

National Magnet Laboratory

In April the National Magnet Laboratory at the Massachusetts Institute of Technology celebrated the second anniversary of its formal dedication. The Laboratory has now reached an operating level of 900 megawatt hours of magnet time per month, runs two shifts per day, and has nearly twenty high-field water-cooled magnets in use.

Fifty percent of the operating hours are being used on a no-charge basis by visiting scientists from government, industrial, and university laboratories. The laboratory is sponsored by the Solid-State Sciences Division of the Air Force Office of Scientific Research, Office of Aerospace Research to provide high magnetic fields for the scientific community, to carry on a varied experimental program utilizing high fields, and to develop high-field technology.

The water-cooled magnets can operate continuously and provide fields of various volumes, field strength and geometrical configurations. A family of six standard solenoids have $2\frac{1}{8}$ " working bores and provide fields from 110 kG to 155 kG, and in one special magnet to 205 kG. Two magnets provide 180 kG fields in $1\frac{1}{4}$ " working bores. One 4"-bore magnet produces 105 kG and a second provides 65 kG with a homogeneity and stability of 1 part in 10^5 over a 2-cm sphere.

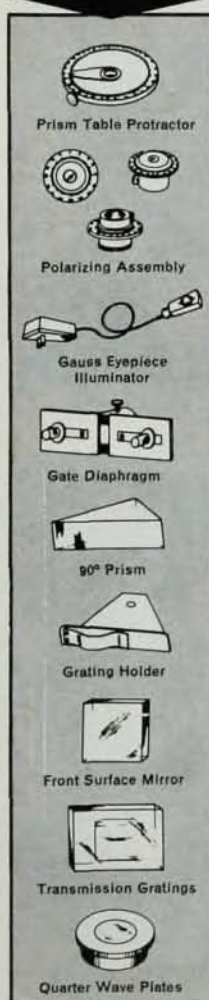
Two lower field large-volume solenoids are used to provide 50 kG in a 14" bore and 18 kG in a five-foot long 7" bore. Several magnets with transverse access to the bore are in use. Four of these magnets have $2\frac{1}{8}$ " working bores and can produce up to 105 kG with a $1\frac{1}{8}$ " transverse access; access in two of these $2\frac{1}{8}$ " magnets is adjustable. A 4"-bore magnet with $1\frac{1}{8}$ " transverse access provides fields to 72 kG. The 14", 50-kG solenoid listed above can be split into a pair providing any desired transverse access.

Requests for use of National Magnet Laboratory facilities should be directed to Dr. Donald T. Stevenson, Assistant Director, National Magnet Laboratory, Building NW 14, MIT, Cambridge, Mass. 02139.



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ACCESSORIES



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Designed in collaboration with Professor Edson R. Peck, physicist and educator, the Model L103 Gaertner-Peck student spectrometer is ideally suited for demonstration of basic spectrometry principles in the modern physics curriculum. With the addition of a wide range of specially designed accessories, the L103 is equally suited for use in advanced courses.

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CONDENSED SPECIFICATIONS

DIVIDED CIRCLE.....190 mm dia., smallest division $\frac{1}{2}^\circ$.
 VERNIER WITH MAGNIFIER.....reads to 1 minute.
 OBJECTIVES.....Achromatic, 20 mm aperture, focal length 130 mm.
 EYEPIECE.....Gauss-Ramsden, 14X.
 RETICLE..... 90° cross hairs.
 PRICE.....\$282.00 (less accessories).

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