Study on Diamagnetic Levitation
Using the graphite

Control Engineering Laboratory
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Diamagnetic

SN
Repulsive force
NS
Repulsive force

Property of generating repulsive force in magnetic fields regardless of the polarity

Magnetic field analysis

Bowl-shaped magnetic field

Halbach array

Experimental apparatus

Yoke
Stator
Permanent magnet array
Magnetic field

Levitation

Top view
Side view
Cross-section view of experimental apparatus

Levitation force measurement

Floator
Cantilever

Levitation force is expected from the floating position

Method of measuring levitation force

Diamagnetic force [μN] vs z-axis [mm]

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