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International key comparison of magnetic flux density standards in geomagnetic range
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Taking into consideration Resolution 4 of the 21-st CGPM(Confrence Gnrale des Poids et Mesures) concerning the need to use SI units in studies of Earth resources, the environment, human well-being and related issues and the fact that the Global Network of Magnetic Observatories has presently a worst case accuracy level of a few nanoteslas and that it is necessary to obtain an accuracy at the level of 0.1 nT we would like to ask for you support in organizing within the a key comparison of magnetic flux density (MFD) standards in the Earth Magnetic Field(EMF, Geomagnetic) range between 20 micro-tesla and 100 micro-tesla.

The result of this comparison will allow to assess and to implement the SI units based MFD standard in order to carry out calibration of the scalar magnetometers belonging to Magnetic Observatories with the use of the definition standards, and in order to obtain the corrections and to determine the measurement uncertainties for each magnetometer. This corrective action could increase the accuracy, if the stability of the instruments is higher than the correction. Also, the magnetic observatories that carry out the tests of magnetometric instruments will obtain ISO9001 certification for their test sites.

We are asking for your support in organizing and running the comparison campaign with 4 to 6 participating countries of the APMP(Asia-Pacific Metrology Program) region and we expect also participation in this comparison not only of the National Metrology Institutes (NMI), but also the Geomagnetic Observatories.

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