

	Sunday	Monday 29.08.2016	Tuesday 30.08.2016	Wednesday 31.08.2016	Thursday 01.09.2016	
08:00		Poster installation HMZ				
9:00 - 10:30		<p>Opening: Oliver Gutfleisch & Matthias Katter</p> <p>[O1] Resources, extraction and recycling I Chair: <u>Roland Gauss</u></p> <p>[O1-0915] Mike Vaisey (Lynas, Australia) "Delivering an Environmentally responsible and traceable supply chain for rare earths"</p> <p>[O1-0945] Paulo Wendhausen; Fernando Landgraf; João Batista Ferreira Neto; Andre Nunis; João Ricardo Silveira "Didymium obtained from rare earth oxides produced in Araxá, Brazil"</p> <p>[O1-1000] Manuel Miguiditchian; Vincent Haquin; Eugen Andreiadis; Jerome Serp; Didier Hartmann; Richard Laucournet; Rolf Blank "Development of a new process for the selective rare earth recovery from permanent magnets"</p> <p>[O1-1015] Matthew Farr; Pawel Sitarz; Boris Saje; Richard Sheridan; Andrew Bradshaw; Vicky Mann; Ivor Rex Harris; Allan Walton "Production of injection moulded NdFeB magnets from recycled hard disk drive voice coil magnets"</p>	<p>[O5] Cerium substituted Nd-Fe-B magnets Chair: <u>Gareth Hatch</u></p> <p>[O5-0900] Xiaodong Fan "The effect of Ce distribution on the magnetic properties of Nd-Ce-Fe-B sintered magnets"</p> <p>[O5-0930] Claire V. Collin; Massaki Ito; Masao Yano; Nora Dempsey; Emmanuelle Suard; Dominique Givord "Solid-solution stability and site-preference occupancy in (R-R')₂Fe₁₄B compounds"</p> <p>[O5-0945] Bahar Fayazi; Konstantin Skokov; Christoph Schwöbel; Konrad Loewe; Oliver Gutfleisch "Intrinsic and extrinsic magnetic properties of (Nd,Ce)₂(Fe,Co)₁₄B: From single crystal to sintered permanent magnet"</p> <p>[O5-1000] Masao Yano; Tetsuro Ueno; Kotaro Saito; Kanta Ono; Uwe Keiderling; Masaaki Ito; Tetsuya Shoji; Noritsugu Sakuma; Akira Kato; Akira Manabe "Magnetic domain structures in core-shell structured nano-crystalline R-Fe-B magnets by small-angle neutron scattering"</p> <p>[O5-1015] Hai Bo Feng; Wei Li; Ning Zou; Ju Gen Zheng; Ming Gang Zhu; Wei Li "Fabrication and Coercivity Reinforcement of Novel Ce-magnet with Dual-Magnetic-Phase Microstructure"</p>	<p>[O8] Applications: motors Chair: <u>Michael Krispin</u></p> <p>[O8-0900] Tetsuya Shoji "Magnetic Materials Research for Vehicle Motor Application"</p> <p>[O8-0930] Matthias Katter; Axel Regnat; Christoph Brombacher "Anisotropic soft magnetic materials for motor applications"</p> <p>[O8-0945] Sunny Zhang; Enrico Carraro; Jacek Junak; Stefan Weber "Dy-/Tb-free NdFeB Magnet Motor Design, Validation and Optimization"</p> <p>[O8-1000] Björn Deusinger; Andreas Binder "Different rotor geometry concepts for high pole count permanent magnet machines with buried magnets"</p> <p>[O8-1015] Richard Sheridan; Mohammad Kimiabeigi; James Widmer; Andrew Bradshaw; Ivor Rex Harris; Dr Allan Walton "The use of recycled NdFeB magnets in a traction motor"</p>	<p>[O11] Thin films and nanocomposites Chair: <u>Hiroaki Kato</u></p> <p>[O11-0900] Nora Dempsey (CNRS Grenoble) "RE-TM micro-magnets for MEMS and bio-medical applications"</p> <p>[O11-0930] Hossein Sepehri Amin; Imants Dirba; Christoph Schwöbel; Tadakatsu Ohkubo; Kazuhiro Hono; Prof Oliver Gutfleisch "Design of nanocomposite Nd-Fe-B/Fe magnets using micromagnetic simulation"</p> <p>[O11-0945] Takao Suzuki "High Magnetic Anisotropy Mechanism of Mn-X (X=Bi, Ga and Al) ThinFilms"</p> <p>[O11-1000] Orlando Rios; Ikenna Nlebedim; "Rapid Crystallization Rare-earth and Rare-earth Free Permanent Magnet Materials"</p> <p>[O11-1015] Hirotohi Fukunaga; Masaki Nakano; Takeshi Yana; Masaru Itakura "Anisotropic Sm-Co/alpha-Fe Thick Film Magnets with Multi-Layered Structure"</p>	
10:30		coffee break				
11:00 - 12:30		<p>[O2] Nd-Fe-B: processing & properties I Chair: <u>David Brown</u></p> <p>[O2-1100] Masato Sagawa (NDFEB Corporation Japan) "The ultimate production technology of Nd-Fe-B sintered magnets"</p> <p>[O2-1130] Andrés Martín-Cid; Jose Sait; Garitonaandia; Daniel Salazar; Rajasekhar Madugundo; Jose Manuel Barandiaran; George Hadjiapanayis "Development of High Coercivity in Nd-lean Nd-Fe-B Nanocomposites Via Infiltration"</p> <p>[O2-1145] Zhongbin Hao; Sunny Zhang; Shijin He "Investigation of High Coercivity Dy-/Tb-free Sintered NdFeB Magnet Microstructure and Mass Production"</p> <p>[O2-1200] Carlo Burkhardt; Philipp Imgrund; Oxana Weber; Thomas Schlauf; Karsten Pischang; Allan Walton; Malik Degri "Metal Injection Moulding of NdFeB based on Recycled Powders"</p> <p>[O2-1215] Takashi Honkawa; Masashi Matsuura; Satoshi Sugimoto; Masao Yamazaki; Chisato Mishima "Changes in crystallographic relationship and magnetic anisotropy in d-HDDR process of Nd-Fe-B-Ga-Nb powders"</p>	<p>[O6] Advanced characterisation Chair: <u>Hossein Sepheri-Amin</u></p> <p>[O6-1100] Andreas Michels (Uni Luxembourg) "Magnetic Neutron Scattering Studies on Nd-Fe-B Magnets"</p> <p>[O6-1130] Volker Neu; Tina Sturm; Silvia Vock; Ludwig Schultz "New hard magnetic sensors for quantitative MFM of permanent magnet materials"</p> <p>[O6-1145] Kotaro Saito; Kanta Ono; Stefanus Harjo; Tomoki Fukagawa; Takeshi Nishiuchi "In-situ high temperature neutron diffraction study of Nd-Fe-B sintered magnets"</p> <p>[O6-1200] Kentaro Toyoki; Yoshinori Kotani; Yasunori Senba; David Billington; Hiroyuki Okazaki; Akira Yasui; Wakana Ueno; Haruhiko Ohashi; Yu Shiratsuchi; Satoshi Hirotsawa; Kazuhiro Hono; Tetsuya Nakamura "A scanning soft X-ray magnetic circular dichroism microscope study of the magnetization process in the fractured surface of a Nd-Fe-B sintered magnet"</p> <p>[O6-1215] Hiroyuki Okazaki; Naruki Tsuji; Yoshihiro Gohda; Wakana Ueno; Yoshinori Kotani; David Billington; Akira Yasui; Shogo Kawaguchi; Kunihisa Sugimoto; Kentaro Toyoki; Satoshi Hirotsawa; Tetsuya Nakamura "Temperature dependent crystal structure of intergranular sub-phases in Nd-Fe-B sintered magnet studied by synchrotron X-ray diffraction"</p>	<p>[O9] Rare earth free magnets I Chair: <u>Toshiyuki Shima</u></p> <p>[O9-1100] Claudia Felser (Max Planck Institute Chemical Physics of Solids) "Heusler compounds for permanent magnets"</p> <p>[O9-1130] Juliane Thielsch; Florian Bittner; Thomas George Woodcock "Interplay of magnetic domains and microstructural features in Mn-Al based permanent magnets"</p> <p>[O9-1145] Dagmar Goll; Dominic Hofs; Ralf Loeffler; Roland Stein; Gerhard Schneider "Magnetic properties of hard magnetic Fe-Sn-Cr based permanent magnets"</p> <p>[O9-1200] Jinbo Yang; Hui Zhao; Zhuyen Shao "Structural evolution and magnetic properties of tetragonal Mn₂Ga (1.2x0.3x0.3)"</p> <p>[O9-1215] Imants Dirba; Christoph Schwöbel; Michael Duerschmabel; Leopoldo Molina-Luna; Kathrin Hofmann; Hans-Joachim Kleebe; Oliver Gutfleisch "Synthesis, morphology, thermal stability and magnetic properties of α'-Fe₁₆N₂ nanoparticles"</p>	<p>[O12] Modeling II Chair: <u>Hongbin Zhang</u></p> <p>[O12-1100] Alexander Edström (Uppsala University) "From the electronic structure theory of magnetocrystalline anisotropy to novel rare-earth free permanent magnets"</p> <p>[O12-1130] Michalis Charilaou; Reinhard A. Simon; Jörg F. Löffler "Monte Carlo simulations of Ce-substituted Sm-Co magnets"</p> <p>[O12-1145] Wolfgang Körner; Georg Krugel; Melanie Senn; Christian Elsaesser "Materials design of novel hard-magnetic phases: Computational high-throughput screening"</p> <p>[O12-1200] Hiroshi Tsukahara; Kaoru Iwano; Chiharu Mitsumata; Tadashi Ishikawa; Kanta Ono "Large-scale micro magnetic simulation of hot-deformed Nd-Fe-B magnets"</p>	
12:30		Lunch	Advisor committee lunch 12:30 - 14:30 (L2-06)	Women in Magnetism lunch	Lunch	
13:30 - 15:00		<p>[O3] Coercivity & hardening mechanism in Nd-Fe-B Chair: <u>Volker Neu</u></p> <p>[O3-1330] Kazuhiro Hono (NIMS Tsukuba) "High-coercivity Dy-free Nd-Fe-B permanent magnets"</p> <p>[O3-1400] Yasushi Enokido; Yuki Nagamine; Masashi Miwa; Yoshinori Fujikawa; Chikako Moriyoshi; Yoshihiro Kuroiwa "Heavy rare earth free Neodymium magnets for automobile"</p> <p>[O3-1415] Josef Fidler; Gregor Alexander Zickler; Ahmad Asali "Role of grain boundary composition on coercivity in sintered Nd-Fe-B magnets: A nanoanalytical TEM/STEM and micromagnetic modelling study"</p> <p>[O3-1430] Tim Helbig; Konrad Loewe; Simon Sawatzki; Michael Duerschmabel; Leopoldo Molina-Luna; Min Yi; Bai-Xiang Xu; Oliver Gutfleisch "In Situ Analysis of Magnetization Reversal in Sintered and Hot Deformed Nd-Fe-B Magnets"</p> <p>[O3-1445] Akira Sugawara; Tetsuya Akashi; Toshiaki Tanigaki; Yoshio Takahashi "In-situ Lorentz microscopy and electron holography of domain wall pinning behavior in sintered Nd-Fe-B magnets under 3kOe applied field"</p>	<p>[P2] RE-free magnets & others</p>	<p>[P3] RE-magnets II</p>	<p>[O13] Rare earth free magnets II Chair: <u>Satoshi Hirotsawa</u></p> <p>[O13-1330] Laura Lewis (North Eastern University Boston) "Towards New FeNi-Based Permanent Magnets of High Energy Density"</p> <p>[O13-1400] Kinjal Gandhi; Kevin Elkins; Narayan Poudyal; J. Ping Liu "Novel rare-earth-free permanent magnets based on nanowire assemblies"</p> <p>[O13-1415] Sergey Taskaev; Konstantin Skokov; Vladimir Khovaylo; Dmitriy Karpenkov; Alexey Karpenkov; Maxim Ulyanov; Dmitry Bataev; Prof Oliver Gutfleisch "The Influence of Dynamic Severe Plastic Deformation on Magnetic Properties of Fe₆₀Ni₄₀, Fe₅₀Co₅₀, Mn₅₄Al₄₆C and Mn₅₀Bi₅₀ Alloys"</p> <p>[O13-1430] Jian-Ping Wang; Yanfeng Jiang; A Mehedi; Jiming Liu "α'-Fe₁₆N₂ compound based permanent magnet with 20 MGoe magnetic energy product for next generation rare-earth-free magnet"</p> <p>[O13-1445] Parmanand Sharma; Yan Zhang; Kazuhisa Sato; Kana Takenaka; Akihito Makino "Development of rare-earth free hard magnet based on L10 FeNi"</p>	
15:00		coffee break				
15:30 - 17:00	15:00 - 19:00 Registration Herrngarten	<p>[O4] Other RE-magnets: processing & properties Chair: <u>Dagmar Goll</u></p> <p>[O4-1530] George Hadjiapanayis (University of Delaware) "Development of ThMn12-type compounds for permanent magnets"</p> <p>[O4-1600] Yusuke Hirayama; Ashis Panda; Tadakatsu Ohkubo; Kazuhiro Hono "Preparation of high coercivity Sm₂Fe₁₇N₃ anisotropic powder through polymerized-complex and reduction-diffusion process"</p> <p>[O4-1615b] Dmitriy Karpenkov; Konstantin Skokov; Iliya Radulov; Marina Lyakhova; Yuri Skourski; Tom Fiske; Wolfgang Donner; Oliver Gutfleisch "Magnetocrystalline anisotropy and exchange interaction in Nd₅Fe₁₇ single crystal" [replaced]</p> <p>[O4-1630] Dimitrios Niarchos; Margarit Giokas; Vasilis Psycharis; Eamon Devlin; George Hadjiapanayis "A novel rare-earth lean magnetic phase of the type Nd_{1-x}Zr_xFe₁₀Si₂, with 0.3<x<0.7"</p> <p>[O4-1645] Kurima Kobayashi; Dr Shunji Suzuki; Tomoko Kuno; Kimiko Urushibata; Noritsugu Sakuma; Masao Yano; Akira Kato; Akira Manabe "Newly developed (R,Zr)(Fe,Co)₁₁STi_{0.5}Nix (R=Nd, x=1.3 and R=Sm, x=0) compounds as permanent magnet materials"</p>	<p>[O7] Modeling I Chair: <u>Alexander Edström</u></p> <p>[O7-1530] Thomas Schrefl (Danube University) "Coercivity in RE and MnAl(C) magnets"</p> <p>[O7-1600] Yasutomi Tatetsu; Shinji Tsuneyuki; Yoshihiro Gohda "Ab-initio calculations of magnetic properties in Nd-Fe-B magnets with Cu existing around the interface"</p> <p>[O7-1615] Tadakatsu Ohkubo; Hirotaka Yokota; Tohru Oikawa; Kazuhiro Hono "Micromagnetic simulation on the grain alignment dependence of coercivity in Nd-Fe-B sintered magnets"</p> <p>[O7-1630] Halli Ibrahim Sozen; Tilmann Hicke; Fritz Körmann; Jörg Neugebauer "Ab initio derived phase stabilities for the design of novel Ce-based hard-magnetic materials"</p> <p>[O7-1645] Olivier Toson; Gérard Delette; Florence Servant "Modelling the NdFeB grain orientation during powder injection under magnetic field: effect of particle size distribution and magnetic properties of the powder"</p>	<p>[O10] Nd-Fe-B: processing & properties II Chair: <u>Allan Walton</u></p> <p>[O10-1530] Zhongmin Chen (Magnequench Technology Center) "Development of RE-Fe-B melt-spun magnetic powders for high-temperature applications"</p> <p>[O10-1600] Taisuke Sasaki; Tadakatsu Ohkubo; Yukio Takada; Takashi Sato; Akira Kato; Yuji Kaneko; Kazuhiro Hono "Coercivity enhancement of Nd-Fe-B sintered magnets by grain boundary engineering"</p> <p>[O10-1615] Christian Weck; Thomas Hartwig; Frank Petzoldt "Production of Nd-Fe-B Magnets by Metal Injection Molding"</p> <p>[O10-1630] Hiroaki Kato; Daisuke Ogawa; Reimi Sakaguchi; Masaru Itakura; Kunihiko Koike; Yasuo Ando "Direct evidence of orientation-dependent exchange coupling between Nd₂Fe₁₄B and α-Fe interfaces and its influence on the moment reversal process"</p> <p>[O10-1645] Hirokazu Kubo; Yasuhiro Ueno; Ryo Sakakibara; Eri Yaguchi; Nao Kawasaki; Takahiko Iriyama; Masato Sagawa; Masashi Matsuura; Satoshi Sugimoto "Coercivity of Nd-Fe-B Sintered Magnets Using Both HDDR Process and Helium Jet-Milling"</p>	<p>[O14] Recycling Chair: <u>Paulo Wendhausen</u></p> <p>[O14-1530] Yue Ming (Beijing University of Technology) "Recent progress in recycling of Nd-Fe-B permanent magnets wastes"</p> <p>[O14-1600] Elen Haccouria; Aida Abbasalzhadeh; Yongxiang Yang "Production of Nd alloys from Nd-Fe-B magnet scrap by rare earth oxide electrolysis in molten salts"</p> <p>[O14-1615] Miha Zakotnik; Davide Prospero; Alex Bevan; Oana Tudor; Stephen Dove; Gojmir Furlan "Thermal stability of Grain Boundary Modified recycled NdFeB sintered magnets"</p> <p>[O14-1630] Roland Gauß; Oliver Diehl; Eva Brouwer; Alexander Buckow; Nora Groth; Konrad Gueth; Mario Schönfeldt; Karsten Rachut; Almut Dirks; Jürgen Gassmann; Roland Hord; Rudolf Stauber; Oliver Gutfleisch "Advanced functional recycling approaches to Nd-Fe-B-magnets"</p> <p>[O14-1645] Ikenna Nlebedim; Denis Prodius; Mudring Anja; Ryan Ott; Matthew Kramer; Alexander King "Recycling of Permanent Magnets: Addressing the Criticality in Rare Earth Elements"</p>	
17:00 - 19:00	17:00 - 21:00 Welcome reception	<p>[P1] RE-magnets I</p> <p>Herrngarten Café</p> <p>parallel beerstube</p>	<p>18:00-19:00 Plenary evening talk (public)</p> <p>[OE] Dominique Givord (Institut Néel) "Thirty years of material science applied to magnetism: discoveries and new applications"</p> <p>followed by beerstube</p>	<p>19:00 Conference dinner</p> <p>Orangerie Darmstadt REPM Achievement Award</p>	<p>Presentation upcoming REPM in Beijing Closing: Oliver Gutfleisch + Matthias Katter</p>	

Info:

- each session of 1.5 h consists of 1x invited talk 25+5 min and 4x contributed talks 12+3 min
- plenary talk is 45+ 15 min
- poster format A0 upright (118.9 cm x 84.1 cm)

talks
poster
special events