

16.8-1 ANALYSIS OF THE SAFETY DEVICES IN X-RAY DIFFRACTION EQUIPMENTS. By G. Cojazzi, Centro di Studio per la Fisica delle Macromolecole del CNR, R. Badiello, Servizio di Sicurezza del Lavoro e Protezione Sanitaria del CNR and T. Bernardi, Servizio di Fisica Sanitaria dell'Università, Bologna, Italy.

Radiation protection investigations carried out periodically in typical research laboratories allowed us to analyze the hazards involved in the use of X-ray diffraction equipments. Particular attention was paid, to the problem of the safety devices and of their technological evolution in order to eliminate and/or reduce the potential irradiation sources.

The limits of the present state of the art are presented and discussed; suggestions and advices are provided at the level of design criteria and of manufacturing. In any case, since it is also necessary to take in account the working conditions, procedure regulations for the operator and recommendations for health surveillance and personal monitoring are given.