

Measurement of geomagnetic horizontal component using a neodymium magnet (part 2)

*Shun Takada¹

1. Sapporo Nihon University Senior High School

The purpose of this study was to establish a simple method for measuring geomagnetism using a neodymium magnet. In the previous research, we found that the horizontal component of geomagnetism can be easily determined by measuring the oscillation period of the neodymium magnet sphere. In this work, measurements using a cylindrical magnet in addition to a magnet ball were also performed. As a result of comparing the horizontal component of the magnetic field obtained by using the Tesla meter with the value obtained by the present measurement method, it was confirmed that those values were almost equal. Moreover, the values of the geomagnetic horizontal component obtained by the measurement method from almost the equator to 60 degrees north latitude were almost the same as those described in the science chronology. These results indicate that our method is useful for measuring geomagnetic horizontal component in various parts of the world.

Keywords: geomagnetism, neodymium magnet, magnetic moment