

T11
T-68/4m

IEEE TRANSACTIONS ON MAGNETICS

A PUBLICATION OF THE IEEE MAGNETICS SOCIETY

FEBRUARY 2013

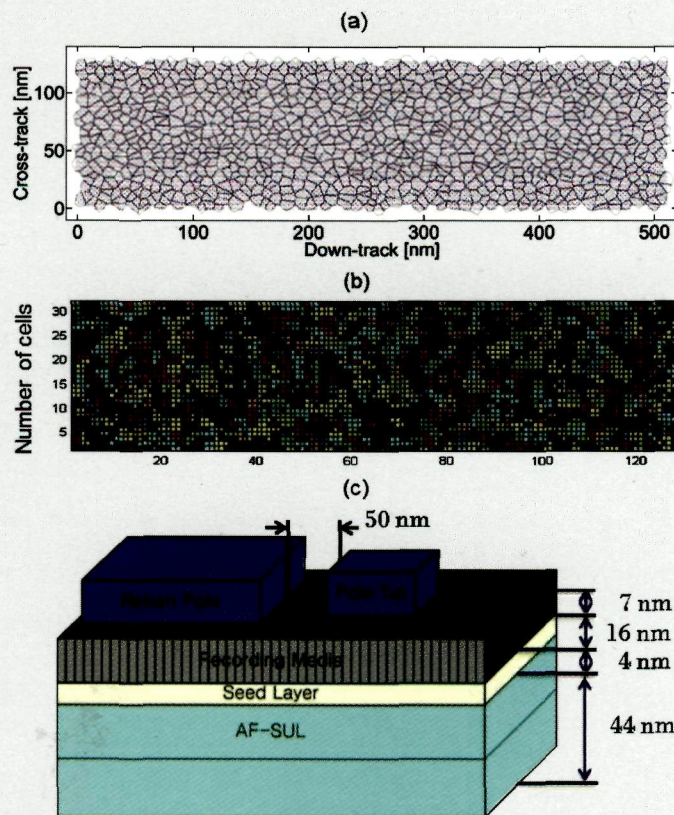
VOLUME 49

NUMBER 2

IEMGAQ

(ISSN 0018-9464)

PART II OF TWO PARTS



(a) Voronoi cell media geometry before discretization. (b) Voronoi cells with different colors after mapping into (444 nm) cubic cells. (c) Schematic view of our perpendicular magnetic recording system, including write pole and trailing shield, with detailed parameters for each component. From the paper "Transition Noise Analysis of Recording Media With a Soft Underlayer (SUL) and an Antiferromagnetic Soft Underlayer (AF-SUL)," by H. Sohn and R. H. Victoria on p. 825.

IEEE TRANSACTIONS ON MAGNETICS

A PUBLICATION OF THE IEEE MAGNETICS SOCIETY

FEBRUARY 2013

VOLUME 49

NUMBER 2

IEMGAQ

(ISSN 0018-9464)

PART II OF TWO PARTS

787 **IEEE Magnetics Society Distinguished Lecturers for 2012**

**SELECTED PAPERS FROM THE CONFERENCE ON ELECTROMAGNETIC FIELD COMPUTATION (CEFC)
Chicago, Illinois, USA, May 9–12, 2010**

- 791 **A New Approach to Design Flexible Magnetic Active Shielding**
I. M. V. Caminiti, A. Formisano, M. C. Lupoli, and R. Martone
- 795 **A Mortar Cell Method for Electro-Thermal Contact Problems**
P. Alotto, M. Guarnieri, and F. Moro
- 799 **Adaptive Time Domain Sparse Wavelet Approximations to Transient Space-Time
Electromagnetic Wave Fields**
A. Ngoly and S. McFee
- 803 **Efficient and Accurate Approximation of Infinite Series Summation Using Asymptotic
Approximation and Super Convergent Series**
S. Jain and J. Song
- 807 **Experimental Study of Compound-Structure Permanent-Magnet Synchronous Machine
Used for HEVs**
J. Zhao, P. Zheng, C. Tong, R. Liu, Y. Sui, S. Cheng, and Bai

PAPERS

- 811 **Optimal Permanent-Magnet Geometries for Dipole Field Approximation**
A. J. Petruska and J. J. Abbott
- 820 **Fine Structure Observation in Magnetostriction Near the First-Order Phase Transition
Temperature in $Gd_5Si_{1.95}Ge_{2.05}$**
R. L. Hadimani, Y. Melikhov, and D. C. Jiles
- 824 **Transition Noise Analysis of Recording Media With a Soft Underlayer (SUL) and an
Antiferromagnetic Soft Underlayer (AF-SUL)**
H. Sohn and R. H. Victora

(Contents Continued on Page 786)

Федеральное государственное
бюджетное учреждение науки
Центральная научная библиотека
Уральского отделения
Российской академии наук (ЦНБ УрО РАН)



- 829 **Improved Decoding Algorithm of Serial Belief Propagation With a Stop Updating Criterion for LDPC Codes and Applications in Patterned Media Storage**
X. Liu, J. Cai, and L. Wu
- 837 **Evaluation of the Magnetic Field Generated by the Inverter of an Electric Vehicle**
P. Concha Moreno-Torres, J. Lourd, M. Lafoz, and J. R. Arribas
- 845 **Electromigration in Giant Magnetoresistance Spin Valve Read Sensors Under Pulsed DC Magnetic Field: An Analytical and Numerical Study**
D. G. Zeng, K. Lee, K.-W. Chung, and S. Bae
- 851 **Robust Global Optimization of Electromagnetic Devices With Uncertain Design Parameters: Comparison of the Worst Case Optimization Methods and Multiobjective Optimization Approach Using Gradient Index**
Z. Ren, M.-T. Pham, and C. S. Koh
- 860 **New Formulas for Mutual Inductance and Axial Magnetic Force Between Magnetically Coupled Coils: Thick Circular Coil of the Rectangular Cross-Section-Thin Disk Coil (Pancake)**
S. Babic and C. Akyel
- 869 **Device Geometry Effects in an Integrated Power Microinductor With a $\text{Ni}_{45}\text{Fe}_{55}$ Enhancement Layer**
B. Jamieson, J. F. Godsell, N. Wang, and S. Roy
- 874 **Experimental Analysis of the Magnetic Flux Characteristics of Saturated Core Fault Current Limiters**
J. W. Moscrop
- 883 **Principles of the Trans-Rotary Magnetic Gear**
S. Pakdelian, N. W. Frank, and H. A. Toliyat
- 890 **Speed Range Extension for Simplex Wave Winding Permanent-Magnet Brushless DC Machine**
L. Zhu, S. Z. Jiang, J. Z. Jiang, Z. Q. Zhu, and C. C. Chan
- 898 **Winding Design, Modeling, and Control for Pole-Phase Modulation Induction Motors**
B. Ge, D. Sun, W. Wu, and F. Z. Peng
- 912 **Sensorless Method for Eccentricity Fault Monitoring and Diagnosis in Switched Reluctance Machines Based on Stator Voltage Signature**
H. Torkaman and E. Afjei
- 921 **Analytical Model of Permeance Variation Losses in Permanent Magnets of the Multipole Synchronous Machine**
G. Gotovac, G. Lampic, and D. Miljavec
- 929 **Influence of Stator Slotting on the Performance of Permanent-Magnet Machines With Concentrated Windings**
H. Vu Xuan, D. Lahaye, H. Polinder, and J. A. Ferreira
- 939 **Influence of Metal Screen Materials on 3-D Electromagnetic Field and Eddy Current Loss in the End Region of Turbogenerator**
L. Wang, F. Huo, W. Li, Y. Zhang, Q. Li, Y. Li, and C. Guan
-