

Citation:

Veen, A.L.W.E. van der, The system of crystallization of the diamond, in:
KNAW, Proceedings, 10 I, 1907, Amsterdam, 1907, pp. 182

Crystallography. — “*The system of crystallization of the diamond*”
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(Comm. by Mr. MOLENGRAAFF).

(Communicated in the meeting of June 29, 1907).

There still exists some doubt about the system of crystallization of the diamond. Although the tetrahedral hemihedrism of the diamond is pretty generally accepted, still the opinion that it belongs to the regular system, also finds support.

The existing uncertainty is caused by the lack of physical research with regard to this question. Such a research into the existence or non-existence of polarity of the trigonal axes has now been made. With that object in view the trigonal axes of the diamond were tested for pyro-electricity according to P. P. KOCH's method¹⁾. Tourmaline, boracite and quartz, which evinced strongly pronounced pyro-electrical characteristics, were used as testminerals. The result arrived at is absolutely negative. The diamond is not pyro-electric, and the trigonal axes do not possess polarity.

Besides, researches were made into the crystalline form of the diamond out of a collection of 367 uncut diamonds collected by Mr. MOLENGRAAFF. Practically all types of crystallization were represented here, to explain which tetrahedral hemihedrism for the diamond had been accepted in numerous writings of GROTH, SADEBECK, MARTIN and others. The result of this investigation, which is not yet at an end, is that a rational explanation of all irregular and apparently tetrahedral-hemihedral crystalline forms of the diamond can be found in the peculiar octahedral lamellar structure of the diamond.

On this ground it may be accepted that the diamond crystallizes in the holohedral division of the regular system.

¹⁾ P. P. KOCH, Ueber eine neue Methode zur Untersuchung auf Pyroelektricität. Inaug. Dissert. München, Mainz 1902.