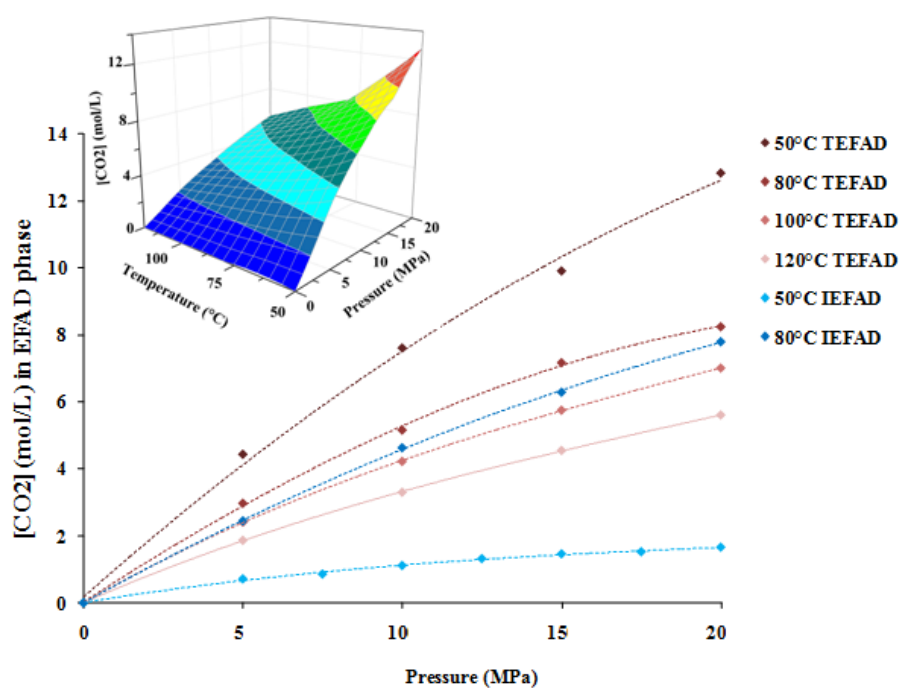


### *CO<sub>2</sub> sorption:*

The sorption of CO<sub>2</sub> into the EFAD-phase is reported in Figure 1 as a function of pressure at T=50 °C and 80 °C for IEFAD and at T=50 °C to 120 °C for TEFAD. In each case, the concentration of sorbed CO<sub>2</sub> increases with the pressure. For a given pressure, an increase of temperature causes a decrease of the weight percentage of CO<sub>2</sub> incorporated into the EFAD phase. The concentration of sorbed CO<sub>2</sub> is closely connected to the swelling of the EFAD. For a given (P, T) couple, the CO<sub>2</sub> concentration is slightly higher in the TEFAD phase than in the IEFAD phase, in agreement with the swelling data reported above. Such differences can be explained by the differences in the strength of epoxide-epoxide and/or CO<sub>2</sub>-epoxide interactions with TEFAD and IEFAD respectively. In other words, the interactions between TEFAD and CO<sub>2</sub> are stronger than the ones existing between IEFAD and CO<sub>2</sub>.



**Fig.1** CO<sub>2</sub> sorption in the TEFAD- and IEFAD-rich phases, as a function of the CO<sub>2</sub> pressure at different temperatures (only 50°C and 80°C for IEFAD). Insert: CO<sub>2</sub> sorption in the TEFAD-rich phase, as a function of the CO<sub>2</sub> pressure and temperature.