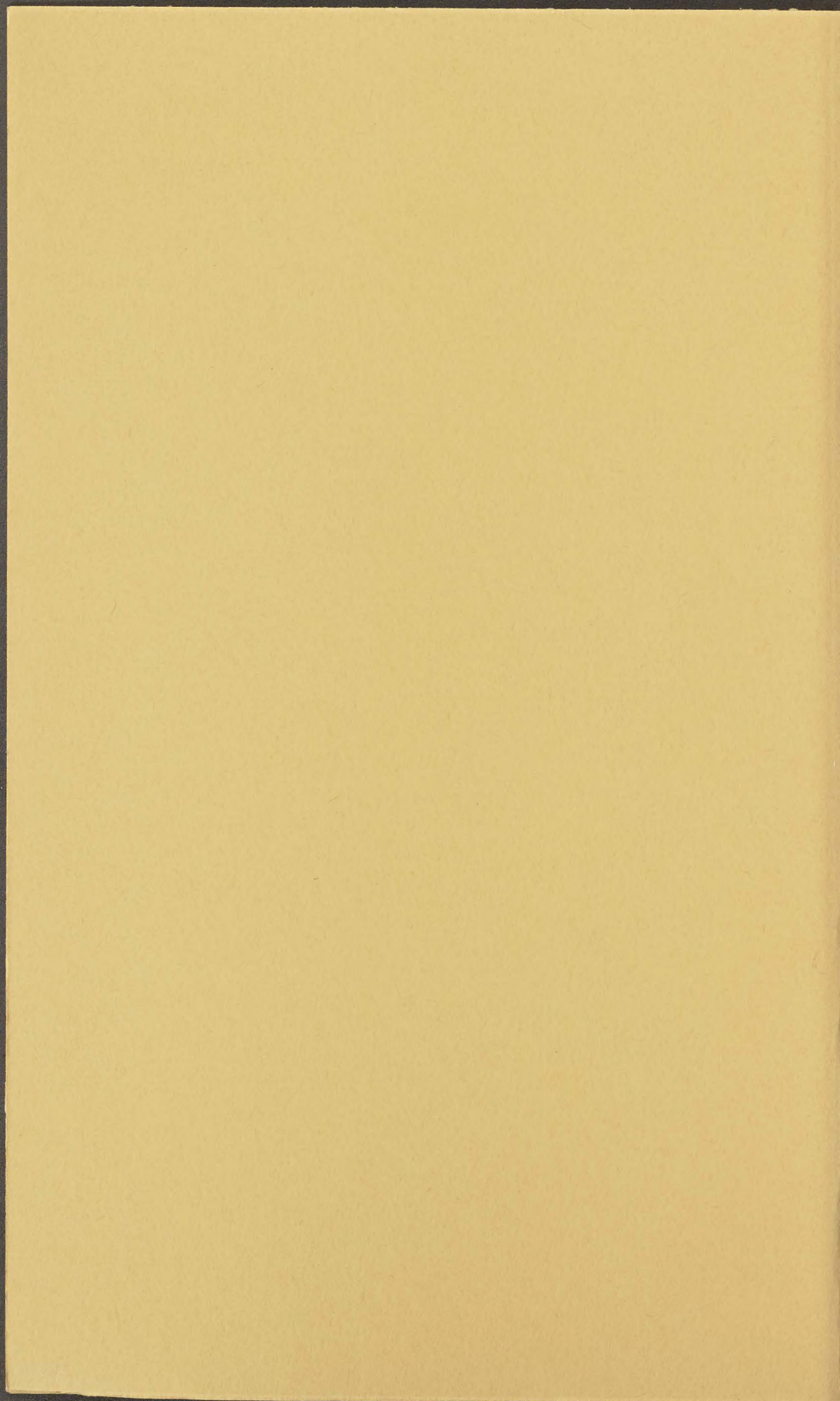


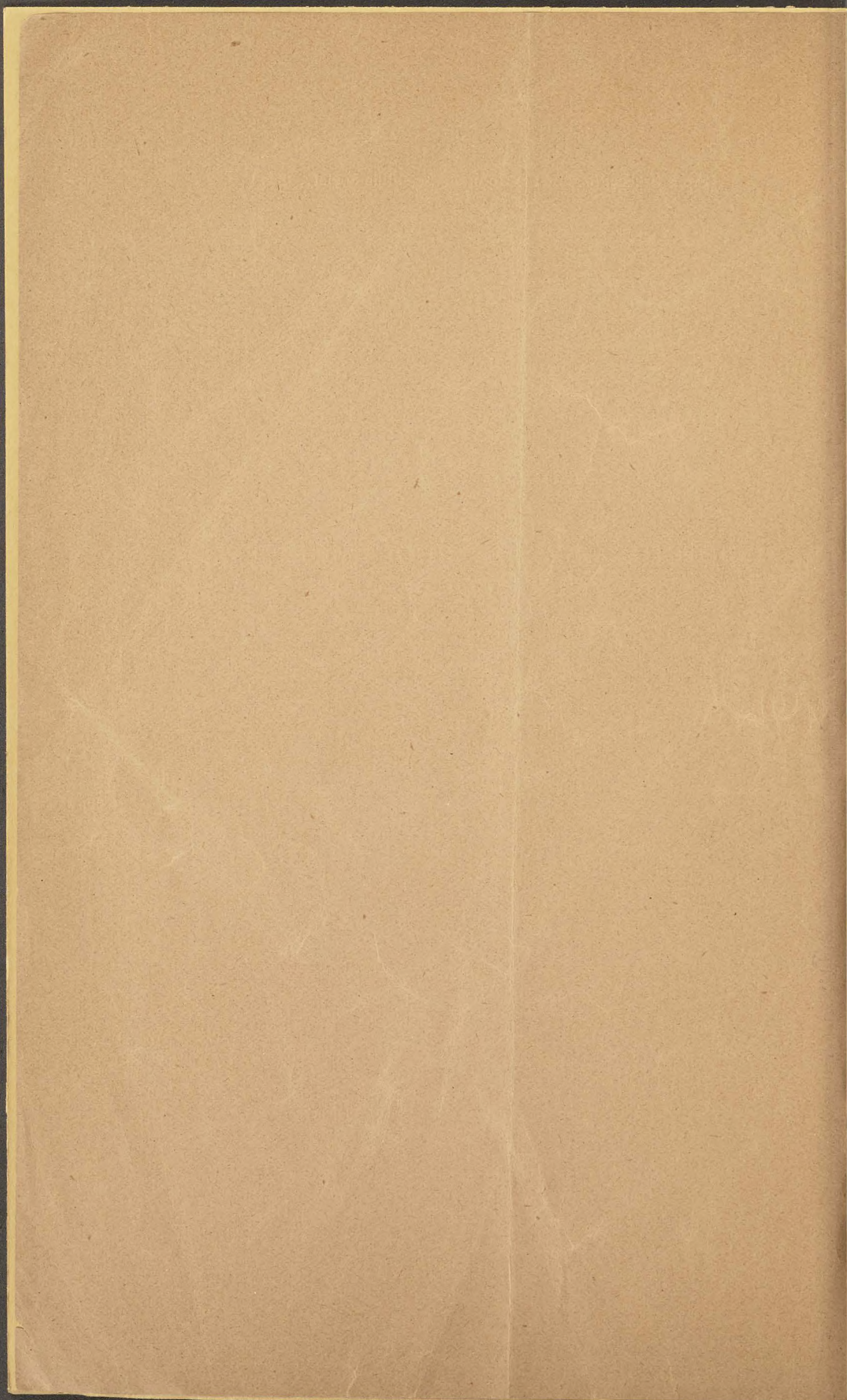
HILLS, R.C.



[From Proceedings of the Colorado Scientific Society, 1889.]

ETCHED BERYLS FROM MOUNT
ANTERO, COLORADO.

BY R. C. HILLS.



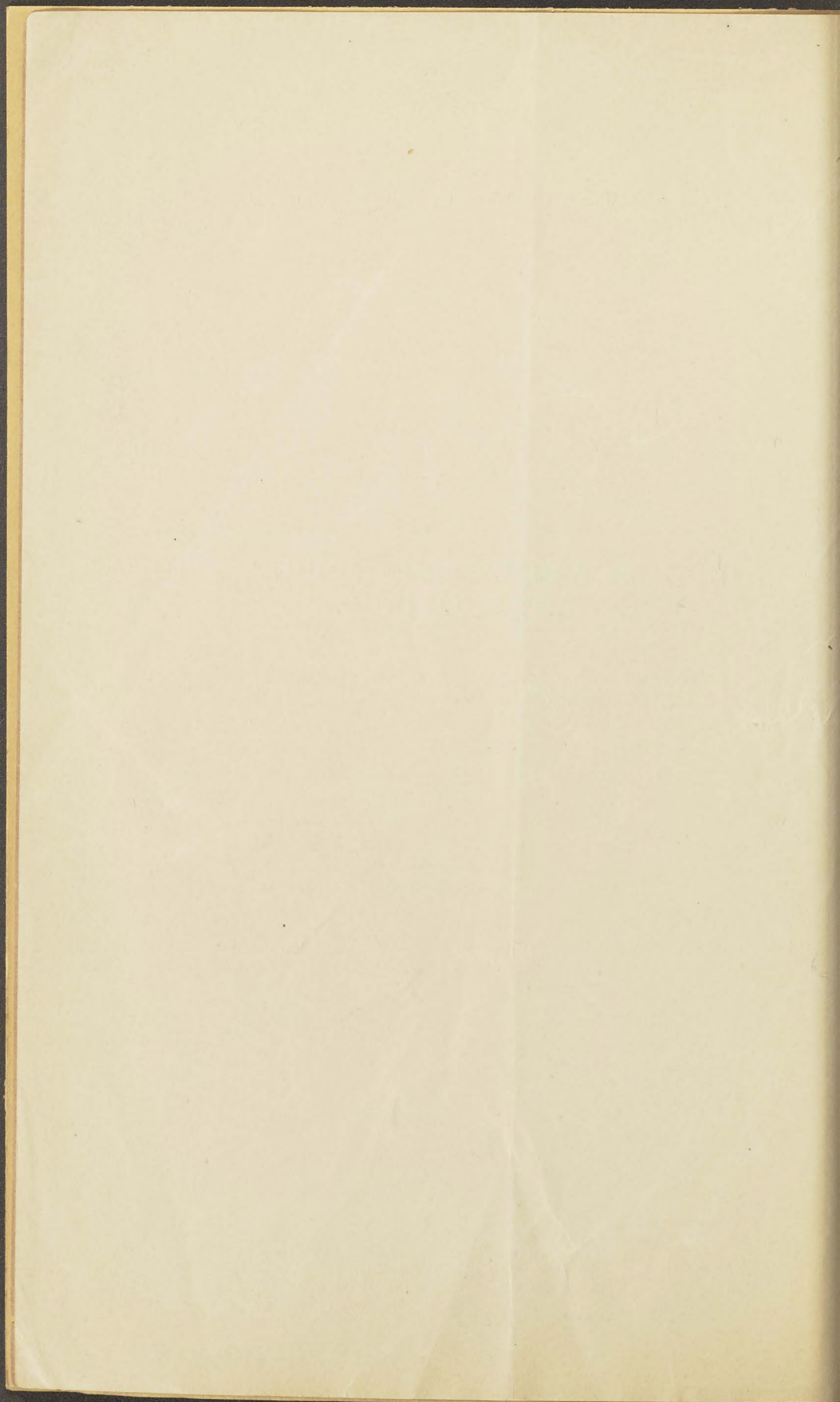
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ETCHED BERYLS FROM MOUNT
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MEETING OF FEBRUARY 4th, 1889.

ETCHED BERYLS FROM MOUNT ANTERO, COLORADO.

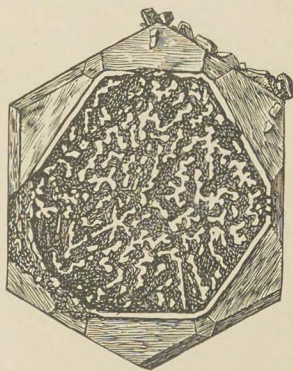
BY R. C. HILLS.

A number of Mount Antero beryls that have recently come into the writer's possession are nearly all etched in a manner which, so far as can be ascertained, has not been observed on beryl from any other locality.

The crystals in question are from cavities containing the beryllium minerals phenacite and bertrandite. The former frequently occurs in characteristic form implanted on the beryls; the latter implanted, or partly penetrating, while in rare instances both these associated minerals may be found so implanted on one specimen.

The only forms determinable in the etched crystals are: ∞P , oP and $2P_2$, although ill-defined scalenohedral planes are evidently present.

The peculiar etching represented in the diagram is confined to the basal plane in all the crystals on which it has been observed, while the pyramidal planes exhibit merely a roughened, lusterless surface. The basal plane presents a number of closely-crowded, irregular or convoluted ridges extending up to the level of the original face and terminated by intact portions of it; the shallow spaces between the ridges representing the extent to which the substance has been removed.



$\times \frac{1}{3}$

Surrounding the etched surface is a narrow, well-defined glistening bead, more or less continuous and of even breadth, corresponding to the bounding edges, or border of oP. The etching is usually somewhat deeper near this border than elsewhere. It is, nevertheless, a remarkable fact that the inner edges of the surrounding bead are, in all cases, clean cut, and as free from irregularities as a line drawn with a fine instrument.

The etching, when once begun, appears to have been confined mainly to the spaces first attacked. As a consequence the substance in these spaces may have been eaten away to a considerable depth, and yet the parts of the surface not originally attacked will, in common with the surrounding border, still present coincident reflections.

In addition to the associated beryllium minerals above mentioned, two others of secondary origin are noticeable. The most common of these has the ordinary form and appearance of adularia, although the crystals are too small and lusterless to admit of determinative measurements. Some of the beryls are partly covered with clustered crystals of this mineral, associated with a few bertrandites and phenacites belonging to the same period of growth.

The remaining mineral consists of light-colored, or purplish, octahedrons of fluorite, which are by no means common. Orthoclase, in large twins after the Carlsbad law, and smoky quartz are ordinarily associated with the beryls and belong to the same period of formation.

About three-fourths of the crystals in the lot, showing terminations, are etched in the peculiar manner described; the exceptions being those that are perfectly transparent and without any trace of prismatic striation.

