Front Matter: Volume 7778
Organic Field-Effect Transistors IX

Zhenan Bao
Iain McCulloch
Editors

2–4 August 2010
San Diego, California, United States

Sponsored by
SPIE

Cosponsored by
H. C. Starck Clevios GmbH (Germany)
Polyera Corporation
Merck Chemicals Ltd. (United Kingdom)
Sigma-Aldrich

Published by
SPIE

Volume 7778
Contents

vii Conference Committee

MATERIALS I

7778 03 Bio-inspired organic field effect transistors (Invited Paper) [7778-02]
M. Irimia-Vladu, Johannes Kepler Univ. Linz (Austria); P. A. Troshin, Institute of Problems of Chemical Physics (Russian Federation); G. Schwabegger, M. Bodea, R. Schwödiauer, Johannes Kepler Univ. Linz (Austria); J. W. Fergus, Auburn Univ. (United States); V. Razumov, Institute of Problems of Chemical Physics (Russian Federation); S. Bauer, N. S. Sariciftci, Johannes Kepler Univ. Linz (Austria)

7778 04 Organic n-channel thin film transistors based on dichlorinated naphthalene diimides [7778-03]
M. Stolte, S.-L. Suraru, F. Würthner, Julius-Maximilians-Univ. Würzburg (Germany); J. H. Oh, Z. Bao, Stanford Univ. (United States); J. Brill, M. Könemann, J. Qu, InnovationLab GmbH (Germany) and BASF SE (Germany); U. Zschieschang, H. Klauck, Max-Planck-Institut für Festkörperforschung (Germany)

7778 06 New triindole-based organic semiconductors: structure-property relationships [7778-05]
E. M. García-Frutos, Consejo Superior de Investigaciones Científicas (Spain); C. Coya, Univ. Rey Juan Carlos (Spain); E. Gutierrez, A. Monge, A. de Andrés, B. Gómez-Lor, Consejo Superior de Investigaciones Científicas (Spain)

MATERIALS II

7778 09 Curvature as design concept for semiconducting benzodithiophene-containing polymers in organic field effect transistors (Invited Paper) [7778-08]
R. Rieger, D. Beckmann, A. Mavrinskiy, W. Pisula, M. Kastler, K. Müllen, Max-Planck-Institut für Polymerforschung (Germany)

MORPHOLOGY

7778 0J Rubrene electronic structure, interface energy level alignment, and growth dynamics (Invited Paper) [7778-18]
H. Ding, Y. Gao, Univ. of Rochester (United States)
DEVICES

7778 0Q Bias stress effect and recovery in organic field effect transistors: proton migration mechanism [7778-25]
A. Sharma, Technische Univ. Eindhoven (Netherlands); S. G. J. Mathijssen, Technische Univ. Eindhoven (Netherlands) and Philips Research Labs. Eindhoven (Netherlands); M. Kemerink, Technische Univ. Eindhoven (Netherlands); D. M. de Leeuw, Philips Research Labs. Eindhoven (Netherlands); P. A. Bobbert, Technische Univ. Eindhoven (Netherlands)

THIN FILMS

7778 0X In situ probing thickness dependence of the field effect mobility of naphthalenetetracarboxylic diimide-based field effect transistors [7778-32]
S.-W. Liu, Academia Sinica (Taiwan); C.-C. Lee, H.-L. Tai, J.-M. Wen, National Taiwan Univ. of Science and Technology (Taiwan); C.-T. Chen, Academia Sinica (Taiwan)

APPLICATIONS I

7778 0Y Bringing organic semiconductor material a step closer to the mass market (Invited Paper) [7778-33]

7778 0Z Advances in oligothiophene-based conductors and semiconductors for printed electronics (Invited Paper) [7778-34]
A. Elschner, W. Löverich, T. Meyer-Friedrichsen, K. Reuter, A. Scheel, H.C. Starck Clevios GmbH (Germany); R. Lubianez, H.C. Starck Inc. (United States)

7778 11 Solution processed OTFTs for OLED backplanes: development of high performance short channel length devices (Invited Paper) [7778-36]
C. J. Newsome, R. J. Wilson, T. J. Kugler, M. K. Othman, J. H. Burroughes, Cambridge Display Technology Ltd. (United Kingdom)

APPLICATIONS II

7778 14 OTFT backplanes for integration into flexible displays (Invited Paper) [7778-39]

7778 16 All-solution-processed selective assembly of flexible organic field-effect transistor arrays [7778-41]
M. Kano, Dai Nippon Printing Co., Ltd. (Japan) and RIKEN (Japan); T. Minari, RIKEN (Japan); National Institute for Materials Science (Japan), and Japan Science and Technology Agency (Japan); K. Tsukagoshi, National Institute for Materials Science (Japan) and Japan Science and Technology Agency (Japan)
Novel semiconductors based on functionalized benzo[d,d']thieno[3,2-b:4,5-b']dithiophenes (BTDTs) and the effects of thin film growth conditions on organic field effect transistor performance [7778-44]
J. Youn, Northwestern Univ. (United States); M.-C. Chen, Y. Liang, National Central Univ. (Taiwan); H. Huang, Northwestern Univ. (United States); R. Ponce Ortiz, Northwestern Univ. (United States) and Univ. de Málaga (Spain); C. Kim, C. Stern, Northwestern Univ. (United States); T.-S. Hu, L.-H. Chen, J.-Y. Yan, Industrial Technology Research Institute (Taiwan); A. Facchetti, T. J. Marks, Northwestern Univ. (United States)

Study of PTCDI-C12H25-based organic thin film transistors with bottom contact electrode [7778-49]
Y.-S. Lin, W.-Y. Chou, L.-N. Chen, Y.-C. Cheng, H.-L. Cheng, National Cheng Kung Univ. (Taiwan); S.-J. Liu, National Univ. of Tainan (Taiwan); F.-C. Tang, C.-T. Yen, National Cheng Kung Univ. (Taiwan)
Conference Committee

Symposium Chair

Zakya H. Kafafi, National Science Foundation (United States)

Conference Chairs

Zhenan Bao, Stanford University (United States)
Iain McCulloch, Imperial College London (United Kingdom)

Session Chairs

1 Materials I
Iain McCulloch, Imperial College London (United Kingdom)

2 Materials II
John E. Anthony, University of Kentucky (United States)

3 Dielectrics
Stefan C. B. Mannsfeld, SLAC National Accelerator Laboratory (United States)

4 Morphology
Zhenan Bao, Stanford University (United States)

5 Devices
Hagen Klauk, Max-Planck-Institut für Festkörperforschung (Germany)

6 Thin Films
Vitaly Podzorov, Rutgers, The State University of New Jersey (United States)

7 Applications I
Joseph Kline, National Institute of Standards and Technology (United States)

8 Applications II
Michael L. Chabinyc, University of California, Santa Barbara (United States)