

Dielectrics 2013

Journal of Physics: Conference Series Volume 472

**Reading, United Kingdom
10-12 April 2013**

**ISBN: 978-1-62993-450-1
ISSN: 1742-6588**

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© by the Institute of Physics
All rights reserved.

Printed by Curran Associates, Inc. (2014)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

012001 In Praise of Simple Models.....	1
<i>G Van Der Zwan</i>	
012002 Finite Element Analysis of the Vertical Levitation Force in an Electrostatic MEMS Comb Drive Actuator	8
<i>J Wooldridge, J Blackburn, A Muniz-Piniella, M Stewart, T A V Shean, P M Weaver, M G Cain</i>	
012003 Absorption Current Behaviour of Polyethylene/Silica Nanocomposites	14
<i>K Y Lau, A S Vaughan, G Chen, I L Hosier, A F Holt</i>	
012004 Development of PLZT Film-on-Foil Capacitors with High Energy Density	20
<i>B Ma, M Narayanan, S Liu, Z Hu, U Balachandran</i>	
012005 Analysis of Optical Thickness Determination of Materials by THz-TDS	26
<i>O Sushko, R Dubrovka, R S Donnan</i>	
012006 Carbon at the Ti Site in Strontium Titanate from First Principles	30
<i>M S Al-Hadidi, J P Goss, P R Briddon, R A Al-Hamadany, M E Ahmed</i>	
012007 Bridging in Contaminated Transformer Oil Under DC and AC Electric Field	36
<i>S Mahmud, G Chen, I O Golosnoy, G Wilson, P Jarman</i>	
012008 Permittivity Measurement of Minerals	42
<i>V J Anderson, A Clarke, G H Meeten</i>	
012009 New Opportunities for Secure Communication Networks Using Shaped Femtosecond Laser Pulses Inducing Filamentation Processes in the Atmosphere	47
<i>H M Alyami, V M Becerra, S Hadjiloucas</i>	
012010 Computational Study of Dielectric Function and Optical Properties of a Graphane Nano Structure Containing Graphene Quantum Dot.....	53
<i>J D Sharma, M Sharma, N Kumar, P K Ahluwalia</i>	
012011 Wavelet Based Detection of Changes in the Composition of RLC Networks.....	59
<i>H M Paiva, M A Q Duarte, R K H Galvao, S Hadjiloucas</i>	
Author Index	