The Lipid Membrane Chemistry: A hydration and surface potential perspective

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Lipid membranes are highly dynamic and complex structures that determine the fate of a cell. Although recognized as an essential building block, water is usually treated as a passive background in membrane studies. In contrast, water and ions play a key role, determine the electrostatic environment of the membrane and actively influence the surface biochemical reactions. In this talk, the main focus will be on what second harmonic scattering can tell us about the hydration and surface potential of lipid membranes.