

**COMPLEXATION OF BOVINE SERUM ALBUMIN WITH CATIONIC
POLYELECTROLYTES AT PH 7.40.
FORMATION OF SOLUBLE COMPLEXES.**

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ABSTRACT SUMMARY:

Complexation of bovine serum albumin (BSA) with the cationic polymer poly([3-(methacryloylamino)propyl]trimethylammonium chloride) (PMAPTAC) and its graft copolymer with poly(*N, N*-dimethylacrylamide), (PMAPTAC-*g*-PDMAM75), was investigated at pH = 7.40, in water, and in 0.15 M NaCl, close to physiological conditions, as a function of the Polycation/BSA charge ratio, *r*. Turbidity, and UV absorption measurements, indicated the formation of insoluble stoichiometric complexes between BSA and PMAPTAC in water, but not in 0.15 M NaCl. A potentiometric study, in agreement with this behavior, showed proton release for the BSA/PMAPTAC mixtures in water, but not in 0.15 M NaCl. In the case of the mixtures of BSA with the graft copolymer PMAPTAC-*g*-PDMAM75, the solutions obtained even in water, were clear. Nevertheless, soluble complex formation in water was confirmed by potentiometry, ζ -potential and static light scattering measurements, while in 0.15 M NaCl not any complex formation was detected.