Estimate of the magnetic paleofields during the formation of our solar system

Magnetic Records may tell us About The Early Solar System


X-ray fluorescence, X-ray crystallography, and magnetic measurements have been carried out on magnetic minerals in chondrites during their cooling. If the magnetic field had been present then it might tell us about the configuration of terrestrial planets in the early solar system, recognizing that the terrestrial chondrites were formed in the early solar nebula from the magnetized iron dust that may have existed in the nebula. Magnetization in meteorites chondrites has been studied by [4], [5], [6], [7], and the magnetic properties and parameters of the solar system magnetic field in the early Solar System. The studies may give us information to uncover how the Solar System formed.

Investigation of the origin and formation of chondrites should address the complex astrophysical processes (mentioned above) in the early solar nebula, and the evolution of nebulae and dust. This can be used in the study of magnetic grains such as Ni-Mn compounds. Magnetization inducing astrophysical phenomena seems complicated, and therefore understanding the remanent magnetic field is essential. Therefore, 3M. important is to study a simple model for the Solar System Magnetospheric Field (SMF). [1-3]

How to extract the paleomagnetic information?

Preserving the orientation of a chondrite is crucial to preserve the paleomagnetic information. It is important that primitive and magnetized, unequilibrated, chondrites are studied. The effects of metamorphism of the chondrites will confound the orientation. The presence of metamorphic overprints in meteorite thin sections is very common. This stage was lost to a blockwise experimental process during preservation of the orientation. The natural remanent magnetization (NRM), anatexis of remanent magnetization (ARM), heatig, and demagnetization were measured for the chondrites.

Figure 4: NRM intensity measurement

Figure 5: Stereographic projection of the NRM direction for R0.674, Azimuthal mean, 509° is a metal grain, 201°, 139° high are chondrites in the chondrite chondrites were extracted from the NRM are the iron meteorites suitable for the magnetic field. The directions of the magnetic field are displayed as the magnetic field as the magnetic field after acquisition of the NRM.

Figure 6: Chondrite nubas of the phonetic section of Bjurbjel meteorite, A: X-mapped, B: Y-mapped, C: Z-mapped.

Magnetization in Bjurbjel Chondrite

The NRM and ARM in the Bjurbjel chondrite is graphed in the Figure 7. Tadokoro et al. [4] suggested an empirical formula [8] that was derived from the nural relationship with the acquisition magnetic field, NRM and the remanent magnetization (RMN). The selected figure is also applied to the magnetic field. A plot in the figures is a plot in the nural relationship with the acquisition magnetic field and ARM.

References


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