protected compound **3**.



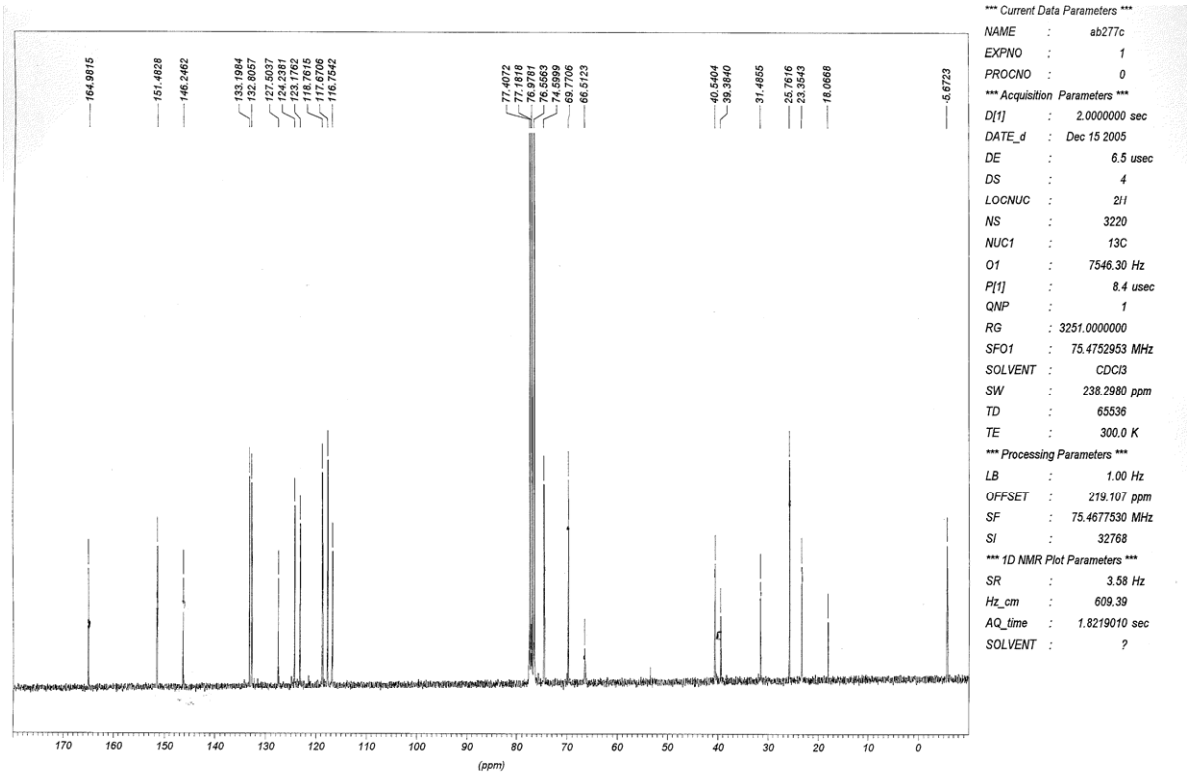
^{13}C NMR (75 MHz, $CDCl_3$) of compound **3**.



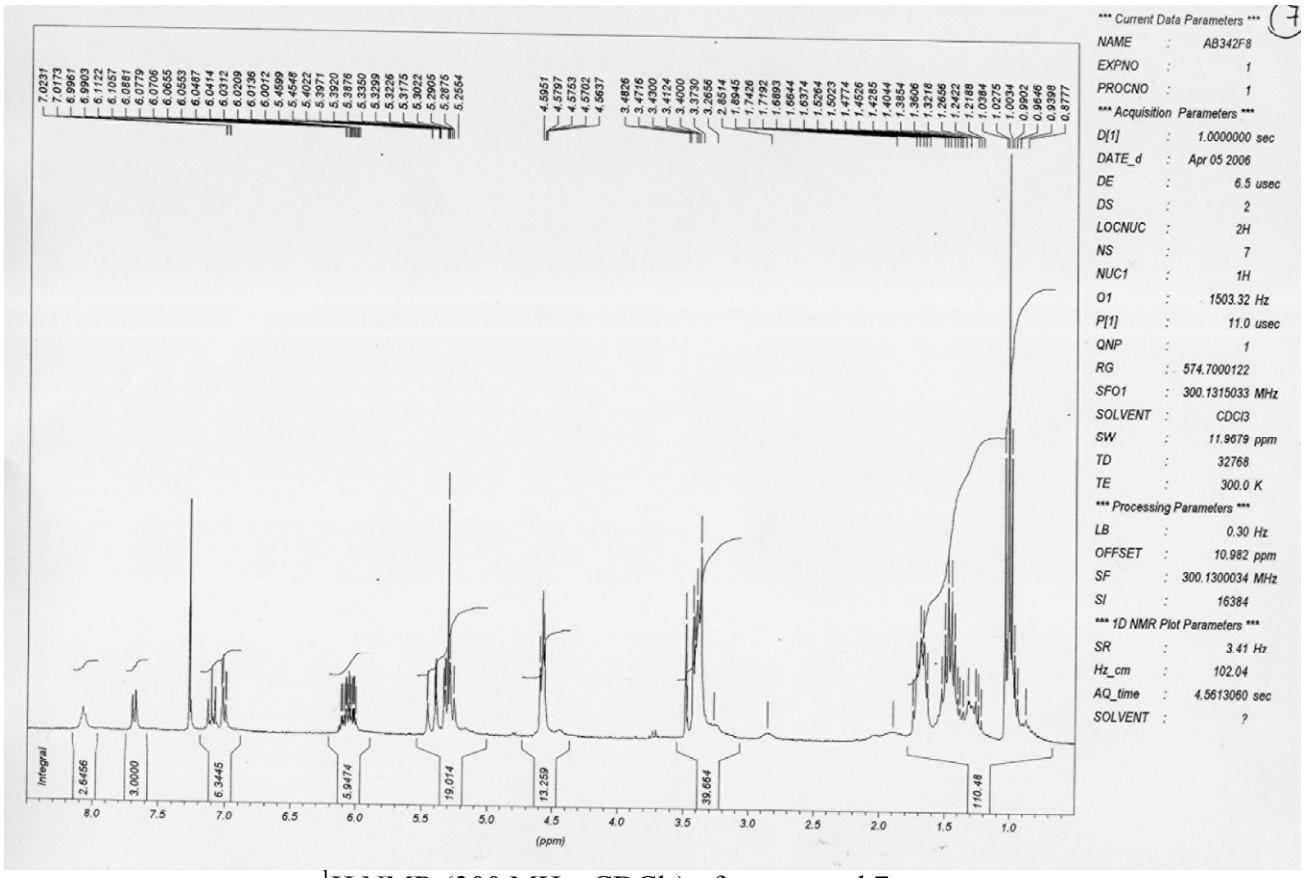
^{1}H NMR (300 MHz, $CDCl_3$) of allyl-protected compound **4**.



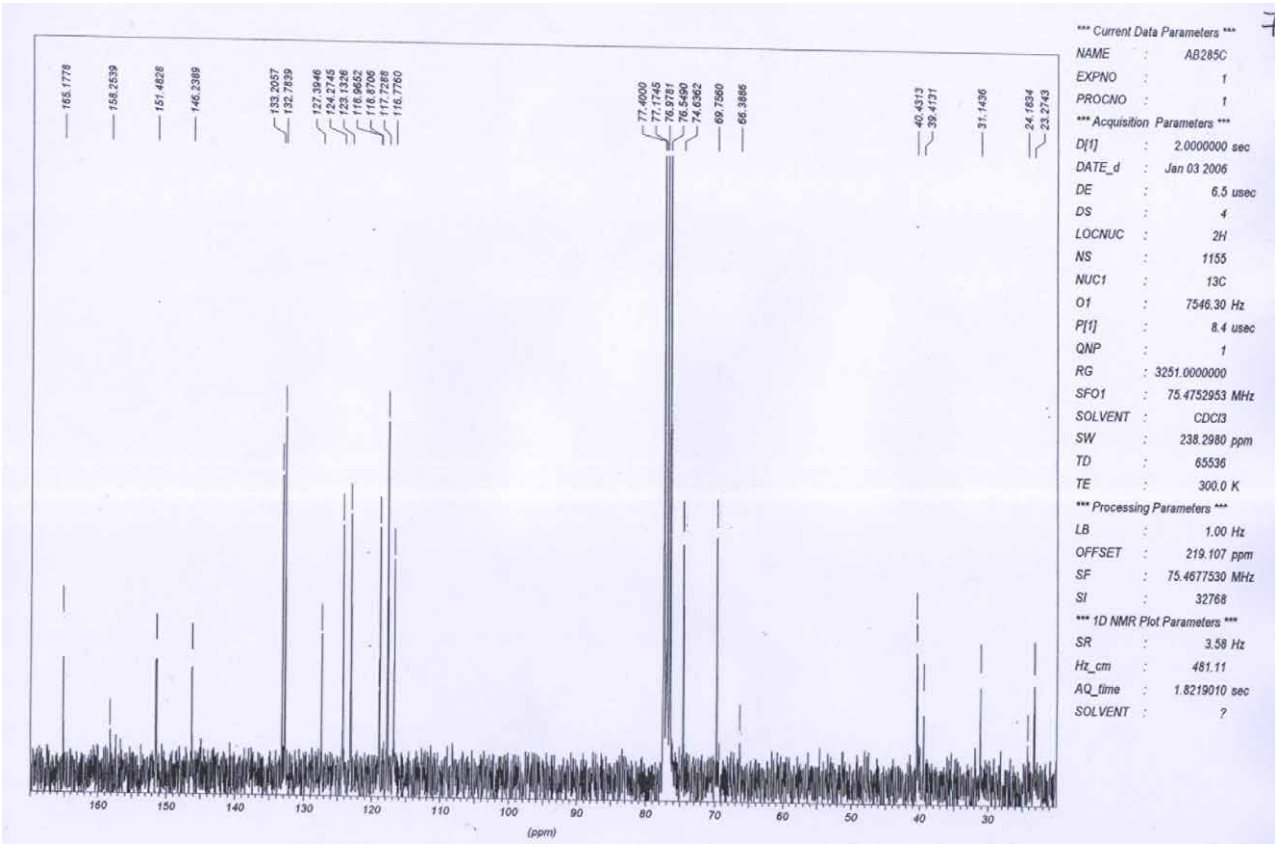
^{1}H NMR (300 MHz, $CDCl_3$) of compound **6**.



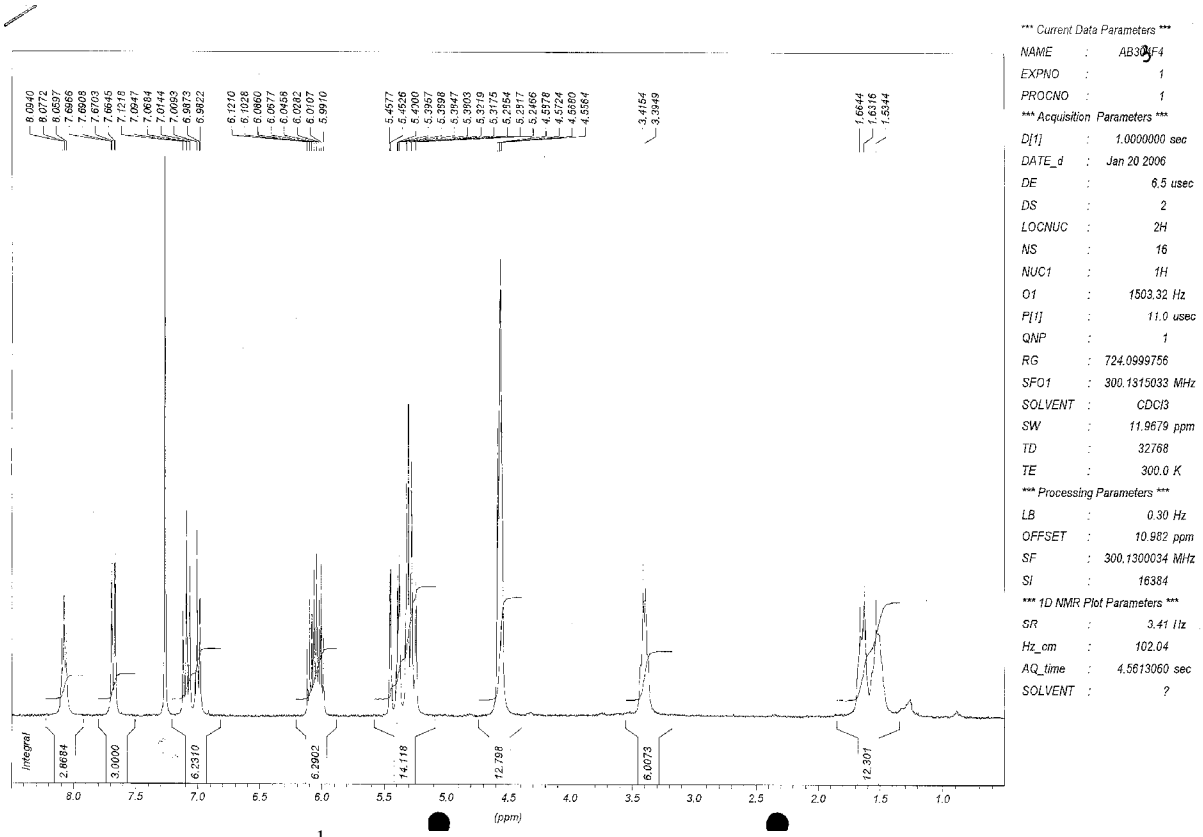
^{13}C NMR (75 MHz, $CDCl_3$) of compound **6**.



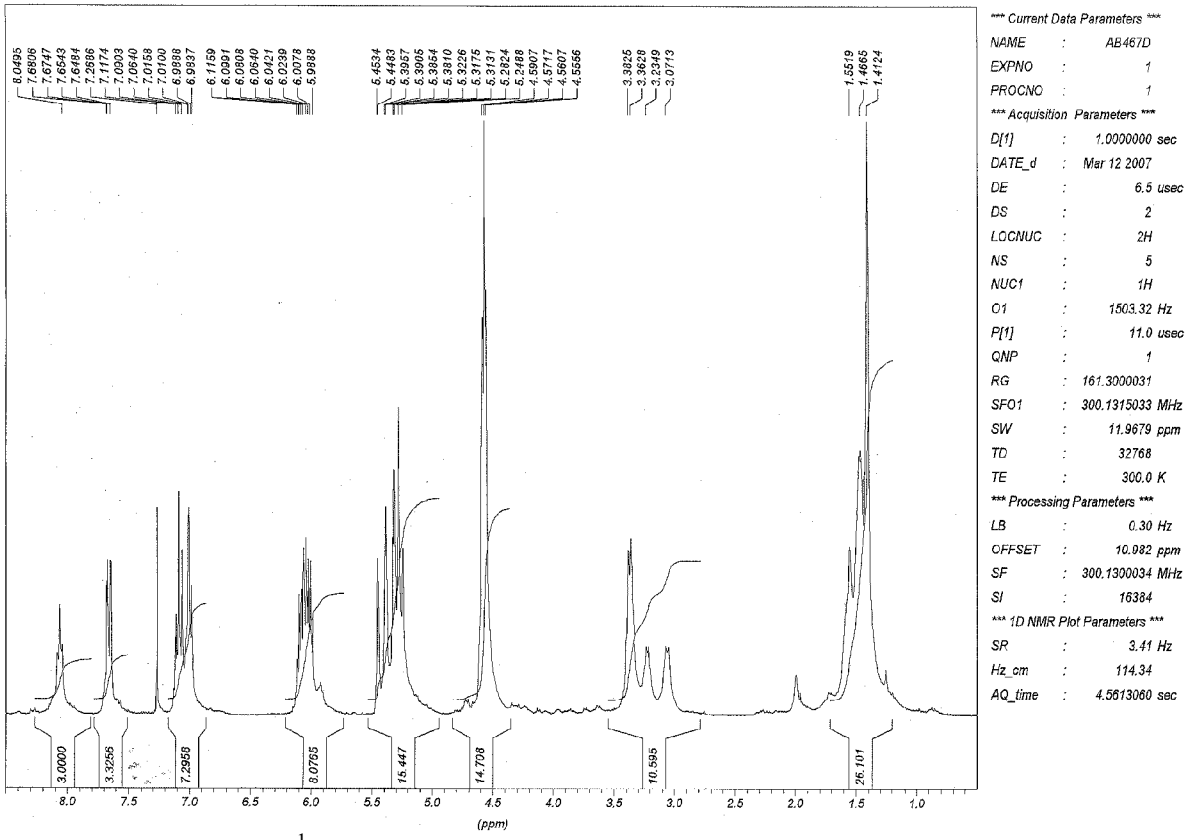
^{1}H NMR (300 MHz, $CDCl_3$) of compound **7**.



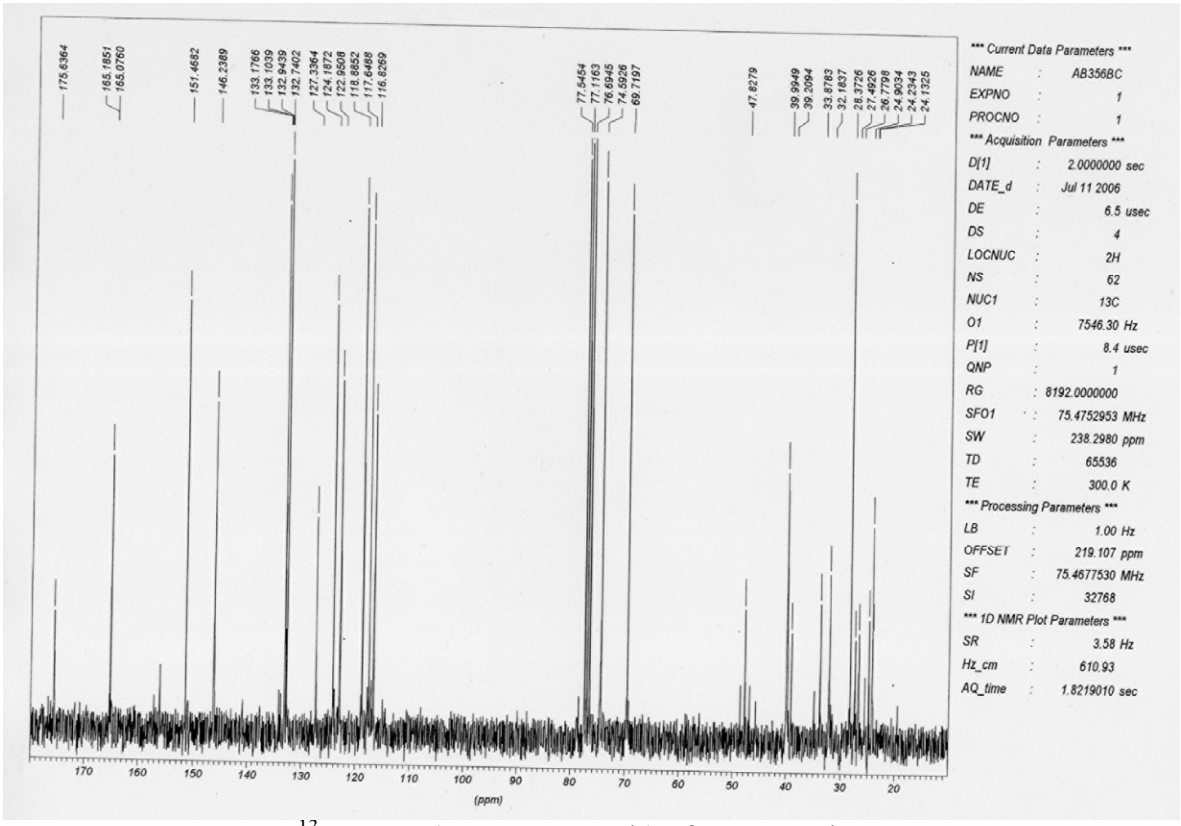
^{13}C NMR (75 MHz, $CDCl_3$) of compound **7**.



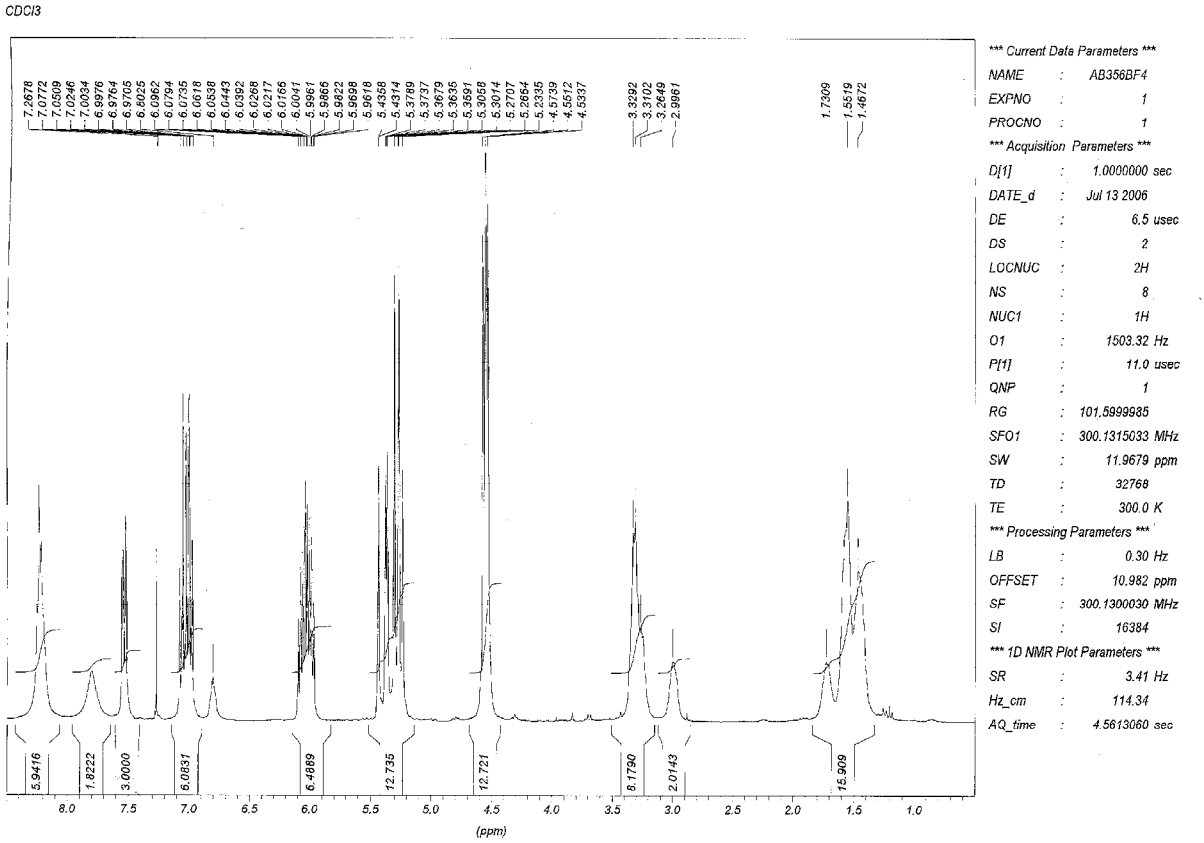
^{1}H NMR (300 MHz, $CDCl_3$) of compound **9**.



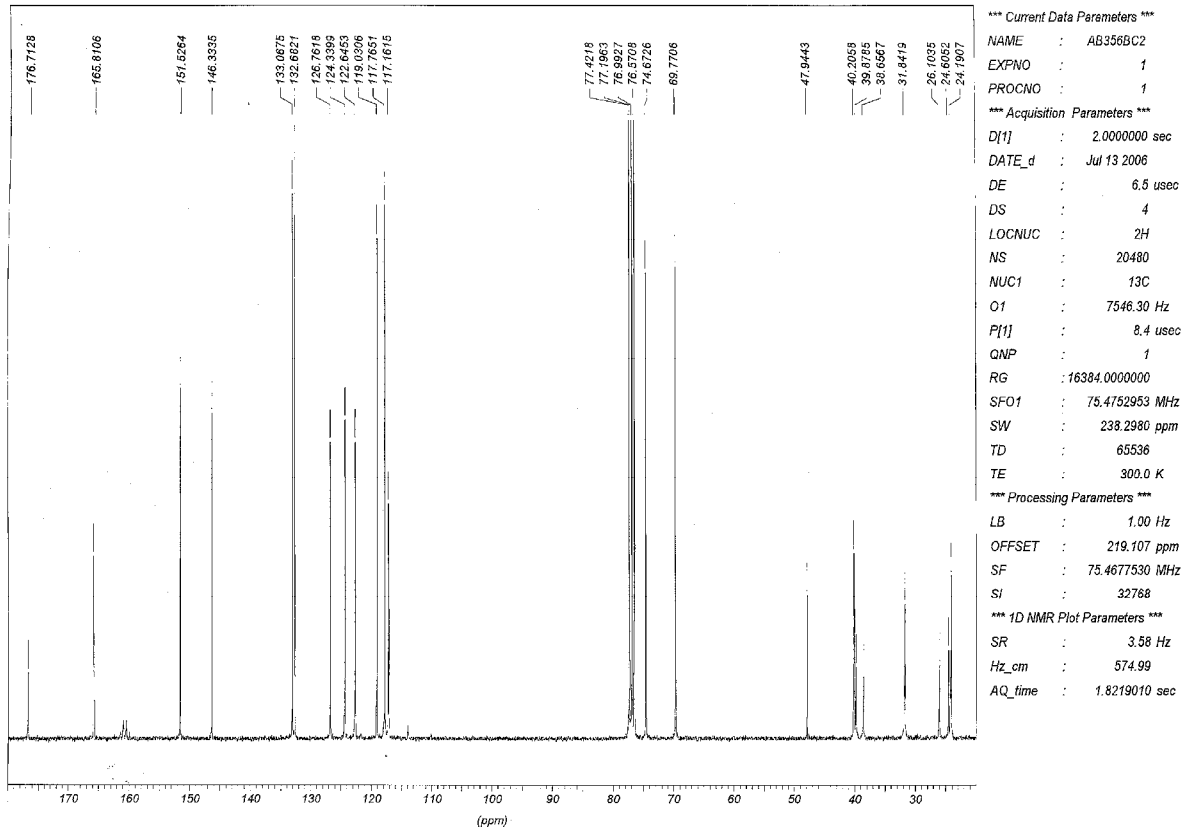
^{1}H NMR (300 MHz, $CDCl_3$) of compound **11**.



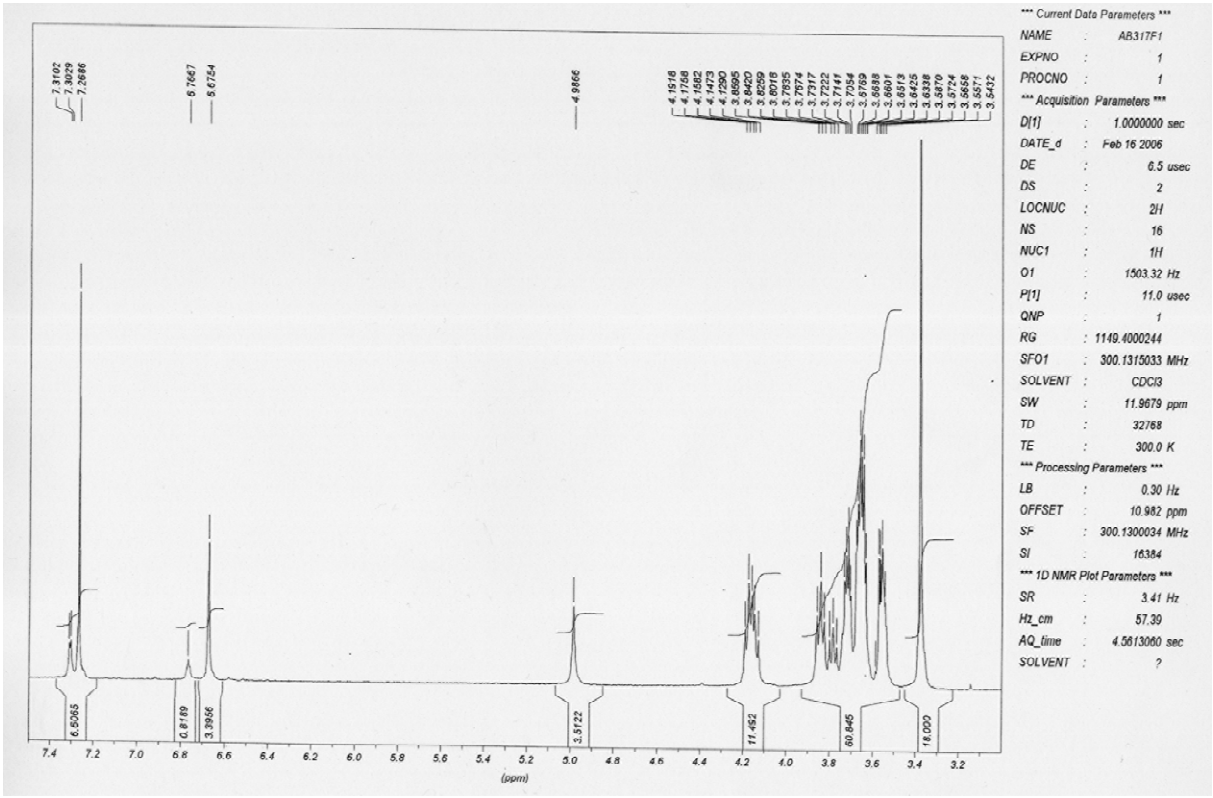
^{13}C NMR (75 MHz, $CDCl_3$) of compound **11**.



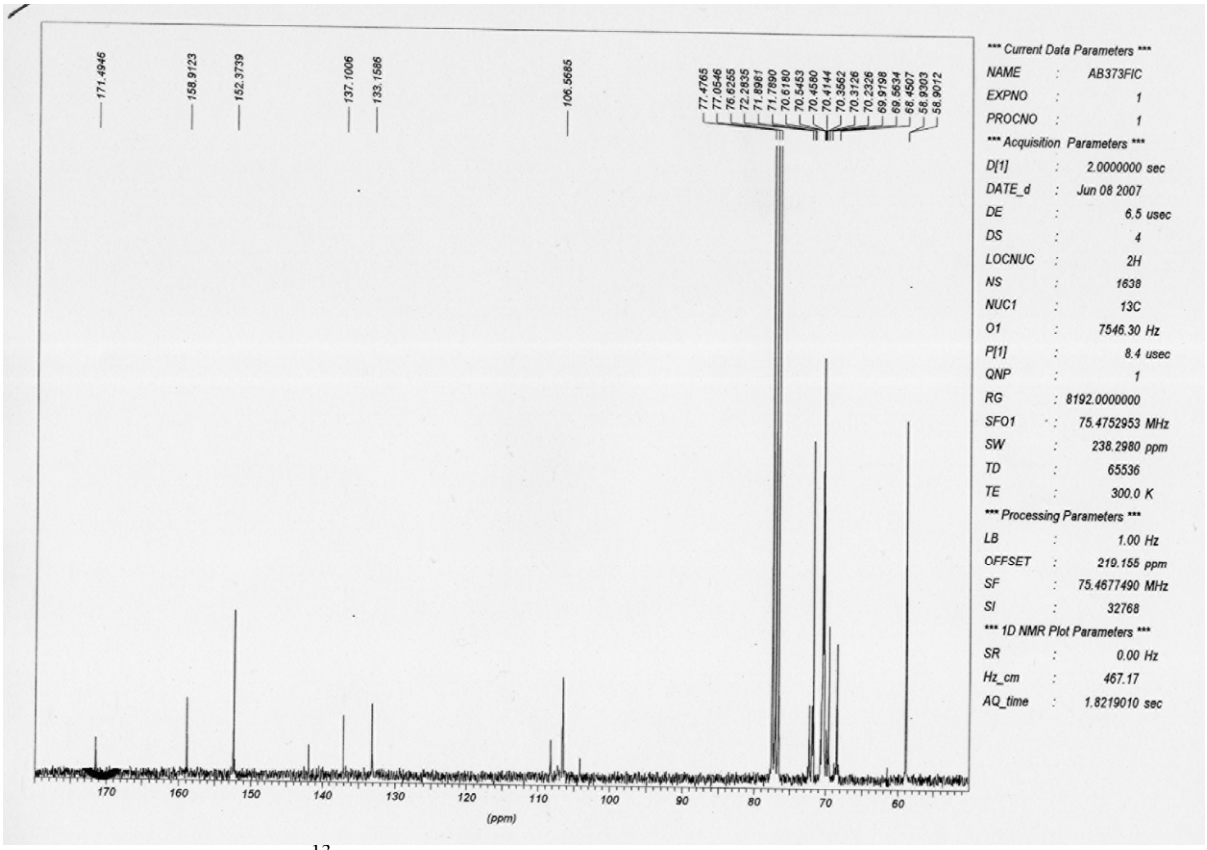
^{1}H NMR (300 MHz, $CDCl_3$) of compound **12**.



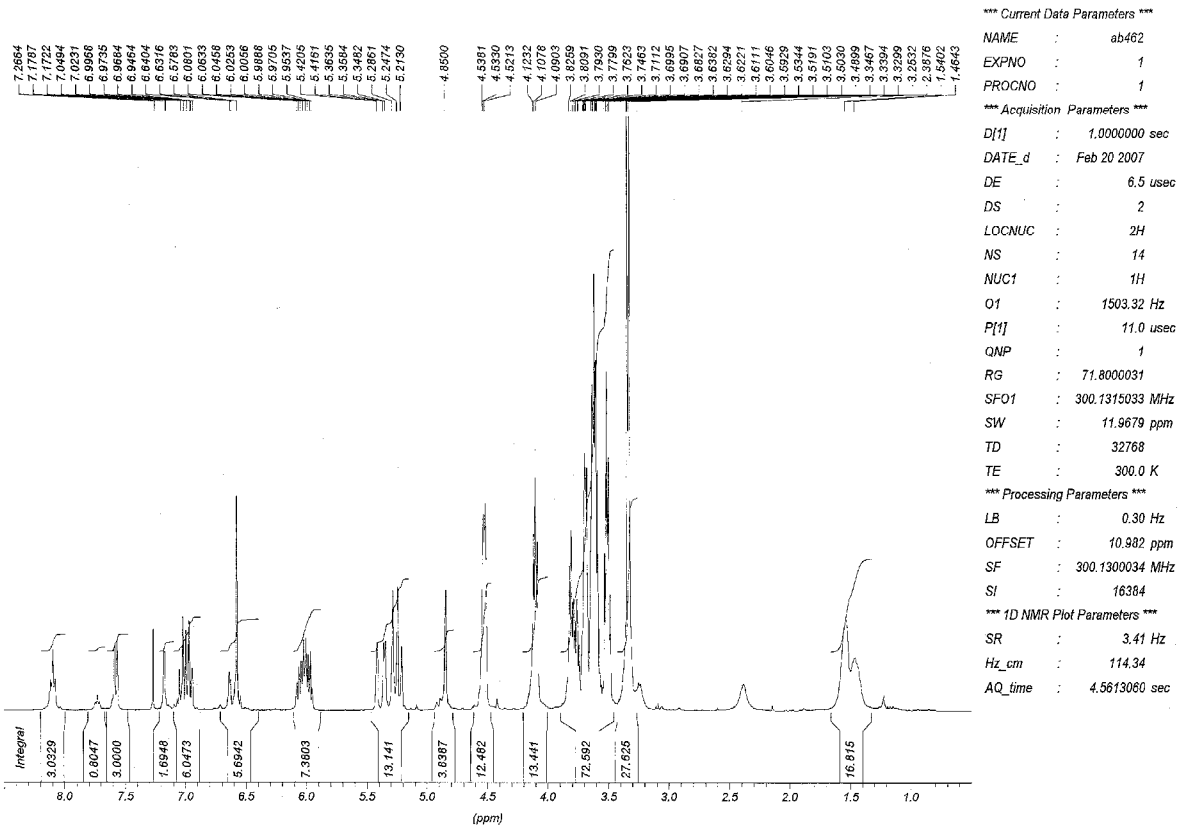
^{13}C NMR (75 MHz, $CDCl_3$) of compound **12**.



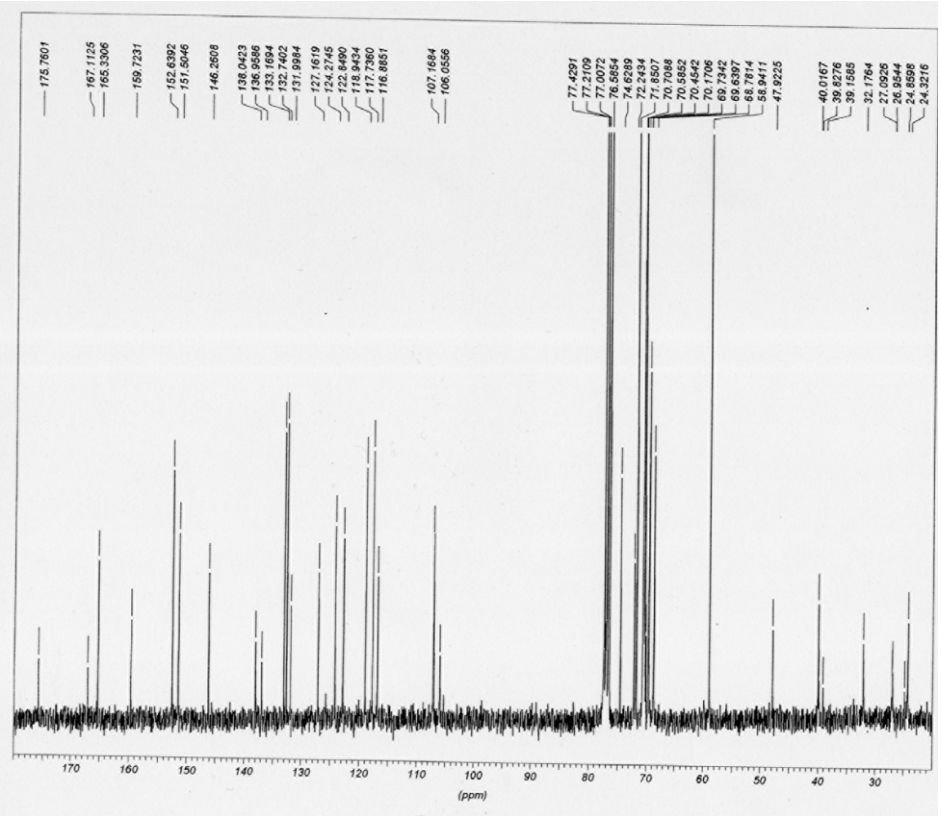
^{1}H NMR (300 MHz, $CDCl_3$) of compound **14**.



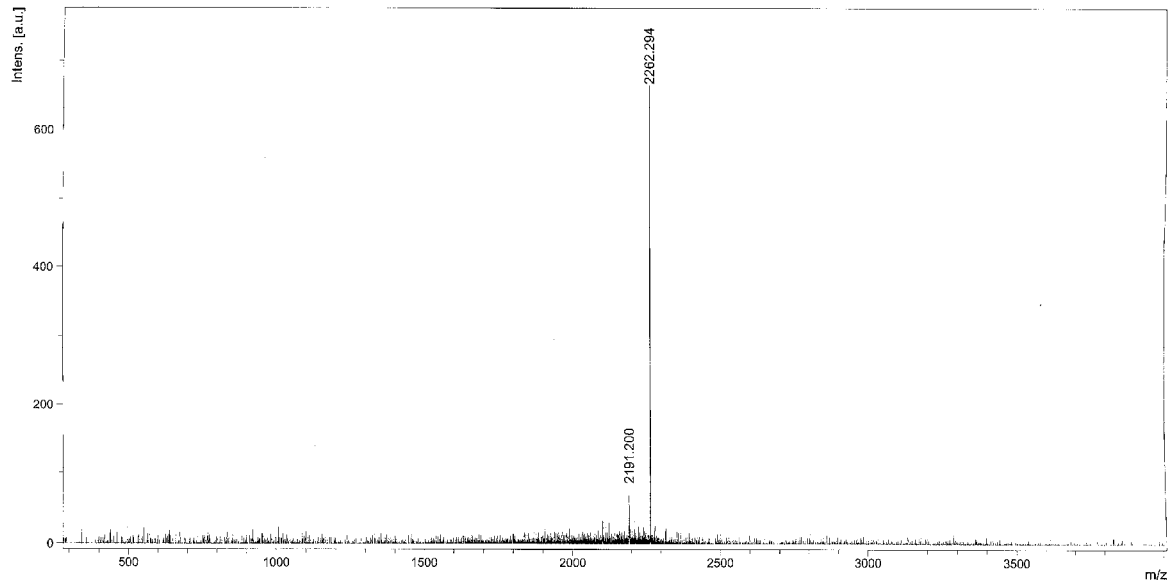
^{13}C NMR (75 MHz, $CDCl_3$) of compound **14**.



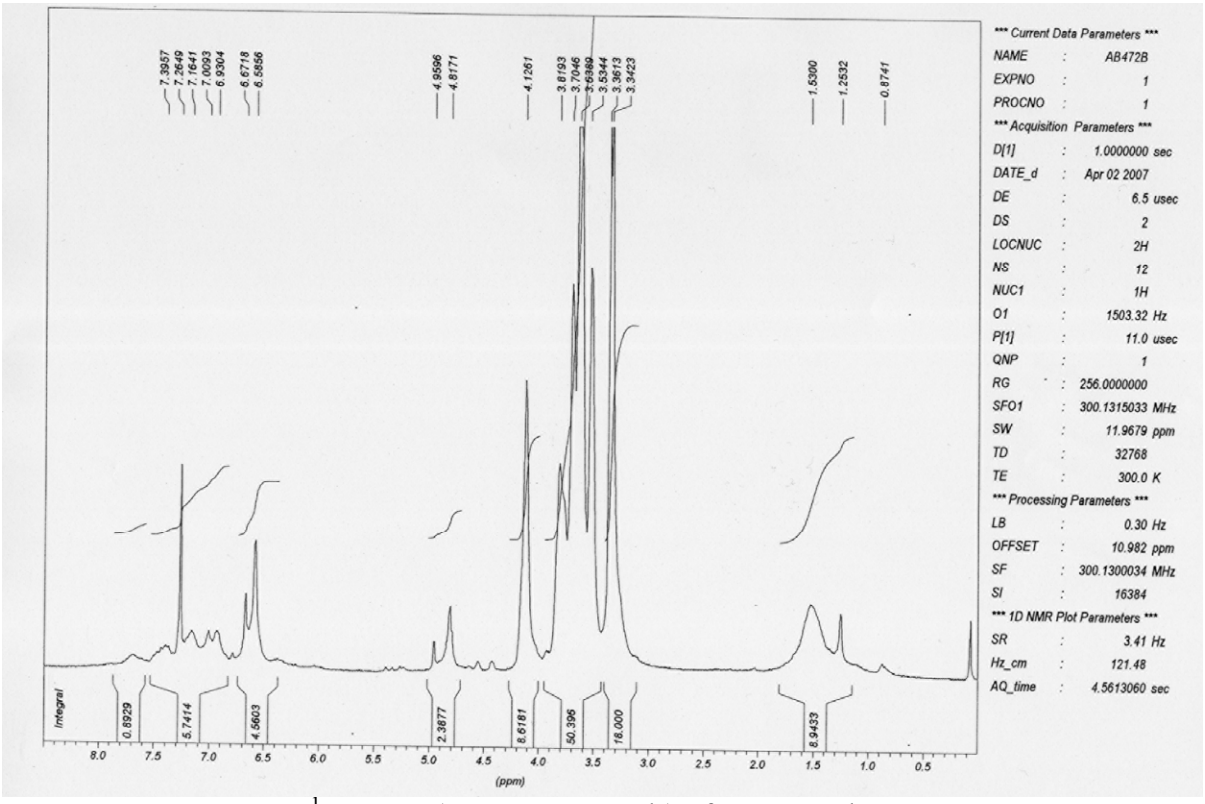
^{1}H NMR (300 MHz, $CDCl_3$) of allyl-protected ligand **15**.



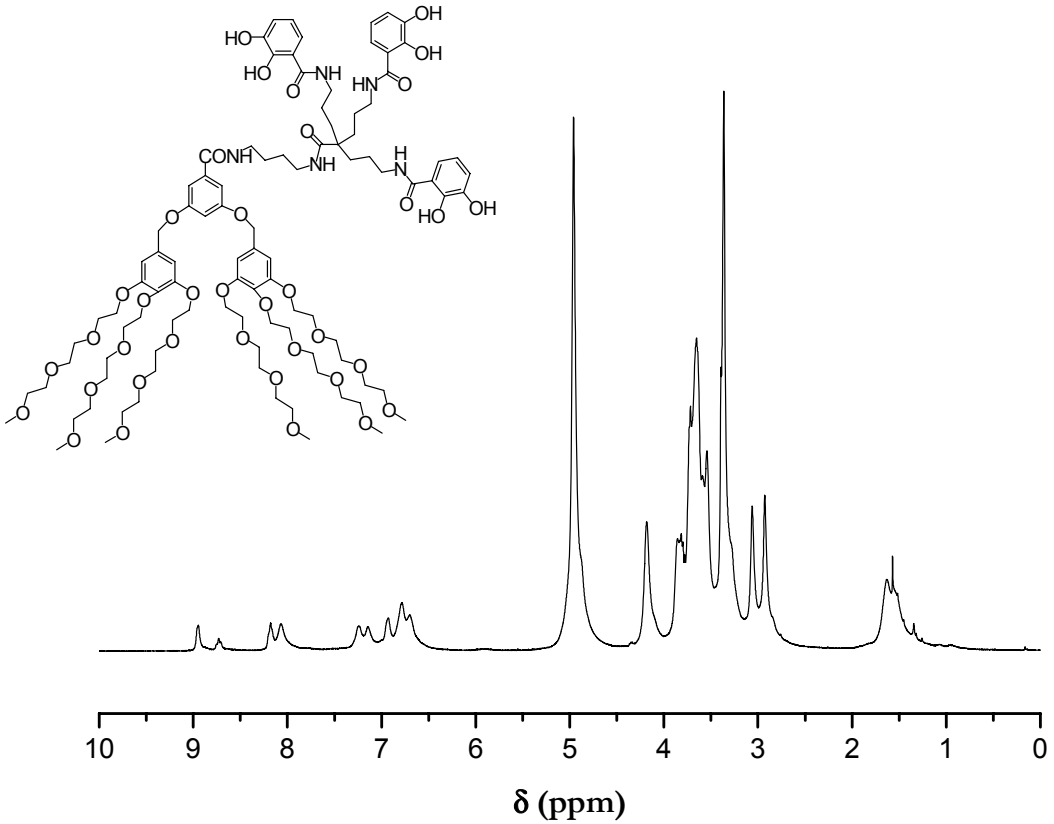
^{13}C NMR (75 MHz, $CDCl_3$) of compound **15**.



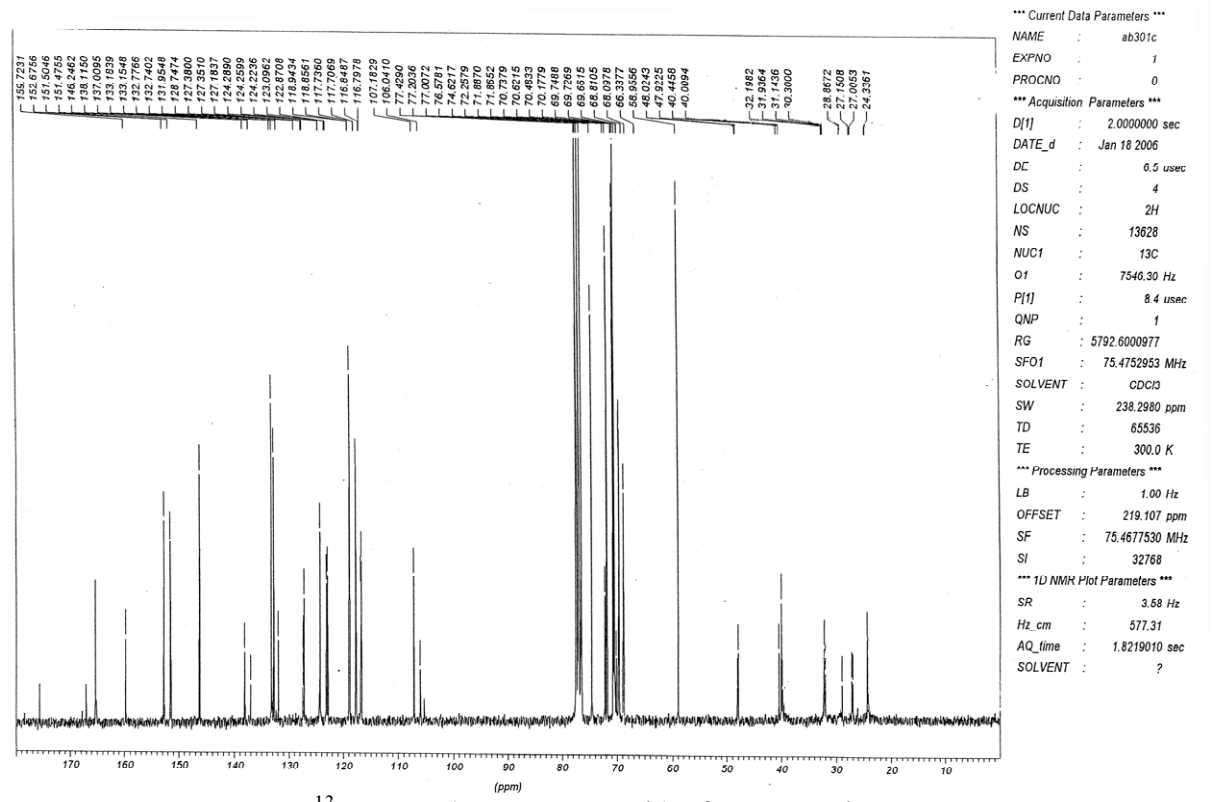
MALDI-MS (negative mode) of ligand **15**.



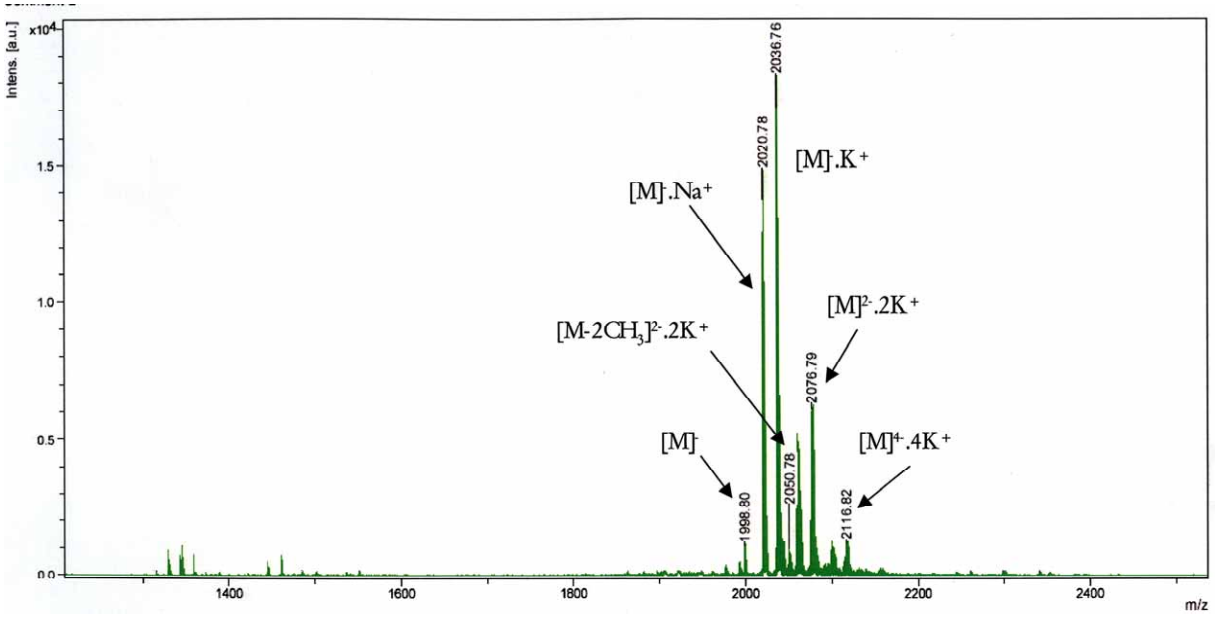
^{1}H NMR (300 MHz, $CDCl_3$) of compound **16**.



^{1}H NMR (300 MHz, CD_3OD) of compound **16**.

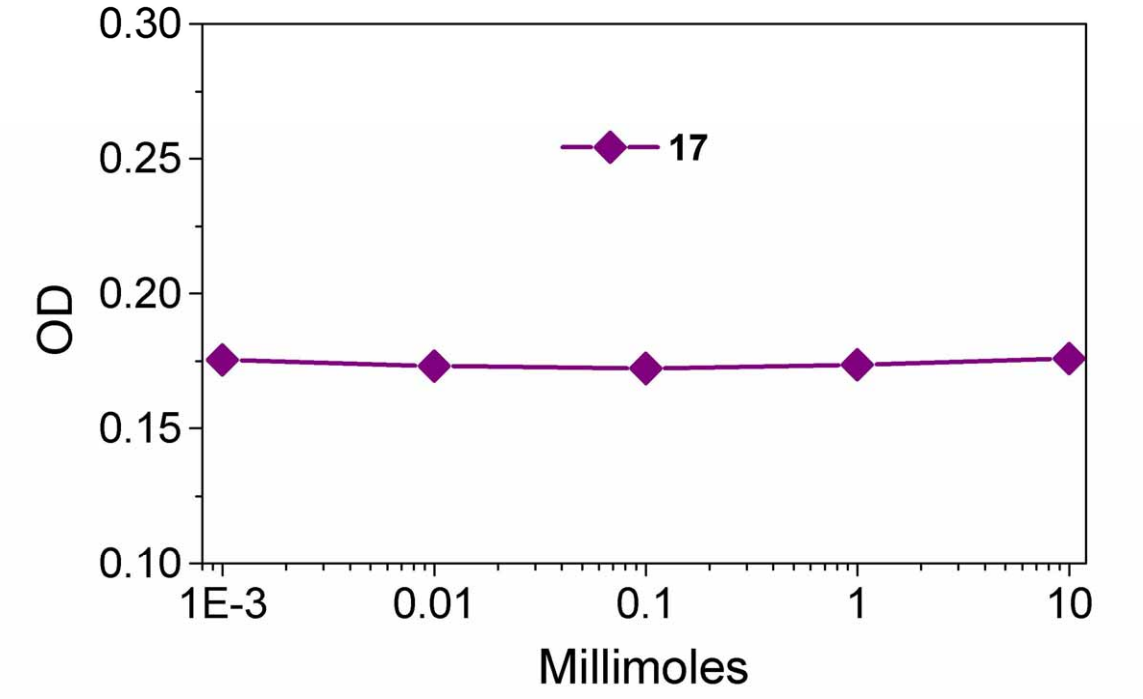


^{13}C NMR (75 MHz, $CDCl_3$) of compound 1**6**.

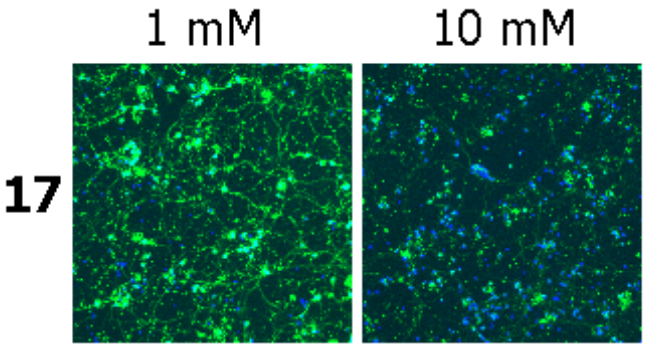


MALDI-MS (negative mode) of ligand **16**.

In vitro toxicity of compound 17



LDH efflux. Measurements of the cell leakage resulting from membrane damage of neuronal cells treated with increasing concentrations of dendritic ligand **16** compared to venom-treated (β-Bungarotoxin and Triton X) and untreated cells (naïve).



Pictures (1024 micrometer square) of treated neurons after staining for dendritic ligands **16**, **17**, together with venom- (β-Bungarotoxin, Triton X) and un-treated neurons.