

Neutron Reflection from Complex Layers Adsorbed at the Solid/Aqueous Interface

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Neutron reflection gives information about structure of a layer normal to an interface and also about composition. Adsorption at solid/aqueous interfaces often leads to bilayer and more complicated structures with thicknesses in the range 20-100 Å. This is the range of optimum sensitivity of the neutron technique. Given also that isotopic labelling may be used to discriminate the different components within a mixture or within a molecule, the technique is uniquely sensitive to complex structures at these interfaces. Examples of the application of neutron reflection to bilayers, bilayer mixtures and to the evolution of structure during enzyme attack of the bilayer will be given.

Keywords: neutron reflection, interfaces, applications of neutron reflection