List Of 2012 Reports

ID#	Title, First Author, and Category	Status
51	**Title:** Thermal Conductivity Test of YBCO Coated Conductor Tape Stacks Interleaved with Insulated Stainless Steel Tapes **First Author:** Bai, H., National High Magnetic Field Laboratory, MST, bai@magnet.fsu.edu **PI:** Bai, H., National High Magnetic Field Laboratory, MST, bai@magnet.fsu.edu **Category:** Magnet Technology **Facility:** MS & T **UCGP:** No **VSP:** No **Accepted by** IEEE Trans. Appl. Supercond. **Sign. Achievement:** No **Director's Recommendation: Yes, definitely** **Director's Comments:** Magnets using HTS conductors will attain higher products of field and field gradient than ever seen in LTS magnets. Consequently, bubbles of He gas will have a downward magnetic force and will no longer rise and will become trapped in the bore of the magnet. This might have a very negative impact on the cooling of the magnet. The 32 T magnet at the MagLab will include plates to enhance the radial thermal conductivity of the coil to prevent the helium bubble from being too warm, thereby allowing the coil to remain superconducting and serviceable. Consequently this work is essential to enabling the 32 T magnet to become operational. We expect most subsequent HTS magnets built worldwide will benefit from this development.	Edited
127	**Title:** Comprehensive Analysis of Binary Current Leads for the NHMFL Series Connected Hybrid Magnet in the Course of Their Development **First Author:** Gavrilin, A.V., National High Magnetic Field Laboratory, Magnet Science & Technology, gavrilin@magnet.fsu.edu **PI:** Marshall, W.S., National High Magnetic Field Laboratory, Magnet Science & Technology, wsmarshall@magnet.fsu.edu **Category:** Magnet Technology **Facility:** MS & T **UCGP:** No **VSP:** No **Accepted by** IEEE Trans. Appl. Supercond. **Sign. Achievement: Yes** **Director's Recommendation: Yes** **Director's Comments:** 20 kA current leads operating in this high a background field have not previously been attempted.	Edited
150	**Title:** High Field Magnets with $Bi_2Sr_2CaCu_2O_{8+x}$ /Ag alloy Round Wire **First Author:** Trociewitz, U.P., NHMFL, Applied Superconductivity Center, trociew@asc.magnet.fsu.edu **PI:** Larbalestier, D.C., NHMFL, Applied Superconductivity Center, larbalestier@asc.magnet.fsu.edu **Category:** Magnet Technology **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement: Yes** **Director's Recommendation: Yes** **Director's Comments:** None	Edited
151	**Title:** Field Angular Dependence of Hysteresis Losses of Coated Conductor for High Field Magnets **First Author:** Lu, J., FSU/NHMFL, junlu@magnet.fsu.edu **PI:** Markiewicz, W.D., FSU/NHMFL, markwcz@magnet.fsu.edu **Category:** Magnet Technology **Facility:** MS & T **UCGP:** No **VSP:** No **Accepted by** IEEE Trans. Appl. Supercond. **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
159	**Title:** Progress in Magnetic Shims Development and Testing for the Series Connected Hybrid **First Author:** Painter, T., NHMFL, painter@magnet.fsu.edu **PI:** Painter, T., NHMFL, painter@magnet.fsu.edu **Category:** Magnet Technology **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement: Yes** **Director's Recommendation: No** **Director's Comments:** None	Edited
	Title: Test Coils for the 32 T All-Superconducting Magnet **First Author:** Weijers, H.W., NHMFL, MS&T, weijers@magnet.fsu.edu	

175	**PI:** Markiewicz, W.D., NHMFL, MS&T, markwcz@magnet.fsu.edu **Category:** Magnet Technology **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Accepted by** IEEE Trans. Appl. Supercond. **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
186	**Title:** Niobium Grain Strain Investigation Using Electron Backscattered Diffraction (EBSD) **First Author:** Goddard, R E, National High Magnetic Field Laboratory, MS&T, goddard@magnet.fsu.edu **PI:** Goddard, R E, National High Magnetic Field Laboratory, MS&T, goddard@magnet.fsu.edu **Category:** Magnet Technology **Facility:** MS & T **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
191	**Title:** Analysis and Measurement of Induced Screening Current Effects on the Magnetic Field of Superconducting Coils Layer-Wound with (RE)BCO Coated Conductors **First Author:** Hilton, D.K., NHMFL, dkhilton@magnet.fsu.edu **PI:** Weijers, H.W., NHMFL, weijers@magnet.fsu.edu **Category:** Magnet Technology **Facility:** Applied Superconductivity Center **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
255	**Title:** Stacked-Tape Twist-Wind YBCO Cable Test **First Author:** Takayasu, M., MIT, PSFC, takayasu@psfc.mit.edu **PI:** Takayasu, M., MIT, PSFC, takayasu@psfc.mit.edu **Category:** Magnet Technology **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Accepted by** IEEE Trans. Appl. Supercond. **Sign. Achievement: Yes** **Director's Recommendation: No** **Director's Comments:** None	Edited
301	**Title:** Reducing Temporal Field Fluctuations in Powered Magnets Using Inductive Feedback **First Author:** McPheron, B.D., The Pennsylvania State University, mcpheron@psu.edu **PI:** Brey, W.W., NHMFL, wbrey@magnet.fsu.edu **Category:** Magnet Technology **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Not at this time **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
128	**Title:** Development of Binary 20 kA Bi-2223 HTS Current Leads for the NHMFL Series-Connected Hybrid Magnet **First Author:** Marshall, W.S., NHMFL-FSU, MS&T, wsmarshall@magnet.fsu.edu **PI:** Marshall, W.S., NHMFL-FSU, MS&T, wsmarshall@magnet.fsu.edu **Category:** Magnet Technology **Facility:** DC Field Facility **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation **Sign. Achievement:** No **Director's Recommendation: No** **Director's Comments:** None	Edited
149	**Title:** Field Mapping of a Test Coil in Preparation for a 24+ T Enhanced Homogeneity Magnet with $REBa_2Cu_3O_{7-x}$ Tape Conductor **First Author:** Dalban-Canassy, M., NHMFL, Applied Superconductivity Center, dalban@magnet.fsu.edu **PI:** Larbalestier, D.C., NHMFL, Applied Superconductivity Center, larbalestier@asc.magnet.fsu.edu **Category:** Magnet Technology **Facility:** Applied Superconductivity Center **UCGP:** No **VSP:** No **Publication Status:** Manuscript in preparation	Edited

	Sign. Achievement: No **Director's Recommendation: No** **Director's Comments:** None	
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