

Cover Picture

Frank Mallwitz and Werner A. Goedel

The cover picture shows nanometer-thin elastomeric membranes made from polyisobutene star polymers with ionic head groups. Spreading of the polymers onto a water surface yields fluid monolayers. These can be transferred to cover openings in solid substrates. After transfer, the ionic head groups aggregate, cross-link the membrane, and thus give rise to elastomeric properties. For example applying a small overpressure from one side gives rise to comparatively large, reversible deformations. These elastomeric membranes could be used in micromechanical devices such as membrane pumps and valves. More details on these membranes are reported by F. Mallwitz and W. Goedel on pages 2645 ff.

