2nd International Symposium on Green Technology for Value Chains (GreenVC 2017)

IOP Conference Series: Earth and Environmental Science Volume 160

Jakarta, Indonesia 23 - 24 October 2017

Editor:

Myrtha Karina

ISBN: 978-1-5108-6478-8

ISSN: 1755-1307

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© (2017) 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. (2018)

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: 845-758-2633

Email: curran@proceedings.com Web: www.proceedings.com

Table of contents

Volume 160

2nd International Symposium on Green Technology for Value Chains 2017 (GreenVC 2017)

23-24 October 2017, Jakarta, Indonesia

Accepted papers received: 31 May 2018

Published online: 18 June 2018

Preface

2nd International Symposium on Green Technology for Value Chains 2017 (GreenVC 2017)

Peer review statement

Papers

Green Materials and Process

Characteristic of nanoparticle-chitosan system: solution and thin film study

M Nasir and R I Sugatri....1

The effect of substrate and enzyme concentration on the glucose syrup production from red sorghum starch by enzymatic hydrolysis

A R Permanasari, F Yulistiani, R W Purnama, T Widjaja and S Gunawan....11

Physical and chemical properties of corn, cassava, and potato starchs

A H D Abdullah, S Chalimah, I Primadona and M H G Hanantyo....17

Antibacterial activity of bacterial cellulose-based edible film incorporated with *Citrus* spp essential oil

Y Srikandace, L Indrarti, Indriyati and M K Sancoyorini....23

<u>Isolation</u>, identification of alkaloid from *Rhizophora mucronata* and the activity of its methanol extract against barnacles

D G S Andayani, S R Anggraeni, E Liviawaty, R M Chrisentia and Y Srikandace.....28

Phycobiliproteins production and heavy metals reduction ability of *Porphyridium* sp

S Priatni, D Ratnaningrum, S Warya and E Audina....35

Scaling up process for fish peptone production

W Kosasih, D Ratnaningrum, E S Endah, S Pudjiraharti and S Priatni.....42

<u>Utilization of soybean curd residue for carbon-based adsorbent material and its</u> characterization

A K Fikriyyah, E R Chaldun and A Hardiansyah.....48

The production of Kerong fish (*Terapon jarbua*) peptone using enzymatic hydrolysis

Y Srikandace, S Priatni, S Pudjiraharti, W Kosasih and E S Endah.....52

Preparation and characterization of bacterial cellulose-beeswax films

Indriyati and L Indrarti.....57

Antimicrobial activity of extracellular liquid obtained from molasses fermentation by *Nocardia* sp strain V1

P C Mawarda, E S Endah, D Ratnaningrum, T A Budiwati, D G S Andayani and S Pudjiraharti.....63

Waste Treatment and Management

Evaluation of hospital infectious waste management in Bandung region

N Fitria, E Damanhuri and I R S Salami.....73

The disappearance of bromuconazole fungicide in domestic waste anaerobic fermentation

H R Hariyadi.....79

Influence of pH on biogas production in a batch anaerobic process of tofu wastewater

Widyarani, Y Victor, L Sriwuryandari, E A Priantoro, T Sembiring and N Sintawardani.....86

Effect of particle size distribution and acid treated coal bottom ash on TSS and COD removal from textile effluent using fixed bed column

N L E Wahyuni, B Soeswanto, H Akmal and N Puspita.....93

Nickel removal from electroplating wastewater using electrocoagulation

Djaenudin, Muchlis and Ardeniswan....100

<u>Isotherm adsorption studies of Ni(II) ion removal from aqueous solutions by modified carboxymethyl cellulose hydrogel</u>

L Anah and N Astrini.....108

Green Energy

Effect of natural zeolite and kaolin as a catalyst in the isothermal-catalytic cracking of real municipal solid waste (MSW) for bio-oil production

I M Gandidi, M D Susila and H Rustamaji.....116

Socio-Technological Assessment on Green Production

Economic situation of value chain actors in urban slums of Bandung: A case of Kiaracondong

M Ikemi, K Ushijima, Y Otsuka, T Yamauchi, D Nilawati, D R Wulan and N Sintawardani.....125

Spatial planning for potential green TOD using suitability analysis at the metropolitan region scale

H M Taki and M M H Maatouk.....134

Life Cycle and Environmental Monitoring

<u>The characteristic of Natural Organic Matter (NOM) of water from Cikapundung River Pond</u>

D Roosmini, S Notodarmojo and M R Sururi....144

<u>Total arsenic in tuna fish candidate reference material preparations: Homogeneity and stability testing</u>

T A Koesmawati, Buchari and J Ng.....152

Residual pesticides monitoring of the horticulture soil in Lembang

R Yusiasih, Efendi, M M Pitoi and H R Hariyadi.....158

Preparation of copper amalgam (CuHg) as working electrode for analysis of selenium

F Dara, Buchari and I Noviandri.....164