

# Reaktor

p-ISSN 0852 – 0798

e-ISSN 2407 – 5973

Accredited: SK No.: 60/E/KPT/2016

Website : <http://ejournal.undip.ac.id/index.php/reaktor/>

Reaktor, Vol. 18 No. 1, March Year 2018

---

## SUBJECTS INDEX

### A

alkaloids, 51  
aluminum, 38  
antioxidant, 22

### B

biodiesel, 27

### C

cabinet drying, 31  
calcium oxide, 1  
calcium, 31  
central composite design, 7  
CeO<sub>2</sub> nanoparticles, 22  
chicken bone, 31  
chitosan, 45  
cocoa pod husk, 51  
cookies, 31  
cotton seed oil, 27

### D

Dose Enhancement Factor (DEF), 22

### F

fermentation, 51  
flour, 31  
free fatty acid, 1

### G

gasification, 16  
glycerol, 1

### K

kinetic parameter, 38

### L

lactobacillus plantarum, 51

### M

mathematical model, 16  
membrane hybrid, 7  
microwave, 27, 45

### P

Pattukku coal char, 16  
pes-zeolite, 7  
plastic wastes, 38  
produced water, 7  
pseudo-homogeneous approach, 1  
pyrolysis, 38

### R

radioprotector, 22  
response surface methodology, 7

### S

shrimp shells, 45  
steam, 16

### T

temperature, 38  
Thin Reaction Zone Model, 16  
transesterification, 27

# Reaktor

p-ISSN 0852 – 0798

e-ISSN 2407 – 5973

Accredited: SK No.: 60/E/KPT/2016

Website : <http://ejournal.undip.ac.id/index.php/reaktor/>

Reaktor, Vol. 18 No. 1, March Year 2018

---

## TITLES INDEX

### Volume 18 Number 1 March 2018

<b>The Kinetics of Calcium Oxide Catalyzed Esterification of Glycerol with Free Fatty Acids Using Pseudo-homogeneous Model Approach</b> Megawati, Dhoni Hartanto, Catur Rini Widyastuti, Diyah Saras Wati and Eny Nurhayati	1-6
<b>Process Parameters Optimization in Membrane Fabrication for Produced Water Treatment Using Response Surface Methodology (RSM) and Central Composite Design (CCD)</b> Tutuk Djoko Kusworo, Dani Puji Utomo, Annizah Rahmatya Gerhana, and Hanifah Angga Putra	7-15
<b>The Kinetics of CaO Assisted Pattukku Charcoal Steam Gasification</b> Takdir Syarif, Hary Sulisty, Wahyudi Budi Sediawan, and Budhijanto	16-21
<b>The Calcination Temperature Effect on the Antioxidant and Radioprotection Properties of CeO<sub>2</sub> Nanoparticles</b> Iis Nurhasanah, Weni Safitri, Tri Windarti, and Agus Subagio	22-26
<b>Microwave Assisted Trans-esterification of Cotton Seed Oil for Biodiesel Production</b> Andi Suryanto, Zakir Sabara, Andi Artiningsih, and Hardi Ismail	27-30
<b>The Utilization of Chicken Bone Flour as a Source of Calcium in Cookies Making</b> Melanie Cornelia and Dhanny Prasetya Gozali	31-37
<b>Recovery of Aluminum from Aluminum Coated Plastic Waste using Pyrolysis Process</b> Chairul Irawan, Rinny Jelita, and Iryanti Fatysari Nata	38-44
<b>Influence of Microwave Irradiation on Extraction of Chitosan from Shrimp Shell Waste</b> Dwi Titik, Heru Susanto, and Nur Rokhati	45-50
<b>Effect of Alkaloids on Lactic Acid Fermentation from Cocoa Pod Husk using Lactobacillus Plantarum</b> Dodi Irwanto, Wiratni, and Rochmadi	51-56

# Reaktor

p-ISSN 0852 – 0798

e-ISSN 2407 – 5973

Accredited: SK No.: 60/E/KPT/2016

Website : <http://ejournal.undip.ac.id/index.php/reaktor/>

Reaktor, Vol. XX No. X, Month Year XXXX, pp. Xxx-xxx

---

## Manuscript Preparation Guidelines

Author 1<sup>1,2,\*</sup>, Author 2<sup>1</sup>, Author 3<sup>2</sup>, and Author 4<sup>3</sup>

<sup>1</sup>Department of Chemical Engineering, Faculty of Engineering, Diponegoro University  
Jl. Prof. Soedarto, SH, Tembalang, Semarang

<sup>2</sup>Laboratory of Material Technology, UPT Terpadu Laboratory, Diponegoro University  
Jl. Prof. Soedarto, SH, Tembalang, Semarang

<sup>3</sup>Center of Biomass and Renewable Energy (C-BIORE), UPT Terpadu Laboratory, Diponegoro University  
Jl. Prof. Soedarto, SH, Tembalang, Semarang

\*Corresponding author: [j.reaktor@che.undip.ac.id](mailto:j.reaktor@che.undip.ac.id)

(Received : xx xx xxxx; Accepted: xx xx xxxx; Published: xx xx xxxx)

### Abstract

*Abstract title is written with Times News Roman style (10 pt and bold) and centered format. The distance between abstract with Author address is 2 spaces (10 pt). The body text of abstract was written italic style (10 pt) amounts 150-200 words, with left margin and right margin 35 mm and 30 mm from edge. The abstract should be clear, concise, and descriptive. This abstract should provide a brief introduction to the problem (preferably 1-2 sentences, objective of paper, research method in short, and a brief summary of results. The abstract should end with a comment on the significance of the results or a brief conclusion. The abstract is preferably not more than 300 words. Key words written under the abstract text arranged in alphabetical order and separated by a semicolon. Title keywords written with regular format with 10 pt bold font while the key words in italics (italic).*

**Keywords:** *abstract; keyword; title; writing guidelines*

### INTRODUCTION

Reaktor is published since 1997 with 2 (two) issues every year, i.e. June and December. In 2012, Reaktor is published every April and October. Starting in 2016, Reaktor is published 4 (four) times a year i.e. March, June, September and December. Reaktor is a journal that has been accredited by SK No. 60/E/KPT/2016 with p-ISSN No. 0852-0798 and e-ISSN No. 2407-5973. Articles in the Reaktor come from articles submitted to the Reaktor Editor and after going through the review process by the Editorial Board and/or Mitra Bebestari. Articles submitted must be free from plagiarism and autoplagiarism.

The Reaktor as an accredited national journal has developed an online management system. The submitted/article submission process and article review process are performed by online. Currently, Reaktor has been indexed by some indexing machines such as; Indonesia Citation Index, Google Scholar, Portal Garuda, E-print UNDIP, Open access articles, Research Bible, *DAIJ (Directory of Abstract Indexing Journal)*, *OAJI (Open Academic Journal Index)*, *EZB Nutzeranfragen*, *World Cat*, *SHERPA/RoMEO* and *DOAJ*.

Articles can be written in either English or Indonesia. Articles can be results of research, state of the art studies, and analysis and problem solving in

industries relevant to the field of chemical engineering, which have not been published in other publications.

## WRITING METHOD

### General Instructions

Articles should be written on A4 paper (210 x 297 mm). Articles are written without page numbers and arranged in the following order: Title, Abstract, Keywords, Introduction, Research Method (or Model Development), Results and Discussion, Conclusions, Acknowledgments (if any), Notation List (if any) and References. Abstracts and Titles are written in 2 (two) languages namely Indonesian and English.

### Writing Guidelines

The article begins with the title of the article written with UPPER CASE format, font 16 pt bold. The title is an opportunity to attract the reader's attention. Remember that readers are the potential authors who will cite your article. Identify the main issue of the paper. Begin with the subject of the paper. The title should be accurate, unambiguous, specific, and complete. Do not contain infrequently-used abbreviations.

The author's name is written under the title with the Title Case format, font 12 pt bold. The author's name is written complete without an academic degree. Apostrophes are written behind the author's name in superscript format. The name of the institution (institution, address, phone number, facsimile number and e-mail) is written under the author's name with the theme of Times New Roman with Title Case format, 10 pt. If the author is more than one, should be written email for the correspondence author (corresponding author). Article title, author's name and institutional name are written flat center. The distance between the title and the author's name is 2 spaces (10 pt) and between the author's name and the institution name is 1 space (10 pt).

The contents of the article are written with a left margin of 25 mm, right margin 20 mm, bottom margin 20 mm and top margin 30 mm. The header distance from the edge of the paper is 20 mm, and the footer distance from the edge of the paper is 13 mm. Articles are written in MS Word program with Times New Roman font type, 10 pt font, 1 space and in two column format. The maximum number of article pages is 10 (including pictures and tables) and written justified. The beginning of the paragraph is written indented by a distance of 1 cm and the distance between paragraphs is 10 pt.

Subtitles are written in bold with UPPER CASE format and arranged align left with no number and underscore. Sub subtitles are written in bold with Title Case format and arranged align left with no number and underscore. Sub sub subtitles are written in bold with Sentence case format and arranged align left without numbers and underscores.

## RESULTS AND DISCUSSION

### Figures and Tables

Figures and Tables are placed in groups of text and annotated. The figure is followed by the caption placed under the figure and the table followed by the caption placed on the table. The figures and the tables are numbered. The figure is guaranteed to be printed clearly even though it is reduced to 50%. Figure is not framed. For colorful images or graphics, please send as many as 300 sheets if you want to print in color. Tables with no vertical lines, whereas horizontal lines are only shown in 3 main horizontal lines i.e. 2 horizontal lines for the column headings and 1 closing line for the bottom row.

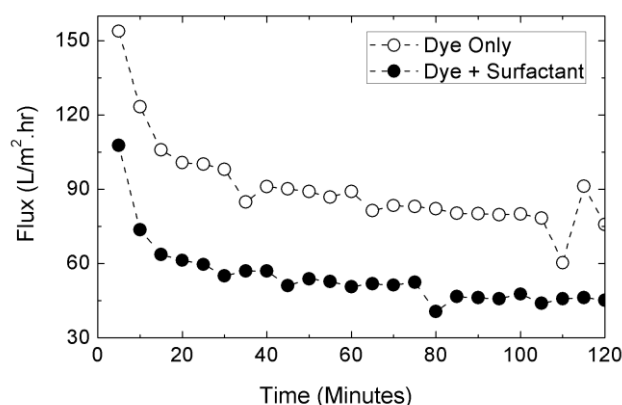


Figure 1. Flux Profile of Dye and Mixture of Dye and Surfactant Ultrafiltration at Remazol Blue concentration of 90 mg/l

Table 1. The microalgae composition of the *Tetraselmis chuii* species

Component	Composition (%w/w)
$\alpha$ -cellulose	47.2 %
Hemisellulose	35.5%
HWS	17%

### Equations

The equations are written center and numbered in parentheses. The number is placed at the end of the right margin of the column.

$$D = \frac{A}{(V_{rel}^2 \rho_a)^2} + B \left( \frac{M_{air}}{M_{liq}} \right)^{-\beta} \quad (1)$$

### Quote Writing

The writing system quotes a manuscript or literature using the Harvard system. The literature source is composed only of the author's name and the year of its publication. Examples: Attempts to search for better heat storage systems have been widely used, including the latent heat melting of PCM (Yanadoro and Matsuda, 2006 for one or two authors; Smith *et al.*, 2011 for more than two authors). According to (2010), .....etc.

## CONCLUSION

Articles submitted / registered online by accessing the website of the Reaktor with the following address; <http://ejournal.undip.ac.id/index.php/reaktor/index>. Author must have a username and keyword to be able to register the article. Metadata must be filled in completely. The article should be supplemented by a Declaration Letter stating that the article is free from conflict and plagiarism. For prospective Authors who have not been able to submit online can contact the Editor via E-mail with the address [j.che@che.undip.ac.id](mailto:j.che@che.undip.ac.id) atau [reaktor\\_tkundip@yahoo.com](mailto:reaktor_tkundip@yahoo.com).

The submitted articles will be reviewed by the Editorial Board and/or Mitra Bebestari. Correspondence will be addressed to the corresponding author. The author should immediately improve the article according to the reviewer's instructions. If the article has been declared acceptable, either the Main Revision or Minor Revision, the Author must correct it no later than **15 days** after the notice. If the author does not improve his article more than 15 days, then when submitting the article will be considered as a new registration (New Submission).

The editor reserves the right to reject articles submitted if irrelevant to the field of chemical engineering, not up to date or have been published in other scientific magazines.

## NOTATION

Notation is written alphabetically. Latin letters are written first, followed by an Arabic letter.

## REFERENCES

References are listed alphabetically without numbering and the distance between the bibliography is 1 space (10 pt). The rules of writing used are as follows:

Magazine/scientific journal/proceedings:

Sumin, L., Youguang, M.A., Chunying, Z., Shuhua, S., and Qing, H.E., (2009), The Effect of Hydrophobic Modification of Zeolites on CO<sub>2</sub> Absorption Enhancement, *Chinese Journal of Chemical Engineering*, 17(1), pp. 36-41.

Book :

Fogler, H.S., (2006), *Elements of Chemical Reaction Engineering*, 4<sup>th</sup>, Prentice Hall International, Upper Sadle River, New Jersey, pp. 47-93

Disertation/thesis :

Djaeni, M., (2008), Energy Efficient Multistage Zeolite Drying for Heat Sensitive Products, *PhD Thesis*, Wageningen University, The Netherlands.

Patent :

van Reis, R.D., (2006), Charged Filtration Membranes and Uses Therefore, *US Patent 7,001,550*.

HandBook :

Knothe, G., van Gerpen, J., and Krahl, J., (2005), *The Biodiesel Handbook*, AOCs Press, Campaign, Illionis, USA, pp. 70-84

Mujumdar, A.S. and Hasan, M., (2006), Drying of Polymers in *Handbook of Industrial Drying*, editor A.S. Mujumdar, 3rd ed, Marcel Dekker, New York, pp. 954-978.