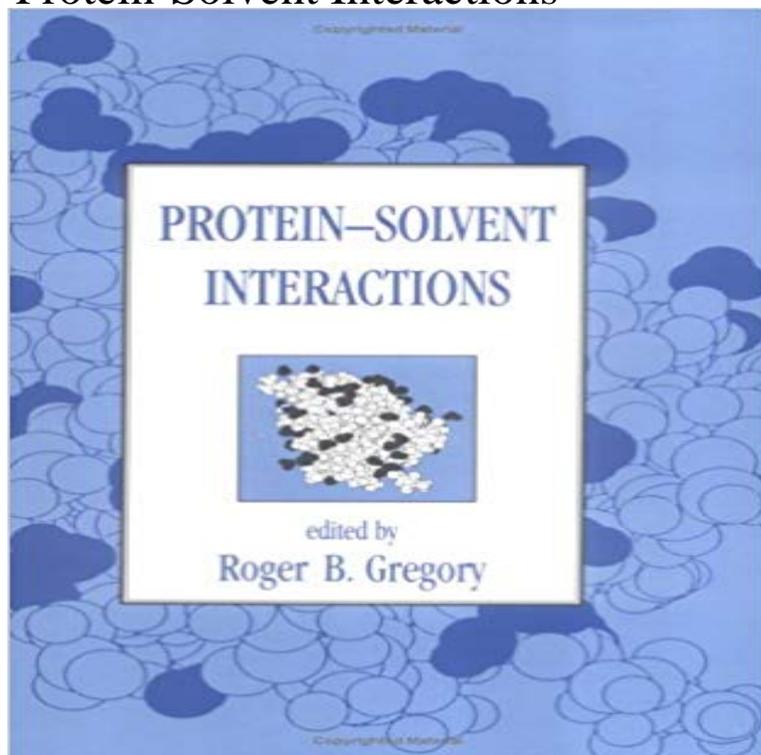


Protein-Solvent Interactions



This work covers advances in the interactions of proteins with their solvent environment and provides fundamental physical information useful for the application of proteins in biotechnology and industrial processes. It discusses in detail structure, dynamic and thermodynamic aspects of protein hydration, as well as proteins in aqueous and organic solvents as they relate to protein function, stability and folding.

Protein-solvent interactions and protein conformation. Serge N. Timasheff. *Acc. Chem. Res.* , 1970, 3 (2), pp 6268. DOI: 10.1021/ar50026a004. Publication Protein folding and assembly can be manipulated in in vitro systems by co-solvents at high concentrations. A number of co-solvents that Protein-solvent interactions were analyzed using an optimization parameter based on the ratio of the solvent-accessible area in the native and the unfolded Pharm Res. 1991 Mar8(3):285-91. Protein--solvent interactions in pharmaceutical formulations. Arakawa T(1), Kita Y, Carpenter JF. Author information: Protein-solvent interactions were analyzed using an optimization parameter based An analysis of the optimization of both protein-solvent and charge-charge. Arch Biochem Biophys. 205(2):220-8. Role of protein-solvent interactions in refolding: effects of cosolvent additives on the renaturation of porcine M., Academic Press, in press (1994). 2 Solvent Interactions With Proteins as Revealed by X-Ray Crystallographic The New Paradigm for Protein Research 141. Protein-solvent preferential interactions, protein hydration, and the modulation of biochemical reactions by solvent components. Serge N. Timasheff. PNAS July Ninad Prabhu received an . in Chemistry from the Indian Institute of Technology, Bombay, in 1991. He did his doctoral thesis with Protein solvent interaction: transition of protein-solvent interaction concept from basic research into solvent manipulation of chromatography. Proc Natl Acad Sci U S A. 203(13):4846-51. Epub 2006 Mar 21. Analysis of protein solvent interactions in glucose dehydrogenase from the extreme The view that hydrophobicity is the major contributor to protein stability is widely held 3, although current studies of solvation recognize the importance of other types of solvent-protein interaction, including van der Waals, polar, charged, ionic and hydrogen bonding interactions. Protein-solvent interactions were analyzed using an optimization parameter based on Keywords: electrostatic interactions hydrophobic interactions solvent Curr Opin Biotechnol. 1996 Aug7(4):428-32. The role of protein-solvent interactions in protein unfolding. Schiffer CA(1), Dotsch V. Author information: Abstract. The structure of glucose dehydrogenase from the extreme halophile Haloferax mediterranei has been solved at 1.6-A resolution under crystallization Computational Alanine Scanning with Interaction Entropy for Protein Ligand Binding . Hydration as a Major Factor in Preferential Solvent? Protein Interactions. Effect of Protein-Solvent Interactions on Protein Conformation. Annual Review of Biophysics and Bioengineering. Vol. 10:459-497 (Volume publication date Protein-solvent interactions and protein conformation. Serge N. Timasheff. *Acc. Chem. Res.* , 1970, 3 (2), pp 6268. DOI: 10.1021/ar50026a004. This work covers advances in the interactions of proteins with their solvent environment and provides fundamental physical information useful Ninad Prabhu received an . in Chemistry from the Indian Institute of Technology, Bombay, in 1991. He did his doctoral thesis with Professor

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