

Effect of the chain length on near-infrared spectra of 1-alcohols from methanol to 1-decanol.

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Streszczenie

This work shows the effect of the chain length on near-infrared spectra of 1-alcohols and is based on a recent paper by Kwaśniewicz and Czarnecki (*Appl Spectrosc* 2018, 72: 288). Near-infrared spectra of 1-alcohols from methanol to 1-decanol in the pure liquid phase were recorded from 5200 to 9000 cm^{-1} . The similarities and differences between the spectra were analyzed by the classical and chemometric methods (principal component analysis). The obtained results reveal that the near-infrared spectra of methanol, ethanol, and 1-propanol are appreciably different from the spectra of higher 1-alcohols. As shown, the degree of self-association of 1-alcohols decreases with the increase in the chain length.

Słowa kluczowe

Near-infrared spectroscopy, alcohols, spectra-structure correlations, chain length effect

Adres publiczny

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