

ON AN  
UNDESCRIBED VARIETY OF AMETHYST.

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THE place of the amethyst in systematic mineralogy, its chemical constituents, crystallographic form, the characters of the species of which it is a variety, its colour, geognostic situations, and geographic distribution are so well known, as scarcely to call for remark. There is still some difference of opinion as to its constituents, traceable no doubt to the fact, that these are not constant, but vary in different specimens. Rose's analysis, which is that most generally received, is as follows: silica 97.50, alumina 0.75, iron oxide and traces of manganese 0.75. In a Brazilian specimen, Heintz (quoted by Dana) found traces of magnesia and soda, whose presence he thinks accounts for the characteristic colour of this mineral. Others hold this to be due to a small percentage of oxide of manganese. Amethyst occurs in veins, or lining the oft-described agate balls. "Crystals within the geodes or hollow agate balls are very often of an amethyst colour, and some are very fine" (Cronstedt's "Mineralogy," vol. i., p. 151, 1788). I am able to show to the Society, a very beautiful group of pure amethyst crystals in an agate ball from Saxony. The gem known as oriental amethyst is spinel or *dodecahedral corundum*, a widely different mineral with an amethystine hue. The constituents of spinel are alumina