

Electronic Supporting Information

Amphiphilic cyclodextrin derivatives with antibacterial activity: chemical mutation and structure-activity relationship

Hatsuo Yamamura,^{*a} Ayame Kato,^a Eri Yamada,^a Hisato Kato,^b Takashi Katsu,^b Kazufumi Masuda,^b Kayo Osawa,^c Atsushi Miyagawa^a

^a Graduate School of Engineering, Nagoya Institute of Technology, Gokiso-cho, Showa-ku, Nagoya 466-8555, Japan

^b Graduate School of Clinical Pharmacy, Shujitsu University, 1-6-1 Nishigawara, Naka-ku, Okayama-shi, Okayama 703-8516, Japan

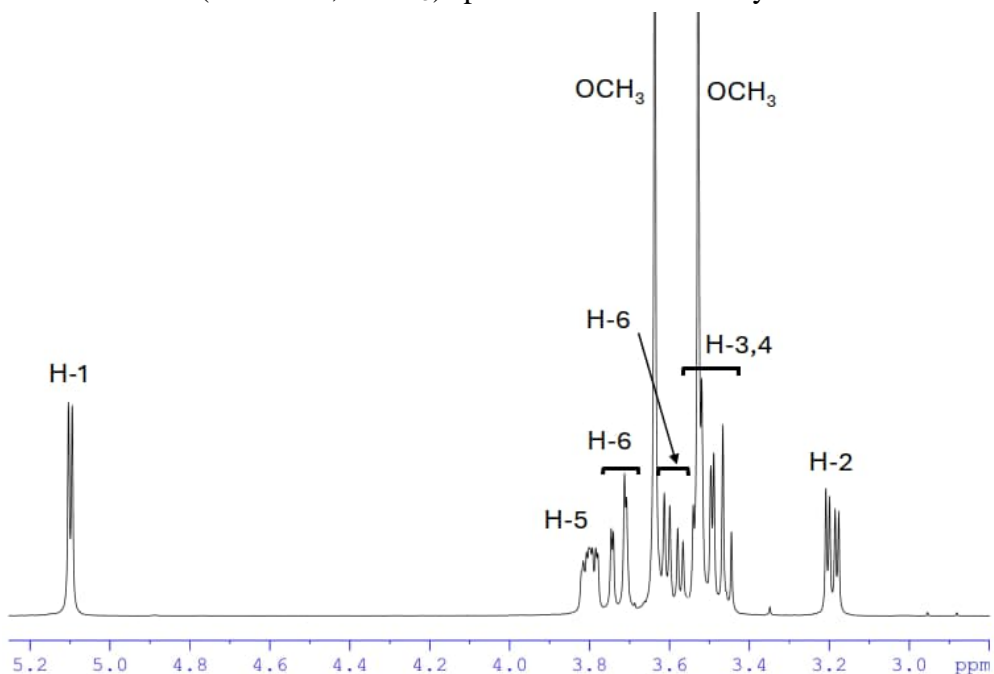
^c Division of Health Science, Department of Medical Technology, Kobe Tokiwa University, Kobe 653-0838, Japan

Index

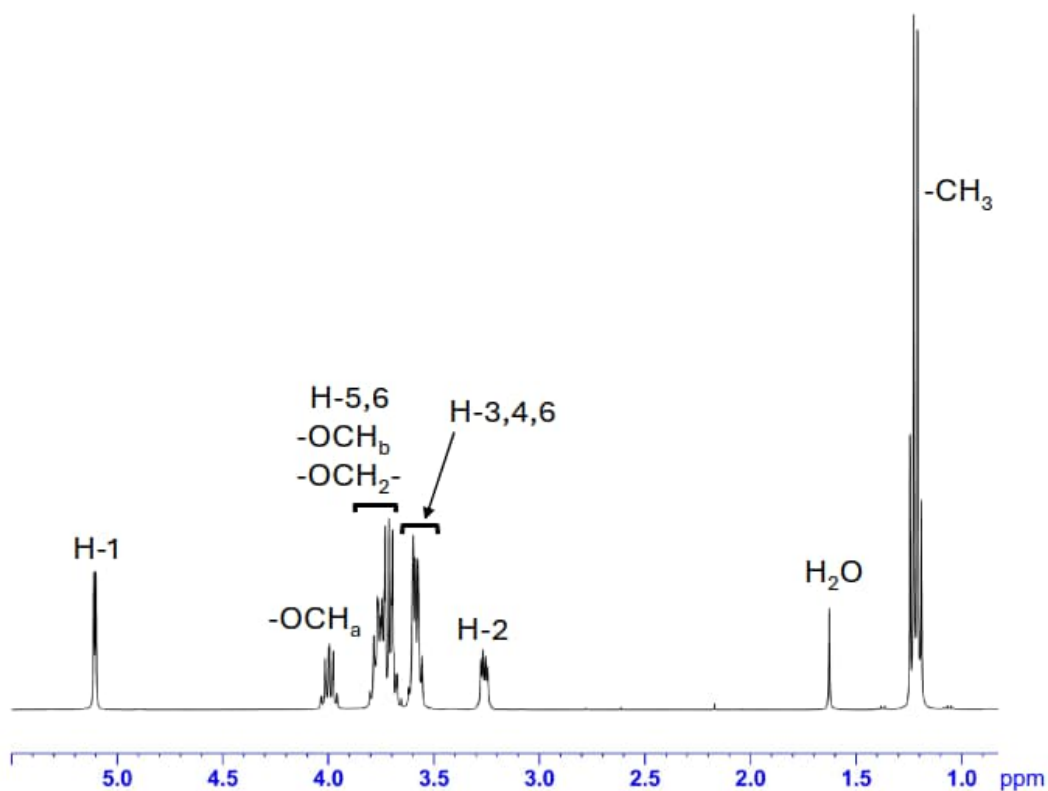
1. NMR spectra.....	2
2. References.....	18

1. NMR spectra

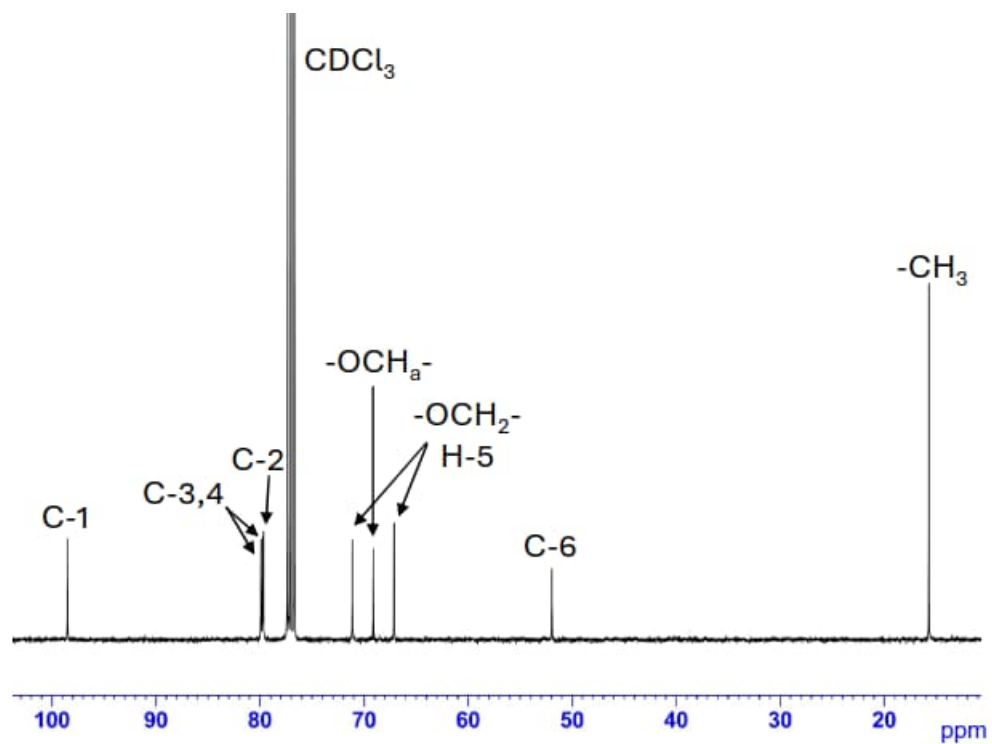
1.1 ^1H NMR (400 MHz, CDCl_3) spectrum of azido methyl ether **9**.¹



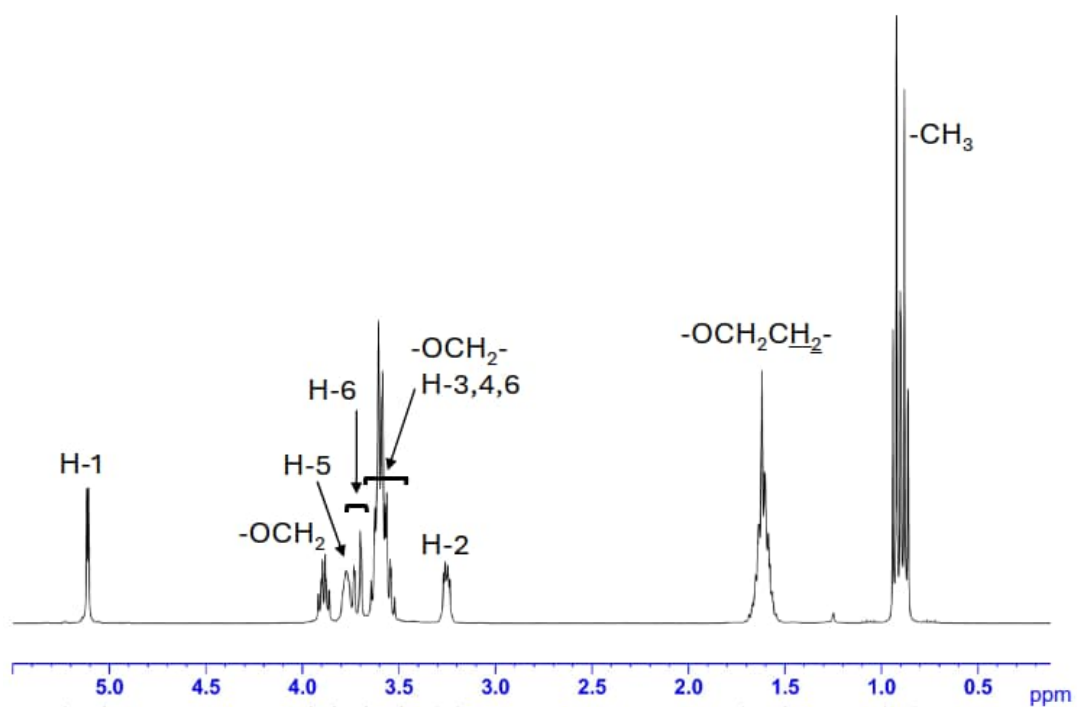
1.2 ^1H NMR (400 MHz, CDCl_3) spectrum of azido ethyl ether **10**.



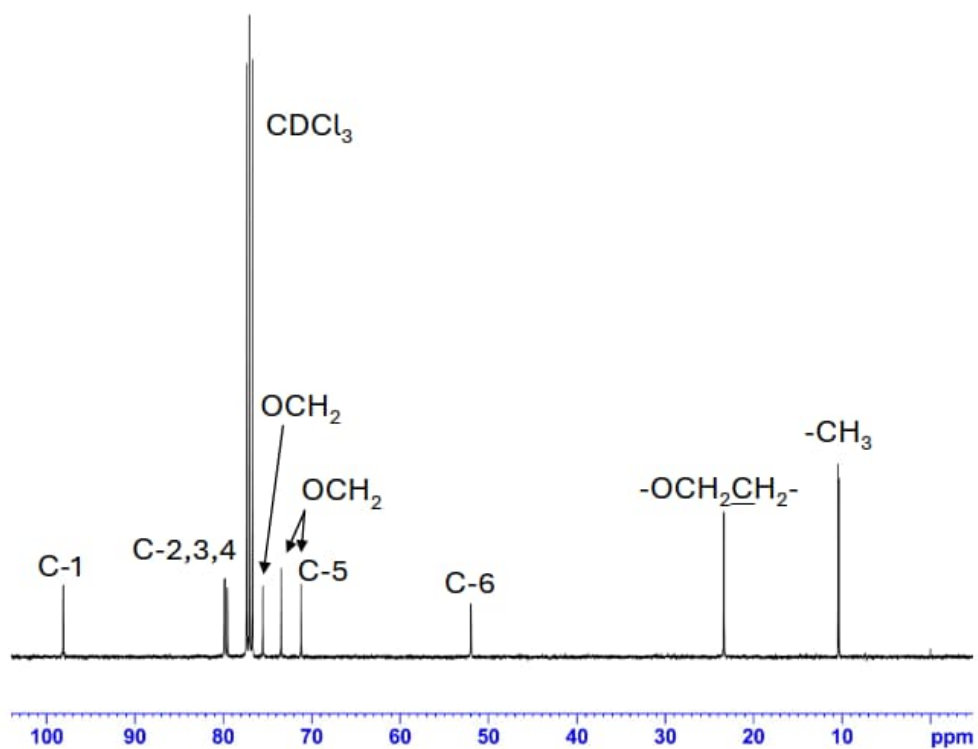
1.3 ^{13}C NMR (100 MHz, CDCl_3) spectrum of azido ethyl ether **10**.



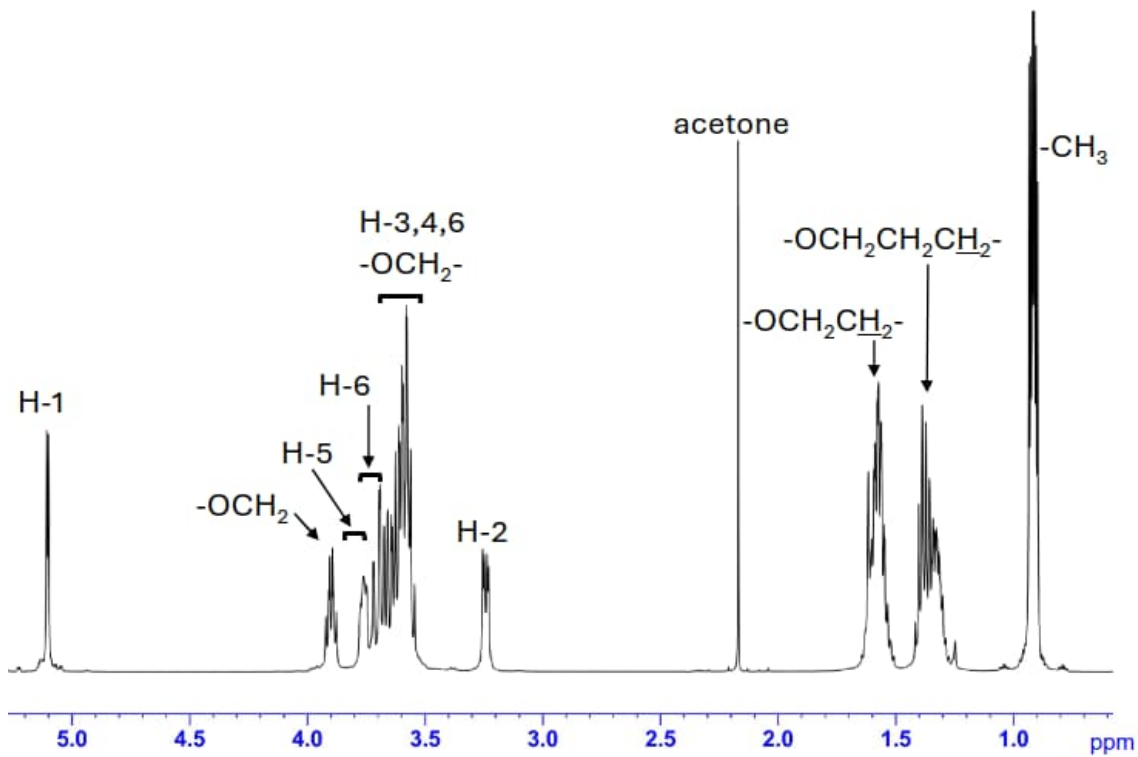
1.4 ^1H NMR (400 MHz, CDCl_3) spectrum of azido propyl ether **11**.



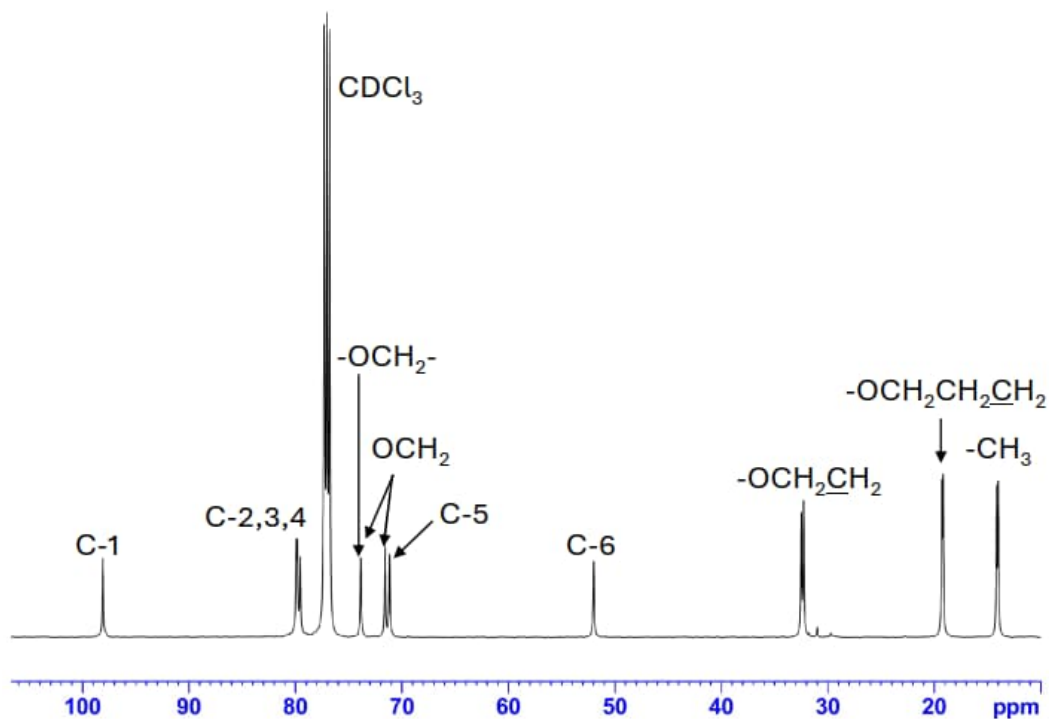
1.5 ^{13}C NMR (100 MHz, CDCl_3) spectrum of azido propyl ether **11**.



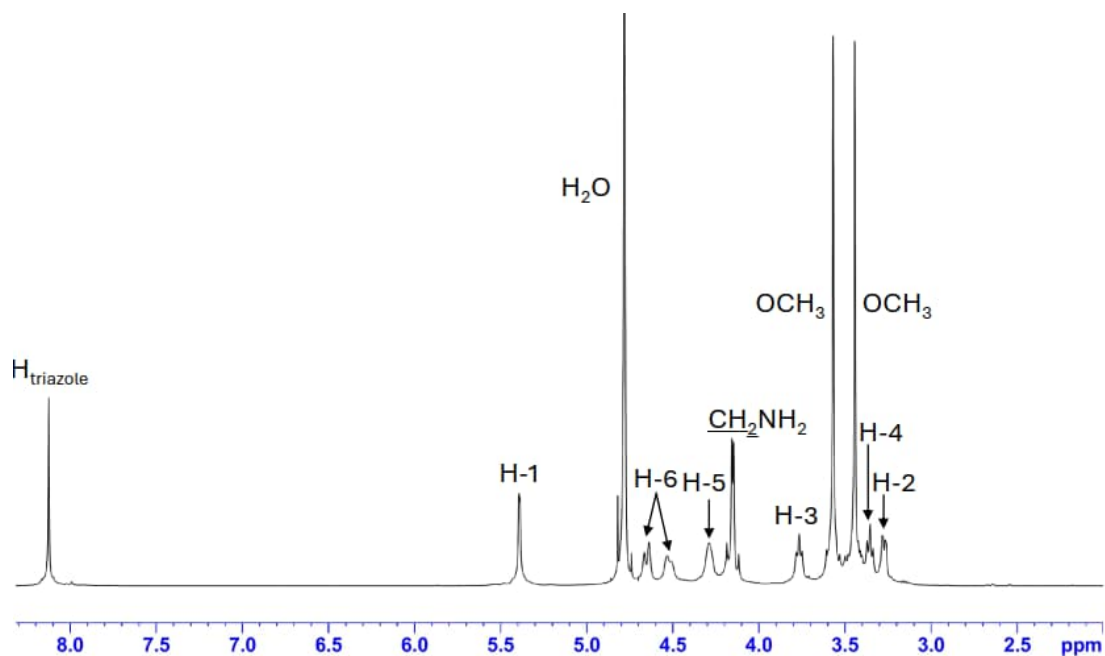
1.6 ^1H NMR (400 MHz, CDCl_3) spectrum of azido butyl ether **12**.



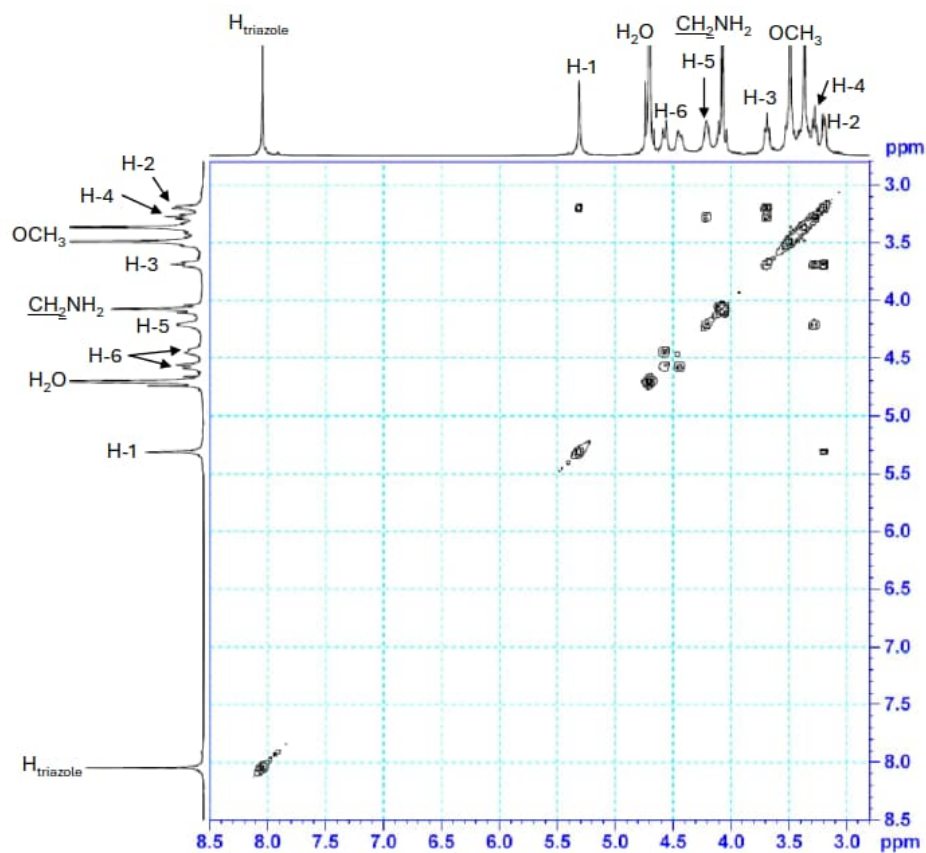
1.7 ^{13}C NMR (100 MHz, CDCl_3) spectrum of azido butyl ether **12**.



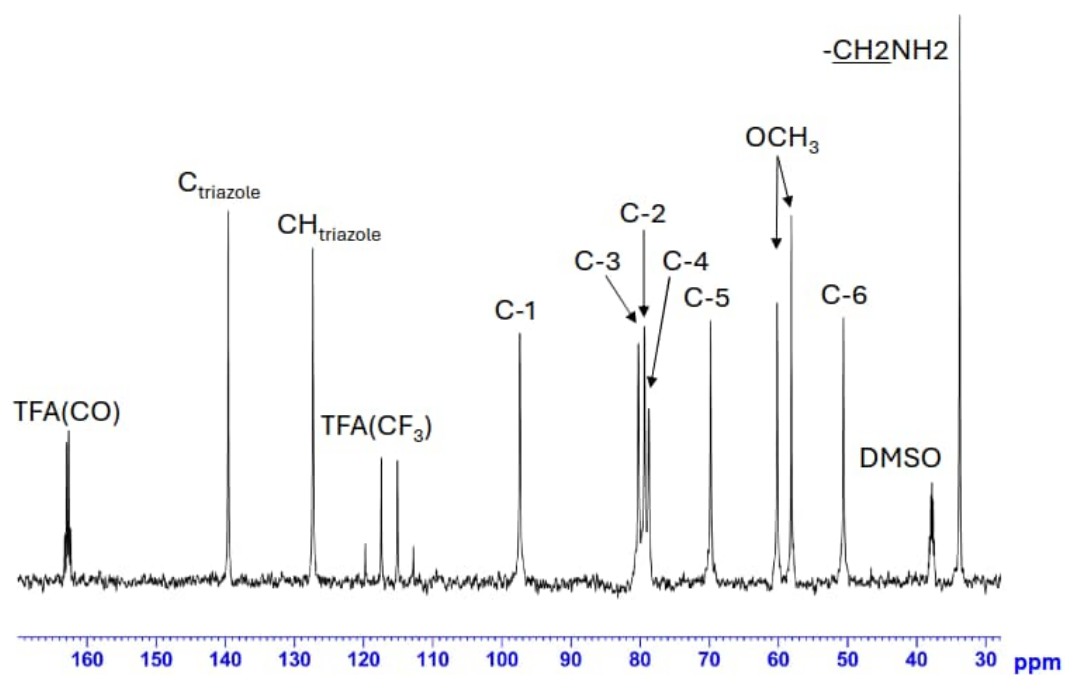
1.8 ^1H NMR (400 MHz, D_2O) spectrum of aminoclick methyl ether **4**.



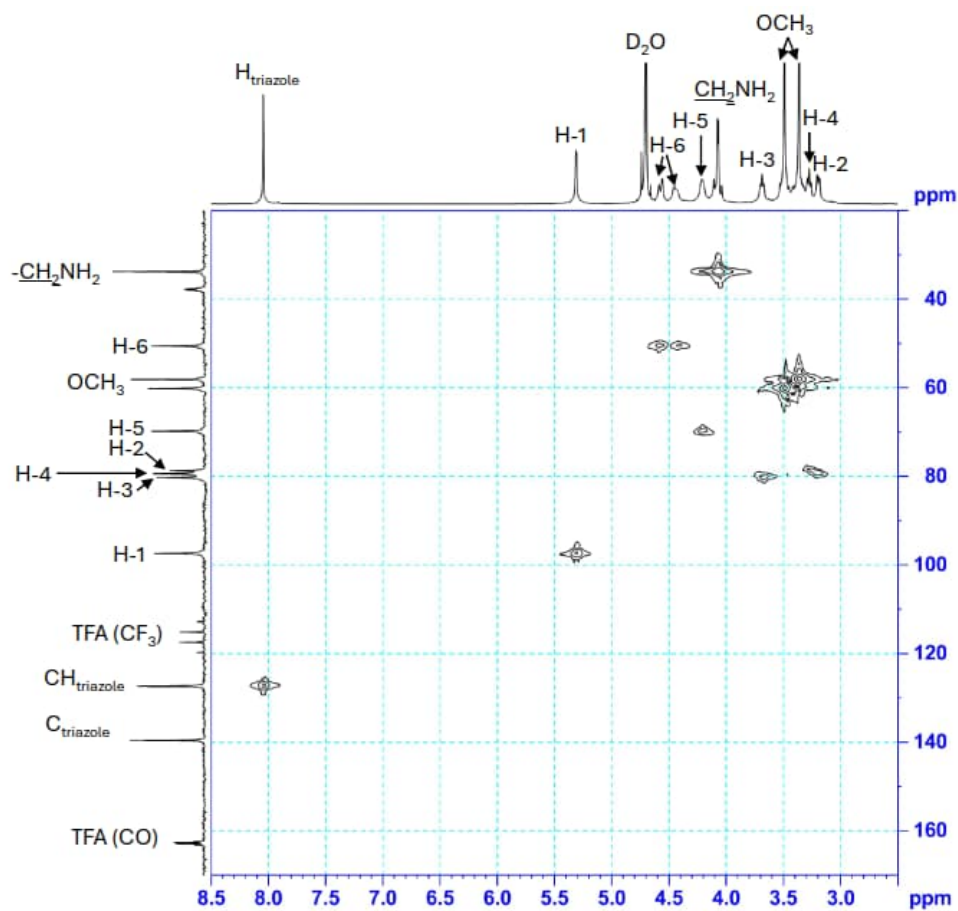
1.9 COSY (400 MHz, D₂O) spectrum of aminoclick methyl ether **4**.



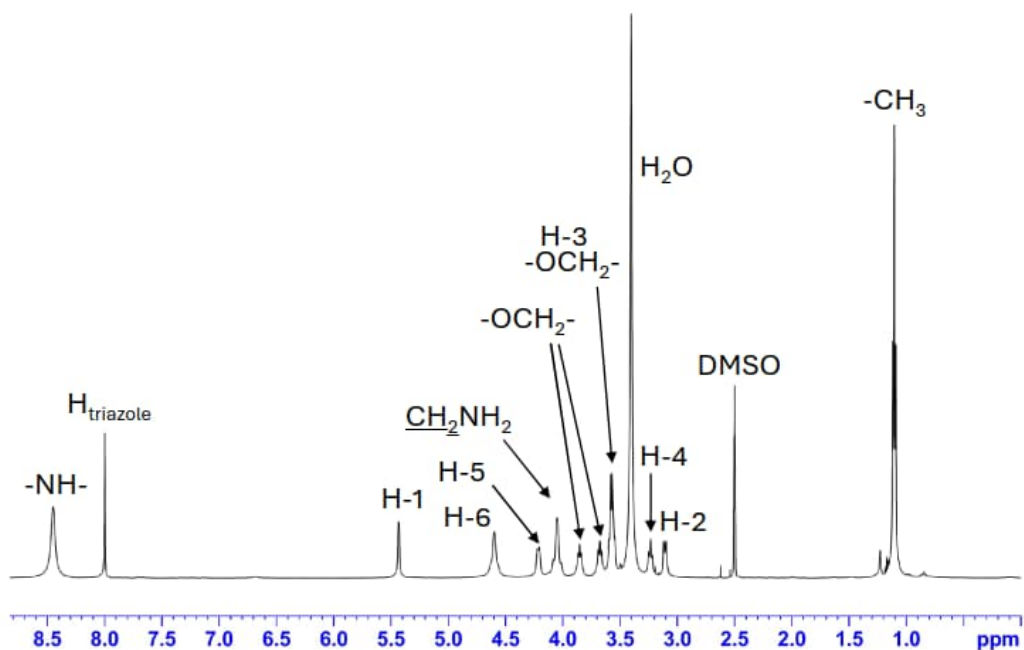
1.10 ¹³C NMR (125 MHz, D₂O) spectrum of aminoclick methyl ether **4**.



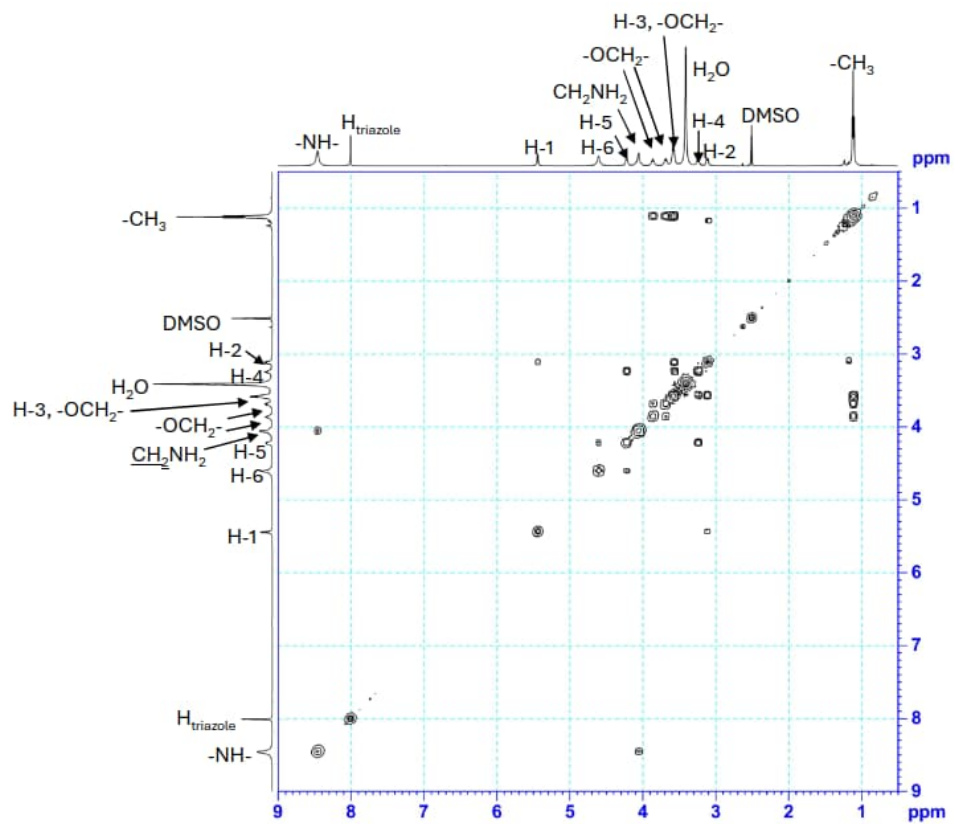
1.11 HMQC (500 MHz, D₂O) spectrum of aminoclick methyl ether **4**.



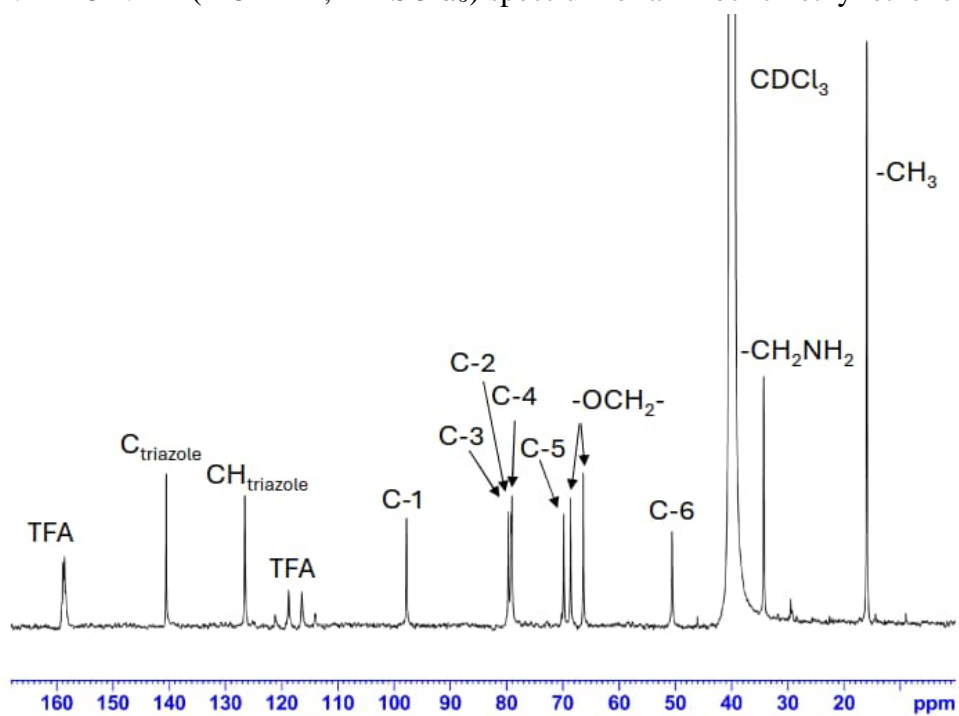
1.12 ¹H NMR (500 MHz, DMSO-*d*₆) spectrum of aminoclick ethyl ether **5**.



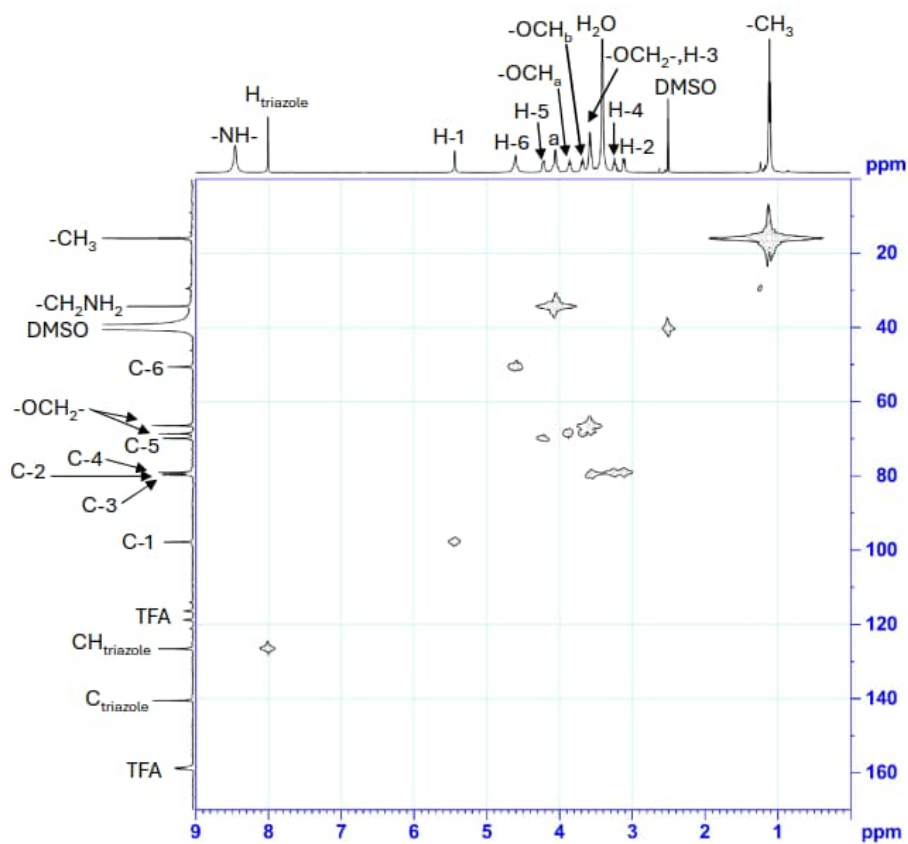
1.13 COSY (500 MHz, DMSO-*d*₆) spectrum of aminoclick ethyl ether **5**.



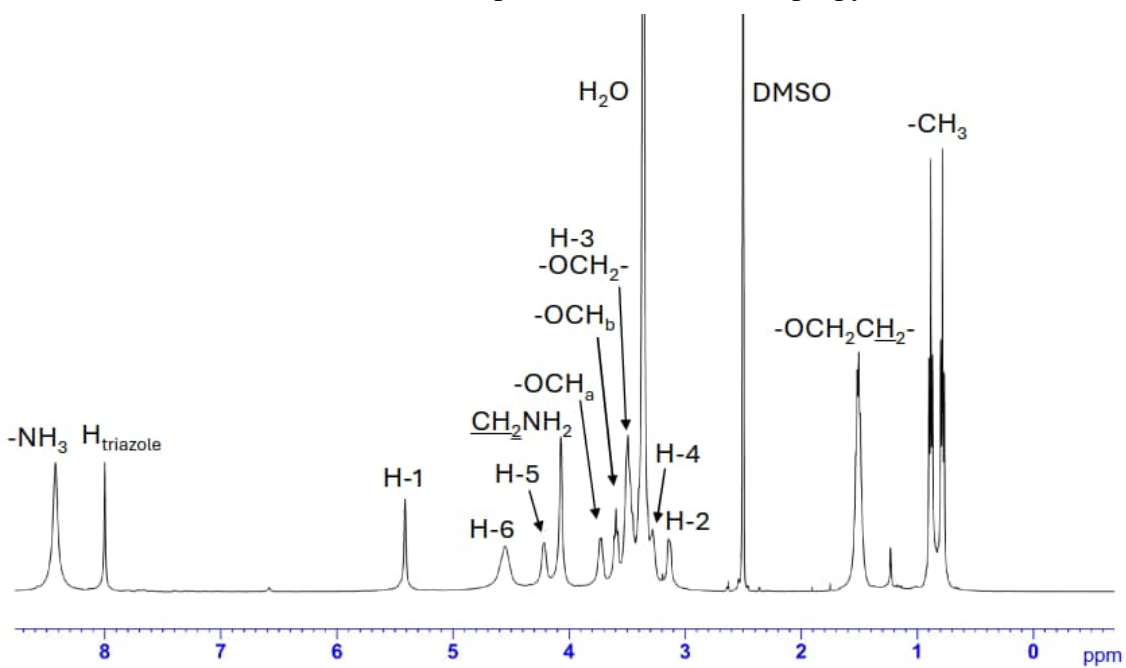
1.14 ¹³C NMR (125 MHz, DMSO-*d*₆) spectrum of aminoclick ethyl ether **5**.



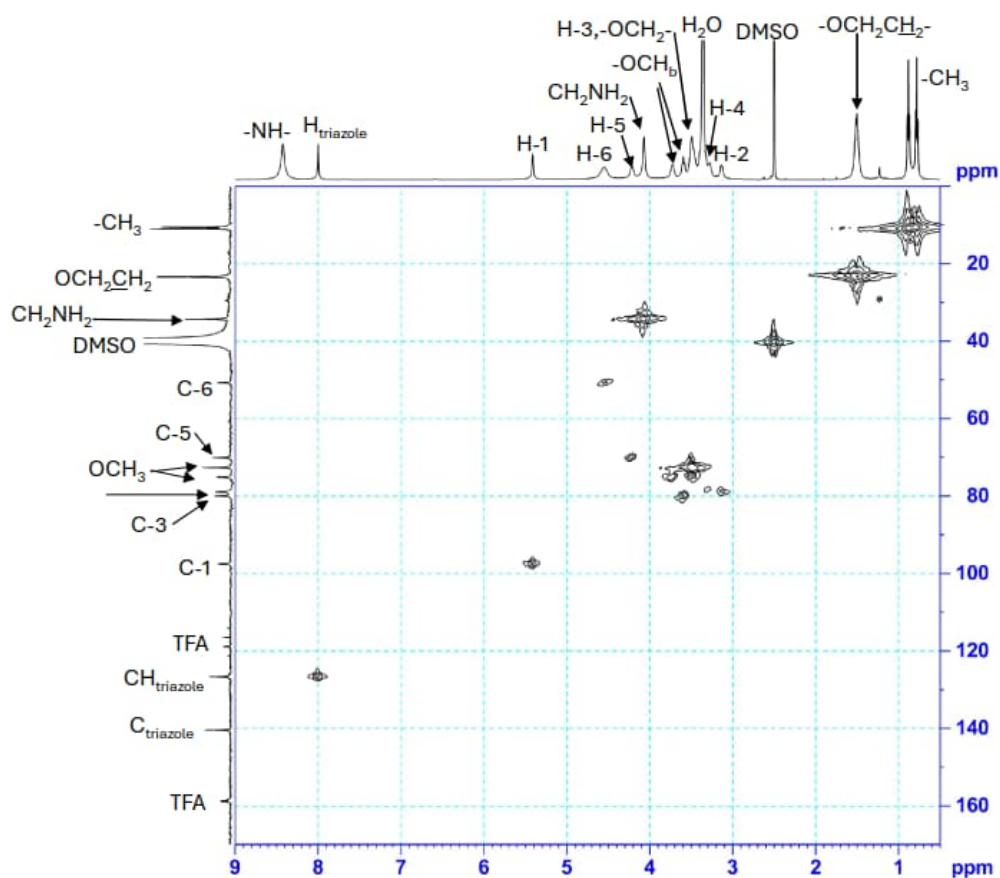
1.15 HMQC (500 MHz, DMSO-*d*₆) spectrum of aminoclick ethyl ether **5**.



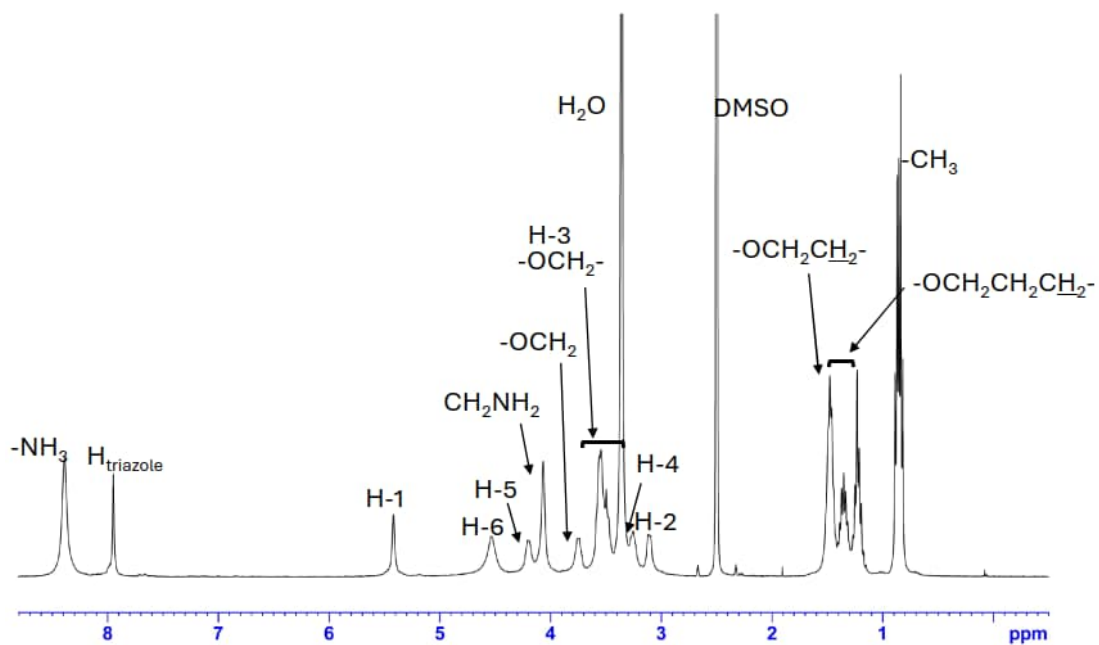
1.16 ¹H NMR (500 MHz, DMSO-*d*₆) spectrum of aminoclick propyl ether **6**.



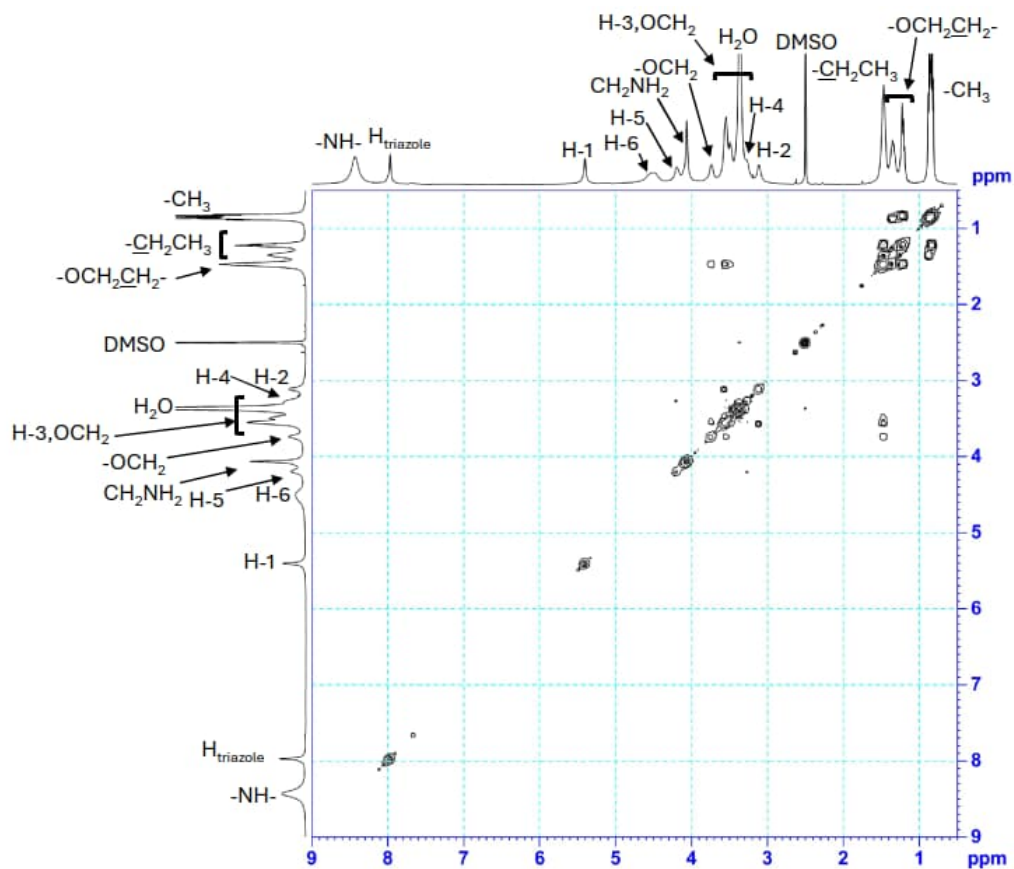
1.19 HMQC (500 MHz, DMSO-*d*₆) spectrum of aminoclick propyl ether **6**.



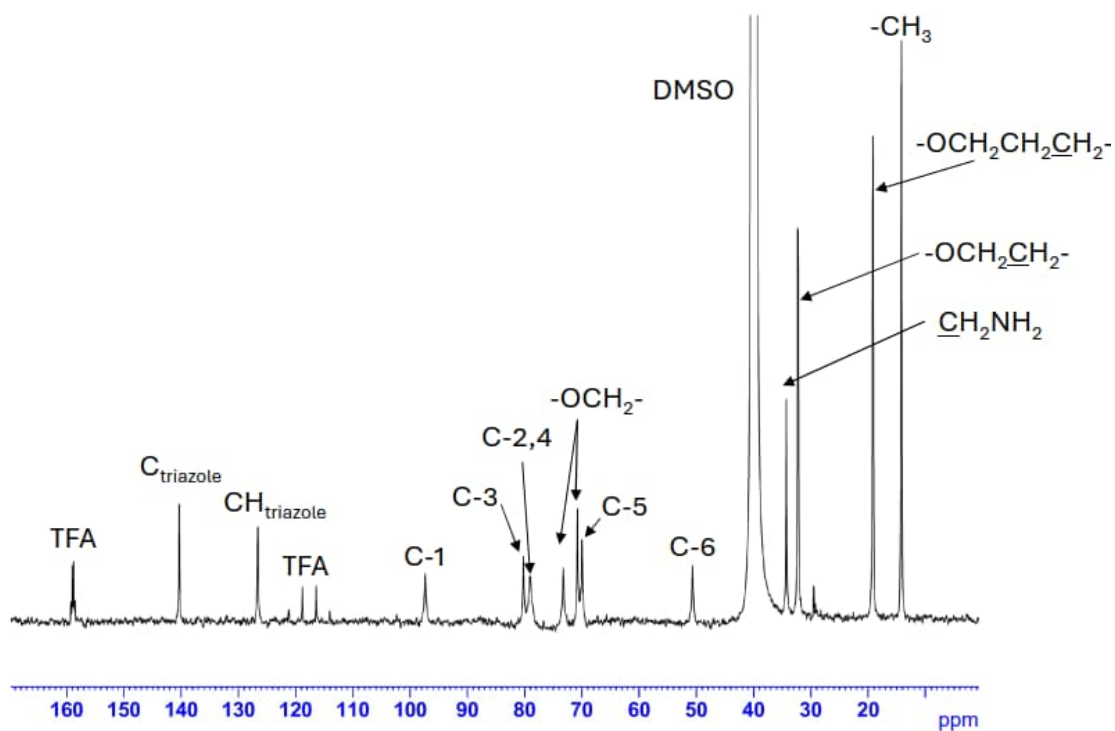
1.20 ¹H NMR (500 MHz, DMSO-*d*₆) spectrum of aminoclick butyl ether **7**.



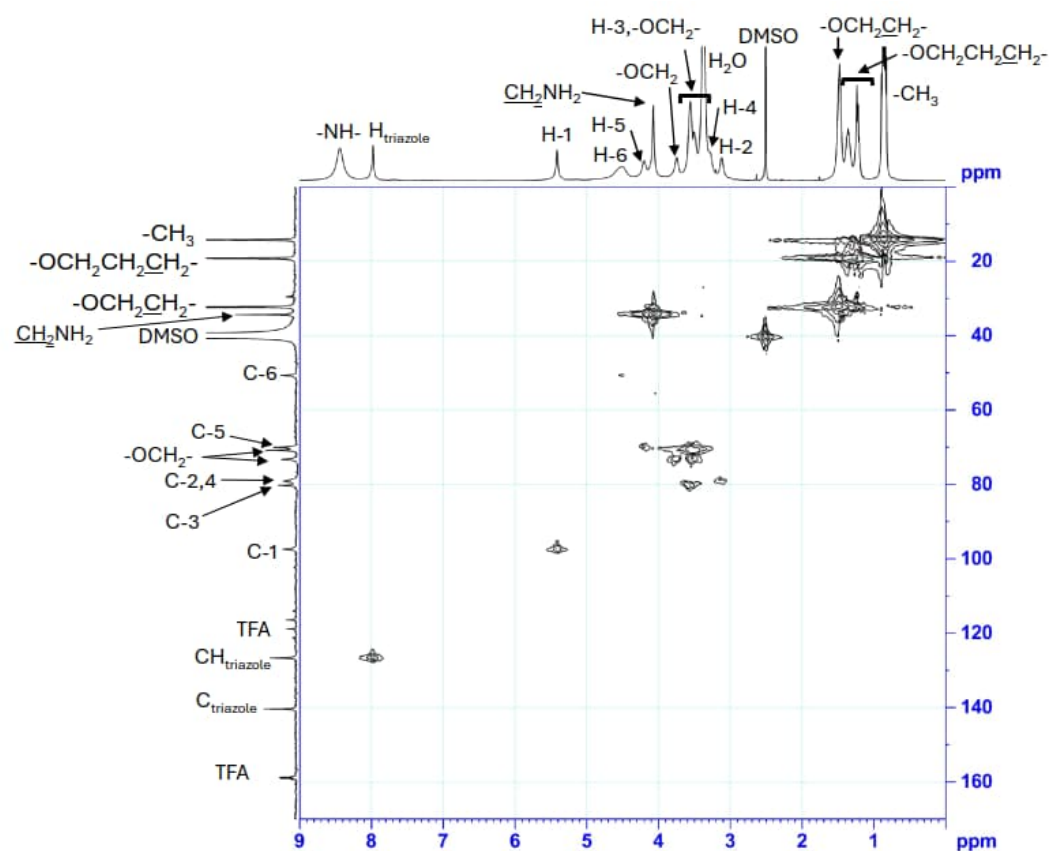
1.21 COSY (500 MHz, DMSO-*d*₆) spectrum of aminoclick butyl ether **7**.



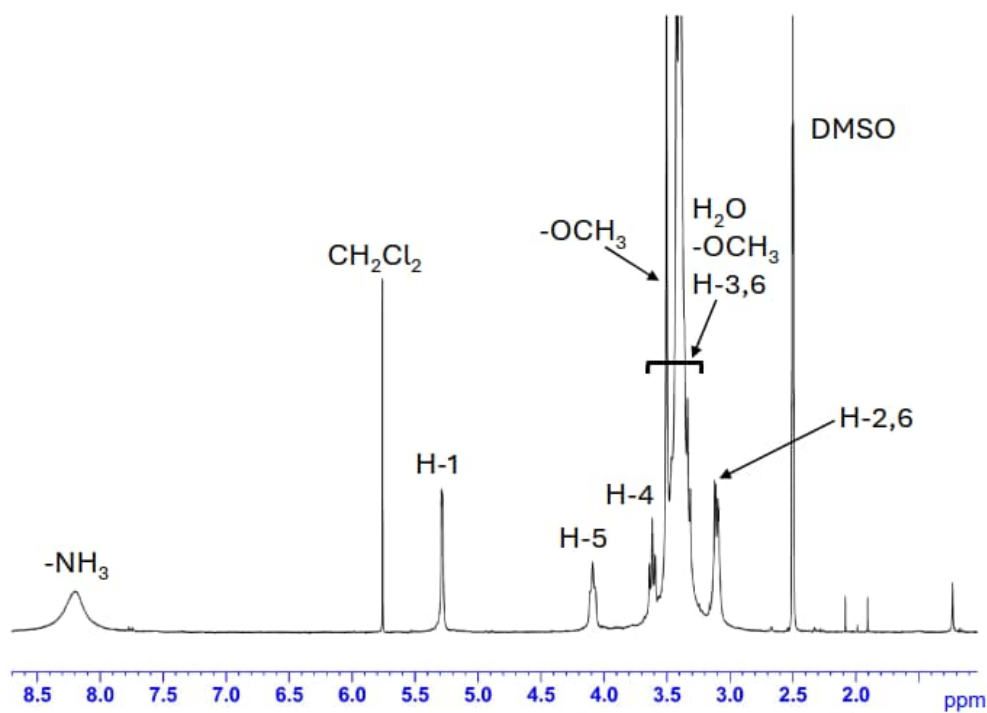
1.22 ¹³C NMR (125 MHz, DMSO-*d*₆) spectrum of aminoclick butyl ether **7**.



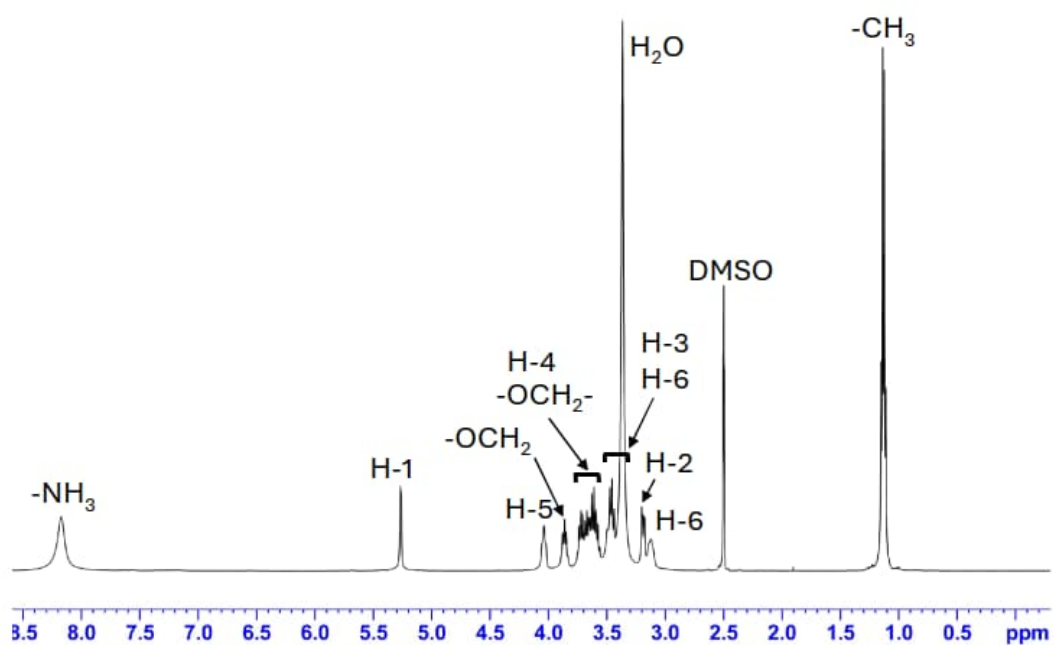
1.23 HMQC (500 MHz, DMSO-*d*₆) spectrum of aminoclick butyl ether **7**.



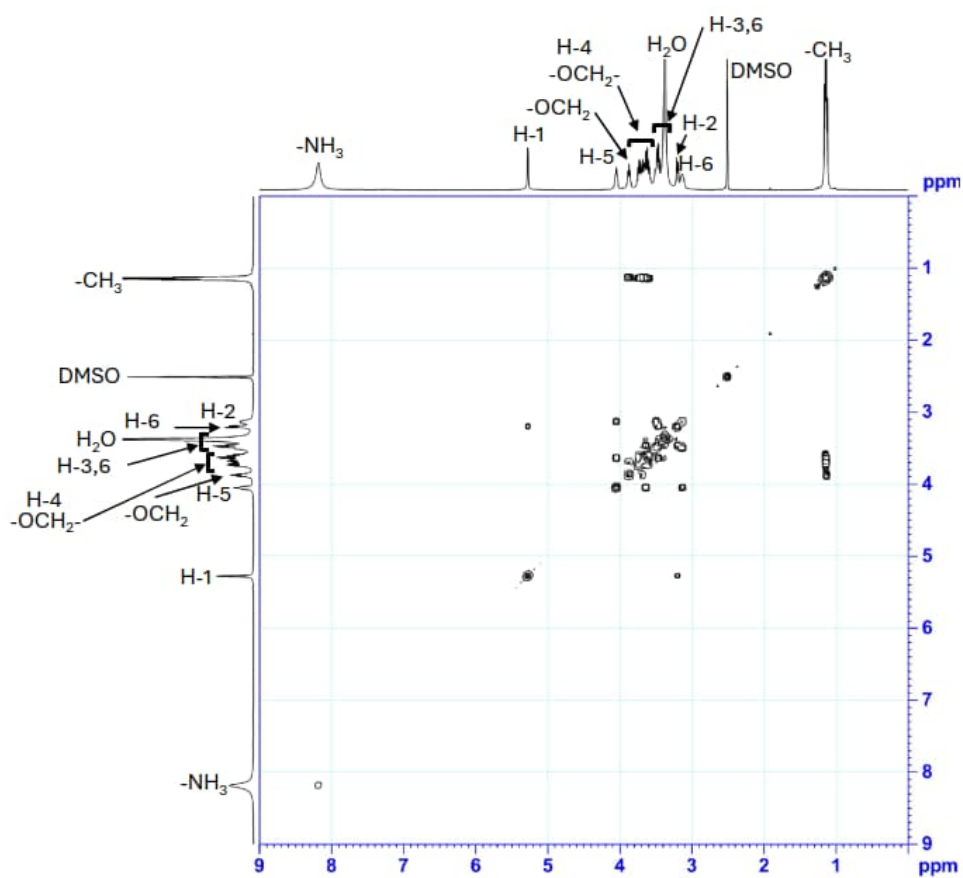
1.24 ¹H NMR (400 MHz, DMSO-*d*₆) spectrum of amino methyl ether **13**.¹



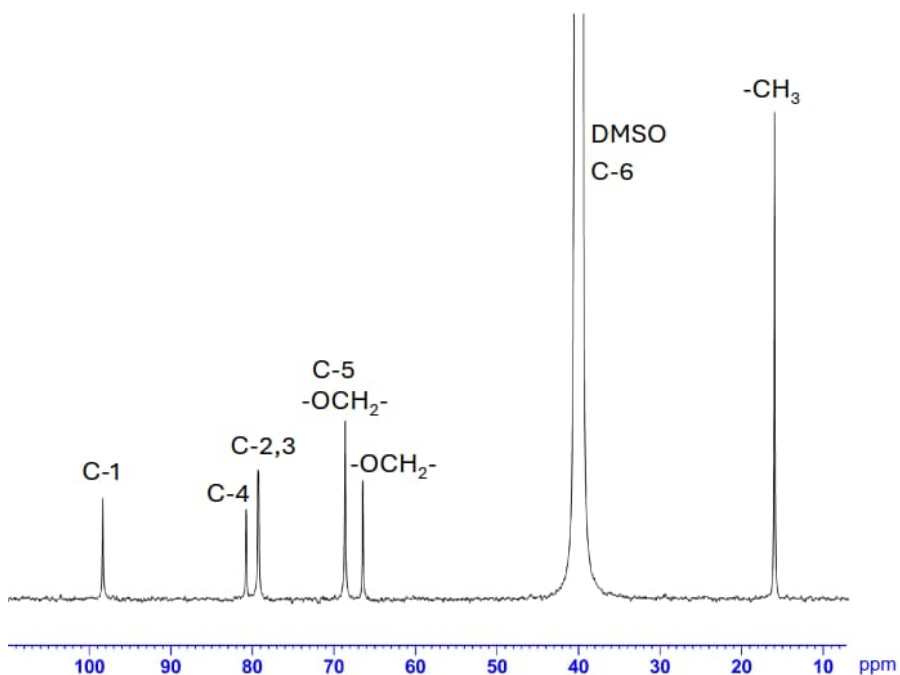
1.25 ^1H NMR (500 MHz, $\text{DMSO-}d_6$) spectrum of amino ethyl ether **14**.



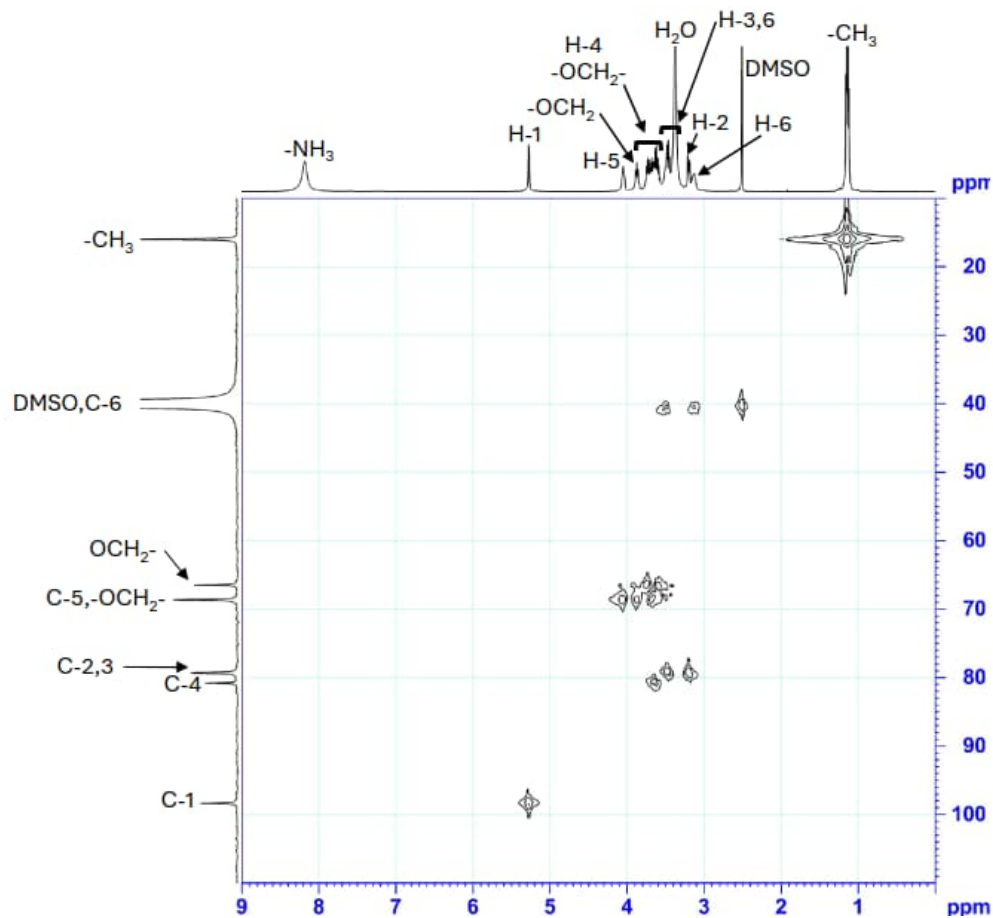
1.26 COSY (500 MHz, $\text{DMSO-}d_6$) spectrum of amino ethyl ether **14**.



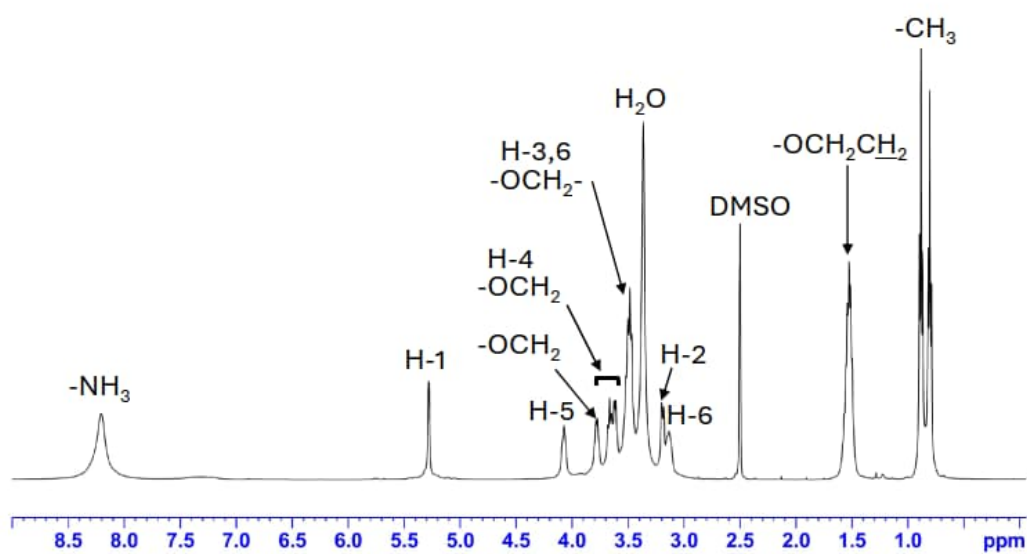
1.27 ^{13}C NMR (125 MHz, $\text{DMSO-}d_6$) spectrum of amino ethyl ether **14**.



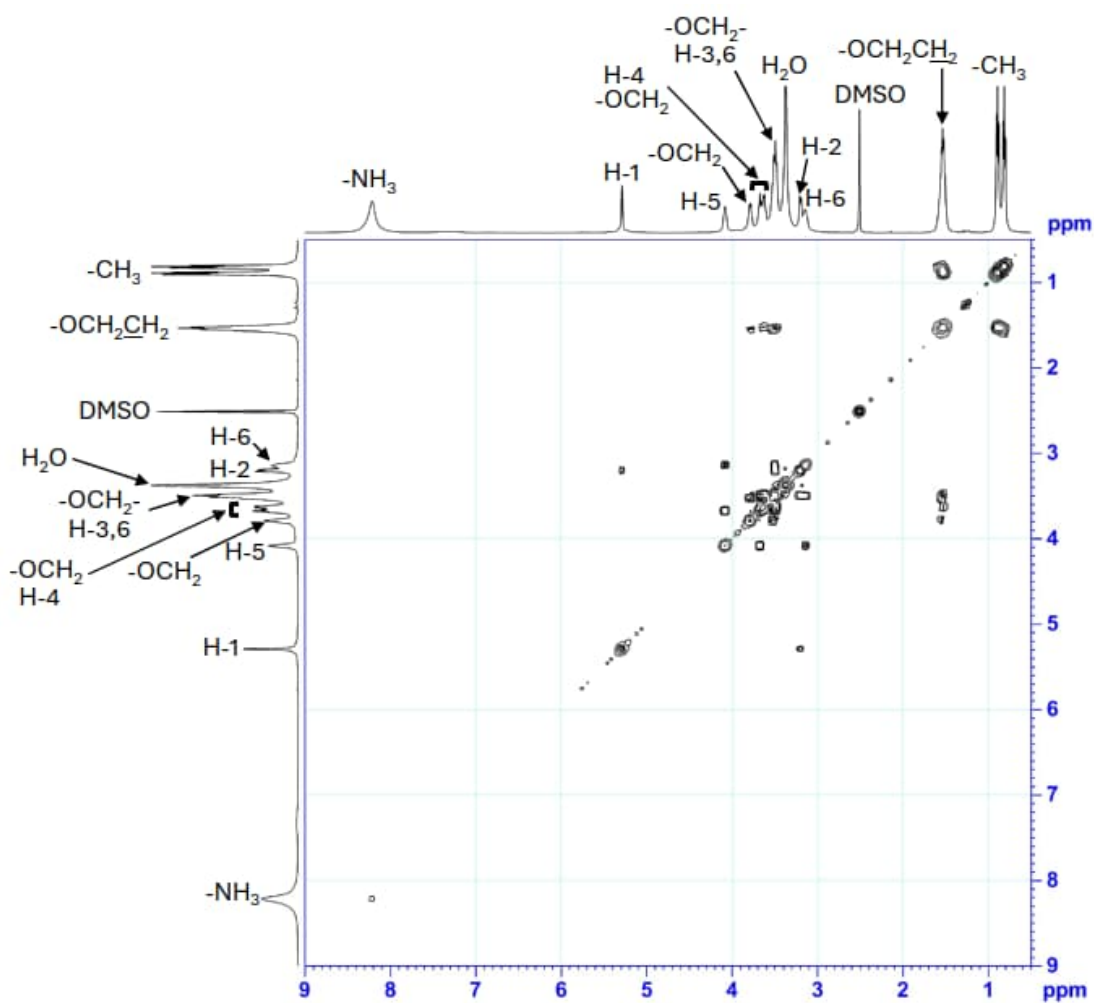
1.28 HMQC (500 MHz, $\text{DMSO-}d_6$) spectrum of amino ethyl ether **14**.



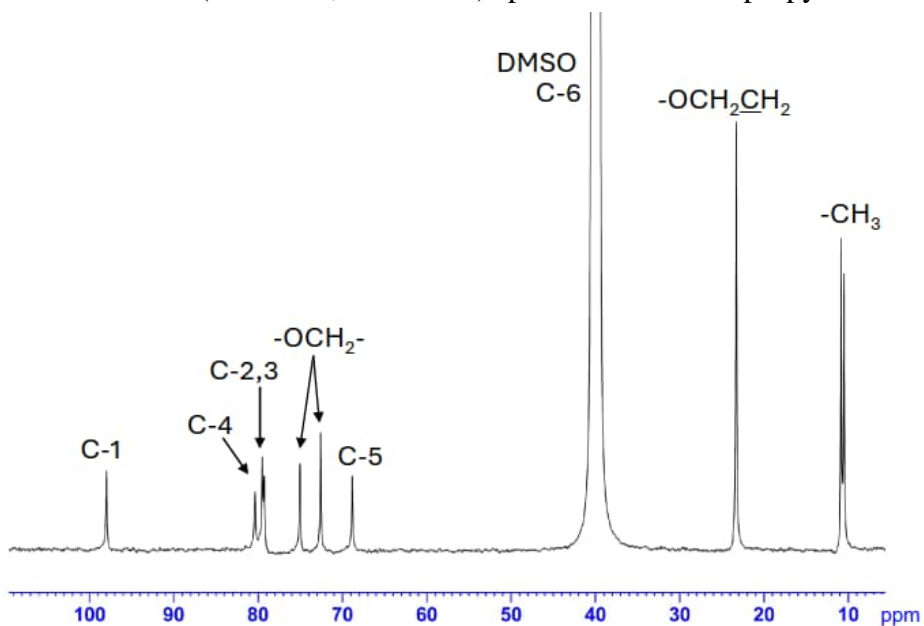
1.29 ^1H NMR (500 MHz, $\text{DMSO-}d_6$) spectrum of amino propyl ether **15**.



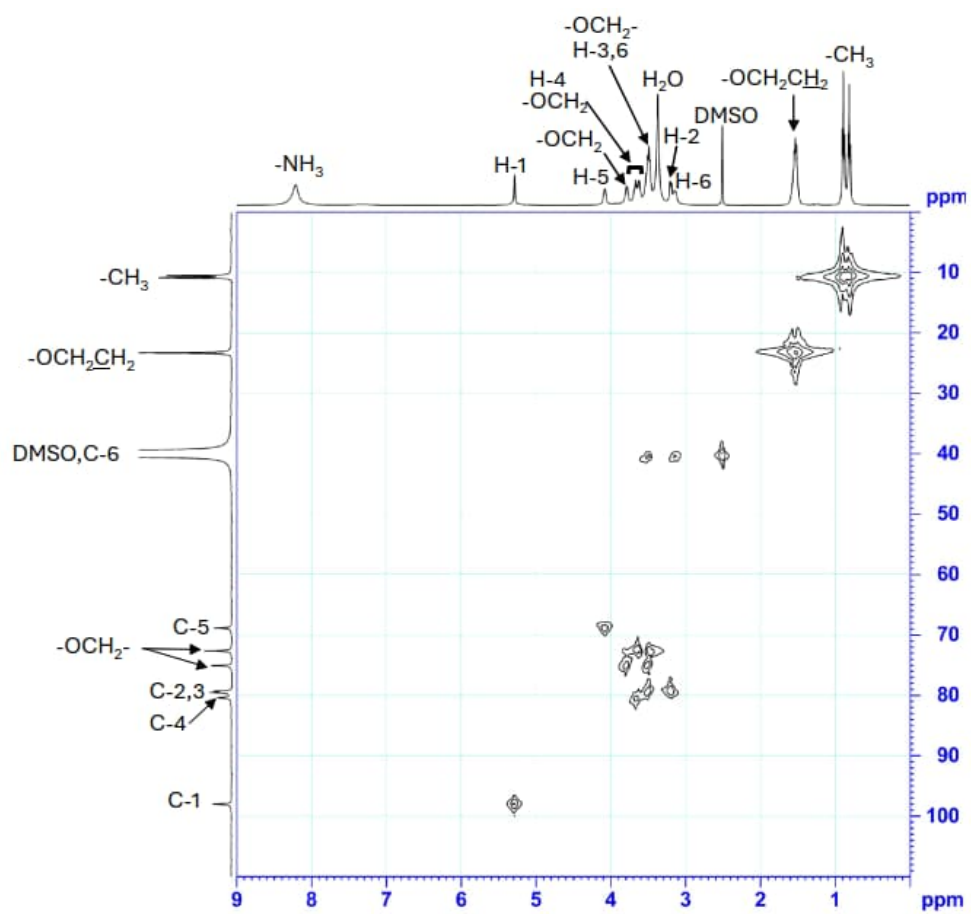
1.30 COSY (500 MHz, $\text{DMSO-}d_6$) spectrum of amino propyl ether **15**.



1.31 ^{13}C NMR (125 MHz, $\text{DMSO-}d_6$) spectrum of amino propyl ether **15**.



1.32 HMQC (500 MHz, $\text{DMSO-}d_6$) spectrum of amino propyl ether **15**.



2. References

- 1 . D. A. Fulton, A. R. Pease and J. F. Stoddart, *Israel J. Chem.*, 2000, **40**, 32.