

Contents

01	11th International Workshop on 1&2 Dimensional Magnetic Measurement and Testing	1
02	<b>Johannes SIEVERT</b> - Two-dimensional magnetic measurements – history and achievements of the workshop	2
03	<b>Anthony J MOSES</b> - Possible Future Trends and Research Challenges related to 1 & 2 D Magnetic Properties of Soft Magnetic Materials	11
04	<b>Johannes SIEVERT</b> - Epstein to SST relationship - statistical rather than deterministic	17
05	<b>Satoshi ARAI, Masato MIZOKAMI, Masao YABUMOTO</b> - Magnetostriction of grain oriented Si-Fe and its domain model	20
06	<b>Kiyoshi WAJIMA, Teruyuki TAMAKI</b> - Comparison of Magnetic Field and Iron Loss Models for 2-Dimensional Magnetic Anisotropic Properties	24
07	<b>Damir SABIC, Helmut PFÜTZNER, Franz HOFBAUER, Georgi SHILYASHKI, Edin MULASALIHVIC</b> - Dynamics effects on losses due to rotational magnetization	29
08	<b>Piotr KLIMCZYK, Sakda SOMKUN, Philip ANDERSON, Anthony MOSES</b> - Comparison of Uniaxial and Rotational Magnetostriction of Non-oriented and Grain-oriented Electrical Steel	33
09	<b>Wojciech A. PLUTA</b> - Core loss models in electrical steel sheets with different orientation	37
10	<b>Mohachiro OKA, Makoto KAWANO, Kazunori SHIMADA, Takayuki KAI, Masato ENOKIZONO</b> - Evaluation of the Magnetic Properties of the Rotating Machines for the Building Factor Clarification	43
11	<b>Yuki MORI, Daisuke MIYAGI, Masanori NAKANO, Norio TAKAHASHI</b> - Measurement of Magnetic Properties of Grain-Oriented Electrical Steel Sheet Using 2D Single Sheet Tester	47
12	<b>Shunji YANASE, Masashi UCHIYAMA, Suguru ISHIKAWA, Yasuo OKAZAKI</b> - AC Magnetic Properties of Electrical Steel Sheet under DC-biased Magnetization	52
13	<b>Edin MULASALIHVIC, Helmut PFÜTZNER, Patrick ZANOLIN</b> - 3D Stray Field Analysis of Transformer Cores Considering DC-bias	57
14	<b>Philip ANDERSON</b> - Measurement techniques for the assessment of materials under complex magnetising conditions	61
15	<b>Hiroyasu SHIMOJI, Takashi TODAKA, Masato ENOKIZONO</b> - Core loss distribution measurement of electrical steel sheets using a thermographic camera	65
16	<b>Yasushi NAKAHATA, Bartosz BORKOWSKI, Hiroyasu SHIMOJI, Koji YAMADA, Takashi TODAKA, Masato ENOKIZONO</b> - Study of sensor structure for measurement of magnetization characteristics in high pulsed fields	69
17	<b>Shigeru AIHARA, Takashi TODAKA, Masato ENOKIZONO</b> - Characteristic Evaluation of 4mm-square-sized double H-coil	73
18	<b>Philip ANDERSON</b> - Constant dB/dt DC Characterisation Through Digital Control of Magnetic Field	77
19	<b>Jeremy HALL</b> - Assessment of the effect of lift-off on a magnetic flux injection technique for detection of residual curvature in electrical steel	79
20	<b>Naoya SODA, Hiroshi ADACHI</b> - Iron loss analysis of EI-shaped iron-core inductor considering vector magnetic property	81
21	<b>Koji YAMADA, Jiaolian LUO, Hiroyasu SHIMOJI, Yasushi NAKAHATA, Bartosz E. BORKOWSKI, Takashi TODAKA, Masato ENOKIZONO</b> - Evaluations of Iron-based Material Expressed by Magnetic Transfer Function	85
22	<b>Ivana NOVÁ, Ivan ZEMÁNEK</b> - Analytical inverse model with flexible parameters for dynamic hysteresis loops modelling	89
23	<b>Tsugunori KANADA, Yukihito KIDO, Akifumi KITSUKAKE, Tetsu IKEDA, Masato ENOKIZONO</b> - Magnetic properties of soft magnetic materials under tensile and compressive stress	93
24	<b>Ken-ichi YAMAMOTO, Shunji YANASE</b> - Magnetic Properties of Non-Oriented Electrical Steels under Compressive Stress Normal to Their Surface	97
25	<b>Yuichiro KAI</b> - Measurement of vector magnetic property under stress along arbitrary direction in non-oriented electrical steel sheet	101
26	<b>Masayuki MORISHITA, Norio TAKAHASHI, Daisuke MIYAGI, Masanori NAKANO</b> - Examination of Magnetic Properties of Several Magnetic Materials at High Temperature	106
27	<b>Masaki MIYAMOTO, Tetsuji MATSUO, Taketsune NAKAMURA</b> - Measurement of Vector Hysteretic Property of Silicon Steel Sheets at Liquid Nitrogen Temperature	111
28	<b>Mickaël PETIT, Afef KEDOUS-LEBOUC, Yvan AVENAS, Mansour TAWK, Ernesto ARTEGA</b> - Calculation and analysis of local magnetic forces in ferrofluids	115
29	<b>Boris MINOV, Milan J. KONSTANTINOVIĆ, Luc DUPRÉ</b> - Development of Magnetic After-Effect Setup and Application in the Study of Relaxation Processes in Fe-C, Fe-Cu and Fe-Cr Alloys	120
30	Photos from the Workshop	124