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THE OCCURENCE OF MOISSANITE (SILICON CARBIDE) IN SEDIMENTS

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Many sediment-petrologists who have read the paper of Messrs. R. D. Ohrenschall and Ch. Milton¹ will be familiar with the presence of blue grains with the optical properties of carborundum in slides of heavy residues of sediments. The attempt of the authors to derive the grains from the original sediments seems to be new and, of course, the authors have considered the possibilities of contamination by industrial carborundum during sampling and laboratory treatment.

With regard to this explanation I should like to direct the attention to the work of the Dutch geologist, J. H. Druif,² on the origin and mineralogical composition of the loess in the province Limburg (Netherlands). In this book the occurrence of carborundum in some of the slides prepared by Druif is described and fully explained through a rather unexpected manner of contamination. The carborundum grains turned out to originate from the polishing paste with which the laboratory taps were cleaned. The quotation, translated into English follows here:

Contamination of samples or fractions during laboratory treatment only rarely occurred. Only one typical case—repeatedly occurred, the cause of which could not be traced in the beginning.

In several of the first slides prepared, varying amounts of a strongly colored substance with a very high index of refraction and low birefringence were noted. As a rule

the grains were very angular, their color is generally blue, but also bluish green and green grains were occasionally found. At first I thought that the substance was anatase, and later on, corundum, but both suppositions turned out to be false. Then I could identify the material to be carborundum as used in preparing thin-sections, but this determination did not simplify the question about the possible manner of the contamination. Several possibilities were traced without any result. The only fact that could be established was that the troubles occurred more or less periodically, sometimes very strong, sometimes not at all. At last the solution of the problem was discovered. It proved to be the water-tap being cleaned with a polishing paste containing carborundum. After every cleaning something of the material rested behind and could come by the hands of the investigator in the water of the elutriation apparatus. Being rather coarse, with a high specific gravity, the material came in the sand fractions and after that in the heavy residues.

In order to check this supposition the tap was thoroughly cleaned and its residue examined; the carborundum appeared in large quantities. When polishing the taps with the paste in question was stopped, the contamination ceased completely. . . .

From my own experience I can fully confirm Druif's conclusion. Before I had taken sufficient precautions, the grains occurred in many slides prepared in my laboratory but afterwards the "mineral" has never been observed by me any more.

Before the origin of the grains as indicated by Messrs. Ohrenschall and Milton is accepted by other investigators, the explanation as given by Druif should be fully considered.

¹ This *Journal*, vol. 1, pp. 90-99, 1931.

² Druif, J. H., *Over het ontstaan der Limburgsche loess in verband met haar mineralogische samenstelling*, Utrecht, 330 pp. 1927. See pp. 214-215.