

THE STREAM OF CRATER FORMING METEORITES ON THE EARTH (WITHIN THE LAST TWO AEONS)

V. V. Fedynsky, A. I. Dabizha, I. T. Zotkin  
Committee on Meteorites USSR Academy of Sciences,  
Moscow 117313, U.S.S.R.

The existence of terrestrial meteorite craters is determined by laws of accumulation and disappearance. Both crater lifetime and discovery probability are proportional to the area of the structure ( $D^2$ ). The distribution in age ( $T$ , year) and dimensions ( $D$ , metre) is defined by the inequality of  $0.1 \leq \sqrt{T}/D \leq 10$ . The available material on terrestrial craters allows the study of the time variation in the stream of large cosmic bodies striking the Earth. Over the last billion years the stream of crater-forming meteorites has decreased according to the law  $T^\tau$  where  $\tau \leq 0.2$ . The absolute value of the flux can be determined from a complete investigation of a portion of the Earth's surface.