An ellipsometric study of the surface freezing of liquid alkanes

ID 1526092
Author(s) Pfohl, Thomas; Beaglehole, David; Riegler, Hans
Author(s) at UniBasel Pfohl, Thomas ;
Year 1996
Title An ellipsometric study of the surface freezing of liquid alkanes
Journal Chemical Physics Letters
Volume 260
Number 1-2
Pages / **Article-Number** 82-86
The surface freezing of alkane/air interfaces was investigated by ellipsometry and surface tension measurements. It is observed as a small jump in the ellipsometric signal. This shift can be explained by the transition from an isotropic liquid surface to a well-ordered monolayer only through a fortituous cancellation of layering and anisotropy effects. Therefore, an alternative model is discussed which interprets the surface freezing as a transition from a nematic-like molecular ordering at the interface above the surface melting temperature to a smectic-like ordering below.
Publisher Elsevier
ISSN/ISBN 0009-2614
edoc-URL http://edoc.unibas.ch/48508/
Full Text on edoc Restricted;
Digital Object Identifier DOI 10.1016/0009-2614(96)00836-6
ISI-Number WOS:A1996VH10000013
Document type (ISI) Article