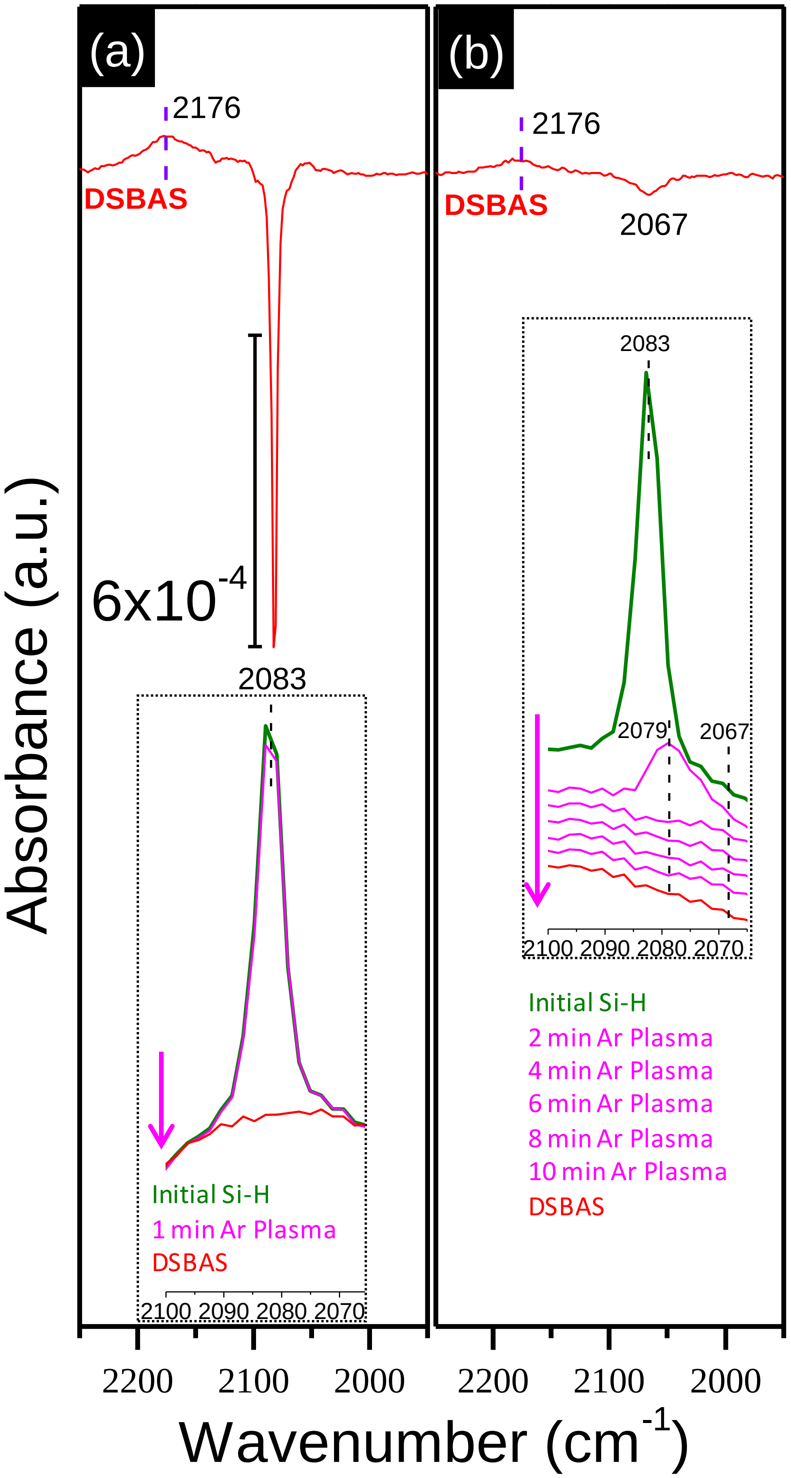

Fig. 1: *In-situ* differential infrared absorption spectra after **(a)** 1 min and **(b)** 10 min total Ar plasma treatment (**pink**) and subsequent DSBAS exposure (**red**) on a substrate at 200˚C. The sharp band at 2083 cm^{-1} in the inset graphs is associated with the loss of the initial Si-H (**green**) (referenced to KBr windows) as a function of treatment. The mode at 2176 cm^{-1} corresponds to the stretch of Si–SiH$_3$, the product of DSBAS reaction (**red**) with Si* and Si-H.