

# Toru Ogitsu

## List of Publications by Year in Descending Order

**Source:** <https://exaly.com/author-pdf/7467700/toru-ogitsu-publications-by-year.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

257  
papers

1,829  
citations

20  
h-index

27  
g-index

263  
ext. papers

2,010  
ext. citations

1.6  
avg, IF

3.78  
L-index

#	Paper	IF	Citations
257	Test Result of a Full-Scale Prototype of Beam Separation Dipole Magnet for the High-Luminosity LHC Upgrade. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2022</b> , 32, 1-7	1.8	
256	Magnetic Measurements of a Full-Scale Prototype of the HL-LHC Beam Separation Dipole. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2022</b> , 32, 1-7	1.8	1
255	Characterization of the Radiation Resistance of Glass Fiber Reinforced Plastics for Superconducting Magnets. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2022</b> , 32, 1-5	1.8	
254	Investigation of Irradiation Effect on REBCO Coated Conductors for Future Radiation-Resistant Magnet Applications. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2022</b> , 1-1	1.8	1
253	Repetitive Irradiation Tests at Cryogenic Temperature by Neutrons and Protons on Stabilizer Materials of Superconductor. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2022</b> , 1-1	1.8	
252	Influence of Zn Addition in Cu Matrix on the Mechanical and Superconducting Properties of Nb <sub>3</sub> Sn Conductor. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2022</b> , 32, 1-5	1.8	2
251	The High Luminosity LHC interaction region magnets towards series production. <i>Superconductor Science and Technology</i> , <b>2021</b> , 34, 053001	3.1	17
250	Development of Radiation-Tolerant HTS Magnet for Muon Production Solenoid. <i>Instruments</i> , <b>2020</b> , 4, 30	1.2	1
249	Development of a REBCO Magnet for Accelerator. <i>TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of Japan)</i> , <b>2020</b> , 55, 103-108	0.1	
248	AC Loss and Shielding-Current-Induced Field in a Coated-Conductor Test Magnet for Accelerator Applications under Repeated Excitations. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2020</b> , 30, 1-5	1.8	2
247	Improvement in Training Performance by Enhancing Coil Mechanical Support in the Beam Separation Dipole Model Magnet for the HL-LHC Upgrade. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2020</b> , 30, 1-6	1.8	3
246	Magnetic Field Design of a Full-Scale Prototype of the HL-LHC Beam Separation Dipole With Geometrical and Iron-Saturation Corrections. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2020</b> , 30, 1-6	1.8	2
245	Performance of the Quench Protection Heater for the HL-LHC Beam Separation Dipole. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2020</b> , 30, 1-6	1.8	2
244	Design of Lightweight Superconducting Magnets for a Rotating Gantry With Active Shielding. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2020</b> , 30, 1-5	1.8	2
243	Research and Development of Future Radiation-Resistant Superconducting Magnets With Mineral Insulated REBCO Coils. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2020</b> , 30, 1-5	1.8	2
242	Fabrication of a Model Magnet Using Coated Conductors for FFAG Accelerators. <i>TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of Japan)</i> , <b>2020</b> , 55, 98-102	0.1	
241	Overview of S-Innovation Project on Fundamental Technology of HTS Accelerator Magnets. <i>TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of Japan)</i> , <b>2020</b> , 55, 89-97	0.1	

240	COMET Phase-I technical design report. <i>Progress of Theoretical and Experimental Physics</i> , <b>2020</b> , 2020,	5.4	26
239	New precise measurements of muonium hyperfine structure at J-PARC MUSE. <i>EPJ Web of Conferences</i> , <b>2019</b> , 198, 00003	0.3	8
238	Electromechanical Characterization of the MgB <sub>2</sub> Wire for Transmission Line Magnet System. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2019</b> , 29, 1-4	1.8	2
237	A new approach for measuring the muon anomalous magnetic moment and electric dipole moment. <i>Progress of Theoretical and Experimental Physics</i> , <b>2019</b> , 2019,	5.4	56
236	Quench protection for high T <sub>c</sub> superconducting rotating gantry model magnet with I-V characteristics measured in the temperature range of 40-83 K. <i>Cryogenics</i> , <b>2019</b> , 100, 28-35	1.8	2
235	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2019</b> , 29, 1-7	1.8	7
234	Test of Cryocooler-Cooled RE-123 Magnet on HIMAC Beam Line in S-Innovation Program. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2019</b> , 29, 1-5	1.8	3
233	Development of an HTS Accelerator Magnet With REBCO Coils for Tests at HIMAC Beam Line. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2019</b> , 29, 1-5	1.8	9
232	Test Result of the HL-LHC Beam Separation Dipole Model Magnet With the New Iron Cross Section. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2019</b> , 29, 1-5	1.8	7
231	Training Performance With Increased Coil Prestress of the 2 m Model Magnet of Beam Separation Dipole for the HL-LHC Upgrade. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2018</b> , 28, 1-5	1.8	8
230	Influence of gamma ray irradiation on thermal conductivity of bismaleimide-triazine-based insulation tape at cryogenic temperature. <i>Cryogenics</i> , <b>2018</b> , 89, 107-112	1.8	1
229	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2018</b> , 28, 1-5	1.8	5
228	Status of the 16 T Dipole Development Program for a Future Hadron Collider. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2018</b> , 28, 1-5	1.8	33
227	Magnetic design and method of a superconducting magnet for muon g <sub>2</sub> /EDM precise measurements in a cylindrical volume with homogeneous magnetic field. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2018</b> , 898, 51-63	1.2	13
226	Quench Protection Heater Study With the 2-m Model Magnet of Beam Separation Dipole for the HL-LHC Upgrade. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2018</b> , 28, 1-5	1.8	5
225	Field Measurement to Evaluate Iron Saturation and Coil End Effects in a Modified Model Magnet of Beam Separation Dipole for the HL-LHC Upgrade. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2018</b> , 28, 1-5	1.8	5
224	Application to the Accelerator. <i>Journal of the Institute of Electrical Engineers of Japan</i> , <b>2018</b> , 138, 426-429		
223	High precision measurement of muonium hyperfine structure. <i>Journal of Physics: Conference Series</i> , <b>2018</b> , 1138, 012008	0.3	1

222	Beam Optics Design of Stretcher Ring and Transfer Line for J-PARC Slow Extraction. <i>Journal of Physics: Conference Series</i> , <b>2018</b> , 1067, 042004	0.3	1
221	Magnetic Field Measurement of 2-m-Long Model of Beam Separation Dipole for the HL-LHC Upgrade. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2017</b> , 27, 1-5	1.8	11
220	The 16 T Dipole Development Program for FCC. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2017</b> , 27, 1-5	1.8	72
219	Fabrication and Test Results of the First 2 m Model Magnet of Beam Separation Dipole for the HL-LHC Upgrade. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2017</b> , 27, 1-9	1.8	12
218	Mechanical Analysis of Pion Capture Superconducting Solenoid System for COMET Experiment at J-PARC. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2017</b> , 27, 1-5	1.8	3
217	Fabrication and Excitation of a Model Magnet Using Coated Conductors for Spiral Sector FFAG Accelerators. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2017</b> , 27, 1-5	1.8	2
216	Field Quality Measurement of an HTS Magnet for a Rotating Gantry. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2017</b> , 27, 1-5	1.8	8
215	Design Study of Superconducting Transmission Line Magnet for J-PARC MR Upgrade. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2017</b> , 27, 1-5	1.8	4
214	Design and Test Results of Superconducting Magnet for Heavy-Ion Rotating Gantry. <i>Journal of Physics: Conference Series</i> , <b>2017</b> , 871, 012083	0.3	7
213	Corrections to Design and Magnetic Field Analyses of Spiral Sector Magnet in an FFAG Accelerator for Carbon Cancer Therapy [Jun 16 Art. no. 4402206]. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2017</b> , 27, 1-1	1.8	
212	New precise measurement of muonium hyperfine structure interval at J-PARC. <i>Hyperfine Interactions</i> , <b>2017</b> , 238, 1	0.8	3
211	Delivering the world's most intense muon beam. <i>Physical Review Accelerators and Beams</i> , <b>2017</b> , 20,	1.8	24
210	Research and Development of the Coil System for a Beam Transport and Irradiation Line. <i>TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of Japan)</i> , <b>2017</b> , 52, 234-243	0.1	
209	Influence of magnetization on field quality in cosine-theta and block design dipole magnets wound with coated conductors. <i>Superconductor Science and Technology</i> , <b>2016</b> , 29, 045012	3.1	6
208	Development of high radiation-resistant glass fiber reinforced plastics with cyanate-based resin for superconducting magnet systems. <i>Fusion Engineering and Design</i> , <b>2016</b> , 112, 418-424	1.7	21
207	New muonium HFS measurements at J-PARC/MUSE. <i>Hyperfine Interactions</i> , <b>2016</b> , 237, 1	0.8	7
206	Cryogenic system for COMET experiment at J-PARC. <i>Cryogenics</i> , <b>2016</b> , 77, 25-35	1.8	3
205	Magnetisation and field quality of a cosine-theta dipole magnet wound with coated conductors for rotating gantry for hadron cancer therapy. <i>Superconductor Science and Technology</i> , <b>2016</b> , 29, 024006	3.1	28

204	Design and Experimental Study of a Model Magnet for Spiral-Sector FFAG Accelerators. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2016</b> , 26, 1-5	1.8	7
203	Design and Magnetic Field Analyses of Spiral Sector Magnet in an FFAG Accelerator for Carbon Cancer Therapy. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2016</b> , 26, 1-6	1.8	4
202	Study of Magnetic Field Measurement System for g-2/EDM Experiment at J-PARC. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2016</b> , 26, 1-4	1.8	3
201	Development Status of a 2-m Model Magnet of Beam Separation Dipole for the HL-LHC Upgrade. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2016</b> , 1-1	1.8	5
200	Development of a 200-mm Short Model of Beam Separation Dipole for HL-LHC Upgrade. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2016</b> , 26, 1-5	1.8	1
199	Development of HTS Magnet for Rotating Gantry. <i>Physics Procedia</i> , <b>2016</b> , 81, 162-165		2
198	Thermal Stability of Conduction-Cooled HTS Magnets for Rotating Gantry. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2016</b> , 26, 1-4	1.8	5
197	Influence of Manufacturing Accuracy on Magnetic Field Distribution in Magnet for HTS Rotating Gantry. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2016</b> , 26, 1-4	1.8	2
196	Measurement of thermal contact conductance between round-shaped superconducting wires and rectangular slot in copper block for application to cryogenic transfer tube. <i>International Journal of Heat and Mass Transfer</i> , <b>2016</b> , 103, 165-172	4.9	2
195	Progress of Fundamental Technology R&D Toward Accelerator Magnets Using Coated Conductors in S-Innovation Program. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2015</b> , 25, 1-5	1.8	17
194	Measurement of the displacement cross-section of copper irradiated with 125 MeV protons at 12 K. <i>Journal of Nuclear Materials</i> , <b>2015</b> , 458, 369-375	3.3	12
193	Fabrication of Three-Dimensional HTS Coils for Accelerator Magnets. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2015</b> , 25, 1-4	1.8	4
192	Model Magnet Development of D1 Beam Separation Dipole for the HL-LHC Upgrade. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2015</b> , 25, 1-5	1.8	21
191	Test Results of a Nb3Al/Nb3Sn Subscale Magnet for Accelerator Application. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2015</b> , 25, 1-5	1.8	9
190	Status of Superconducting Solenoid System for COMET Phase-I Experiment at J-PARC. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2015</b> , 25, 1-4	1.8	13
189	Design of a Cosine-theta Dipole Magnet Wound with Coated Conductors Considering their Deformation at Coil ends During Winding Process. <i>Physics Procedia</i> , <b>2015</b> , 67, 776-780		7
188	Design of Conduction-cooled HTS Coils for a Rotating Gantry. <i>Physics Procedia</i> , <b>2015</b> , 67, 879-884		10
187	Influence of neutron irradiation on conduction cooling superconducting magnets. <i>IOP Conference Series: Materials Science and Engineering</i> , <b>2015</b> , 101, 012054	0.4	2

186	Temporal behaviour of multipole components of the magnetic field in a small dipole magnet wound with coated conductors. <i>Superconductor Science and Technology</i> , <b>2015</b> , 28, 035003	3.1	25
185	A Novel Magnet Design Using Coated Conductor for Spiral Sector FFAG Accelerators. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2014</b> , 24, 1-5	1.8	5
184	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2014</b> , 24, 1-4	1.8	
183	Prototype Conduction Cooled Capture Solenoid Test Design and Plans. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2014</b> , 24, 1-4	1.8	
182	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2014</b> , 24, 1-5	1.8	17
181	Current status of the J-PARC muon facility, MUSE. <i>Journal of Physics: Conference Series</i> , <b>2014</b> , 551, 012061.3	1.3	13
180	Superconducting properties of experimental YBCO coils for FFAG accelerator magnets. <i>Journal of Physics: Conference Series</i> , <b>2014</b> , 507, 032048	0.3	3
179	Magnetic Field Harmonics Measurements of Conduction-Cooled Dipole Magnets Wound With Coated Conductors. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2014</b> , 1-1	1.8	1
178	A Highly intense DC muon source, MuSIC and muon CLFV search. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , <b>2014</b> , 253-255, 206-207		7
177	Recent R&D on Superconducting Wires for High-Field Magnet. <i>Materials Science Forum</i> , <b>2014</b> , 783-786, 2081-2090	0.4	4
176	Development of a compact superconducting rotating-gantry for heavy-ion therapy. <i>Journal of Radiation Research</i> , <b>2014</b> , 55, i24-i25	2.4	5
175	Positron separators in Superomega muon beamline at J-PARC. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2013</b> , 317, 365-368	1.2	6
174	Magnetic Field Design of Combined-function Magnets Wound with Coated Conductors. <i>Physics Procedia</i> , <b>2013</b> , 45, 237-240		3
173	Development of Saddle-Shaped Coils Using Coated Conductors for Accelerator Magnets. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2013</b> , 23, 4100404-4100404	1.8	13
172	Development of a Radiation Resistant Superconducting Solenoid Magnet for mu-e Conversion Experiments. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2013</b> , 23, 4101404-4101404	1.8	11
171	Design of a Large Single-Aperture Dipole Magnet for HL-LHC Upgrade. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2013</b> , 23, 4001305-4001305	1.8	5
170	Status of Superconducting Magnet System for J-PARC Neutrino Beam Line. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2013</b> , 23, 4001506-4001506	1.8	1
169	Cryogenic Design of a Superconducting Solenoid for Muonium Hyperfine Structure Measurement. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2013</b> , 23, 3800204-3800204	1.8	2



168	Superconducting Magnet Design for the Hyperfine Structure Measurement of Muonium at the J-PARC. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2013</b> , 23, 4500704-4500704	1.8	3
167	Effect of Thermal Cycle on the Lattice Structure in $\text{RnQ-Nb}_3\text{Al}$ Superconducting Wire. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2013</b> , 23, 6000704-6000704	1.8	
166	Superconducting curved transport solenoid with dipole coils for charge selection of the muon beam. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2013</b> , 317, 361-364	1.2	5
165	Development of a superconducting rotating-gantry for heavy-ion therapy. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , <b>2013</b> , 317, 793-797	1.2	21
164	Development of a cryogenic load frame for the neutron diffractometer at Takumi in Japan Proton Accelerator Research Complex. <i>Review of Scientific Instruments</i> , <b>2013</b> , 84, 063106	1.7	13
163	Progress of Research and Development of Fundamental Technologies for Accelerator Magnets Using Coated Conductors. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2013</b> , 23, 4601905-4601905	1.8	17
162	Development of a high gradient rf system using a nanocrystalline soft magnetic alloy. <i>Physical Review Special Topics: Accelerators and Beams</i> , <b>2013</b> , 16,		8
161	J-PARC MUSE H-line optimization for the g-2 and MuHFS experiments. <i>Journal of Physics: Conference Series</i> , <b>2013</b> , 408, 012073	0.3	0
160	Development status of superconducting solenoid for the MuHFS experiment at the J-PARC. <i>Journal of Physics: Conference Series</i> , <b>2013</b> , 408, 012074	0.3	6
159	First measurements of muon production rate using a novel pion capture system at MuSIC. <i>Journal of Physics: Conference Series</i> , <b>2013</b> , 408, 012079	0.3	4
158	Challenge to Functional, Efficient, and Compact Accelerator Systems using High Tc Superconductors. <i>TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of Japan)</i> , <b>2013</b> , 48, 23-30	0.1	
157	Fabrication of YBCO Small Test Coils for Accelerator Magnet Development. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2012</b> , 22, 4101904-4101904	1.8	12
156	Design of a superconducting rotating gantry for heavy-ion therapy. <i>Physical Review Special Topics: Accelerators and Beams</i> , <b>2012</b> , 15,		68
155	Status of the Superomega Muon Beam Line at J-PARC. <i>Physics Procedia</i> , <b>2012</b> , 30, 34-37		5
154	Observation of A15 phase transformation in $\text{RnQ-Nb}_3\text{Al}$ wire by neutron diffraction at high-temperature. <i>Journal of Alloys and Compounds</i> , <b>2012</b> , 535, 124-128	5.7	8
153	R&D Efforts Towards High Field Accelerator Magnets at KEK. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2012</b> , 22, 4003205-4003205	1.8	5
152	In-Line Control in T2K Proton Beam Line Magnet Safety System. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2012</b> , 22, 4702104-4702104	1.8	2
151	Conceptual Design of a Large-Aperture Dipole Magnet for HL-LHC Upgrade. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2012</b> , 22, 4901404-4901404	1.8	15

150	Measurements of Magnetic Field Harmonics in Superconductor Coil Wound by Surface Winding Technology. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2012</b> , 22, 9000404-9000404	1.8	3
149	Tensile strain dependence of critical current of RHQ-Nb3Al wires. <i>Cryogenics</i> , <b>2012</b> , 52, 805-809	1.8	9
148	Research and development of fundamental technologies for accelerator magnets using high Tc superconductors. <i>Physica C: Superconductivity and Its Applications</i> , <b>2012</b> , 482, 74-79	1.3	23
147	Low-temperature neutron irradiation tests of superconducting magnet materials using reactor neutrons at KUR <b>2012</b> ,		6
146	Magnetic Field Design of Coil-Dominated Magnets Wound With Coated Conductors. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2012</b> , 22, 4901705-4901705	1.8	16
145	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2012</b> , 22, 6001804-6001804	1.8	1
144	Development of a Superconducting Solenoid for Hyperfine Structure Measurement of Muonium at the J-PARC. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2012</b> , 22, 4500904-4500904	1.8	2
143	Residual strain dependence on the matrix structure in RHQ-Nb3Al wires by neutron diffraction measurement. <i>Superconductor Science and Technology</i> , <b>2012</b> , 25, 065021	3.1	10
142	Superconducting Solenoid Magnets for the COMET Experiment. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2011</b> , 21, 1730-1733	1.8	8
141	Magnetic Field Design of Dipole Magnet Wound With Coated Conductor Considering Its Current Transport Characteristics. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2011</b> , 21, 1833-1837	1.8	17
140	Ultra Slow Muon Microscopy for Nano-science. <i>Journal of Physics: Conference Series</i> , <b>2011</b> , 302, 012038	0.3	4
139	Magnetic field and structure analysis of a superconducting dipole magnet for a rotating gantry. <i>Physica C: Superconductivity and Its Applications</i> , <b>2011</b> , 471, 1445-1448	1.3	4
138	Design and Fabrication of the Mu2e Cable Test Solenoid. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2011</b> , 21, 2324-2326	1.8	
137	Conceptual Design of a Superconducting Solenoid System for the Super Omega Muon Beam Line at J-PARC. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2011</b> , 21, 1725-1729	1.8	6
136	Superconducting Solenoid Magnets for the MuSIC Project. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2011</b> , 21, 1752-1755	1.8	14
135	Status of Superconducting Magnet System for the J-PARC Neutrino Beam Line. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2011</b> , 21, 1700-1704	1.8	2
134	Quench Protection of Curved Solenoids for High Intensity Muon Beamlines. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2011</b> , 21, 1734-1737	1.8	1
133	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2011</b> , 21, 1748-1751	1.8	7



132	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2011</b> , 21, 1742-1747	1.8	5
131	Stress/Strain Effects on Industrial Superconducting Composites. <i>Materials Science Forum</i> , <b>2011</b> , 681, 209-214	0.4	3
130	Study of Superconducting Curved Solenoids for a High Intensity Muon Beam Line. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2010</b> , 20, 1948-1951	1.8	
129	Commissioning Results of Superconducting Magnet System for the Neutrino Beam Line. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2010</b> , 20, 242-245	1.8	6
128	Construction of Superconducting Magnet System for the J-PARC Neutrino Beam Line. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2010</b> , 20, 208-213	1.8	16
127	CRYOGENIC PERFORMANCE OF A SUPERCONDUCTING MAGNET SYSTEM FOR THE J-PARC NEUTRINO BEAM LINE <b>2010</b> ,		2
126	The Next Generation Muon Source at J-PARC/MLF <b>2010</b> ,		5
125	CRYOGENIC SYSTEM FOR J-PARC NEUTRINO SUPERCONDUCTING MAGNET BEAM LINE DESIGN, CONSTRUCTION AND PERFORMANCE TEST <b>2010</b> ,		3
124	Multi-Pole Components of Magnetic Field in Dipole Magnets Wound With High $T_{\text{c}}$ Superconductor Tape and Feasibility of Their Accelerator Applications. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2010</b> , 20, 364-367	1.8	9
123	Superconducting Magnet System for the J-PARC Neutrino Beam Line. <i>TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of Japan)</i> , <b>2010</b> , 45, 166-173	0.1	
122	Ultra Slow Muon Project at J-PARC, MUSE <b>2009</b> ,		9
121	Design Study of a Curved Dipole Superconducting Magnet for Beam Transport. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2009</b> , 19, 1199-1202	1.8	2
120	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2009</b> , 19, 1081-1086	1.8	6
119	Test Results of Superconducting Magnets for the J-PARC Neutrino Beam Line. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2009</b> , 19, 1125-1130	1.8	7
118	The super omega muon beamline at J-PARC. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2009</b> , 600, 132-134	1.2	9
117	Design of the Large Acceptance Muon Beamline at J-PARC. <i>AIP Conference Proceedings</i> , <b>2008</b> ,	0	12
116	Magnetic Field Measurement System in Superconducting Combined Function Magnets for the J-PARC Neutrino Beam Line. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2008</b> , 18, 142-145	1.8	4
115	Performance Tests of Superconducting Combined Function Magnets in the First Full-Scale Prototype Cryostat for the J-PARC Neutrino Beam Line. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2007</b> , 17, 1255-1258	1.8	5

114	Test Results of Superconducting Combined Function Magnets for the J-PARC Neutrino Beam Line. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2007</b> , 17, 1083-1086	1.8	8
113	Prototype superconducting magnet for the FFAG accelerator. <i>Fusion Engineering and Design</i> , <b>2006</b> , 81, 2541-2547	1.7	5
112	Production and Installation of the LHC Low- $\beta$ Triplets. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2006</b> , 16, 437-440	1.8	7
111	Field Quality Change in Accelerator Magnets Due to Re-Magnetization of Superconductor. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2006</b> , 16, 257-260	1.8	
110	Alignment in a Warm Measurement of the J-PARC Combined Function Magnet. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2006</b> , 16, 1338-1341	1.8	6
109	Test Results of Superconducting Combined Function Prototype Magnets for the J-PARC Neutrino Beam Line. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2006</b> , 16, 158-163	1.8	6
108	Development of a Prototype Superconducting Magnet for the FFAG Accelerator. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2006</b> , 16, 216-219	1.8	6
107	Mechanical Properties of Organic Materials Used in Superconducting Magnets Irradiated by Gamma Rays at Liquid Nitrogen Temperature. <i>AIP Conference Proceedings</i> , <b>2006</b> ,	0	2
106	Evolved Gases from Organic Materials Used in the Superconducting Magnets Irradiated by Gamma Rays at Liquid Nitrogen Temperature. <i>AIP Conference Proceedings</i> , <b>2006</b> ,	0	2
105	Development of a prototype of Superconducting combined function magnet for the 50 GeV proton beam line for the J-PARC neutrino experiment. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2005</b> , 15, 1144-1147	1.8	11
104	Production and measurement of the MQXA series of LHC low- $\beta$ insertion quadrupoles. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2005</b> , 15, 1084-1089	1.8	14
103	Test results of LHC interaction regions quadrupoles produced by Fermilab. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2005</b> , 15, 1090-1093	1.8	6
102	Measurement of radiation heating induced by secondary particles from 12-GeV primary proton beam interactions. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2005</b> , 545, 88-96	1.2	1
101	Magnetic design of a FFAG superconducting magnet. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , <b>2005</b> , 149, 283-285		
100	The MQXA quadrupoles for the LHC low- $\beta$ insertions. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2005</b> , 550, 499-513 <sup>1.2</sup>		20
99	Magnetic field design of a Superconducting magnet for a FFAG accelerator. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2005</b> , 15, 1185-1188	1.8	21
98	Superconducting combined function magnet system for J-PARC neutrino experiment. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2005</b> , 15, 1175-1180	1.8	10
97	Magnetization property of Bi-2212 round wires. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2004</b> , 14, 1098-1101	1.8	2

96	Study of time dependent magnetic field variation due to current redistribution in Rutherford cable. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2004</b> , 14, 255-258	1.8	4
95	The magnet design study for the FFAG accelerator. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2004</b> , 14, 397-401	1.8	4
94	Magnetic field measurements of the LHC-IR MQXA magnets at room temperature. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2004</b> , 14, 239-242	1.8	2
93	Magnetic field characteristics of the low-beta quadrupole magnets, MQXA, for LHC. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2004</b> , 14, 191-194	1.8	4
92	Design of superconducting combined function magnets for the 50 GeV proton beam line for the J-PARC neutrino experiment. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2004</b> , 14, 616-619	1.8	27
91	Quench stability against beam-loss in superconducting magnets at the 50 GeV proton beam line for the J-PARC neutrino experiment. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2004</b> , 14, 592-595	1.8	7
90	Test results from the LQXB quadrupole production program at Fermilab for the LHC interaction regions. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2004</b> , 14, 187-190	1.8	7
89	Superconducting magnet system at the 50 GeV proton beam line for the J-PARC neutrino experiment. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2004</b> , 14, 604-607	1.8	23
88	Gamma-ray Irradiation Effects at 77K on Organic Materials Used in Superconducting Magnets for the J-PARC Neutrino Experiment (2 Evolved Gases). <i>The Proceedings of the JSME Annual Meeting</i> , <b>2004</b> , 2004.1, 99-100		
87	Gamma ray irradiation test of super insulator (Polyimide and polyester). <i>The Proceedings of the JSME Annual Meeting</i> , <b>2004</b> , 2004.1, 101-102		
86	Gamma-ray Irradiation Effects at 77K on Organic Materials Used in Superconducting Magnets for the J-PARC Neutrino Experiment (1 Mechanical Properties). <i>The Proceedings of the JSME Annual Meeting</i> , <b>2004</b> , 2004.1, 97-98		
85	Test results of a variant-design LHC twin-aperture dipole magnet. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2003</b> , 13, 1313-1316	1.8	1
84	Production and performance of the LHC interaction region quadrupoles at KEK. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2003</b> , 13, 1321-1324	1.8	8
83	Current redistribution and stability of superconducting triplex cable without electrical insulation carrying non-uniform current. <i>Cryogenics</i> , <b>2003</b> , 43, 249-254	1.8	2
82	The interaction region of KEKB. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2003</b> , 499, 75-99	1.2	13
81	Time dependence of magnetic periodic patterns measured on the MQXA magnets for the LHC-IR. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2003</b> , 13, 1317-1320	1.8	2
80	A pressurized He II cryogenic system for the superconducting magnet test facility at KEK. <i>AIP Conference Proceedings</i> , <b>2002</b> ,	0	2
79	Status of the LHC low-beta insertion quadrupole magnet development at KEK. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2002</b> , 12, 183-187	1.8	11

78	Warm magnetic field measurements of prototype low-/spl beta/ quadrupole magnet MQXA for the LHC interaction regions. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2002</b> , 12, 1663-1666	1.8	8
77	Test results of the third LHC main quadrupole magnet prototype at CEA/Saclay. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2002</b> , 12, 266-269	1.8	1
76	Magnetic field error analysis of a low-/spl beta/ quadrupole magnet. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2002</b> , 12, 215-218	1.8	2
75	Magnetic field measurements of the prototype LHC-IR MQXA at 1.9 K. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2002</b> , 12, 188-191	1.8	10
74	Quench protection study of a prototype for the LHC low-beta quadrupole magnets. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2002</b> , 12, 170-173	1.8	4
73	Fabrication and mechanical behavior of a prototype for the LHC low-beta quadrupole magnets. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2002</b> , 12, 174-178	1.8	6
72	Field measurement of a Fermilab-built full scale prototype quadrupole magnet for the LHC interaction regions. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2002</b> , 12, 254-257	1.8	6
71	Analytical calculation of field error due to radial coil distortions of the LHC low-beta quadrupole magnets. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2002</b> , 12, 1693-1696	1.8	5
70	8-kA HTS current leads for 1.9 K test facility at KEK. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2002</b> , 12, 1323-1327	1.8	5
69	Influence of current redistribution on quench propagation velocity in Rutherford cable. <i>Cryogenics</i> , <b>2001</b> , 41, 563-572	1.8	1
68	Progress of LHC low-/spl beta/ quadrupole magnets at KEK. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2001</b> , 11, 1562-1565	1.8	20
67	Quench protection heater studies of the 3rd 1-m model magnet for the KEK-LHC low-/spl beta/ quadrupoles. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2001</b> , 11, 1621-1624	1.8	3
66	Status of the LHC inner triplet quadrupole program at Fermilab. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2001</b> , 11, 1558-1561	1.8	17
65	Quench performance of Fermilab model magnets for the LHC inner triplet quadrupoles. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2001</b> , 11, 1633-1636	1.8	
64	Quench performance and mechanical behavior of 1 m model magnet for the LHC low-beta quadrupoles at KEK. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2001</b> , 11, 1637-1640	1.8	4
63	Field quality in Fermilab-built models of quadrupole magnets for the LHC interaction region. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2001</b> , 11, 1566-1569	1.8	11
62	The Superfluid Helium Technology for Superconducting Application. Database Development for He II-cooled Superconducting Magnet System Design.. <i>TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of Japan)</i> , <b>2001</b> , 36, 671-674	0.1	2
61	The Influence of Current Redistribution on Quench Propagation Velocity in Rutherford Cable.. <i>TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of Japan)</i> , <b>2001</b> , 36, 51-59	0.1	

60	Normal zone propagation process accompanied by current redistribution in superconducting triplex cables. <i>Cryogenics</i> , <b>2000</b> , 40, 655-662	1.8	3
59	Quenching behaviour of quadrupole model magnets for the LHC inner triplets at Fermilab. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2000</b> , 10, 103-106	1.8	3
58	Magnetic design of a low-/spl beta/ quadrupole magnet for the LHC interaction regions. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2000</b> , 10, 135-138	1.8	14
57	Conceptual design study of high field magnets for very large hadron collider. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2000</b> , 10, 310-313	1.8	11
56	Analysis of mechanical tolerances of a low-/spl beta/ quadrupole magnet for the LHC. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2000</b> , 10, 131-134	1.8	12
55	Training characteristics of 1-m model magnets for the LHC low-/spl beta/ quadrupoles. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2000</b> , 10, 143-146	1.8	3
54	Field quality of two 1-m model magnets for LHC low-/spl beta/ quadrupole magnets. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2000</b> , 10, 139-142	1.8	4
53	Recent results from the LHC inner triplet quadrupole development program at Fermilab. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2000</b> , 10, 57-60	1.8	4
52	Field quality in Fermilab-built models of high gradient quadrupole magnets for the LHC interaction regions. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2000</b> , 10, 107-110	1.8	9
51	Correction of high gradient quadrupole harmonics with magnetic shims. <i>IEEE Transactions on Applied Superconductivity</i> , <b>2000</b> , 10, 123-126	1.8	11
50	Quench and mechanical behavior of an LHC low-/spl beta/ quadrupole model. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1999</b> , 9, 697-700	1.8	7
49	Superconducting magnets for the interaction region of KEKB. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1999</b> , 9, 1045-1048	1.8	5
48	Non-uniform current distribution in superconducting cables exposed to external magnetic field and its influence on stability. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1999</b> , 9, 579-582	1.8	4
47	Test results of a single aperture dipole model magnet for LHC. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1999</b> , 9, 467-470	1.8	1
46	Magnetic field measurements of a 1-m long model quadrupole magnet for the LHC interaction region. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1999</b> , 9, 451-454	1.8	2
45	Influence of interstrand current redistribution on acceleration of quench propagation in eight-strand Rutherford cables. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1999</b> , 9, 266-269	1.8	4
44	Influence of current re-distribution on minimum quench energy of superconducting triplex cable against local disturbance. <i>Cryogenics</i> , <b>1998</b> , 38, 559-568	1.8	19
43	Study of quench propagation with quench antennas. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>1998</b> , 416, 9-17	1.2	8

42	Development of a 56 mm aperture superconducting dipole model magnet for LHC. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1997</b> , 7, 558-561	1.8	0
41	Design study of a superconducting insertion quadrupole magnet for the Large Hadron Collider. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1997</b> , 7, 747-750	1.8	23
40	Test results of spare TRISTAN insertion quadrupole magnet with yoke added in superfluid helium. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1997</b> , 7, 570-573	1.8	1
39	Field quality measurements of spare TRISTAN insertion quadrupole magnet with yoke added. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1997</b> , 7, 574-577	1.8	2
38	Cooling Performance of a Pressurized HeII Cryogenics System for the Superconducting Magnet Test Facility at KEK <b>1997</b> , 419-422		3
37	Quench observation using quench antennas on RHIC IR quadrupole magnets. <i>IEEE Transactions on Magnetics</i> , <b>1996</b> , 32, 3098-3101	2	7
36	Test results of a single aperture 10 tesla dipole model magnet for the Large Hadron Collider. <i>IEEE Transactions on Magnetics</i> , <b>1996</b> , 32, 2116-2119	2	2
35	Development and test results of the prototype active shield dipole magnets for the KEK B-Factory. <i>IEEE Transactions on Magnetics</i> , <b>1996</b> , 32, 2120-2123	2	1
34	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1995</b> , 5, 867-870	1.8	1
33	Liquid He Free Conduction Cooled Superconducting Magnet for a X-band Klystron.. <i>IEEJ Transactions on Industry Applications</i> , <b>1995</b> , 115, 1270-1275	0.2	
32	. <i>IEEE Transactions on Magnetics</i> , <b>1994</b> , 30, 1738-1741	2	1
31	Influence of azimuthal coil size variations on magnetic field harmonics of superconducting particle accelerator magnets. <i>Review of Scientific Instruments</i> , <b>1994</b> , 65, 1998-2005	1.7	5
30	. <i>IEEE Transactions on Magnetics</i> , <b>1994</b> , 30, 2273-2276	2	30
29	Periodicity of crossover currents in a Rutherford-type cable subjected to a time-dependent magnetic field. <i>Journal of Applied Physics</i> , <b>1994</b> , 75, 3176-3183	2.5	39
28	Ramp-Rate Sensitivity of SSC Dipole Magnet Prototypes.. <i>TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of Japan)</i> , <b>1994</b> , 29, 424-452	0.1	1
27	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1993</b> , 3, 696-698	1.8	
26	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1993</b> , 3, 686-691	1.8	5
25	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1993</b> , 3, 658-661	1.8	7



24	. <i>IEEE Transactions on Applied Superconductivity</i> , <b>1993</b> , 3, 674-677	1.8	5
23	Quench propagation velocity for highly stabilized conductors. <i>Cryogenics</i> , <b>1993</b> , 33, 449-453	1.8	5
22	Cryogenic system for TRISTAN superconducting RF cavities. <i>Fusion Engineering and Design</i> , <b>1993</b> , 20, 491-498	1.7	1
21	About the mechanics of SSC dipole magnet prototypes <b>1992</b> ,		16
20	. <i>IEEE Transactions on Magnetics</i> , <b>1992</b> , 28, 303-306	2	1
19	. <i>IEEE Transactions on Magnetics</i> , <b>1992</b> , 28, 307-310	2	3
18	Review of SSC Dipole Magnet Mechanics and Quench Performance <b>1992</b> , 113-136		6
17	A Summary of SSC Dipole Magnet Field Quality Measurements <b>1992</b> , 137-149		2
16	Magnetic Field Measurements of Fermilab/General Dynamics Built Full Scale SSC Collider Dipole Magnets <b>1992</b> , 251-258		2
15	Quench Performance of Fermilab/General Dynamics Built Full Length SSC Collider Dipole Magnets <b>1992</b> , 365-372		5
14	Design, fabrication, and test of a 5-cm aperture, 1-m long superconducting dipole prototype for high energy Hadron collider. <i>IEEE Transactions on Magnetics</i> , <b>1991</b> , 27, 1743-1747	2	5
13	Investigation of wire motion in superconducting magnets. <i>IEEE Transactions on Magnetics</i> , <b>1991</b> , 27, 2132-2135	17	
12	Fabrication and Test of a 5-cm Aperture, 1-m Long SSC Collider Dipole Magnet <b>1991</b> , 615-624		5
11	Cryogenic System for Tristan Superconducting RF Cavity. <i>Advances in Cryogenic Engineering</i> , <b>1988</b> , 615-622		3
10	A Prototype Superconducting Insertion Quadrupole Magnet for Tristan <b>1986</b> , 173-180		1
9	Dynamic field quality of LHC/Saclay arc quadrupole magnet prototype		4
8	Development of Superconducting Combined Function Magnets for the Proton Transport Line for the J-PARC Neutrino Experiment		14
7	Status of LHC low-/spl beta/ quadrupole magnets, MQXA, AT KEK		1

6	Development of LHC low-/spl beta/ quadrupole magnets at KEK	4
5	Field quality of quadrupole R&D models for the LHC IR	4
4	Conceptual design of the Fermilab Nb/sub 3/Sn high field dipole model	4
3	Quench antennas for RHIC quadrupole magnets	2
2	Superconducting focusing solenoid for X-band klystron	1
1	Quench antenna for superconducting particle accelerator magnets	2