

and, at an early stage in his career, acquaint the student with a technique which has been too long neglected.

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"KAMACITE AND TAENITE SUPERSTRUCTURES AND A  
METASTABLE TETRAGONAL PHASE IN IRON  
METEORITES"—CORRECTION

(A. R. RAMSDEN AND E. N. CAMERON, *Am. Mineral.* 51, 37-55)

The suggested existence of a metastable tetragonal phase in iron meteorites is incorrect. Subsequent investigation has indicated misalignment of the collimator in the x-ray powder camera, and the lines attributed to the tetragonal phase have been positively identified as due to the plasticene in which the short fibers were mounted. These lines appear in the patterns for the scratch samples only because of the long exposures involved. However, the lines attributed to the kamacite and taenite superstructures are not due to this material. The evidence for these superstructures depends primarily on comparison with the pattern from the Linville meteorite. As a check, Louis Fuchs (Argonne National Laboratory) has kindly x-rayed our two scratch samples from this meteorite. A number of spotty lines were present on his patterns and he has suggested that this indicates the presence of two crystalline impurities. So far we have been unable to determine what these might be. Furthermore, it would seem to be a remarkable coincidence that the lines of the Linville pattern can be indexed in terms of the cubic lattices, one having a cell edge twice that of the taenite in the corresponding drilled sample and the other having a cell

edge three times that of the kamacite in the drilled sample. We also have data on reflectivity and microhardness of taenites and synthetic Fe-Ni alloys that appear consistent with an ordering phenomenon in the meteoritic phases and are difficult to account for in other terms. Until further investigation is completed, however, the validity of the  $x$ -ray data must be questioned.

We are grateful to Mr. Fuchs for drawing attention to the problem of the  $x$ -ray results and wish to thank him for his co-operation in providing comparative  $x$ -ray data.

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