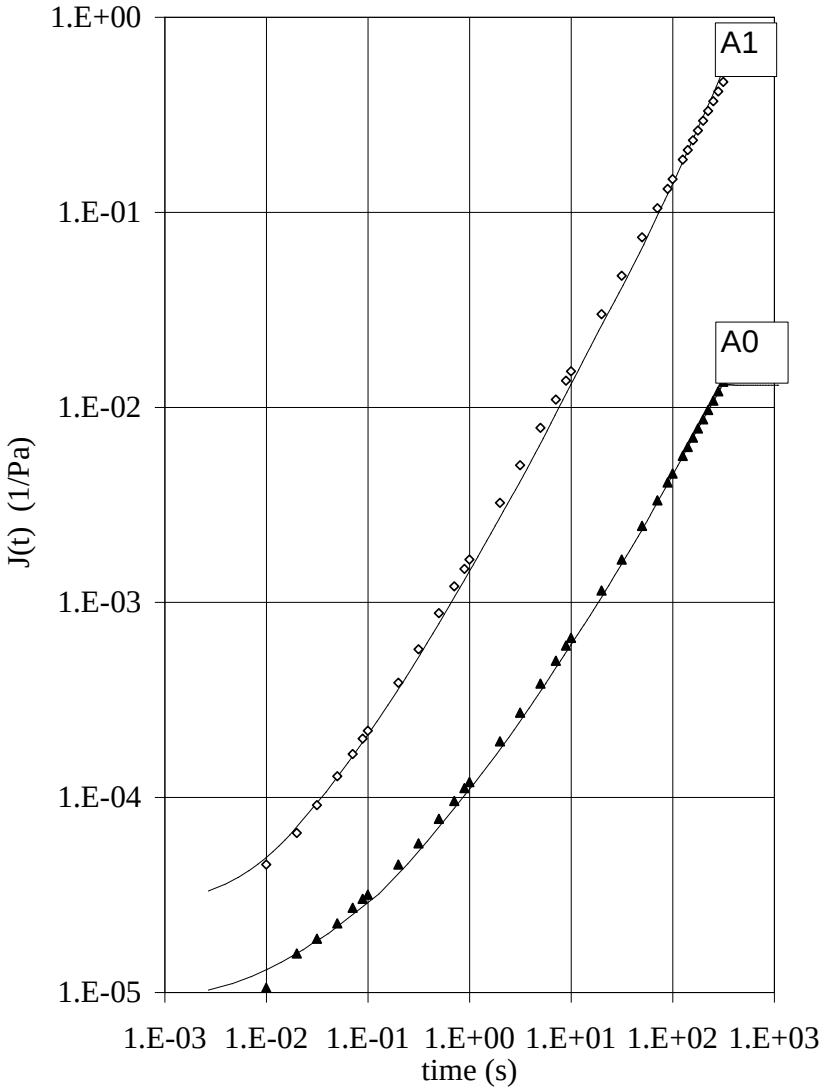
# Homework for Monday July 20th

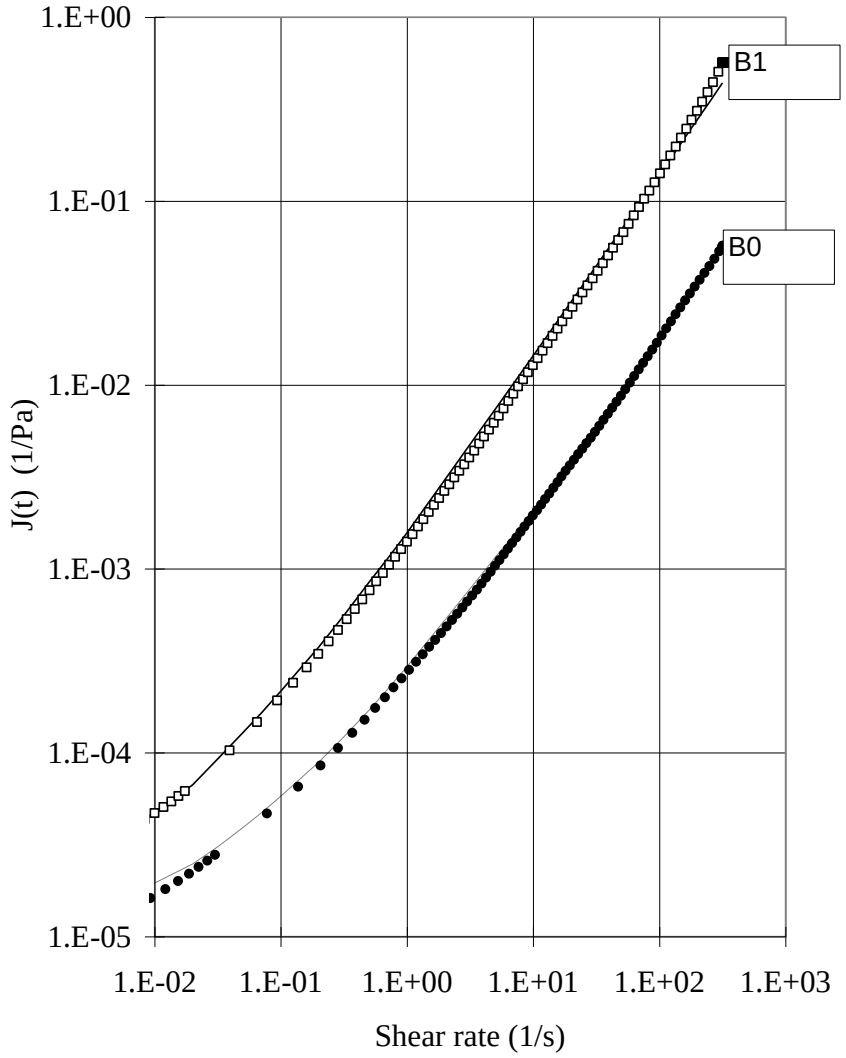
1) **Watch the YouTube videos:**
   - **Viscous _ Elastic Behavior of Polymers (2:20): https://www.youtube.com/watch?v=q9emsMcG8cc**
   - **Simple Physical Maxwell Model of Viscoelasticity (2:24) https://www.youtube.com/watch?v=ZVK1qVkXfC4**
2) **Read the Power point presentation: CALCULATING Mn Mw and Mz**
3) **Work with your Teammates (the ones in the Friday´s breakout rooms) and do the following:**
   a) **Fit the relaxation modulus of the two materials given in the excel file G(t) PBR8 using as many Maxwell elements as you need. Plot each Maxwell element in the same plot of G(t) vs. time to show that by adding them up you can fit the experimental curve.**
   b) **Calculate the Mn, Mw, Mz and PDI for the PAR0, PAR5, PBR0 and PBR8 resins given to you in the excel file PPRG and PPCR MWD Data and make a table with the information**
   c) **Make two plots for the molecular weight distribution of the pairs given below and write down your observations (note use the data given in the excel file PPRG and PPCR MWD Data)**
      a) **PAR0 and PAR5. (together)**
      b) **PBR0 and PBR8 (together)**
   d) **Look for any type of correlation between the values obtained in 3b, 3c and the information in the next 3 slides (A1 and B1 means**
4) **Write down a report of your team observations about the**
   a) **point 3a in no more than 250 words.**
   b) **points 3b, 3c and 3d in no more than 500 words.**
5) **Upload your report of your Team in the Google Drive https://drive.google.com/drive/u/0/folders/1PaqtB7_3pDRDWKxkEZZgts_c5UeoZf7L and give a name to your group.**

# Measured and predicted J(t)

PAR0=A0
PAR5=A1

PBR0=B0
PBR8=B1

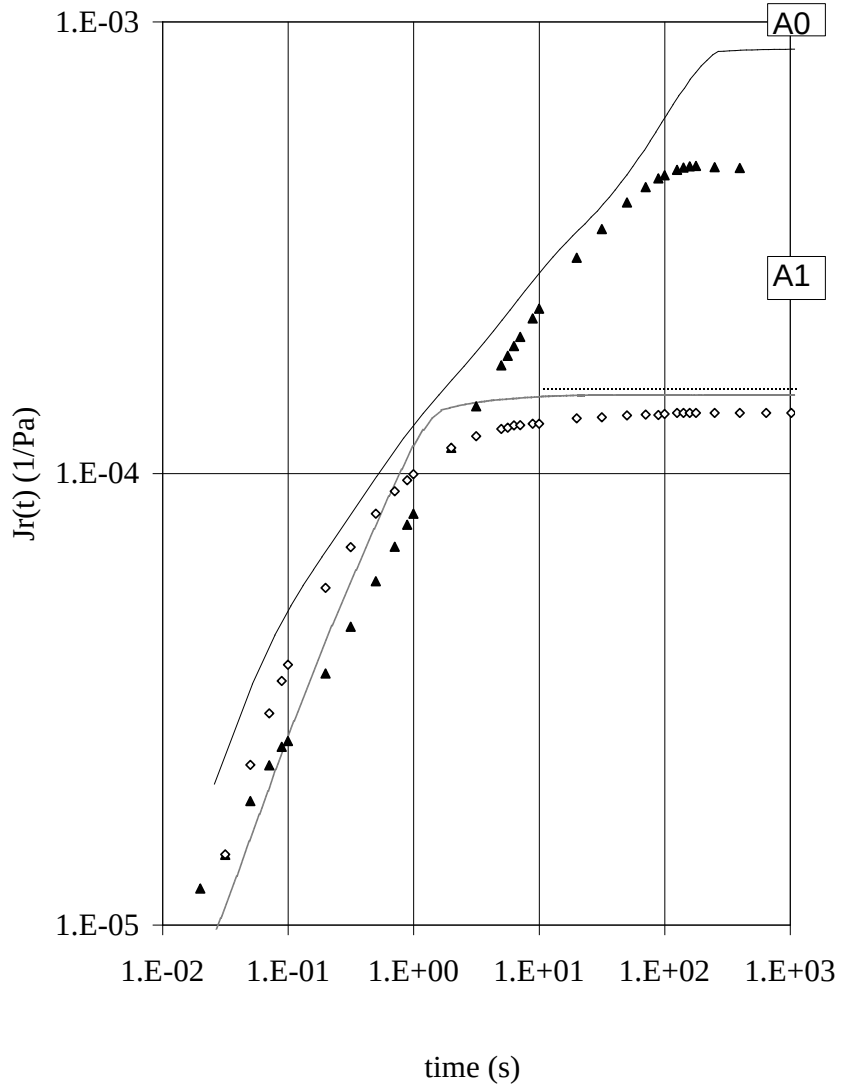


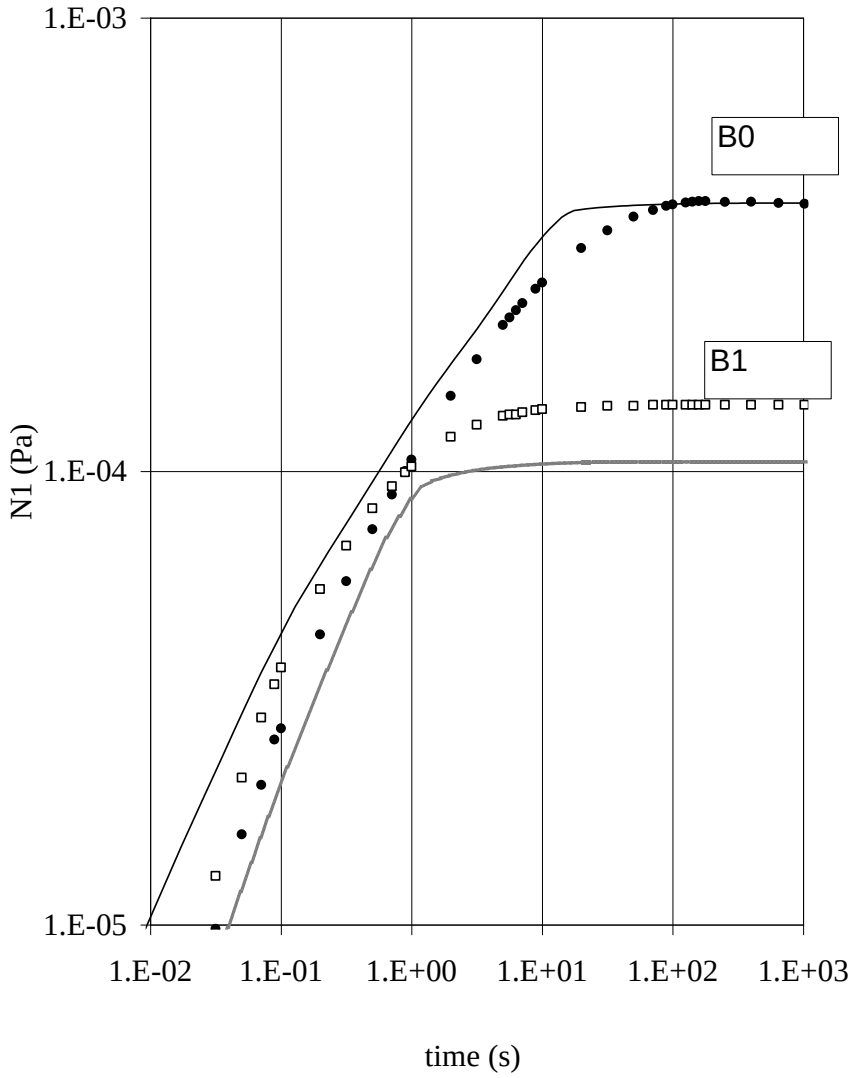



# Measured and predicted Je(t)

PAR0=A0
PAR5=A1

PBR0=B0
PBR8=B1



# Measured and predicted N1

PAR0=A0
PAR5=A1

PBR0=B0
PBR8=B1