

Absorbances of solutions of cationic micelles and organic anions

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The absorbances in the uv region of sodium p-toluene sulfonate, sodium toluate, sodium benzene sulfonate and sodium phenyl phosphate have been measured in the presence of increasing amounts of cetyl trimethyl ammonium bromide (CTA). The addition of CTA to the aqueous solutions of the organic salts changed their absorbances until a point was reached at which they remained constant. It is demonstrated that the change is due to the lower dielectric constant of the core of the micelles in which the anion is incorporated. The results are quantitatively examined by assuming that the micelles are composed of a certain number of sites, each of which is accessible to one molecule of the corresponding anion. © 1974.