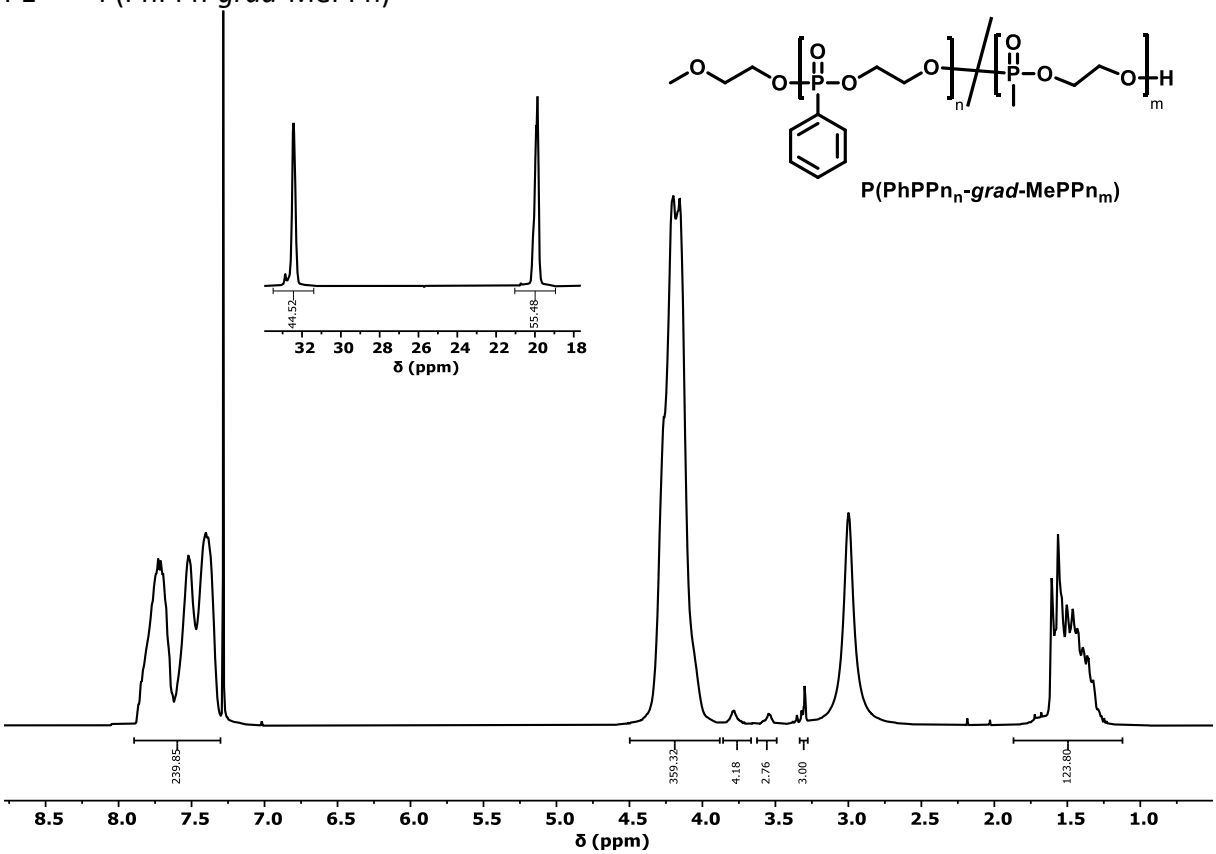
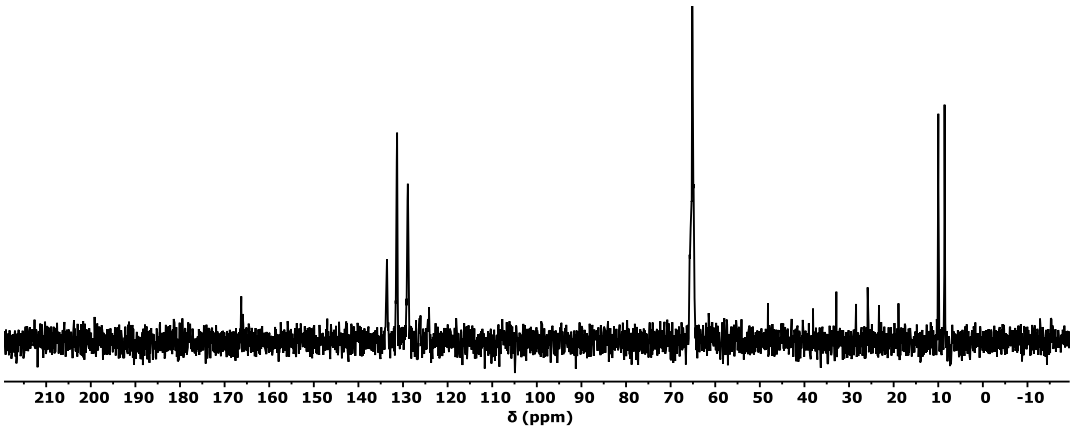
^{1}H and ^{13}C NMR Spectra of the final polymers

P1 P(PhPPn-*grad*-MePPn)

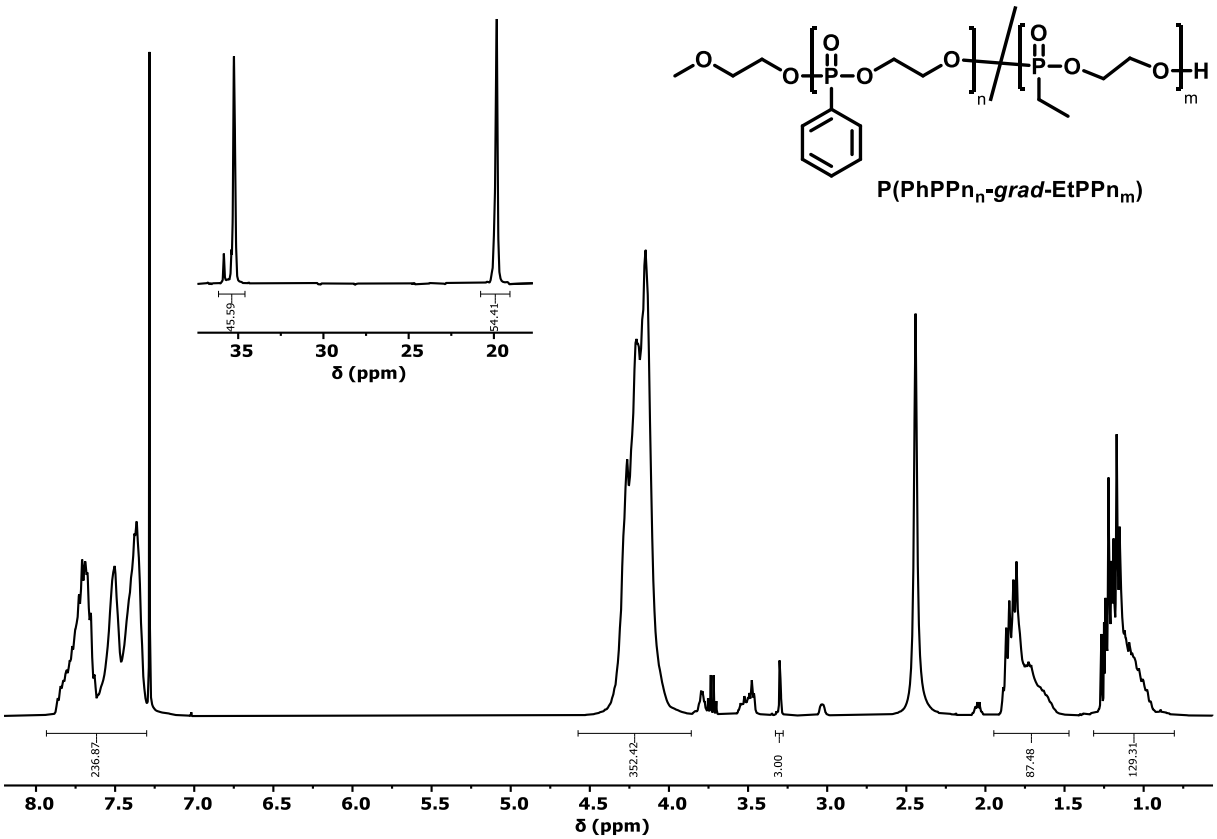


^{1}H NMR (400 MHz, 298 K, $CDCl_3$) and ^{31}P{H} NMR (162 MHz, 298 K, $CDCl_3$)

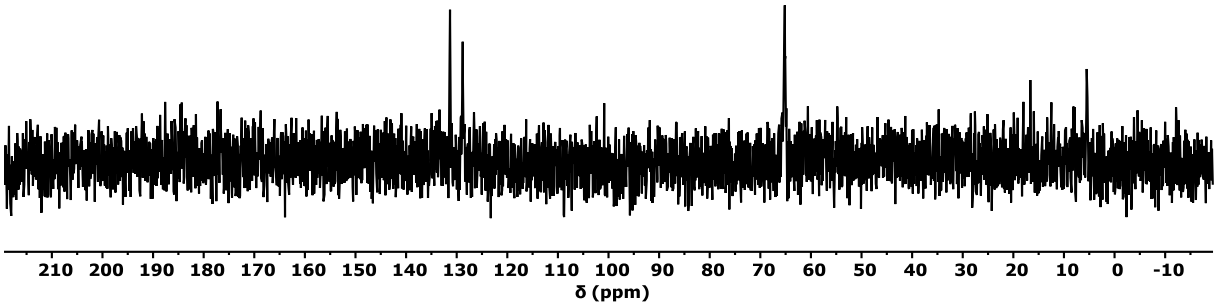


^{13}C{H} NMR (101 MHz, 298 K, H_2O/D_2O 9:1)

P2 P(PhPPn-*grad*-EtPPn)

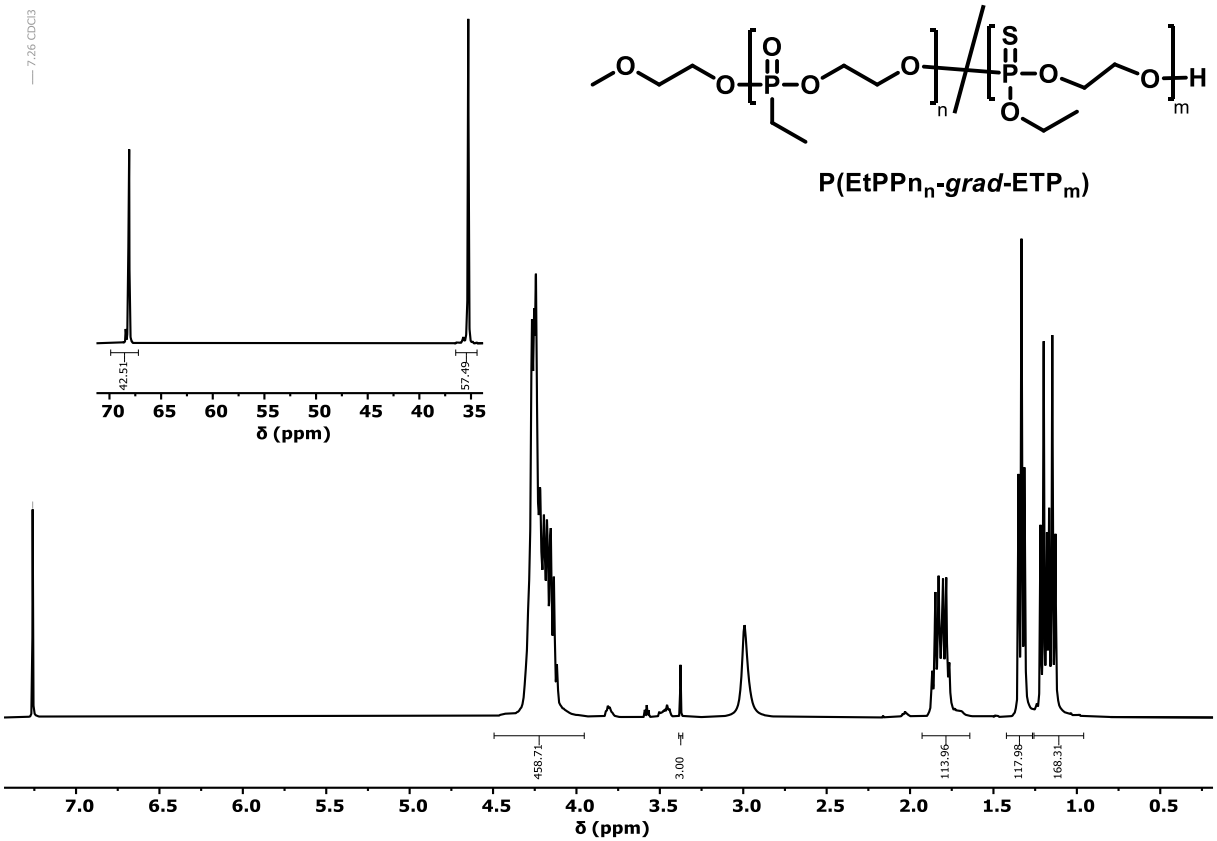


^{1}H NMR (400 MHz, 298 K, $CDCl_3$) and ^{31}P{H} NMR (162 MHz, 298 K, $CDCl_3$)

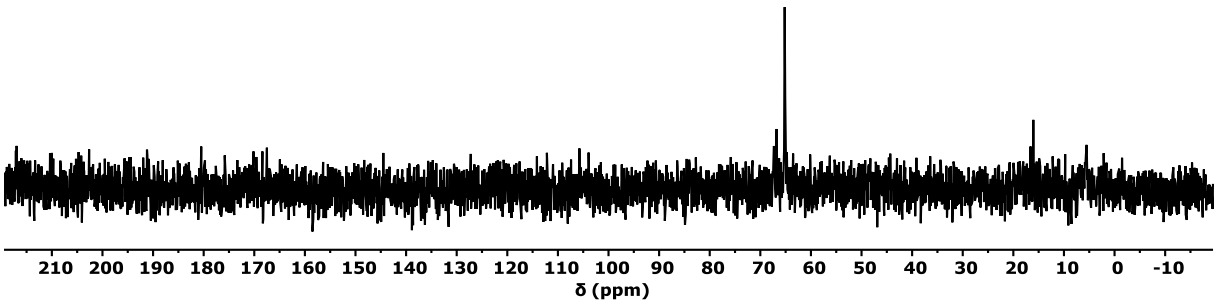


^{13}C{H} NMR (101 MHz, 298 K, H_2O/D_2O 9:1)

P3 P(EtPPn-*grad*-ETP)

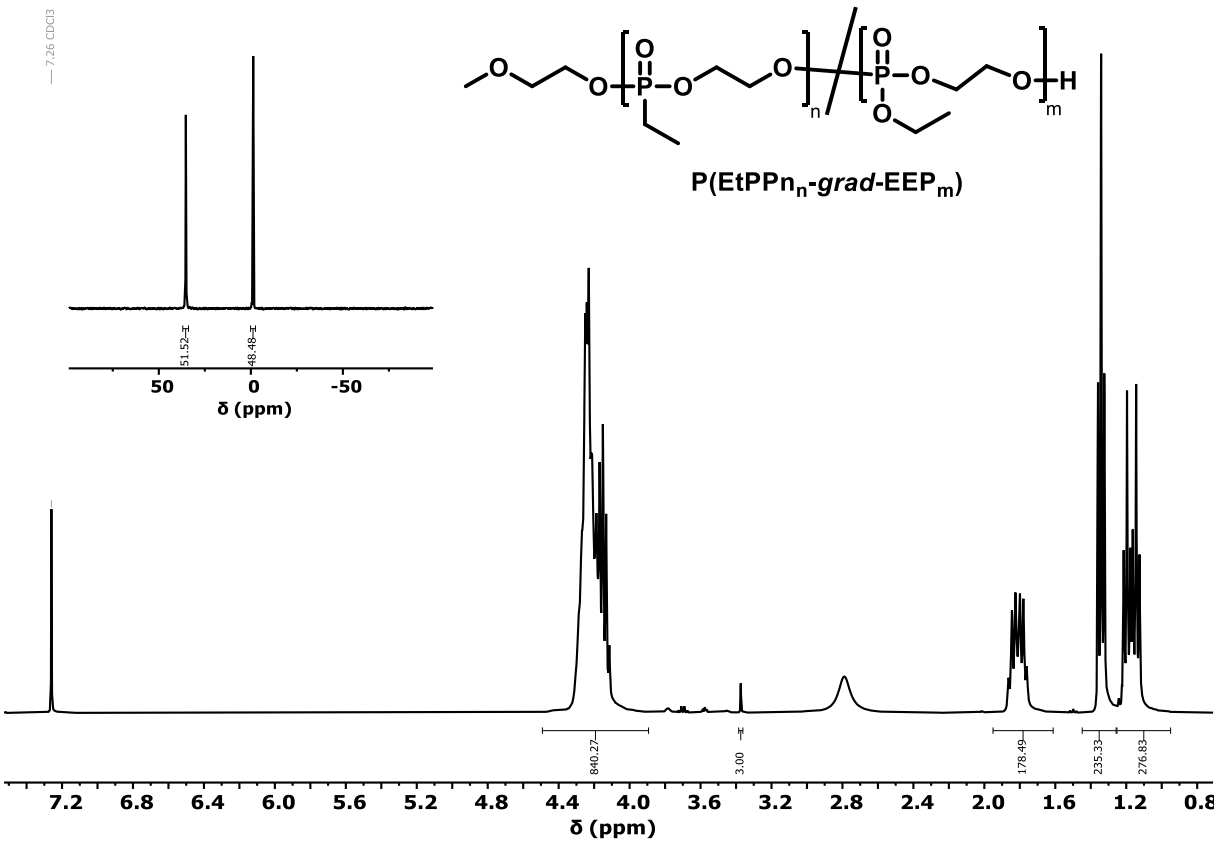


^{1}H NMR (400 MHz, 298 K, $CDCl_3$) and ^{31}P{H} NMR (162 MHz, 298 K, $CDCl_3$)

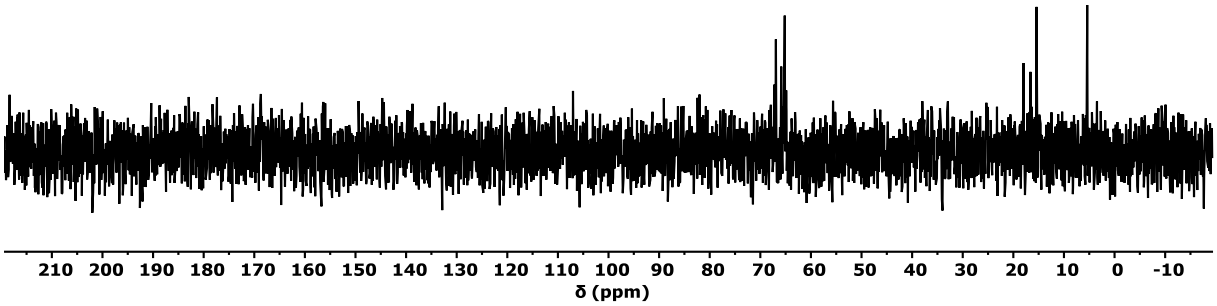


^{13}C{H} NMR (101 MHz, 298 K, H_2O/D_2O 9:1)

P4 P(EtPPn-*grad*-EEP)

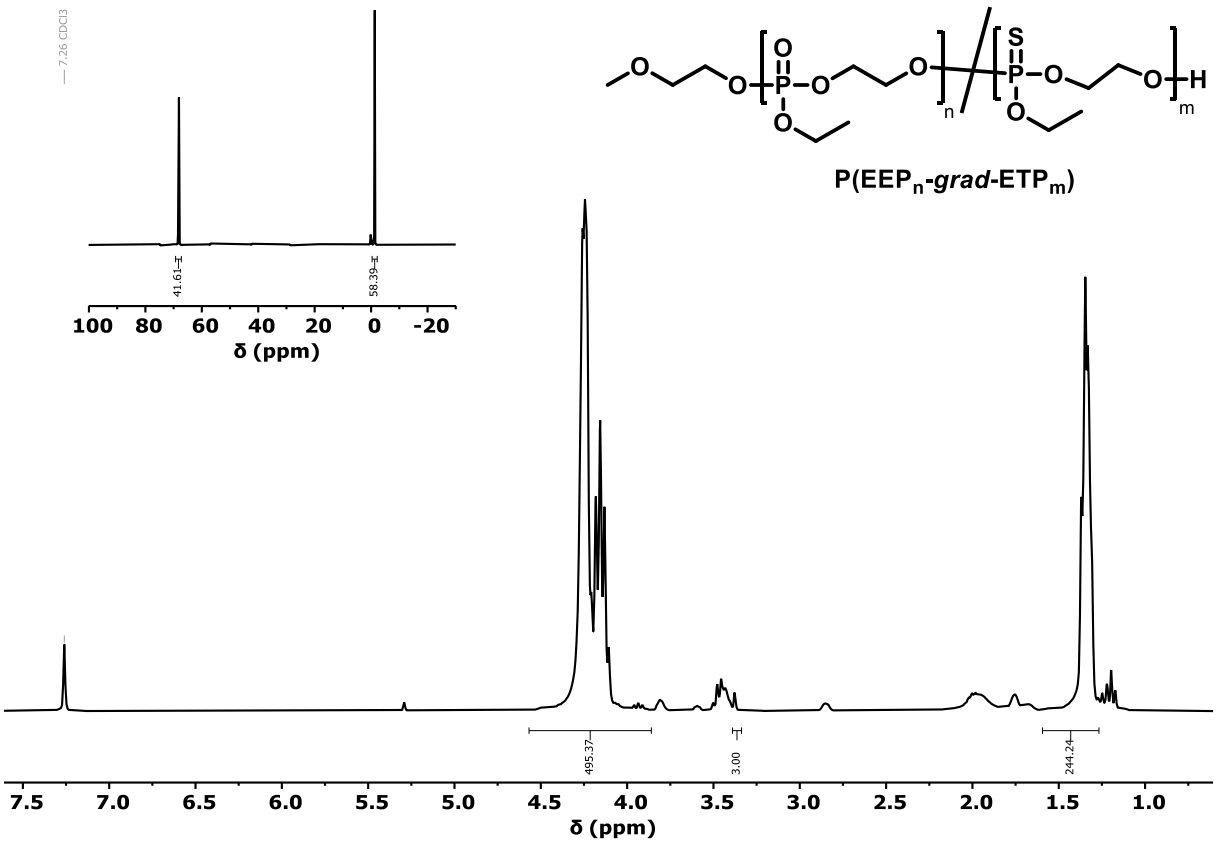


^{1}H NMR (400 MHz, 298 K, $CDCl_3$) and ^{31}P{H} NMR (162 MHz, 298 K, $CDCl_3$)

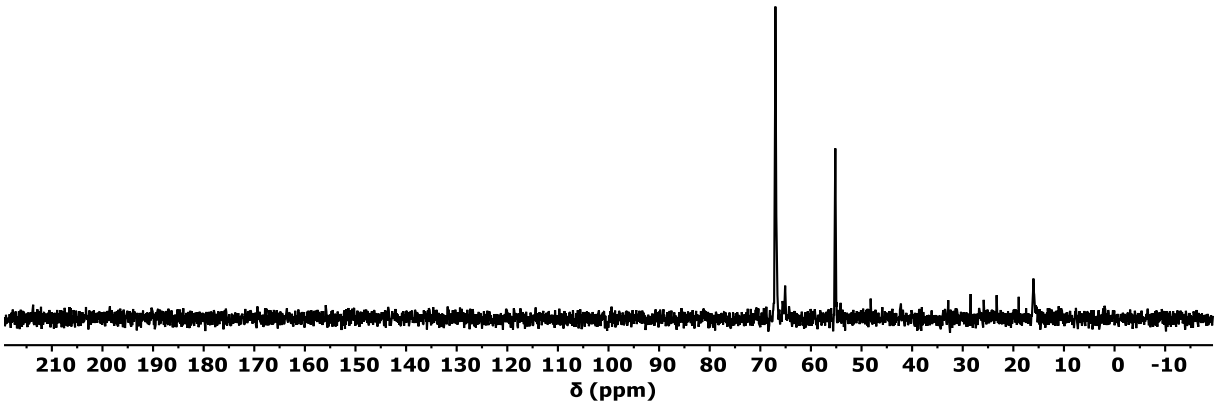


^{13}C{H} NMR (101 MHz, 298 K, H_2O/D_2O 9:1)

P5 P(EEP-*grad*-ETP)

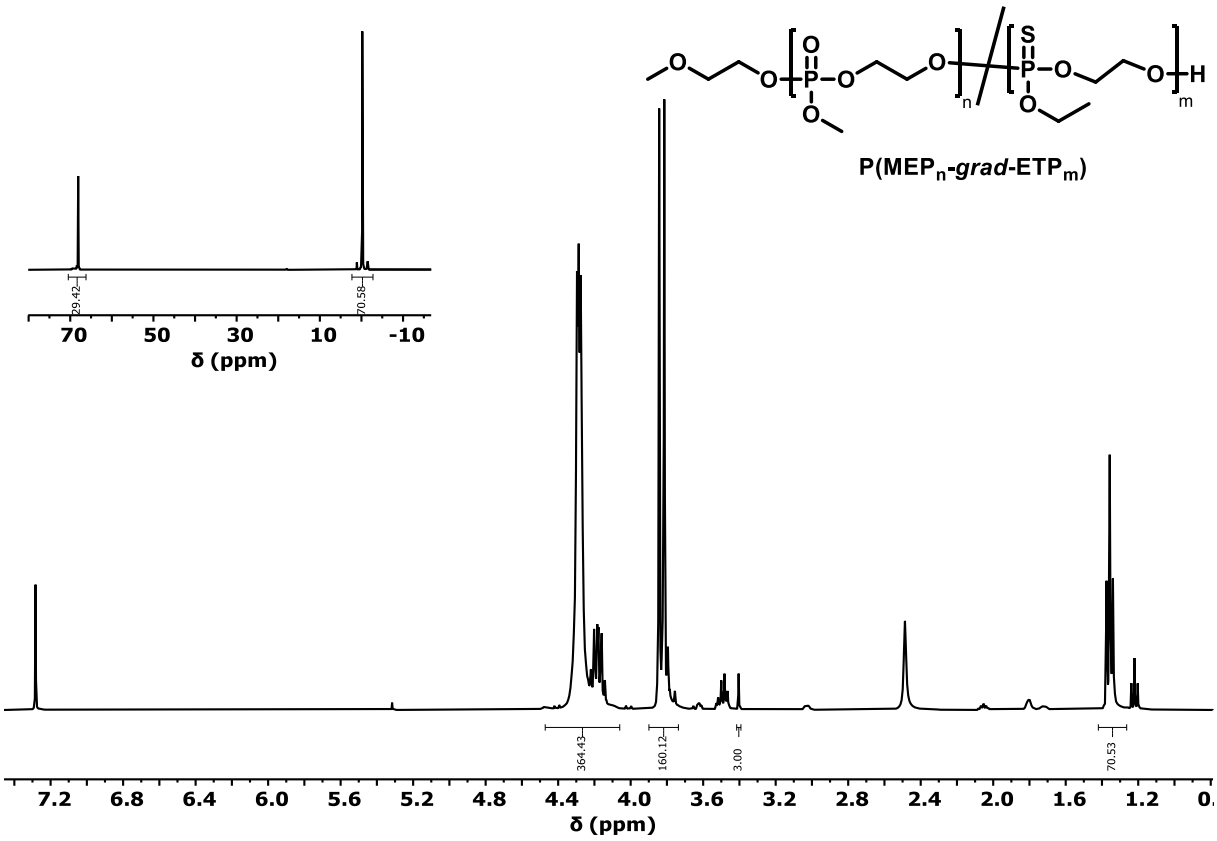


^{1}H NMR (400 MHz, 298 K, $CDCl_3$) and ^{31}P{H} NMR (162 MHz, 298 K, $CDCl_3$)

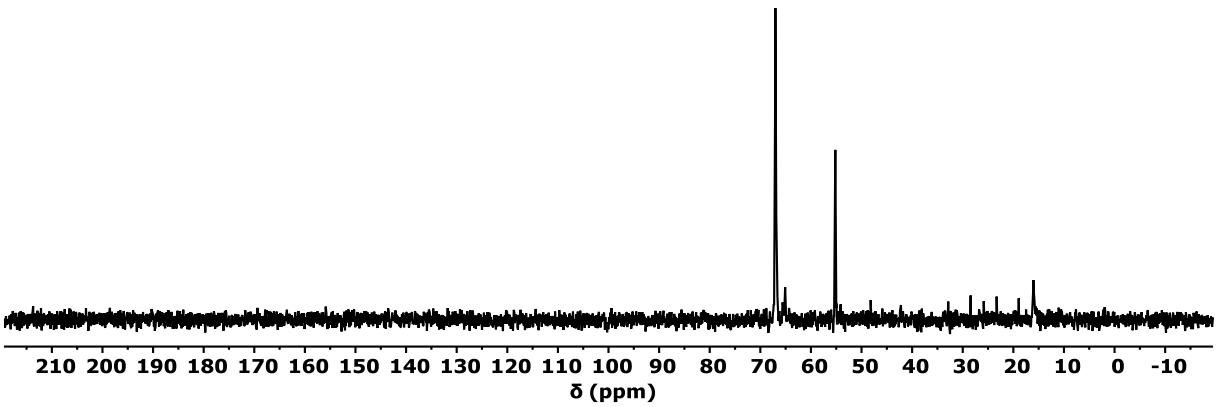


^{13}C{H} NMR (101 MHz, 298 K, H_2O/D_2O 9:1)

P6 P(MEP-*grad*-ETP)

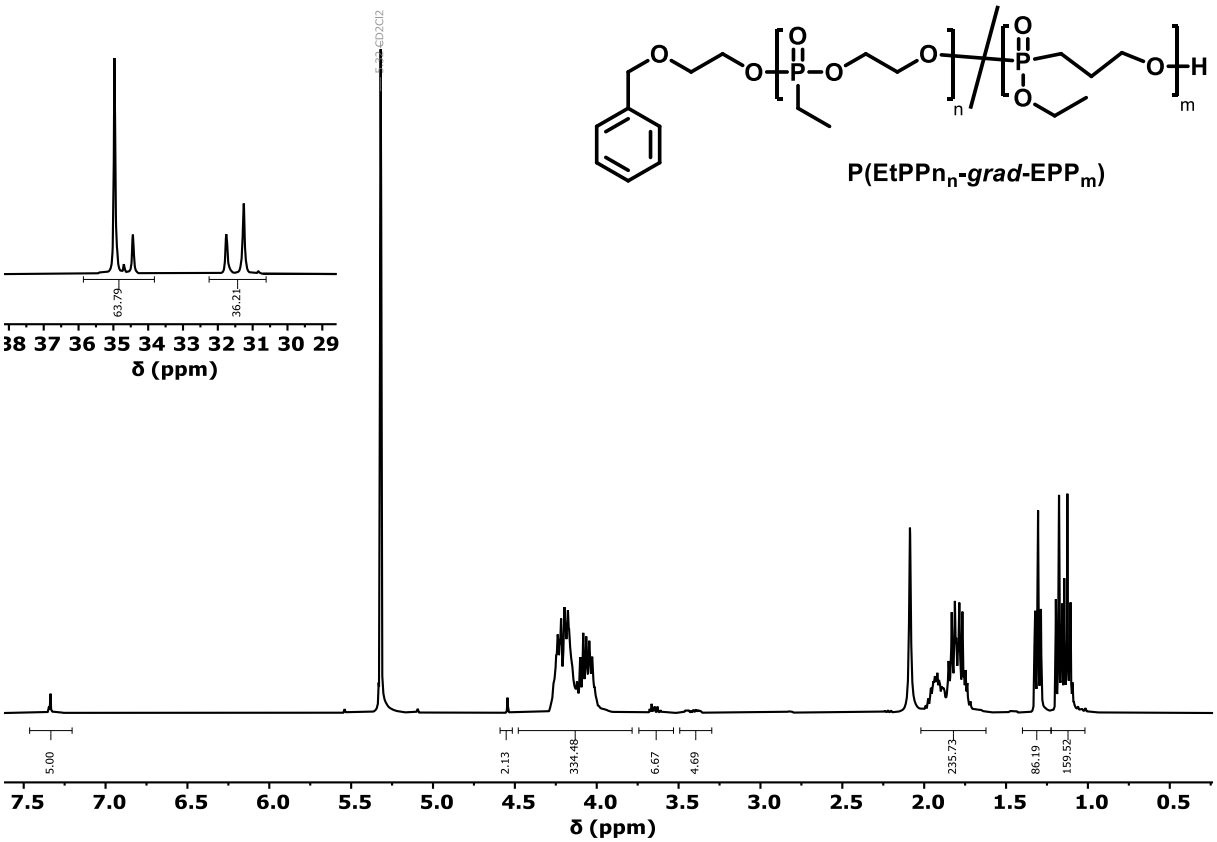


^{1}H NMR (400 MHz, 298 K, $CDCl_3$) and ^{31}P{H} NMR (162 MHz, 298 K, $CDCl_3$)

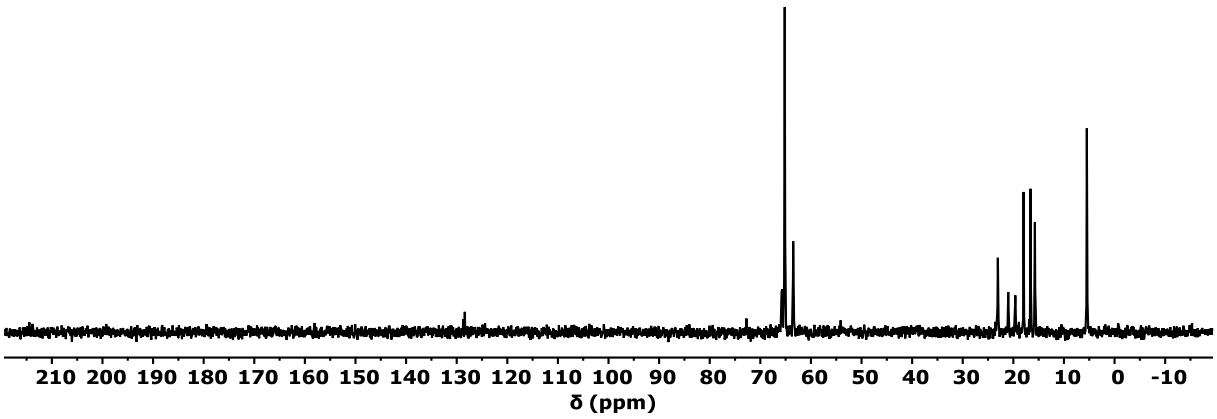


^{13}C{H} NMR (101 MHz, 298 K, H_2O/D_2O 9:1)

P7 P(EtPPn-*grad*-EPP)

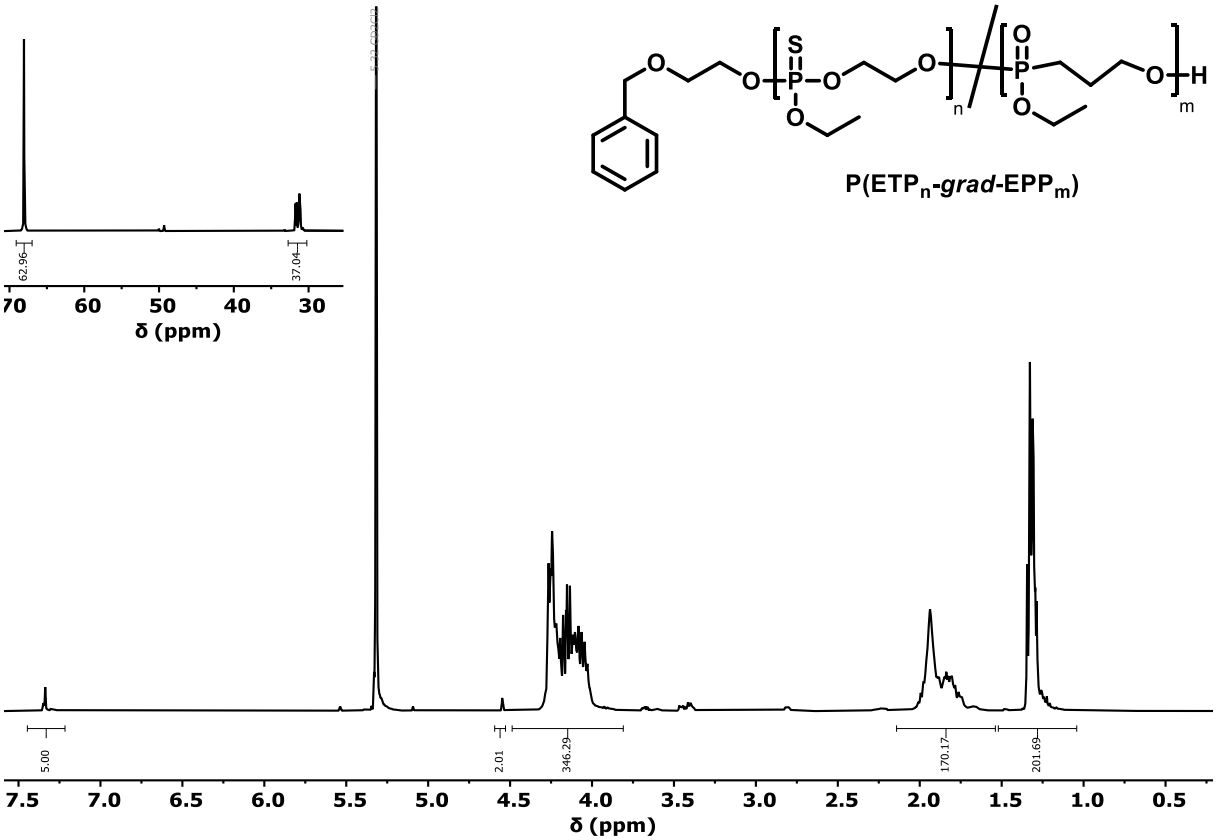


^{1}H NMR (400 MHz, 298 K, CD_2Cl_2) and ^{31}P{H} NMR (162 MHz, 298 K, CD_2Cl_2)

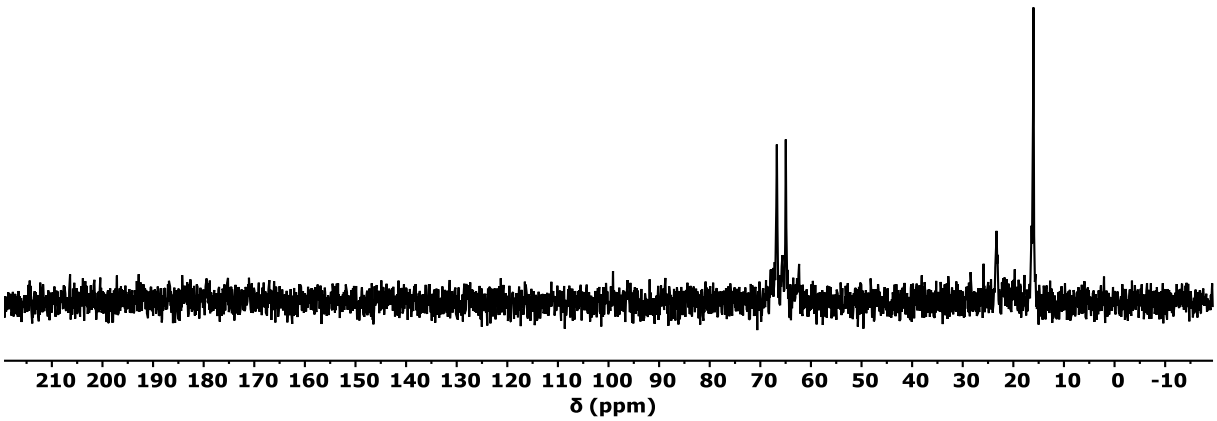


^{13}C{H} NMR (101 MHz, 298 K, H_2O/D_2O 9:1)

P8 P(ETP-*grad*-EPP)

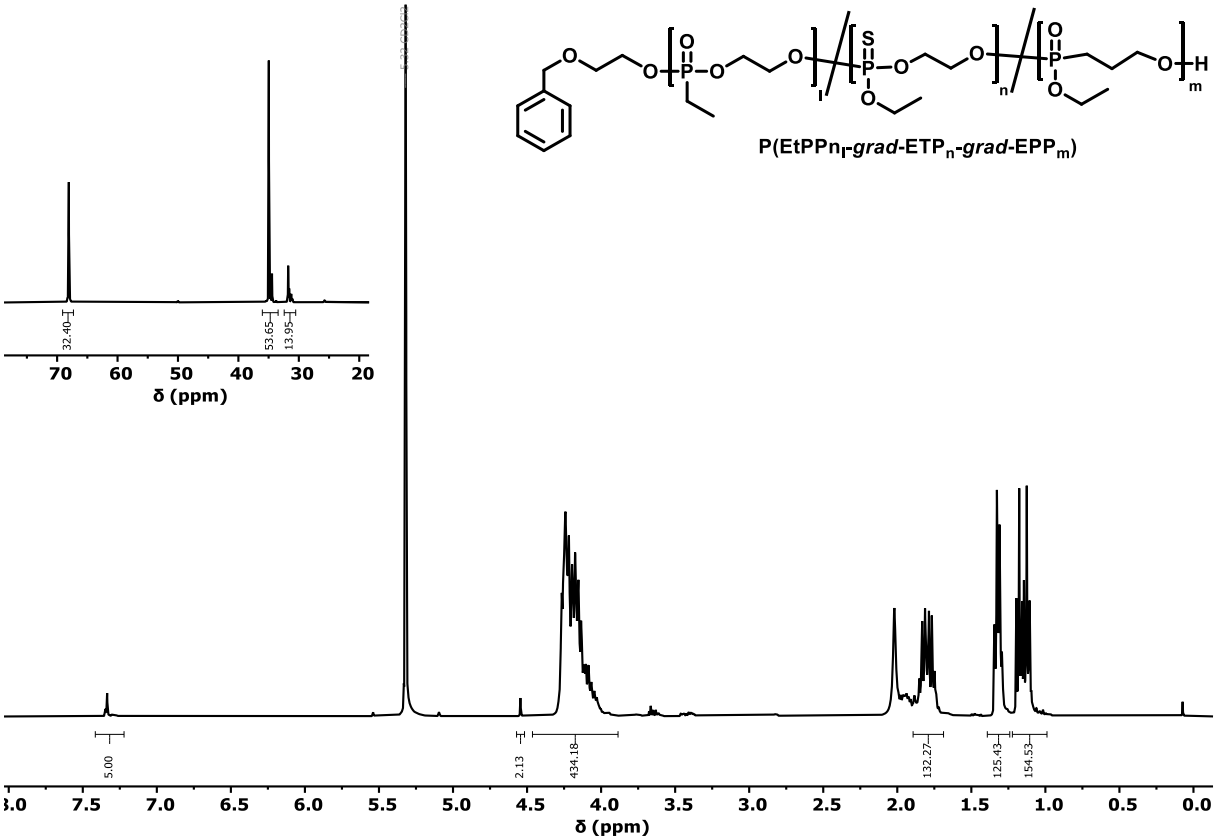


^{1}H NMR (400 MHz, 298 K, CD_2Cl_2) and ^{31}P{H} NMR (162 MHz, 298 K, CD_2Cl_2)

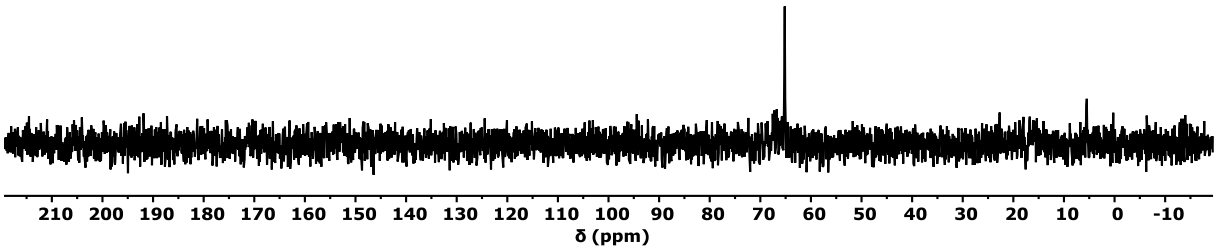


^{13}C{H} NMR (101 MHz, 298 K, H_2O/D_2O 9:1)

P9 P(EtPPn-*grad*-ETP-*grad*-EPP)

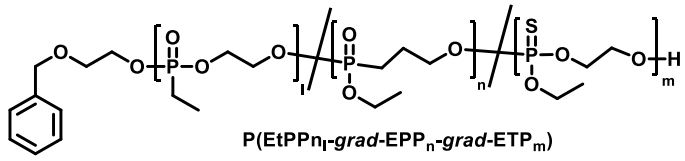


^{1}H NMR (400 MHz, 298 K, CD_2Cl_2) and ^{31}P{H} NMR (162 MHz, 298 K, CD_2Cl_2)

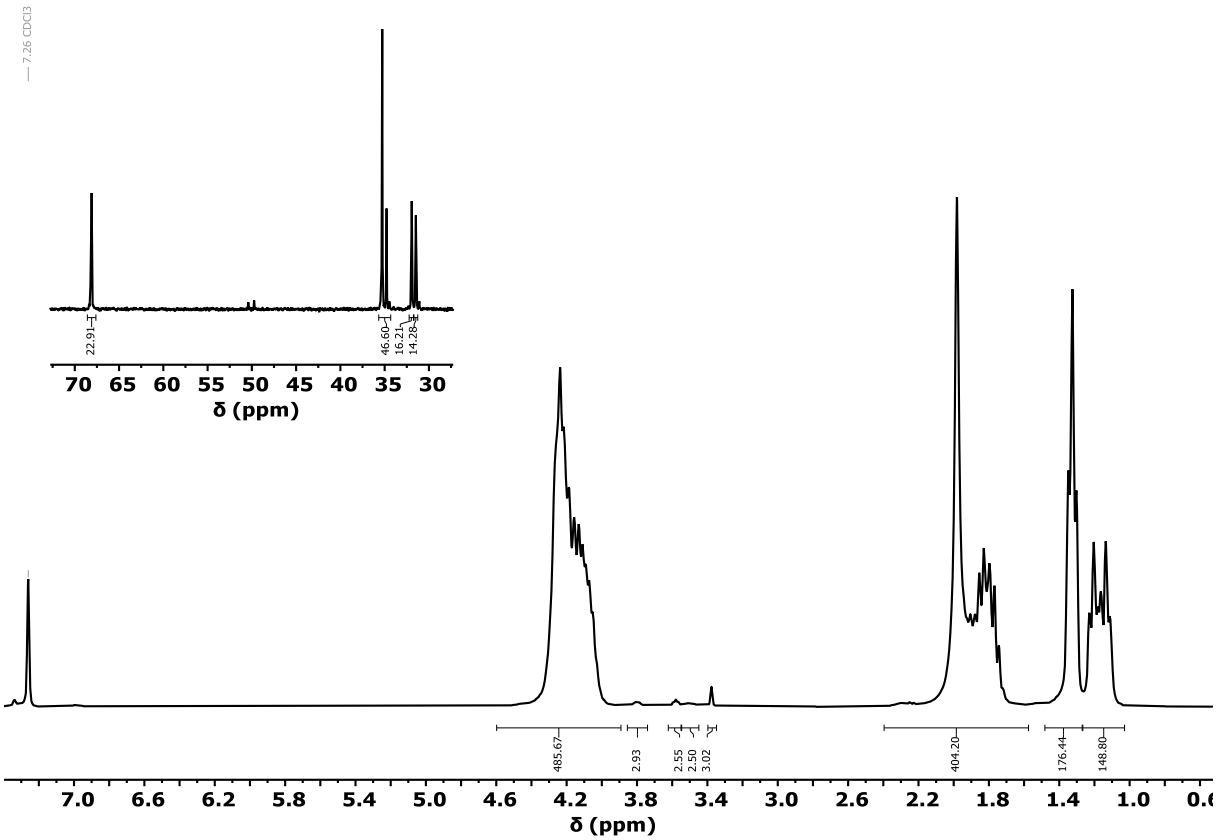


^{13}C{H} NMR (101 MHz, 298 K, H_2O/D_2O 9:1)

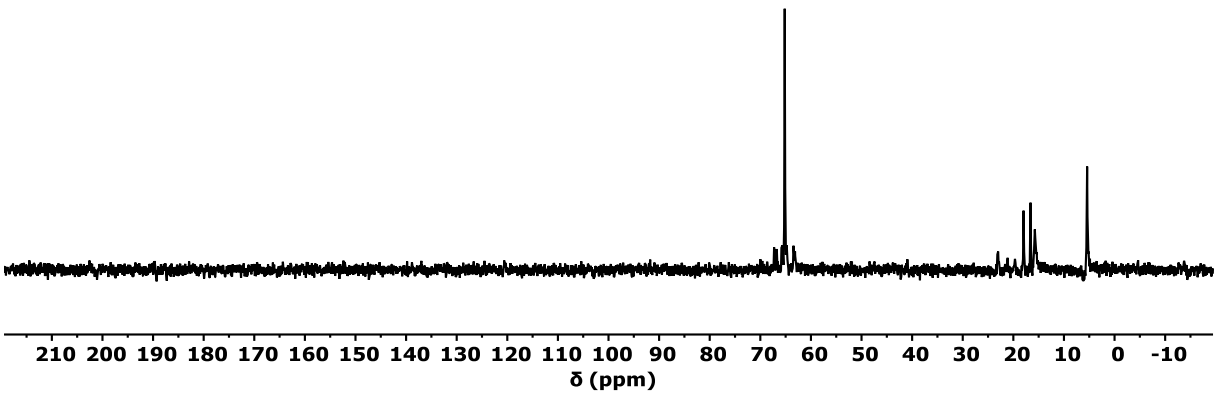
P10 P(EtPPn-*grad*-EPP-*grad*-ETP)



P(EtPPn$_l$-*grad*-EPP$_n$-*grad*-ETP$_m$)



^{1}H NMR (400 MHz, 298 K, $CDCl_3$) and ^{31}P{H} NMR (162 MHz, 298 K, $CDCl_3$)



^{13}C{H} NMR (101 MHz, 298 K, H_2O/D_2O 9:1)