

Supporting information for the paper J.Kriz, J. Dybal, Cooperative pre-association stages of PEO-PPO-PEO triblock copolymers: NMR and theoretical study

Program for T₂ measurements with DEPT45-excitation of ¹³C polarization and decoupling during acquisition

```
;t2pgdept
;sequence for t2 measurement with decoupling
;using DEPT45 sequence
;avance-version
;1D sequence
```

```
#include <Avance.incl>
#include <Delay.incl>
```

```
"p2=p1*2"
"p4=p3*2"
"p5=p3*0.5"
"d2=1s/(cnst2*2)"
"d12=20u"
"DELTA=p1*4/3.1416"
```

```
1 ze
2 30m do:f2
   d1
   vd
   d12 p12:f2
   (p3 ph1):f2
   d2
   (p4 ph2):f2 (p1 ph4 d2):f1
   (p5 ph3):f2 (p2 ph5 d2):f1
   DELTA
3 d20*0.5
   (p2 ph6):f1
   d20*0.5
   lo to 3 times c
   d12 p112:f2
   go=2 ph31 cpd2:f2
   30m wr #0 if #0 ivc ivd
   lo to 1 times td1
   20u do:f2
```

```
exit
```

```
ph1=0
ph2=0 2 1 3
ph3=1 1 1 1 3 3 3 3
ph4=0 0 0 0 0 0 0 0 1 1 1 1 1 1 1
      2 2 2 2 2 2 2 2 3 3 3 3 3 3 3
ph5=0 2 0 2 0 2 0 2 1 3 1 3 1 3 1 3
ph6= 2 2 0 0 0 0 2 2 3 3 1 1 1 1 3 3
      0 0 2 2 2 2 0 0 1 1 3 3 3 3 1 1
ph31=1 1 3 3 3 3 1 1 2 2 0 0 0 0 2 2
       3 3 1 1 1 1 3 3 0 0 2 2 2 2 0 0
```

```

;p11 : f1 channel - power level for pulse (C13)
;p1 : f1 channel - high power pulse C13
;p12: f2 channel - power level for pulse (H1)
;p112: f2 channel - power level for decoupling
;d1 : relaxation delay 1-5 T1
;d2 : recommended value 1 ms but may be changed down to 0.25 ms
;cnst2: J value, usually 145
;corresponding vd=(d2+2*p1)*c

```

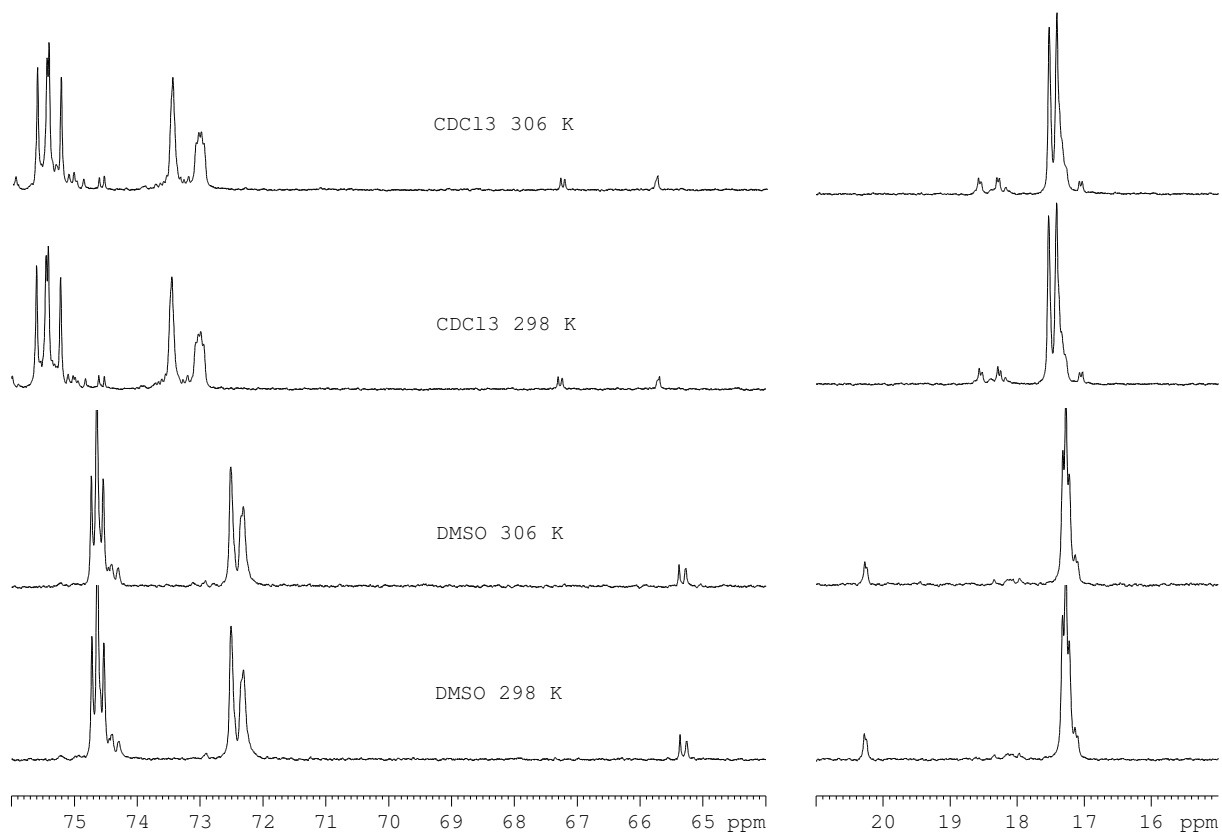


Figure 1: 150.94 MHz ¹³C NMR spectra of 10 % w/w PPO ($P_n = 37$) in dimethylsulfoxide- d_6 and chloroform- d at indicated temperatures

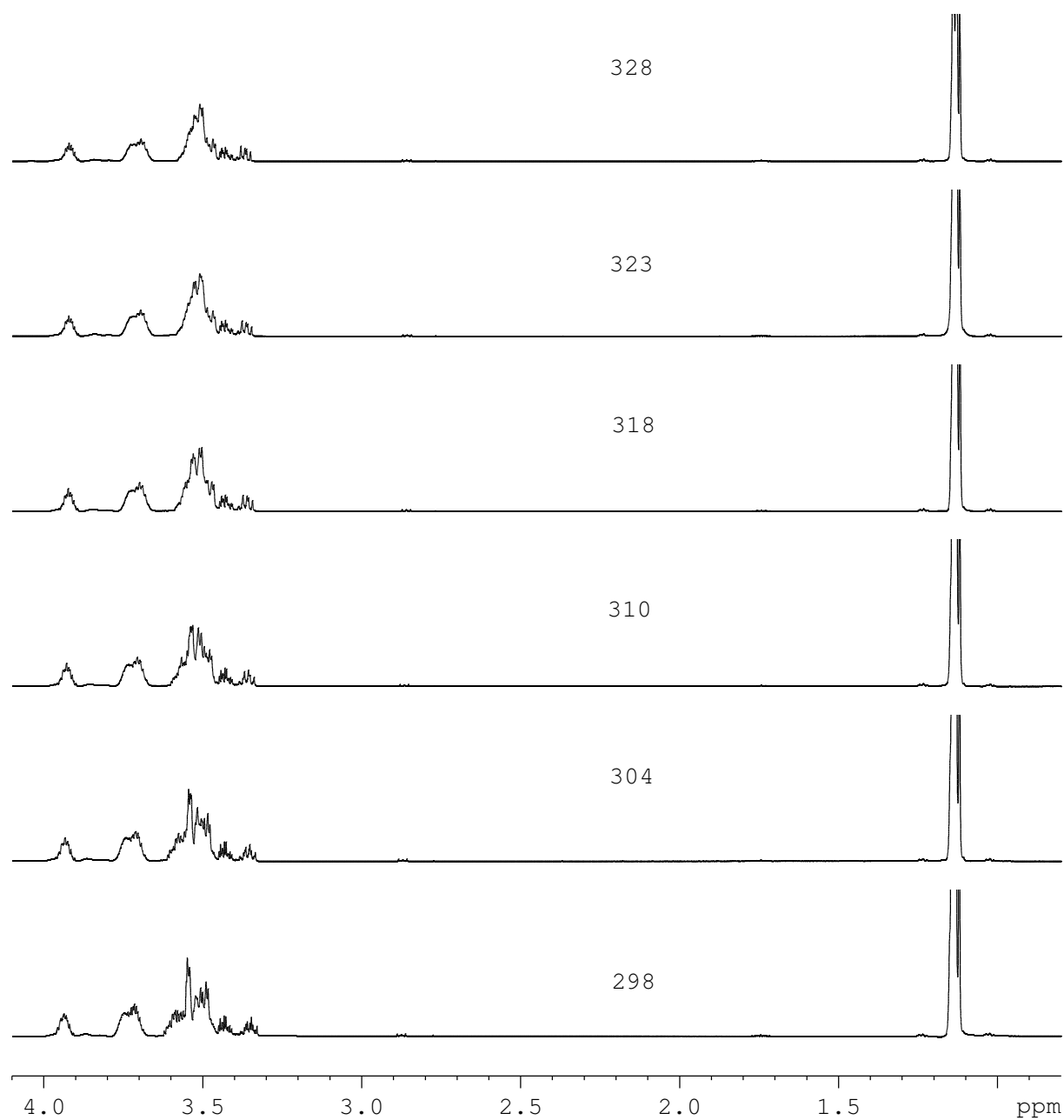


Figure 2: 600.2 MHz spectra of a 10% solution of (PO)₈ in D₂O at indicated temperatures (in K).

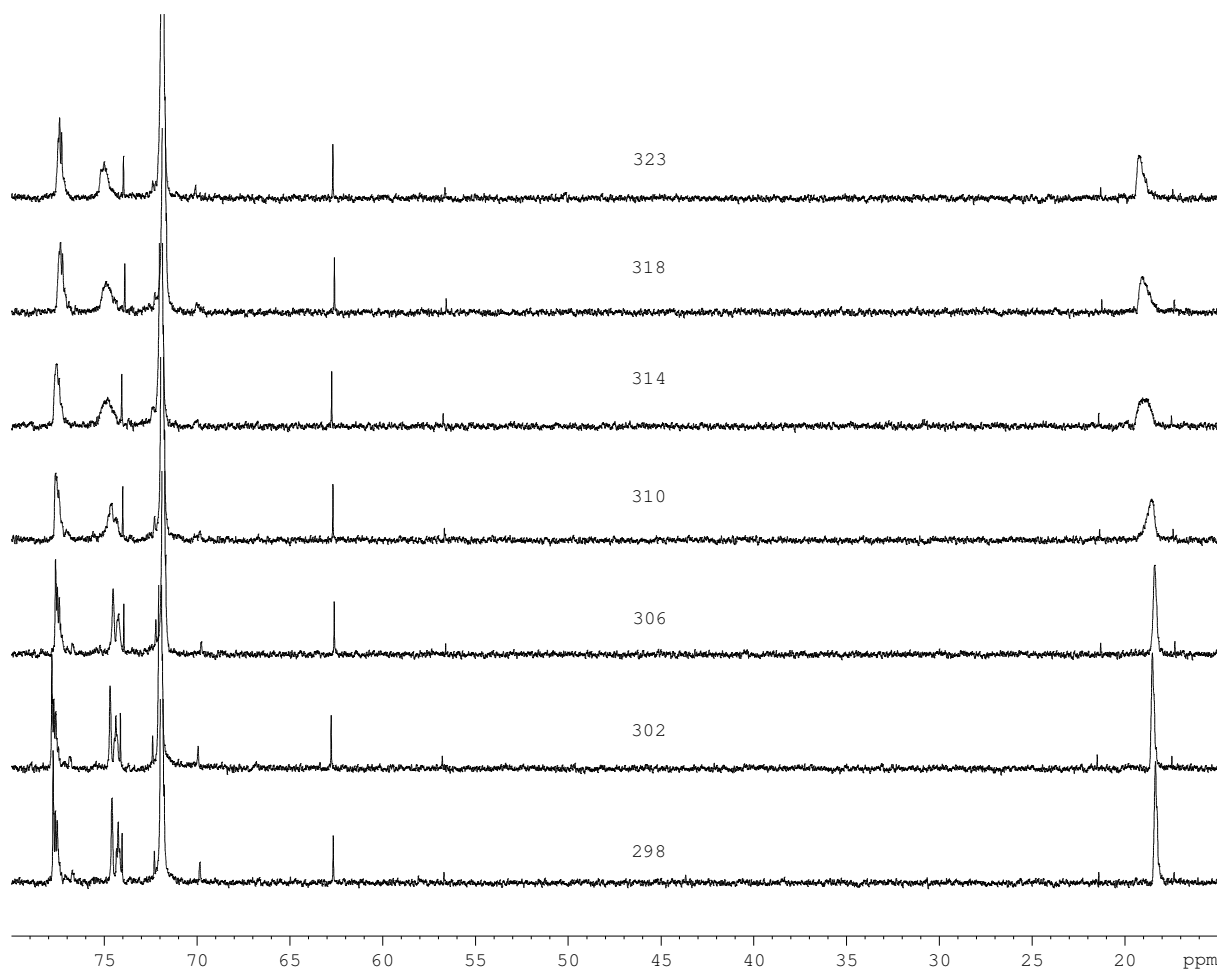


Figure 3: 150.94 MHz ^{13}C NMR spectra of 10 % D_2O solution of F68 at indicated temperatures

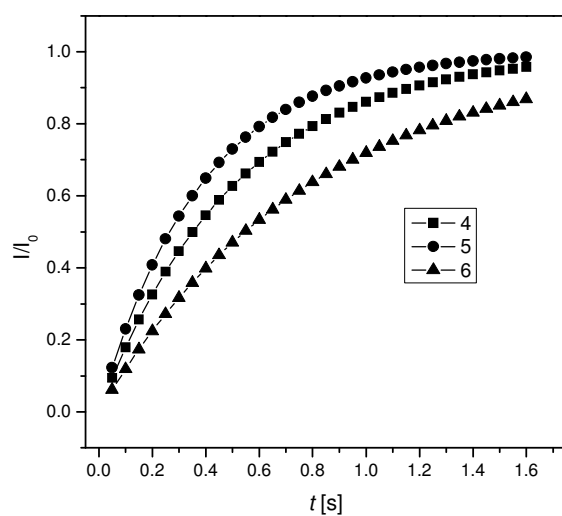


Figure 4: Purely mono-exponential decays in the inversion-recovery experiment for the indicated signals of PE6400 at 306 K

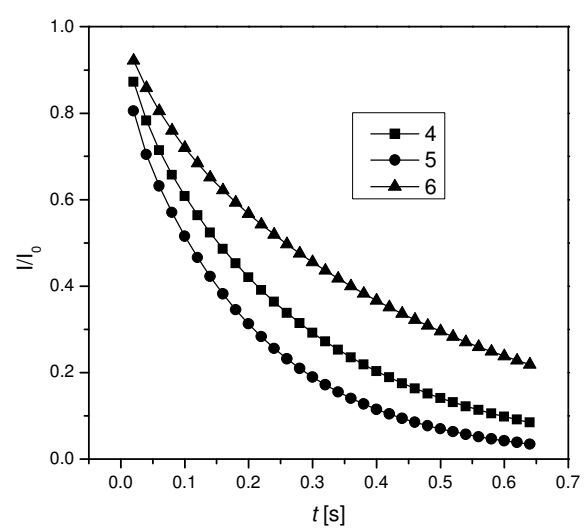


Figure 5: Bi-exponential decays in the T_2 experiment for the indicated signals of PE6400 at 308 K