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Application of mössbauer spectroscopy in the study of surface phenomena

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Abstract

Recently there has been a considerable growth of interest in the elementary processes occurring on the surface of a solid or associated with the effect of the surface on the properties of atoms and molecules within the bulk of the solid. Mössbauer spectroscopy yields unique information about the electronic structure and the nature of the motion of atoms and therefore the use of this method is extremely effective in fundamental investigations of surface phenomena. This review deals with the theoretical concepts of Mössbauer spectroscopy and the experimental data on its application in the physical chemistry of surface phenomena. A systematic account is given of new experimental results, which are compared with data obtained by other procedures. © IOP Publishing Ltd.

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