GMW Associates

GMW is Exhibiting at APS March Meeting, New Orleans, LA, March 13-17

GMW will be at Booth 535 at the American Physical Society **(APS) March Meeting.**

The Exhibition Hall is open Monday Evening for a Welcome Reception and all day Tuesday to Thursday. Late afternoon wine and cheese receptions will be in the Exhibit Hall Tuesday and Wednesday. GMW will feature:

GMW Resistive Electromagnet Systems for spintronics, biological studies, thin films, magnetic materials, and magnetic devices.

- Model 5204, Three-axis (Vector) Projected Field Electromagnet will be on display with an operating demonstration, and information on the 5201 (in-plane), 5203 (vertical field), 5204 (3-axis vector) and 5205 (air-cooled, ±25mT vertical field) Projected Field Electromagnets. A +/-2T version of the HTS-110 Projected Field Magnet is now available.
- Model 3480 Electromagnet, has the same dimensions and weight as the well-known GMW Model 3470 table-top electromagnet. Through higher current density coils and shaped poles, the 3480 can reach fields of over 2T at a 1cm gap. Customized poles for EPR, MOKE and customer-specified geometries are possible.
- Model 3470HFAC dipole electromagnet generating ±70mT peak fields from dc to 25kHz in an air gap of 35mm.

Bartington HCx-3, three-axis Helmholtz Coils with fields to +/-1mT on each axis and frequencies to 5kHz. The MAG-13 series reference magnetometers and field cancellation software allow for applications requiring cancelling of background fields, including at AC Mains power frequencies.

HTS-110 LM Short Shielded Solenoids that can be oriented in any direction with clear, warm bores from 25mm to 80mm and maximum fields to +/-3T. These Solenoids have robust High Temperature Superconducting, Cryogen Free Coils cooled via a commercial cryocooler and compressor and include bipolar power supply. For cost-sensitive applications, HTS-110 now offer the short solenoid in a Liquid Nitrogen cooled configuration. The LN2 Cooled Short Solenoids operate from an unpressurized Liquid Nitrogen Dewar and provides magnetic field of 1T field in either 38mm or 80mm bore.

Dr. Taotao Huang, Magnet Design Engineer at HTS-110, will be on the GMW stand for the duration of the Meeting.

Magnetic Field Measurement Instrumentation

- Magneto-Optic Sensors and Sensor Systems from Matesy utilize the rotation of polarized light in the Sensor to image the vertical magnetic field external to a flat surface. For the standard CMOS-MagView system, position resolution can be down to 25 µm. In video mode it is feasible to continuously image time varying magnetic patterns such as created by grain boundary movement in magnetic steels as a function of imposed external field or the movement of magnetic fluids in micro-machined channels.
- Metrolab Three-Component Magnetic Field Probes with USB digital output, available in Fluxgate and Hall sensor versions with full-scale field ranges of 100µT, 8mT, 3T and 20T, and frequency response from dc to 1kHz. Bx, By, Bz and B are recorded and can be displayed as a function of time or frequency.

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- Senis Hall effect Magnetic Field Transducers, Instruments and Mapping Systems with one- and three-component Integrated Field Sensors available in field ranges to 20T and frequency response from dc to 75kHz. These are particularly appropriate for very high position resolution field mapping of magnets and magnet arrays. Very small probe package geometries are available.

I will have Dr. Tom King, VP of Engineering and Magnet Design Specialist with me for detailed technical discussions and applications support. If you are in New Orleans, please stop by.

PS: Please email me if you no longer have an interest in email updates from GMW.

Best Regards,
Brian Richter
President, GMW Associates