

International Conference on Advanced Materials (ICAM 2015)

IOP Conference Series: Materials Science and Engineering
Volume 92

Irbid, Jordan
27 – 29 April 2015

Editors:

Mohammed Y. El-Khateeb Nathir A.F. Al-Rawashdeh
Borhan A. Albiss

ISBN: 978-1-5108-1463-9
ISSN: 1757-8981

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© (2015) by the Institute of Physics
All rights reserved. The material featured in this book is subject to
IOP copyright protection, unless otherwise indicated.

Printed by Curran Associates, Inc. (2016)

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

Volume 92

International Conference on Advanced Materials (ICAM 2015)
27–29 April 2015, Irbid, Jordan

Accepted papers received: 13 August 2015
Published online: 12 October 2015

Preface

011001

[International Conference on Advanced Materials \(ICAM 2015\)](#) OPEN ACCESS M Y El-Khateeb

011002

[Peer review statement](#) OPEN ACCESS

Papers

012001

[Nanotechnology – A path forward for developing nations](#) OPEN ACCESS S Ismat Shah and Thomas M Powers ""r i 03

012002

[Carbon Nanotubes Reinforced Al-11 wt% Si Alloy via Plasma Spray](#) OPEN ACCESS Ahmed A Moosa, Mohamed I Mohamed and Mustafa K Ismael ""r i 09

012003

[Continuous and Delayed Photohemolysis Sensitized With Methylene Blue and Iron Oxide Nanoparticles \(Fe₃O₄\)](#) OPEN ACCESS M-Ali AL-Akhras, Khaled Aljarrah, Borhan Albiss and Abba Alhaji Bala ""r i 03:

012004

[Structural Studies of Silver Nanoparticles Obtained Through Single-Step Green Synthesis](#) OPEN ACCESS Siva Prasad Peddi and Bilal Abdallah Sadeh ""r i 053

012005

[Synthesis, characterization and electrochemical properties of metal-doped nanoporous carbon](#) OPEN ACCESS N Ben Mansour, M Hjiri, R Dahari, L El Mir, M Bonyani, A Mirzaei, S G Leonardi and G Neri""r i 05;

012006

[Structural and magnetic properties of Vanadium Doped M- Type Barium Hexaferrite \(BaFe_{12-x}V_xO₁₉\)](#) OPEN ACCESS Ahmad Awadallah, Sami H Mahmood, Yazan Maswadeh, Ibrahim Bsoul and Aynour Aloqaily""r i 067

012007

[Synthesis, Characterization and properties studies of new magnetic materials](#) OPEN ACCESS Amel Messai and Dominique Luneau""r i 088

012008

[Structural and magnetic properties of Cu-V substituted M-type barium hexaferrites](#) OPEN ACCESS Sami H Mahmood, Ahmad Awadallah, Yazan Maswadeh and Ibrahim Bsoul""r i 094

012009

[A prototype Ultraviolet Light Sensor based on ZnO Nanoparticles/Graphene Oxide Nanocomposite Using Low Temperature Hydrothermal Method](#) OPEN ACCESS M Al-Fandi, R Oweis, B A Albiss, T AlZoubi, M-Ali Al-Akhras, H Qutaish, H Khwailah, S Al-Hattami and E Al-Shawwa""r i 0; 8

012010

[Interfacial interactions between polyethylene matrix and clay layers in polyethylene/clay nanocomposites](#) OPEN ACCESS R Abu-Zurayk""r i 0328

012011

[Investigating Negative Magnetization and Blocking Temperature in Aggregates of Ferrite Nanoparticles](#) OPEN ACCESS I M Obaidat, B Issa, B A Albiss and Y Haik""r i 0336

012012

[Temperature Dependence of Saturation Magnetization and Coercivity in Mn_{0.5}Zn_{0.5}Gd_{0.02}Fe_{1.98}O₄ Ferrite Nanoparticles](#) OPEN ACCESS I M Obaidat, B Issa, B A Albiss and Y Haik""r i 0343

012013

[Resistance to moist conditions of whey protein isolate and pea starch biodegradable films and low density polyethylene nondegradable films: a comparative study](#) OPEN ACCESS
G F Mehyar and A Al Bawab""r i 034:

012014

[Raman imaging to study structural and chemical features of the dentin enamel junction](#)
OPEN ACCESS M Anwar Alebrahim, C Krafft and J Popp""r i 0357

012015

[Exergy efficiency analysis of a flat plate solar collector using graphene based nanofluid](#)
OPEN ACCESS Z Said, M A Alim and Isam Janajreh""r i 0366

012016

[Assisted Sonication vs Conventional Transesterification Numerical Simulation and Sensitivity Study](#) OPEN ACCESS Isam Janajreh, Mohammed Noorul Hussain and Tala El Samad""r i 0375

012017

[Structural and electronic properties of Diisopropylammonium bromide molecular ferroelectric crystal](#) OPEN ACCESS A Alsaad, I A Qattan, A A Ahmad, N Al-Aqtash and R F Sabirianov""r i 0384

012018

[Use of mesoporous silicate nanoparticles as drug carrier for mefenamic acid](#) OPEN ACCESS F M Mustafa and H A Hodali""r i 0395

012019

[Synthesis and structural characterization of nonstoichiometric barium hexaferrite materials with Fe:Ba ratio of 11.5 – 16.16](#) OPEN ACCESS Yazan Maswadeh, Sami H Mahmood, Ahmad Awadallah and Aynour N Aloqaily""r i 039;

012020

[Simultaneous determination of vitamins A and D3 in dairy products by liquid chromatography-tandem mass spectrometry \(LC-MS/MS\)](#) OPEN ACCESS I S A Barakat, M K Hammouri and I Habib""r i 0424

012021

[Effect of insulating layer on the Field Electron Emission Performance of Nano-Apex Metallic Emitters](#) OPEN ACCESS Ala'a A AL-Qudah, Marwan S Mousa and A Fischer""r i 0432

012022

[Investigating of the Field Emission Performance on Nano-Apex Carbon Fiber and Tungsten Tips](#) OPEN ACCESS Marwan S Mousa, Shadi Alnawasreh, Mazen A Madanat and Anas N Al-Rabadi""r i 043:

012023

[Construction of Uranyl Selective Electrode Based on Complex of Uranyl Ion with New Ligand Carboxybenzotriazole in PVC Matrix Membrane](#) OPEN ACCESS M A Abu-Dalo, N A F Al-Rawashdeh, I R Al-Mheidat and N S Nassory""r i 0448

012024

[The UV and Laser Aging for PMMA/BDK/Azo-dye Polymer Blend Cured by UV Light Beams](#) OPEN ACCESS A A Ahmad and A M Omari""r i 0459

012025

[Comparison of the inhibitory capacity of two groups of pure natural extract on the crystallization of two types of material compound urinary stones *in vitro* study](#) OPEN ACCESS Mohamed Beghalia, Said Ghalem and Hocine Allali""r i 0472