

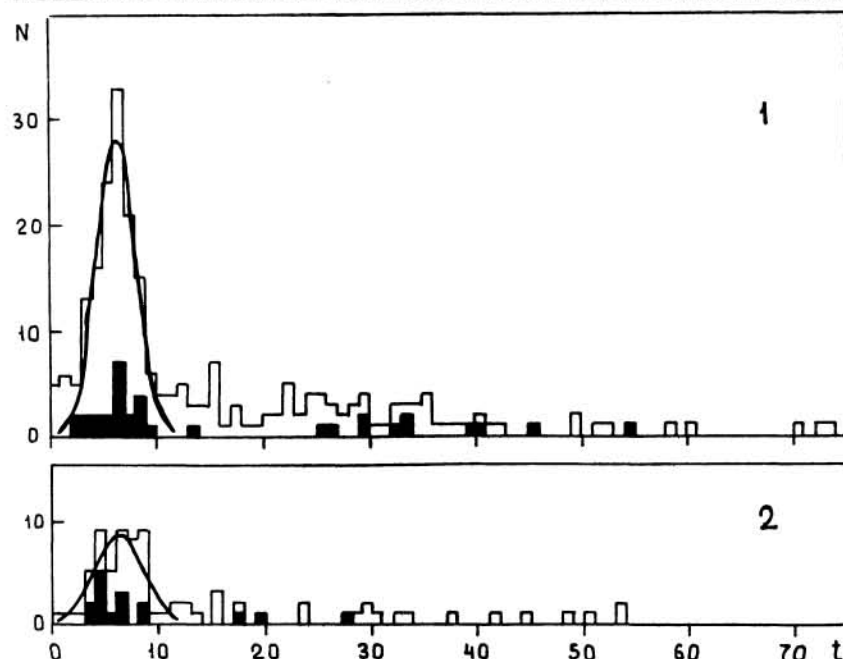
**COMPARISON OF THE EXPOSURE AGES OF THE ANTARCTIC AND NON-ANTARCTIC H CHONDRITES. V.A.Alexeev. Vernadsky Inst. of Geochem. and Analyt. Chem., USSR Acad. Sci., Moscow, USSR**

We have calculated the He-3, Ne-21, and Ar-38 cosmic-ray exposure ages of non-Antarctic H chondrites and compared the distributions of the average meteorite exposure ages of these two groups. Scheme of calculations is given in (1). The obtained distributions are shown in the Fig 1. The exposure age distribution both Antarctic and non-Antarctic H chondrites is characterized by a peak in the interval of 2-10 Ma. The curves of Gaussian distribution for every peak have been calculated. The average value of the age in the peak (position of the Gaussian curve maximum) of non-Antarctic H-chondrites is equal to  $6.3 \pm 0.2$  Ma and that of Antarctic H chondrites is equal to  $6.4 \pm 0.4$  Ma. That is to say we have identical average age in the peak of these two groups of meteorites. The analysis is shown the portions of the different type non-Antarctic H chondrites in the age interval of 2-10 Ma are identical to portion of Antarctic H chondrites (see Table).

These data indicate to possible origin of non-Antarctic and Antarctic H chondrites out of single parent body, at least of the meteorites with exposure ages in the interval of 2-10 Ma. This result is in agreement with result obtained by Weber et al.(2) for less number of the Antarctic H chondrites.

Table. The portions of H chondrites with exposure ages of 2-10 Ma

Non-Antarctic meteorites					Antarctic meteorites
H3	H4	H5	H6	All	
$.36 \pm .19$	$.53 \pm .12$	$.67 \pm .10$	$.45 \pm .11$	$.56 \pm .06$	$.61 \pm .11$



**References:**

- (1) Alexeev V.A. This volume.
- (2) Weber H.W. et al. Meteoritics. 1988, v.23, p.309.

**Fig 1.** The distributions of the H chondrites exposure ages (t, Ma) 1- non-Antarctic H chondrites (241); 2 - Antarctic H chondrites (77). The shaded squares refer to the solar gas bearing meteorites.