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Accession number:20115114611675
Title:Terahertz absorption spectroscopy of protein-containing reverse micellar solution
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Source title:Chemical Physics Letters
Abbreviated source title:Chem. Phys. Lett.
Volume:519-520
Issue date:January 5, 2012
Publication year:2012
Pages:105-109
Language:English
ISSN:00092614
CODEN:CHPLBC
Document type:Journal article (JA)
Publisher:Elsevier, P.O. Box 211, Amsterdam, 1000 AE, Netherlands
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<inf>0</inf>) of 0.2 and 4.4. The amplitude of the absorption spectrum increases with increasing the protein concentration at w<inf>0</inf> = 0.2, whereas it decreases at w<inf>0</inf> = 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. 
Number of references:35
Main heading:Terahertz spectroscopy
Controlled terms:Micelles - Proteins - Surface active agents - Water absorption
Uncontrolled terms:Micellar solution - Molar extinction coefficient - Molar ratio - Protein concentrations - Reverse micellar solution - Reverse micelles - Structural parameter - Terahertz time domain spectroscopy
Classification code:801.3 Colloid Chemistry - 802.3 Chemical Operations - 804.1 Organic Compounds - 931.1 Mechanics
DOI:10.1016/j.cplett.2011.11.029
Database:Compendex