

## PHYSICS

Chairman: PAUL BENDER, Goshen College

CONSTANTINE KOLITSHOW, Indianapolis, was elected chairman for 1964

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### ABSTRACTS

**The Ballistic Paths of Tektites.** D. L. SHIRER and J. H. LIESKE, Valparaiso University.—It has been suggested that the peculiar nature of the Australian tektite strewn field resulted from a large meteoritic or cometary impact upon the Antarctic continent. Computation of the ballistic orbits of the tektite-like particles seems to rule out this theory if the tektites originated in their final form, as some other authors suggest, instead of being ablated from larger impactites.

**A Simple Method of Testing Quarter-wave Plates.** ROBERT L. HENRY, Wabash College.—The extent to which a quarter-wave plate departs from its specifications can be determined by a simple test procedure which has also been found to be an instructive student laboratory exercise in the properties of polarized light. The method involves a minimum of equipment and gives quantitative results for the phase difference introduced by the quarter-wave plate as a function of wavelength. The plate to be tested is placed between crossed Polaroids (or Nicol prisms), illuminated with monochromatic light of the desired wavelength, and rotated in its own plane until the transmission of the system is a maximum. A simple expression is derived which gives the desired phase difference in terms of the ratio of the maximum intensity to the minimum intensity transmitted by the system when the second Polaroid (the "analyzer") is rotated in its own plane.