



(b)

OIL/SURFACTANT MOLE RATIO

#### D. Implications for Vehicle Design and Interaction with the Stratum Corneum

A model system of this simplicity cannot, of course, be expected to give a comprehensive description of a system as complex as the stratum corneum. However, these results do give some indications relevant to the design of a topical vehicle and the potential interaction and modification of the skin to which it is applied. It can be seen that components often used in enhancement studies can potentially lead to increased water capacity in the system for which head group hydration is an important factor. Changes are also brought about in the molecular packing and dynamics of the bilayers leading to increased enhancer uptake in the hydrophobic region of the system. This description is in broad agreement with that recently inferred from differential thermal analysis and permeation studies (32).