The quantification of the crystalline phases present in the samples was performed using the specific bands at 766 cm\(^{-1}\) and 840 cm\(^{-1}\), identified with the presence of the \(\alpha\)- and \(\beta\)-phases, respectively, and following the method explained in \(^1\). Assuming the samples are composed just by the \(\alpha\) and \(\beta\) phases, the \(\beta\) phase content is calculated by:

\[
F(\beta) = \frac{X_\beta}{X_\alpha + X_\beta} = \frac{A_\beta}{(K_\beta/K_\alpha)A_\alpha + A_\beta}
\]

where \(F(\beta)\) represents the \(\beta\) phase content; \(A_\alpha\) and \(A_\beta\) the absorbencies at 766 and 840 cm\(^{-1}\), corresponding to the \(\alpha\) and \(\beta\) phase material; \(K_\alpha\) and \(K_\beta\) are the absorption coefficient at the respective wave number and \(X_\alpha\) and \(X_\beta\) the degree of crystallinity of each phase. The value of \(K_\alpha\) is \(6.1\times10^4\) and \(K_\beta\) is \(7.7\times10^4\) cm\(^2\)/mol\(^{-1}\).

The degree of crystallinity of the PVDF-CTFE membranes was obtained by the following equation:

\[
X_c = \frac{\Delta H_m}{x(\Delta H_{100\%\text{cryst.}}}_\alpha + y(\Delta H_{100\%\text{cryst.}})_\beta \times 100
\]

where \(x\) is the weight fraction of the \(\alpha\) phase, \(y\) is the weight fraction of the \(\beta\) phase, \((\Delta H_{100\%\text{cryst.}})_\alpha\) is the melting enthalpy of pure crystalline \(\alpha\)-PVDF and \((\Delta H_{100\%\text{cryst.}})_\beta\) is the melting enthalpy of pure crystalline \(\beta\)-PVDF which is reported to be 93.04 J/g and 103.4 J/g respectively \(^1\).
