

appears as intensely Dichroic transversely cracked prisms and intense blue polygonal or rounded isotropic plates, representing basal sections, containing irregular black inclusions of various sizes. Pale green to colourless Penninite occurs as fibrous, fan-shaped or plucky aggregations in between the Schorlite crystals often containing brownish small irregular inclusions. Generally the prismatic sections and sometimes the basal sections of Schorlite show peculiar sieve-like intergrowth structure with Penninite.

The Schorlite and Penninite show the following optical characters.

#### SCHORLITE

$\omega = 1.665.$        $\varepsilon = 1.625$   
 $\omega - \varepsilon = 0.040$   
 $\omega =$  Intense or Prussian blue  
 $\varepsilon =$  Pale pink to colourless.  
 Absorption       $\omega > \varepsilon$   
 Elongation      — ive  
 Sign              — ive

#### PENNINITE

(+) X = Y = Pale Green  
 Z = Colourless  
 Absorption X = Y > Z  
 Elongation      — ive  
 Nm 1.585  
 Ng — Np 0.000  
 Ultra-blue interference colour.  
 Passes off from almost Uniaxial to Biaxial.

This Schorlite differs from those described by Winchell<sup>1</sup> Jewell, J. Class<sup>2</sup>, W. F.

Jenkins<sup>3</sup> and Pichamuthu<sup>4</sup> in its maximum birefringence and distinct Dichroism, and may belong either to Dravite-Schorlite or Schorlite-Elbaite series. With reference to refringence, birefringence and Dichroism it may be inferred that in either case it will belong mostly to the Schorlite end. A chemical or an arc spectrum analysis may substantiate the inference.

The Penninite closely resembles in its optical characters with the description given by Winchell<sup>5</sup>, and plotted on the diagram suggested by him for chlorite minerals<sup>6</sup>, yields  $(At + Dn)_{17}$ ,  $(FeAnt + Dn)_{17}$ ,  $(Ant + FeAnt)_{58}$ ,  $(Ant + At)_{83}$  which closely corresponds with the range for Penninite given by him  $(At + Dn)_{70-40}$ ,  $(FeAnt + Dn)_{0-20}$ ,  $(Ant + FeAnt)_{80-60}$ ,  $(Ant + At)_{71:0-80}$  when resolved in terms of the end members of the Chlorite system, Amesite = 34.86%. Antigorite 48.14%. Daphnite 7.14%. and Ferro-Antigorite 9.86%. Total 100.00%.

Since the rock is an unusually interesting type, further studies are in progress and a fuller paper will be published elsewhere.

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1. *Elements of Optical Mineralogy*, Part II, 1927, pp. 246-47. 2. *American Mineralogist*, 1935, 20, 763. 3. *American Journal of Science*, 1935, 30, 190. 4. *Curr. Sci.*, 1944, 13, 279. 5. *Elements of Optical Mineralogy*, Part II, 1927, p. 379. 6. *Op. cit.*, p. 375. 7. *Op. cit.*, p. 378.

## COURSES ON INDIAN PHILOSOPHY AT ASIA INSTITUTE IN NEW YORK

PROFESSOR P. T. RAJU, of the Department of Philosophy of Andhra University, South India, will offer a seminar in Indian philosophy for graduate students and a general course on contemporary Indian philosophy at the Asia Institute in New York, beginning October this year. The professorship has been made possible for one year through a special grant of funds from the Tata Trust of Bombay. This is the first of visiting professorships to be set up under the Trust.

The Asia Institute maintains a school for

Asiatic Studies accredited by the University of the State of New York, and a public museum of Oriental arts and crafts, and sponsors special events for its membership.

The Institute recently announced acquisition of a 500-volume library on Indian art, formerly the property of Dr. Heinrich Zimmer, an authority on Indian art, myth, and religion, who died in 1942. Addition of the Zimmer Library brings the Institute's collection of books and journals on Asia to about 30,000.