

# On some magnetic properties of the Fermo H-chondrite

I. Kapišinský

Astronomical Institute of the Slovak Academy of Sciences<sup>1</sup>

G. Cevolani

Istituto ISAC del CNR<sup>2</sup>

M. Funaki

National Institute of Polar Research<sup>3</sup>

O. Orlický

Geophysical Institute of the Slovak Academy of Sciences<sup>4</sup>

V. Porubčan

Astronomical Institute of the Slovak Academy of Sciences<sup>1</sup>

I. Túnyi

Geophysical Institute of the Slovak Academy of Sciences<sup>4</sup>

**Abstract:** In the H3-5 Fermo chondrite, taenite is the dominant carrier of remanent magnetization. Kamacite is not able to acquire and carry the stable thermoremanent magnetization because it is not in a stable magnetic phase at high temperatures. Interesting feature of the presented results is an ability of troilite to be connected to non-stoichiometric pyrrhotite with the Curie temperature  $T_c \approx 300^\circ\text{C}$ . The absence of pyrrhotite in the original sample has revealed that the H3-5 Fermo chondrite was not heated to the temperatures over the  $700^\circ\text{C}$  during its survival in space.

**Key words:** Fermo H-chondrite, thermal dependence of magnetic characteristics, dynamics of IDPs

<sup>1</sup> Dúbravská cesta 9, 845 04 Bratislava, Slovak Republic  
e-mail: [astrom@savba.sk](mailto:astrom@savba.sk); [astropor@savba.sk](mailto:astropor@savba.sk)

<sup>2</sup> Via Gobetti 101, 40129 Bologna, Italy; e-mail: [g.cevolani@isao.bo.cnr.it](mailto:g.cevolani@isao.bo.cnr.it)

<sup>3</sup> Kaga 1-chome Itabashi-ku, Tokyo, Japan; e-mail: [funaki@nipr.ac.jp](mailto:funaki@nipr.ac.jp)

<sup>4</sup> Dúbravská cesta 9, 845 28 Bratislava, Slovak Republic  
e-mail: [geoforky@savba.sk](mailto:geoforky@savba.sk); [geoftuny@savba.sk](mailto:geoftuny@savba.sk)