

THE ESTIMATION OF ABSOLUTE AGE OF SOME MICAS  
(FROM THE LOCALITIES IN YUGOSLAVIA) BY THE  
METHOD OF FISSION TRACK POPULATION

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The determination of the absolute age of minerals by the use of the method of track population is possible due to the fact that the active fission elements, which are the constituents of the mineral, are spontaneously divided yielding the fission fragments, which disturb the structure of the minerals along the direction of its motion resulting in the formation of structure defects that may be detected by different methods. The tracks are formed by a constant rate of decay and may be preserved for billion of years under certain conditions.

The absolute age of minerals may be determined in function of the ratio of track density in the fragments of spontaneous and forced uranium fission.

By this method it was found that the absolute age of mica in the locality of Matajica and in the area of Obrenovac is  $T=43.9 \times 10^6$  and  $T=19.1 \times 10^6$  years, respectively. The concentration of uranium in the investigated samples was also determined and was found to be  $3.2 \times 10^9$  for the mica from Matajica locality, and  $2.2 \times 10^8$  g/g for that from Obrenovac.