

AMINO ACID ADSORPTION ON TiO₂(110)[A.G. Thomas](#), W.R. Flavell, G.Thornton**Department of Physics, UMIST, P.O. Box 88, Manchester, M60 1QD, UK***Department of Chemistry, Manchester University, Oxford Road, Manchester M13 9PL, UK*

INTRODUCTION: The adsorption of glycine on the TiO₂(110) surface has been investigated by LEED and HREELS (High Resolution Electron Energy Loss Spectroscopy). The glycine appears to form a disordered multilayer at high exposures with the glycine in the zwitterionic form. Heating of the multilayer to around 80 °C results in all but the last few zwitterionic glycine layers being desorbed from the surface. Heating above 80°C removes all of the glycine layers to reveal a methylamine-like fragment directly adsorbed on the TiO₂(110) surface. At no point does LEED suggest the formation of an ordered overlayer. Low exposures also result in the formation of the methylamine fragment without heating of the substrate suggesting the decomposition is substrate induced. LEED again suggests no ordering of the adsorbate on the surface. Finally the effects of preadsorption of water and coadsorption of water are discussed