



## **Establishment of an interplanetary magnetic field simulation laboratory**

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The main goal of the project is to establish an electromagnetic clean laboratory in the Széchenyi István Geophysical Observatory of the Hungarian Academy of Sciences (Nagyecsk Geophysical Observatory, IAGA code: NCK). The local DC-ULF range geomagnetic field is to be reduced in the focus chamber of the Lab by means of active compensation and passive shielding techniques.

The Laboratory provides unique opportunity to an extremely low level.

Main goals:

- to implement the electromagnetic conditions of interplanetary space environment, facilitating the development of the so called SERF magnetometer,
- to model certain space physics phenomena,
- to calibrate search coils applied in the space technology for magnetospheric and/or interplanetary magnetic field measurements on satellites
- to perform biophysical test experiments
- and also carrying out material science experiments like alloy production technologies in zero magnetic field environment.