

# IEEE TRANSACTIONS ON MAGNETICS

A PUBLICATION OF THE IEEE MAGNETICS SOCIETY

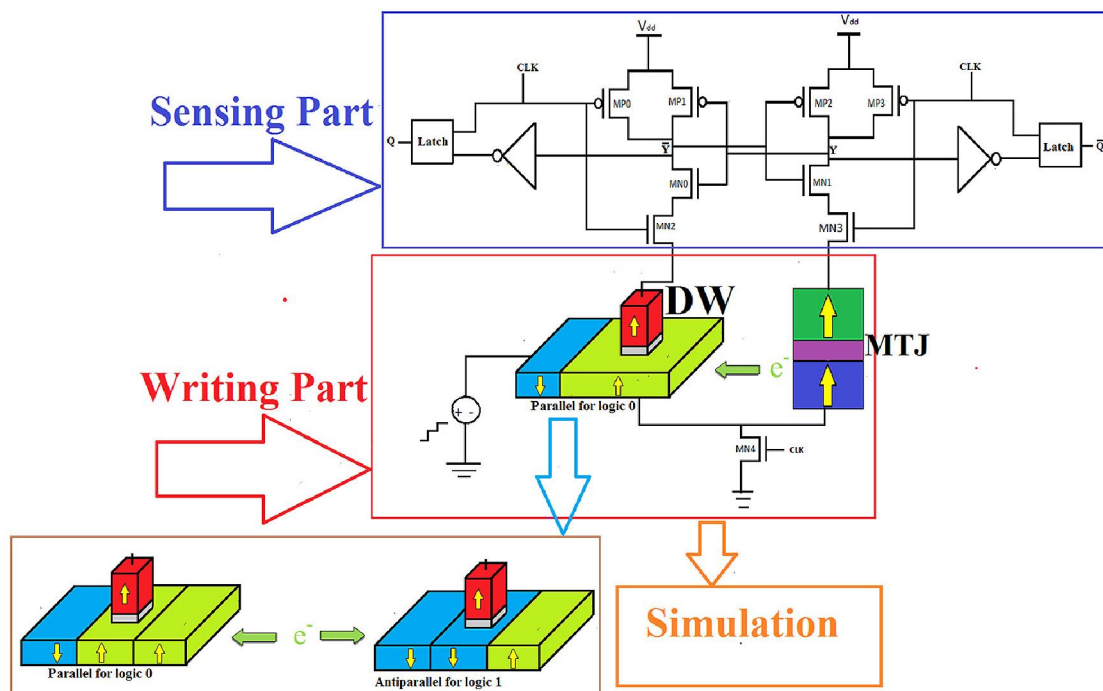
JUNE 2016

VOLUME 52

NUMBER 6

IEMGAQ

(ISSN 0018-9464)



Pre-charge sense amplifier with special magnetic stripe and reference magnetic tunnel junction.  
From the paper "High-Density Magnetic Flash ADC Using Domain-Wall Motion and Pre-Charge Sense Amplifiers," by Y. K. Upadhyaya *et al.*, Art. no. 4100110.

# IEEE TRANSACTIONS ON MAGNETICS

A PUBLICATION OF THE IEEE MAGNETICS SOCIETY

JUNE 2016

VOLUME 52

NUMBER 6

IEMGAQ

(ISSN 0018-9464)

## PAPERS

### *Magnetic Materials*

- 2003005 **Amorphous Soft Magnetic Core for the Stator of the High-Speed PMBLDC Motor With Half-Open Slots**  
R. Kolano, A. Kolano-Burian, K. Krykowski, J. Hetmańczyk, M. Hreczka, M. Polak, and J. Szyrowski
- 2100506 **Oersted Field and Spin Current Effects on Magnetic Domains in [Co/Pd]<sub>15</sub> Nanowires**  
P. Ho, J. Zhang, D. C. Bono, J. Chen, and C. A. Ross
- 2100610 **MFM Study of a Sintered Nd-Fe-B Magnet: Analyzing Domain Structure and Measuring Defect Size in 3-D View**  
M. M. Yazid, S. H. Olsen, and G. J. Atkinson
- 2300410 **Magnetic and Microwave Properties of 3-D Nanocomposites With Transition Metal and Palladium Particles**  
A. B. Rinkevich, M. Pardavi-Horvath, M. I. Samoylovich, and D. V. Perov
- 2400104 **Sucrose-Assisted Combustion Synthesis and Characterization of Zn-Substituted NiFe<sub>2</sub>O<sub>4</sub> Nanocrystals**  
M. A. Gabal, S. Kosa, and T. S. El Mutairi

### *Applied Magnetism and Phenomena*

- 4100110 **High-Density Magnetic Flash ADC Using Domain-Wall Motion and Pre-Charge Sense Amplifiers**  
Y. K. Upadhyaya, M. K. Gupta, M. Hasan, and S. Maheshwari
- 4400108 **Advanced Dual-Free-Layer CPP GMR Sensors for High-Density Magnetic Recording**  
Z. Diao, Y. Zheng, C. Kaiser, X. Jiang, L. Chen, A. G. Roy, C. J. Chien, M. Wang, S. Gider, D. Mauri, and Q. Leng
- 4700105 **Design and Implementation of Single-Layer Symmetric Micro-Transformers**  
F. Khan, Y. Zhu, J. Lu, and J. Pal

### *Biomagnetics*

- 5400105 **Dendrimerized Magnetic Nanoparticles as Carriers for the Anticancer Compound, Epigallocatechin Gallate**  
S. Nigam and D. Bahadur

### *Magnetic Measurements and Instrumentation*

- 6201408 **Lift-Off Point of Intersection Feature in Transient Eddy-Current Oscillations Method to Detect Thickness Variation in Stainless Steel**  
C. S. Angani, H. G. Ramos, A. L. Ribeiro, T. J. Rocha, and P. Baskaran



*Computation and Numerical Methods*

- 7004206 **Analogies Between Finite-Difference and Finite-Element Methods for Scalar and Vector Potential Formulations in Magnetic Field Calculations**  
A. Demenko and J. K. Sykulski
- 7004310 **Computation of the Eigenvalues for Bounded Domain Eddy-Current Models With Coupled Regions**  
D. Vasić, D. Ambruš, and V. Bilas

*Electromagnetism and Electromagnetic Devices*

- 8001106 **Magnetic Modeling of Saliency Effect for Saturated Electrical Machines With a New Calculation Method**  
Q. Yu, X. Wang, and Y. Cheng
- 8001209 **Analytical Prediction of Torque Characteristics of Eddy Current Couplings Having a Quasi-Halbach Magnet Structure**  
J. Wang, H. Lin, and S. Fang
- 8103311 **An Analytical Method for Predicting 3-D Eddy Current Loss in Permanent Magnet Machines Based on Generalized Image Theory**  
L. Chen, J. Wang, and S. S. Nair
- 8103410 **Electromagnetic Performance of Stator Slot Permanent Magnet Machines With/Without Stator Tooth-Tips and Having Single/Double Layer Windings**  
I. A. A. Afinowi, Z. Q. Zhu, Y. Guan, J. C. Mipo, and P. Farah
- 8103509 **Comparative Study of Torque Production in Conventional and Mutually Coupled SRMs Using Frozen Permeability**  
G. J. Li, Z. Q. Zhu, X. Y. Ma, and G. W. Jewell
- 8103609 **2-D Analytical Subdomain Model for Hybrid Dual-Rotor Motor**  
A. Dalal, S. Nekkhalpu, and P. Kumar
- 8103710 **Superposition Method for Cogging Torque Prediction in Permanent Magnet Machines With Rotor Eccentricity**  
Y. Li, Q. Lu, Z. Q. Zhu, D. Wu, and G. Li
- 8103813 **An Analytical Model for the Computation of No-Load Eddy-Current Losses in the Rotor of a Permanent Magnet Synchronous Machine**  
O. de la Barrière, S. Hlioui, H. Ben Ahmed, and M. Gabsi
- 8202006 **Unbalanced Magnetic Torque in Electrohydraulic Energy Conversion Unit Considering Rotor Axis Deflection**  
T. Wang, H. Wang, and Z. Zhou
- 8202114 **2-D Analytical Magnetic Field Prediction for Consequent-Pole Permanent Magnet Synchronous Machines**  
S. Teymoori, A. Rahideh, H. Moayed-Jahromi, and M. Mardaneh
- 8202215 **Hybrid-Excited Switched-Flux Hybrid Magnet Memory Machines**  
H. Yang, Z. Q. Zhu, H. Lin, H. L. Zhan, H. Hua, E. Zhuang, S. Fang, and Y. Huang
- 8202308 **Design and Analysis of an In-Wheel Motor With Hybrid Pole-Slot Combinations**  
M.-T. Peng and T. J. Flack
- 8700110 **A Six-Phase 24-Slot/10-Pole Permanent-Magnet Machine With Low Space Harmonics for Electric Vehicle Applications**  
A. S. Abdel-Khalik, S. Ahmed, and A. M. Massoud