Mário José Politi, Med chem 2016, 6:7(Suppl)
http://dx.doi.org/10.4172/2161-0444.C1.020

Mário José Politi

University of Sao Paulo, Brazil

Effect of urea on ion pair formation: The hydrophilic urea effect

We recently focused that urea produces a higher solution polarity and directly affects liophilic colloidal aggregates. Using ^{79}Br NMR line broadening and solubility data of bis(tri-methyl)-α,ω-alkanediammonium, (1-n-1)Br_2 (n=2-4) (bolaform) and tetramethylammonium bromide and perchlorate salts the effect of urea in weakening ion pair association are investigated. The high association constant of perchlorate with ammonium salts was used to titrate the ammonium-bromide interactions. Bromide counter ion in bolaform salts derivative having two, three, and four methylene spacers or in tetramethyl ammonium salts were replaced by perchlorate. Addition of urea leads to the loss of anion selectivity and the new pairs binds unspecific both anions.

Biography

Mário José Politi is currently a Professor of Biochemistry for under-graduates and Colloid Chemistry for graduates at the Biochemistry department of the Chemistry Institute at the University of Sao Paulo. He received a Pharmaceutical degree from USP in 1974, a Master's degree from USP in 1978, and a PhD from Clarkson University in 1983. After that, he became a full Professor at the Biochemistry department in 2002. He has over 100 publications in international journals in the areas of Colloids and Photochemistry. His current interests are in new materials, colloid polymers, silanes, siloxanes and nanostructured colloids, colloids, e-surfaces and surfactants, photo chemistry and photo physics and organic physical chemistry.

mjpoliti@usp.br

Notes: