



FIG. 1. Perspective diagram of part of the structure of zussmanite. For simplicity, the rings of Si tetrahedra are shown attached to only one side of the octahedral layer.

hydroxyl groups. Three such composite layers, suitably staggered, are required to give the complete unit cell. Further details of this structure will be published later.

Acknowledgement. One of us (A.L.V.) is grateful to the Gulbenkian Foundation for a Scholarship, during the tenure of which the above work was carried out.

Department of Geology and Mineralogy,
University of Oxford

A. LOPES-VIEIRA
J. ZUSSMAN

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The Lake Bonney and Nora Creina meteorites,
South Australia

A GROUP of five stony meteorites discovered in 1961 in the Millicent area of south-eastern South Australia have been described and named the Lake Bonney meteorite (Corbett, 1964). Four of the five stones were found within an area of half a mile radius; the fifth was collected at

Nora Creina Bay 42 miles to the north-west. The Nora Creina stone, although showing marked differences from the Lake Bonney group in surface features and internal structure, was included as a member of the same fall because of the similarity in olivine composition of the stones from the two localities (data supplied by Dr. Brian Mason). It was concluded that the Nora Creina stone was not found *in situ* but had been transported at some time in the past, probably by aborigines, whose camp-sites are common in the area.

Further work by Dr. Mason on the pyroxenes in stony meteorites has shown that the Nora Creina stone is distinct from the Lake Bonney group, and represents a separate fall. The coordinates of the Nora Creina meteorite are $37^{\circ} 19' S$, $139^{\circ} 51' E$.

Acknowledgement. The author wishes to thank Dr. Brian Mason, Division of Meteorites, U.S. National Museum, for making available the new information on the pyroxenes which is included here.

Geology Section,
South Australian Museum,
Adelaide, South Australia.

D. W. P. CORBETT

Reference

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[*Manuscript received 13 January 1967*]

Bixbyite and manganophyllite from Kajlidongri, India

A DETAILED mineralogical examination of the manganese ore and silicate minerals of the Kajlidongri manganese mine ($22^{\circ} 37' N.$, $74^{\circ} 31' E.$), Jhabua District, Madhya Pradesh, was undertaken by the author¹ during the period 1957–61. Among the minerals reported were bixbyite and a manganiferous mica.

Bixbyite. An isotropic opaque mineral, with a yellowish colour under the ore microscope, reflectivity 21 to 22 % (green light, in air) was identified as bixbyite from its X-ray powder pattern, which closely matches those reported by Fleischer and Richmond² for material from Thomas Range, Utah, and by Roy³ for material from India (there is some uncertainty over the solubility relations and nomenclature of the Mn_2O_3 – Fe_2O_3 system, and the name bixbyite is here used, following Roy, for all isometric $(Mn,Fe)_2O_3$).