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Measurement of Electrodeposit Thickness

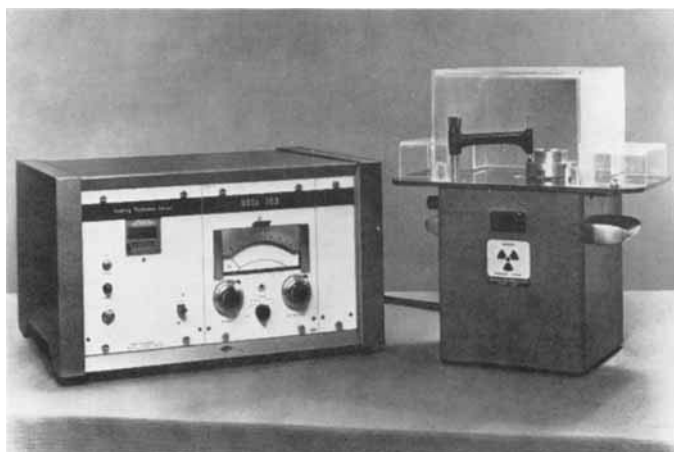
The use of the beta back-scatter technique for the non-destructive measurement of the thickness of electrodeposited coatings – and the basic design of a commercial instrument, the Beta 750 – were described some two years ago (*Platinum Metals Rev.*, 1967, **11**, 13). The success of this equipment has now led to the introduction of an extended range of instruments to meet specialised needs and to satisfy the increasingly stringent demands for consistency and accuracy, particularly where electrodeposits such as rhodium, palladium and gold are involved.

The Beta 751 provides a four-figure digital read out of the beta count over a pre-selected time, this figure being related to deposit

thickness by reference to a calibration graph. Variations of this equipment provide the facility to pre-set a minimum thickness or a range of thicknesses, pass or fail lights being activated by the count figure obtained.

A direct reading instrument, the Beta 752, incorporates a meter reading of deposit thickness in micro-inches, based upon calibrated scales for specific combinations of deposit and basis metal. This instrument is particularly suitable where large numbers of tests must be carried out and maximum accuracy is not a vital consideration.

The units are produced by Panax Equipment Limited and marketed by Johnson Matthey.



The Beta 752 unit is fitted with a calibrated scale for the direct reading of electrodeposit thickness. Zero and full-scale deflection points are set by adjusting the two potentiometers