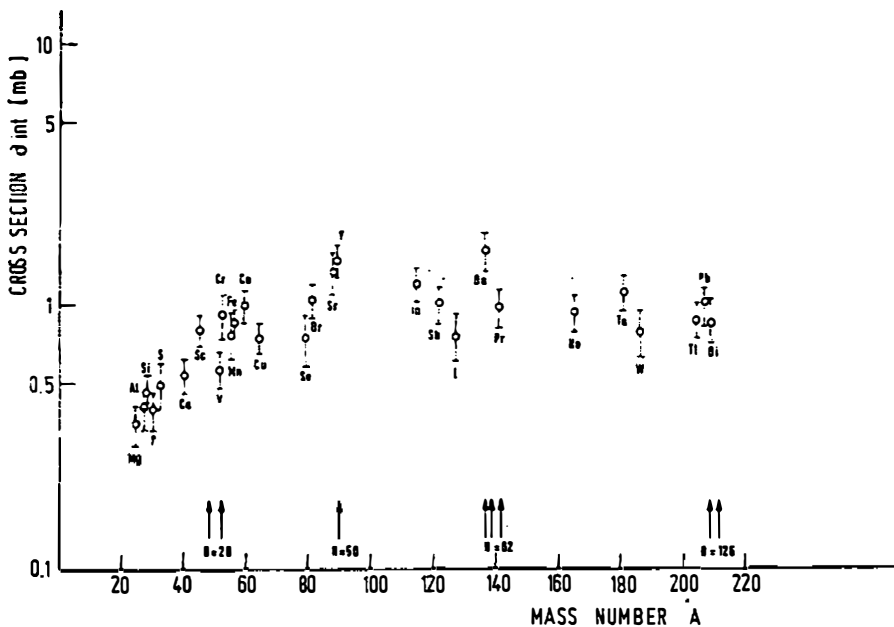


MASS DEPENDENCE FOR RADIATIVE CAPTURE OF 14.1 MeV NEUTRONS

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Integrated cross sections for the radiative capture of 14.1 MeV neutrons on elements Sc, Co, Sr, Y, Sb, Pr, Ho, Ta and Tl are given. Prompt gamma rays from radiative capture were measured by a telescopic scintillation pair spectrometer (1,2) which was recently completed with a processor system (CDC 1700) for on-line data acquisition and control of main electronic circuit gain (3). Values of integrated cross sections for radiative capture of 14.1 MeV neutrons in mentioned elements are close to 1 mb with the exception of cross



sections for Sr and Y (1.4 mb) and Sc (0.8 mb). Results are in accordance with an overall mass dependence obtained for other elements measured in our laboratory (4) as shown in Fig. Similar mass dependence can be seen also from measurements of integrated cross sections in other laboratories and from recent activation measurements (5).

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