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Title:Terahertz absorption spectroscopy of protein-containing reverse micellar solution
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Abstract:Terahertz time-domain spectroscopy has been carried out for AOT/isooctane reverse micellar solution with myoglobin at the water-to-surfactant molar ratios (w_0) of 0.2 and 4.4. The amplitude of the absorption spectrum increases with increasing the protein concentration at w_0=0.2, whereas it decreases at w_0=4.4. The molar extinction coefficients of the protein-filled reverse micelle, and the constituents, i.e., myoglobin, water, and AOT, have been derived by use of the structural parameters of the micellar solution. The experimental results are interpreted in terms of hydration onto the protein and surfactant in the reverse micelle. [All rights reserved Elsevier].
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Inspec controlled terms:biochemistry - colloids - extinction coefficients - molecular biophysics - molecular configurations - proteins - solvation - surfactants - terahertz wave spectra - water
Uncontrolled terms:terahertz time-domain spectroscopy - terahertz absorption spectroscopy - protein-containing reverse micellar solution - AOT-isooctane reverse micellar solution - myoglobin - water-to-surfactant molar ratios - protein concentration - molar extinction coefficients - protein-filled reverse micelle - structural parameters - hydration
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