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Measuring nano-meter thick metallic films using a non-contact laser probing JEAN PIERRE SEMINEGA, University of Texas at Arlington, V.À. KOMOTSKII, S.M. ÎKOTH, Peoples Friendship University of the Russia, TRUMAN BLACK, University of Texas at Arlington — The diffraction analysis of a noncontact method of measuring the thickness of thin metallic films is presented. A range of the thickness from 10 nm to 150 nm is considered in this paper when using a 633 nm laser beam. The measurement result of the thickness of the film being studied is expressed in terms of the wavelength of the probing beam and the intensities of the zero and the first diffraction orders. The method does not require any information on the characteristics of the film sample being studied and is simple in carrying out.

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