

# IEEE TRANSACTIONS ON MAGNETICS

A PUBLICATION OF THE IEEE MAGNETICS SOCIETY

FEBRUARY 2021

VOLUME 57

NUMBER 2

IEMGAQ

(ISSN 0018-9464)

## PART II of TWO PARTS

---

### PAPERS

#### *Advances in Magnetics*

- 800211 **An Integrated Model of Magnetic Hysteresis, the Magnetomechanical Effect, and the Barkhausen Effect**  
D. C. Jiles and W. Kiarie

#### *Magnetic Materials*

- 2000306 **Thermally Reduced Soft Magnetic CuFe Nanoparticles for High-Performance Electrical Devices**  
T. Prabhakaran, R. V. Mangalaraja, F. Béron, J. A. Jiménez, J. C. Denardin, T. Arun, and A. Akbari-Fakhrabadi
- 2101307 **Development of Optimum Preparation Conditions of Fe-Deficient M-Type Ca-Sr-La System Hexagonal Ferrite Magnet**  
C.-C. Huang, S.-H. Lin, C.-C. Mo, T.-H. Hsiao, Y.-H. Tai, Y.-H. Hung, C.-H. Chiu, H.-H. Hsu, and C.-H. Cheng
- 2800105 **An RF On-Chip Transformer With Fe<sub>3</sub>O<sub>4</sub>/GO Nanocomposite Film**  
K. Zhu, H. Chen, S. Li, C. Sun, and F. Liu

#### *Magnetic Recording and Information Storage Devices*

- 3400806 **Physically Unclonable Functions With Voltage-Controlled Magnetic Tunnel Junctions**  
Y. Tanaka, M. Goto, A. K. Shukla, K. Yoshikawa, H. Nomura, S. Miwa, S. Tomishima, and Y. Suzuki

#### *Applied Magnetism and Phenomena*

- 4000709 **Optimal Design of Planar Spiral Coil for Uniform Magnetic Field to Wirelessly Power Position-Free Targets**  
Q. Xu, Q. Hu, H. Wang, Z.-H. Mao, and M. Sun
- 4000809 **Modeling and Reduction of the Initial Orientation Error of a Coil Vector Magnetometer**  
J. Ge, Z. Huo, H. Dong, H. Liu, J. Qian, R. Wang, W. Luo, Q. Zheng, Z. Yuan, H. Zhang, and J. Zhu
- 4400410 **Cross-Sectional Area Dependence of Tunnel Magnetoresistance, Thermal Stability, and Critical Current Density in MTJ**  
A. H. Lone, S. Shringi, K. Mishra, and S. Srinivasan
-

---

*Computation and Numerical Methods*

- 7400709 **A New Approach for Non-Linear Time-Harmonic FEM-Based Analysis of Single-Sided Linear Induction Motor Incorporated With a New Accurate Method of Force Calculation**  
A. Zare Bazghaleh and E. Fallah Choolabi

*Electromagnetism and Electromagnetic Devices*

- 8001205 **Generating Uniform Magnetic Fields in 2-D Polygonal Regions**  
B. Jelenc
- 8103908 **Analysis of Electromagnetic Force Ripple in a Bearingless Synchronous Reluctance Motor**  
V. Mukherjee, P. Rasilo, F. Martin, and A. Belahcen
- 8700115 **Static and Dynamic Modeling of the Electromagnets of the Maglev Vehicle Transrapid**  
P. Schmid, G. Schneider, F. Dignath, X. Liang, and P. Eberhard
-