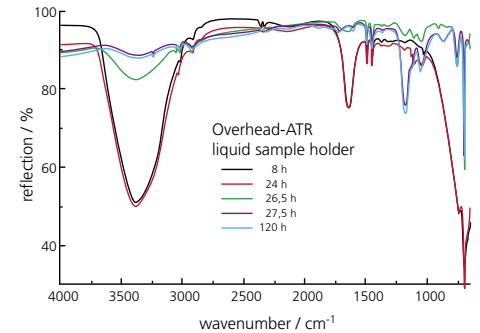


## ATR: Spectroscopic tracking of the drying of a dispersion

The drying process of a latex sample on an ATR sample holder for liquid samples was spectroscopically tracked. The first spectra (a, b) are dominated by the bands of the dispersion medium water ( $3400\text{ cm}^{-1}$ ,  $1640\text{ cm}^{-1}$ ,  $700\text{ cm}^{-1}$ ). With progressive drying the bands of the polymer material are more clearly visible (e.g.  $1495\text{ cm}^{-1}$ ,  $1460\text{ cm}^{-1}$ ,  $700\text{ cm}^{-1}$ : polystyrene). Furthermore intensity changes and band shifts are observed. Hence conclusions about chemical and physical processes during drying can be drawn.



**Figure 1**  
ATR spectrum of a latex dispersion in water during the drying process. (A. Büchtemann, R. Dietel, FTIR Techniques for Surface Characterization, in E.H. Müller, W. Hehnert (Ed.), Particle and Surface