

Association of anions to cationic micelles

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The relative association degrees of different anions to micelles of hexadecyltrimethylammonium bromide (CTA) were measured by spectrophotometrically determining the amounts of p-toluenesulfonate (TOS) or benzenesulfonate (BS) anions desorbed from the micelles by addition of increasing amounts of NaNO₃, NaBr, NaCl, NaOH, NaF, NaOAc, Na₂SO₄, Na₂HPO₄, Na₂CO₃, and Na₂B₄O₇. A simple ion-exchange model was used for interpreting the results in a quantitative way and values for the ion-exchange constants were calculated. These values are discussed in terms of the hard and soft acid-base principle. © 1980 American Chemical Society.