

**LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH: PROSIDING**

Judul Publikasi Ilmiah (Artikel) : Simultant encapsulation of vitamin C and beta-carotene in sesame. (*Sesamum indicum* L.) liposomes
 Jumlah Penulis : 3 orang
 Status Pengusul : penulis pertama/utama
 Identitas Jurnal Ilmiah a. Nama Jurnal Ilmiah: IOP Conference Series: Materials Science and Engineering
 b. Nomor ISBN /ISSN : ISSN: 17578981
 c. Volume, Nomor, Bulan, Tahun : Volume 349, Issue 1, 2 May 2018, Article number 012014
 d. Penerbit : IOP Publishing
 e. DOI artikel (jika ada) : <https://doi.org/10.1088/1757-899X/349/1/012014>
 f. Alamat web jurnal : <http://iopscience.iop.org/issue/1757-899X/349/1>
 g. Terindeks di SCOPUS (CiteScore is 0.53), Scimago journal Rank (H-index 24, SJR 0.19), Google Scholar, dll
 e. Jumlah Halaman : 8 (1-8) halaman

Kategori Publikasi Jurnal Ilmiah : Jurnal Ilmiah Internasional / Internasional Bereputasi (prosiding) **
 Jurnal Ilmiah Nasional Terakreditasi
 Jurnal Ilmiah Nasional/Nasional Terindeks di DOAJ, CABI, COPERNICUS**

Hasil Penilaian Peer Review

Komponen Yang Dinilai	Nilai Reviewer		Nilai Rata-rata
	Reviewer I	Reviewer II	
a. Kelengkapan unsur isi prosiding (10%)	3	2,7	2,85
b. Ruang lingkup dan kedalaman pembahasan (30%)	8	8,1	8,05
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	8	8,1	8,05
d. Kelengkapan unsur dan kualitas penerbit (30%)	8	9,0	8,5
Total = (100%)	27	27,9	27,45
Nilai Pengusul = (60%)	16,2	16,74	16,47

Reviewer 2

Prof. Dr. rer. nat Nuryono, M.S.
 NIP. 196407141988111001

Unit kerja : Universitas Gadjah Mada Yogyakarta
 Jabatan Fungsional : Guru Besar
 Bidang ilmu : Kimia

Semarang,
 Reviewer 1

Prof. Dr. Moh Djaeni, ST, M.Eng
 NIP 197102071995121001

Unit Kerja : Universitas Diponegoro Semarang
 Jabatan Fungsional : Guru Besar
 Bidang Ilmu : Teknik Kimia

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Hasil Penilaian Peer Review

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah			Nilai Akhir yang diperoleh
	Internasional Bereputasi Berimpact factor (prosiding)	Nasional Terakreditasi	Nasional	
	(30)			
a. Kelengkapan unsur isi prosiding (10%)	3			3
b. Ruang lingkup dan kedalaman pembahasan (30%)	9			8
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9			8
d. Kelengkapan unsur dan kualitas penerbit (30%)	9			8
Total = (100 %)	30			27
Nilai Pengusul = (60% x 27) = 16.2				16.2

Catatan Penilaian artikel oleh Reviewer :

1. **Kesesuaian dan kelengkapan unsur isi artikel:**

Artikel sangat lengkap, dimana analisis tentang enkapsulasi simultan vitamin C dan beta-karoten dalam wijen (*Sesamum indicum* L.) liposom disajikan dengan terperinci, disitasi dan dibahas. Topik dan materi sesuai dengan jurnal yang bersangkutan. Tata penulisan tersaji dengan sangat baik.

2. **Ruang lingkup dan kedalaman pembahasan:**

Artikel ini membahas tentang enkapsulasi simultan vitamin C dan beta-karoten dalam wijen (*Sesamum indicum* L.) liposom. Efisiensi enkapsulasi vitamin C dan beta-karoten ditentukan dan dianalisis baik individual maupun simultan enkapsulasi sehingga diperoleh gambaran kemampuan liposom wijen untuk mengenkapsulasi keduanya. Pembahasan cukup detail dan komprehensif, sehingga memberikan nilai signifikan bagi kebaruan ilmu yang bersangkutan.

3. **Kecukupan dan kemutakhiran data/informasi dan metodologi:**

Referensi yang dicitasi dalam artikel ini ada 39 dimana 22 Baru (dalam 10 tahun terakhir). Nilai novelty/kebaruan artikel ini baik. Metode disajikan dengan tahapan yang jelas, dan mudah diikuti.

4. **Kelengkapan unsur dan kualitas terbitan:**

Penerbit adalah IOP Publishing terindeks scopus. Nilai similaritas artikel berdasarkan Turnitin hanya 11%, sehingga orisinalitas sangat baik.

Semarang, November 2019

Reviewer

Prof. Dr. Moh Djazni, ST, M.Eng
NIP 197102071995121001

Unit Kerja : Universitas Diponegoro

Jabatan Fungsional : Guru Besar

Bidang Ilmu : Teknik Kimia

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Hasil Penilaian *Peer Review*

Komponen Yang Dinilai	Nilai Maksimal Jurnal Ilmiah			Nilai Akhir yang diperoleh
	Internasional Bereputasi Berimpact factor (prosiding)	Nasional Terakreditasi	Nasional	
	(30)			
a. Kelengkapan unsur isi prosiding (10%)	3			2,7
b. Ruang lingkup dan kedalaman pembahasan (30%)	9			8,1
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9			8,1
d. Kelengkapan unsur dan kualitas penerbit (30%)	9			9,0
Total = (100 %)	30			27,9

Nilai Pengusul = (60% x 27,9) = 16,74

Catatan Penilaian artikel oleh Reviewer :

a. Kelengkapan unsur isi jurnal:

Prosiding diterbitkan dalam IOP Conference Series: Materials Science and Engineering. Artikel dalam prosiding sangat melaporkan tentang enkapsulasi simultan vitamin C dan beta-karoten dalam wijen (*Sesamum indicum* L.) liposom. Tata penulisan sesuai dengan standar jurnal ilmiah dan runtut. Namun, editor kurang cermat dalam melakukan proof reading; dijumpai beberapa tata bahasa yang salah. Kualitas gambar juga kurang baik.

b. Ruang lingkup dan kedalaman pembahasan:

Ruang lingkup topik pembahasan dalam artikel ini sesuai dengan dengan judul, yaitu tentang enkapsulasi simultan vitamin C dan beta-karoten dalam wijen (*Sesamum indicum* L.) liposom. Pembahasan cukup mendalam dan didukung referensi yang memadai. Namun, predeksi posisi beta karoten dan vit C dalam limposom dirasa terlalu spekulasi tanpa didukung data/bukti eksperimen.

c. Kecukupan dan kemutakhiran data/informasi dan metodologi:

Data yang disajikan sangat mencukupi untuk prosiding dan memiliki nilai kebaruan tinggi. Kemutakhiran dari referensi, sebanyak 39 artikel disitasi dan 22 (56%) terbit dalam 10 tahun terakhir serta 90% dari jurnal. Metode dan prosedur yang disajikan kurang rinci, kuantitas bahan kimia yang diperlukan tidak disebutkan.

d. Kelengkapan unsur dan kualitas penerbit:

Penerbit adalah IOP Publishing terindeks scopus. Nilai similaritas artikel berdasarkan Turnitin hanya 11%, sehingga orisinalitas sangat baik.

Semarang, November 2019

Reviewer

Prof. Dr. rer. nat. Nuryono, M.S.

NIP. 196407141988111001

Bidang ilmu/Unit kerja:

Departemen Kimia pada Fakultas MIPA UGM Yogyakarta



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Volume 349, Issue 1, 2 May 2018, Article number 012014
12th Joint Conference on Chemistry, JCC 2017; Crystall Ballroom, Aston Hotel and Convention
Centre Semarang; Indonesia; 19 September 2017 through 20 September 2017; Code 136611

Simultant encapsulation of vitamin C and beta-carotene in sesame (*Sesamum indicum* L.) liposomes (Conference Paper) (Open Access)

Hudiyanti, D.^a ✉, Fawrin, H.^b, Siahaan, P.^a

🔖 Save all to author list

^aChemistry Department, Diponegoro University, Semarang, Indonesia

^bUndergraduate Program, Chemistry Department, Diponegoro University, Semarang, Indonesia

Abstract

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In this study sesame liposomes were used to encapsulate both vitamin C and beta-carotene simultaneously. Liposomes were prepared with addition of cholesterol. The encapsulation efficiency (EE) of sesame liposomes for vitamin C in the present of beta-carotene was 77%. The addition of cholesterol increased the encapsulation efficiency. The highest encapsulation efficiency was 89% obtained in liposomes with 10% and 20% cholesterol. Contrary to that, the highest beta-carotene encapsulation efficiency of 78%, was found in the sesame liposomes prepared without the added cholesterol. Results showed that sesame liposomes can be used to encapsulate beta-carotene and vitamin C simultaneously. When beta-carotene and vitamin C were encapsulated concurrently, cholesterol intensified the efficiency of vitamin C encapsulation on the contrary it diminished the efficiency of beta-carotene encapsulation. © 2018 Institute of Physics Publishing. All rights reserved.

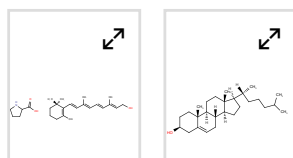
SciVal Topic Prominence ⓘ

Topic: Liposomes | Nisin | Polydispersity index

Prominence percentile: 96.738 ⓘ

Chemistry database information ⓘ

Substances



Indexed keywords

Engineering
controlled terms:

Cholesterol Efficiency Liposomes

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3 Citations in Scopus
92nd percentile

2.99 Field-Weighted
Citation Impact



PlumX Metrics

Usage, Captures, Mentions,
Social Media and Citations
beyond Scopus.

Cited by 3 documents

An overview of liposomal nano-encapsulation techniques and its applications in food and nutraceutical

Subramani, T., Ganapathyswamy, H.
(2020) *Journal of Food Science and Technology*

Encapsulation of Vitamin C in Sesame Liposomes: Computational and Experimental Studies

Hudiyanti, D., Hamidi, N.I., Anugrah, D.S.B.
(2019) *Open Chemistry*

Cholesterol implications on coconut liposomes encapsulation of beta-carotene and vitamin C

Hudiyanti, D., Aminah, S., Hikmahwati, Y.
(2019) *IOP Conference Series: Materials Science and Engineering*

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Anam, K.
(2018) *Oriental Journal of
Chemistry*

Cholesterol implications on
coconut liposomes encapsulation
of beta-carotene and vitamin C

Hudiyanti, D. , Aminah, S. ,
Hikmahwati, Y.
(2019) *IOP Conference Series:
Materials Science and
Engineering*

Chemical composition and
phospholipids content of
Indonesian Jack Bean (*Canavalia
ensiformis* L.)

Hudiyanti, D. , Arya, A.P. ,
Siahaan, P.
(2015) *Oriental Journal of
Chemistry*

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Publisher: Institute of Physics Publishing

References (39)

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- 1 Proteggente, A.R., Pannala, A.S., Paganga, G., Van Buren, L., Wagner, E., Wiseman, S., Van De Put, F., (...), Rice-Evans, C.A.

The antioxidant activity of regularly consumed fruit and vegetables reflects their phenolic and vitamin C composition

(2002) *Free Radical Research*, 36 (2), pp. 217-233. Cited 572 times.

doi: 10.1080/10715760290006484

View at Publisher

- 2 Padayatty, S.J., Katz, A., Wang, Y., Eck, P., Kwon, O., Lee, J.-H., Chen, S., (...), Dutta, S.K.

Vitamin C as an Antioxidant: Evaluation of Its Role in Disease Prevention

(2003) *Journal of the American College of Nutrition*, 22 (1), pp. 18-35. Cited 966 times.

doi: 10.1080/07315724.2003.10719272

View at Publisher

- 3 Halliwell, B.

Vitamin C: Antioxidant or pro-oxidant in vivo?

(1996) *Free Radical Research*, 25 (5), pp. 439-454. Cited 428 times.

<http://www.tandfonline.com/loi/ifra20#.VtPBubdf27E>

doi: 10.3109/10715769609149066

View at Publisher

- 4 Sies, H., Stahl, W.

Vitamins E and C, β -carotene, and other carotenoids as antioxidants

(1995) *American Journal of Clinical Nutrition*, 62 (6 SUPPL.), pp. 1315S-1321S. Cited 852 times.

View at Publisher

□ 5 Prakash, D., Gupta, K.R.
(2009) *The Antioxidant Phytochemicals of Nutraceutical Importance*, 109, pp. 20-35. Cited 38 times.

□ 6 Moser, M.A., Chun, O.K.
Vitamin C and heart health: A review based on findings from epidemiologic studies
([Open Access](#))

(2016) *International Journal of Molecular Sciences*, 17 (8), art. no. 1328. Cited 55 times.
<http://www.mdpi.com/1422-0067/17/8/1328/pdf>
doi: 10.3390/ijms17081328

[View at Publisher](#)

□ 7 Bai, X.-Y., Qu, X., Jiang, X., Xu, Z., Yang, Y., Su, Q., Wang, M., (...), Wu, H.
Association between dietary vitamin C intake and risk of prostate cancer: A meta-analysis involving 103,658 subjects ([Open Access](#))

(2015) *Journal of Cancer*, 6 (9), pp. 913-921. Cited 17 times.
<http://www.jcancer.org/v06p0913.pdf>
doi: 10.7150/jca.12162

[View at Publisher](#)

□ 8 Jenab, M., Riboli, E., Ferrari, P., Sabate, J., Slimani, N., Norat, T., Friesen, M., (...), Gonzalez, C.A.
Plasma and dietary vitamin C levels and risk of gastric cancer in the European Prospective Investigation into Cancer and Nutrition (EPIC-EURGAST) ([Open Access](#))

(2006) *Carcinogenesis*, 27 (11), pp. 2250-2257. Cited 99 times.
doi: 10.1093/carcin/bgl096

[View at Publisher](#)

□ 9 Foote, J.A., Murphy, S.P., Wilkens, L.R., Hankin, J.H., Henderson, B.E., Kolonel, L.N.
Factors associated with dietary supplement use among healthy adults of five ethnicities: The multiethnic cohort study ([Open Access](#))

(2003) *American Journal of Epidemiology*, 157 (10), pp. 888-897. Cited 140 times.
doi: 10.1093/aje/kwg072

[View at Publisher](#)

□ 10 Van Jaarsveld, P.J., Faber, M., Tanumihardjo, S.A., Nestel, P., Lombard, C.J., Benadé, A.J.S.
β-carotene-rich orange-fleshed sweet potato improves the vitamin A status of primary school children assessed with the modified-relative-dose- response test

(2005) *American Journal of Clinical Nutrition*, 81 (5), pp. 1080-1087. Cited 247 times.

[View at Publisher](#)

□ 11 Haskell, M.J.
The challenge to reach nutritional adequacy for vitamin A: β-carotene bioavailability and conversion - Evidence in humans ([Open Access](#))

(2012) *American Journal of Clinical Nutrition*, 96 (5), pp. 1193S-1203S. Cited 72 times.
<http://ajcn.nutrition.org/content/96/5/1193S.full.pdf+html>
doi: 10.3945/ajcn.112.034850

[View at Publisher](#)

- 12 Grune, T., Lietz, G., Palou, A., Ross, A.C., Stahl, W., Tang, G., Thurnham, D., (...), Biesalski, H.K.

β -carotene is an important vitamin A source for humans ([Open Access](#))

(2010) *Journal of Nutrition*, 140 (12), pp. 2268S-2285S. Cited 190 times.

<http://jn.nutrition.org/content/140/12/2268S.full.pdf+html>

doi: 10.3945/jn.109.119024

[View at Publisher](#)

- 13 Krinsky, N.I., Johnson, E.J.

Carotenoid actions and their relation to health and disease

(2005) *Molecular Aspects of Medicine*, 26 (6), pp. 459-516. Cited 743 times.

doi: 10.1016/j.mam.2005.10.001

[View at Publisher](#)

- 14 Omenn, G.S., Goodman, G.E., Thornquist, M.D., Balmes, J., Cullen, M.R., Glass, A., Keogh, J.P., (...), Hammar, S.

Effects of a combination of beta carotene and vitamin A on lung cancer and cardiovascular disease

(1996) *New England Journal of Medicine*, 334 (18), pp. 1150-1155. Cited 2873 times.

doi: 10.1056/NEJM199605023341802

[View at Publisher](#)

- 15 Liao, M.-L., Seib, P.A.

Chemistry of L-ascorbic acid related to foods

(1988) *Food Chemistry*, 30 (4), pp. 289-312. Cited 82 times.

doi: 10.1016/0308-8146(88)90115-X

[View at Publisher](#)

- 16 Qian, C., Decker, E.A., Xiao, H., McClements, D.J.

Physical and chemical stability of β -carotene-enriched nanoemulsions: Influence of pH, ionic strength, temperature, and emulsifier type

(2012) *Food Chemistry*, 132 (3), pp. 1221-1229. Cited 242 times.

doi: 10.1016/j.foodchem.2011.11.091

[View at Publisher](#)

- 17 Boon, C.S., McClements, D.J., Weiss, J., Decker, E.A.

Factors influencing the chemical stability of carotenoids in foods

(2010) *Critical Reviews in Food Science and Nutrition*, 50 (6), pp. 515-532. Cited 346 times.

doi: 10.1080/10408390802565889

[View at Publisher](#)

- 18 Wechtersbach, L., Poklar Ulrih, N., Cigić, B.

Liposomal stabilization of ascorbic acid in model systems and in food matrices

(2012) *LWT - Food Science and Technology*, 45 (1), pp. 43-49. Cited 32 times.

doi: 10.1016/j.lwt.2011.07.025

[View at Publisher](#)

19 KIRBY, C.J., WHITTLE, C.J., RIGBY, N., COXON, D.T., LAW, B.A.
Stabilization of ascorbic acid by microencapsulation in liposomes
(1991) *International Journal of Food Science & Technology*, 26 (5), pp. 437-449. Cited 84 times.
doi: 10.1111/j.1365-2621.1991.tb01988.x
[View at Publisher](#)

20 Jeong, S.H., Park, J.H., Park, K.
(2007) *Role of Lipid Excipients in Modifying Oral and Parenteral Drug Delivery*. Cited 5 times.
Jeong S H, Park J H and Park K ed K M Wasan (John Wiley amp; Sons, Inc) chapter 2

21 Akbarzadeh, A., Rezaei-Sadabady, R., Davaran, S., Joo, S.W., Zarghami, N., Hanifehpour, Y., Samiei, M., (...), Nejadi-Koshki, K.
Liposome: Classification, preparation, and applications ([Open Access](#))
(2013) *Nanoscale Research Letters*, 8 (1), art. no. 102. Cited 903 times.
<http://www.springer.com/materials/nanotechnology/journal/11671>
doi: 10.1186/1556-276X-8-102
[View at Publisher](#)

22 Allen, T.M., Cullis, P.R.
Liposomal drug delivery systems: From concept to clinical applications
(2013) *Advanced Drug Delivery Reviews*, 65 (1), pp. 36-48. Cited 2128 times.
doi: 10.1016/j.addr.2012.09.037
[View at Publisher](#)

23 Wang, F., Chen, L., Zhang, R., Chen, Z., Zhu, L.
RGD peptide conjugated liposomal drug delivery system for enhance therapeutic efficacy in treating bone metastasis from prostate cancer
(2014) *Journal of Controlled Release*, 196, pp. 222-233. Cited 104 times.
www.elsevier.com/locate/jconrel
doi: 10.1016/j.jconrel.2014.10.012
[View at Publisher](#)

24 Kaminskas, L.M., McLeod, V.M., Kelly, B.D., Sberna, G., Boyd, B.J., Williamson, M., Owen, D.J., (...), Porter, C.J.H.
A comparison of changes to doxorubicin pharmacokinetics, antitumor activity, and toxicity mediated by PEGylated dendrimer and PEGylated liposome drug delivery systems
(2012) *Nanomedicine: Nanotechnology, Biology, and Medicine*, 8 (1), pp. 103-111. Cited 103 times.
doi: 10.1016/j.nano.2011.05.013
[View at Publisher](#)

25 Malam, Y., Loizidou, M., Seifalian, A.M.
Liposomes and nanoparticles: nanosized vehicles for drug delivery in cancer
(2009) *Trends in Pharmacological Sciences*, 30 (11), pp. 592-599. Cited 735 times.
doi: 10.1016/j.tips.2009.08.004
[View at Publisher](#)

- 26 Moraes, M., Carvalho, J.M.P., Silva, C.R., Cho, S., Sola, M.R., Pinho, S.C.
Liposomes encapsulating beta-carotene produced by the proliposomes method: Characterisation and shelf life of powders and phospholipid vesicles
(2013) *International Journal of Food Science and Technology*, 48 (2), pp. 274-282. Cited 42 times.
doi: 10.1111/j.1365-2621.2012.03184.x
View at Publisher
-
- 27 Farhang, B., Kakuda, Y., Corredig, M.
Encapsulation of ascorbic acid in liposomes prepared with milk fat globule membrane-derived phospholipids
(2012) *Dairy Science and Technology*, 92 (4), pp. 353-366. Cited 35 times.
doi: 10.1007/s13594-012-0072-7
View at Publisher
-
- 28 Lang, J., Vigo-Pelfrey, C., Martin, F.
Liposomes composed of partially hydrogenated egg phosphatidylcholines: fatty acid composition, thermal phase behavior and oxidative stability
(1990) *Chemistry and Physics of Lipids*, 53 (1), pp. 91-101. Cited 39 times.
doi: 10.1016/0009-3084(90)90137-G
View at Publisher
-
- 29 Thomas, A.H., Catalá, Á., Vignoni, M.
Soybean phosphatidylcholine liposomes as model membranes to study lipid peroxidation photoinduced by pterin (Open Access)
(2016) *Biochimica et Biophysica Acta - Biomembranes*, 1858 (1), pp. 139-145. Cited 18 times.
www.elsevier.com/locate/bbamem
doi: 10.1016/j.bbamem.2015.11.002
View at Publisher
-
- 30 Hudyanti, D., Raharjo, T.J., Narsito, N., Noegrohati, S.
(2012) *Isolasi Dan Karakterisasi Lesitin Kelapa Dan Wijen*, 32, pp. 23-26. Cited 7 times.
-
- 31 Bégu, S., Aubert-Pouëssel, A., Poléxe, R., Leitmanova, E., Lerner, D.A., Devoisselle, J.-M., Tichit, D.
New layered double hydroxides/phospholipid bilayer hybrid material with strong potential for sustained drug delivery system
(2009) *Chemistry of Materials*, 21 (13), pp. 2679-2687. Cited 50 times.
<http://pubs.acs.org/doi/pdfplus/10.1021/cm803426j>
doi: 10.1021/cm803426j
View at Publisher
-
- 32 Hudyanti, D., Raharjo, T.J., Narsito, N., Noegrohati, S.
Study on leakage of sesame (*Sesamum indicum* L.) and coconut (*Cocos nucifera* L.) liposomes (Open Access)
(2015) *Oriental Journal of Chemistry*, 31 (1), pp. 435-439. Cited 6 times.
<http://www.orientjchem.org/download/8358>
doi: 10.13005/ojc/310152
View at Publisher

- 33 Sułkowski, W.W., Pentak, D., Nowak, K., Sułkowska, A.
The influence of temperature, cholesterol content and pH on liposome stability

(2005) *Journal of Molecular Structure*, 744-747 (SPEC. ISS.), pp. 737-747. Cited 166 times.
doi: 10.1016/j.molstruc.2004.11.075

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- 34 Abe, K., Higashi, K., Watabe, K., Kobayashi, A., Limwikrant, W., Yamamoto, K., Moribe, K.
Effects of the PEG molecular weight of a PEG-lipid and cholesterol on PEG chain flexibility on liposome surfaces

(2015) *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 474, pp. 63-70. Cited 34 times.
www.elsevier.com/locate/colsurfa
doi: 10.1016/j.colsurfa.2015.03.006

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- 35 Briuglia, M.-L., Rotella, C., McFarlane, A., Lamprou, D.A.
Influence of cholesterol on liposome stability and on in vitro drug release

(2015) *Drug Delivery and Translational Research*, 5 (3), pp. 231-242. Cited 149 times.
<http://www.springer.com/biomed/pharmaceutical+science/journal/13346>
doi: 10.1007/s13346-015-0220-8

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- 36 Liang, X., Mao, G., Ng, K.Y.S.
Mechanical properties and stability measurement of cholesterol-containing liposome on mica by atomic force microscopy

(2004) *Journal of Colloid and Interface Science*, 278 (1), pp. 53-62. Cited 153 times.
doi: 10.1016/j.jcis.2004.05.042

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- 37 Faatih, M.
Isolasi dan digesti DNA kromosom
(2009) *J Penelit. Sains Dan Teknol.*, 20, pp. 61-67. Cited 2 times.

- 38 Socaciu, C., Jessel, R., Diehl, H.A.
Competitive carotenoid and cholesterol incorporation into liposomes: Effects on membrane phase transition, fluidity, polarity and anisotropy

(2000) *Chemistry and Physics of Lipids*, 106 (1), pp. 79-88. Cited 96 times.
doi: 10.1016/S0009-3084(00)00135-3

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- 39 Matsuoka, S., Murata, M.
Cholesterol markedly reduces ion permeability induced by membrane-bound amphotericin B ([Open Access](#))

(2002) *Biochimica et Biophysica Acta - Biomembranes*, 1564 (2), pp. 429-434. Cited 46 times.
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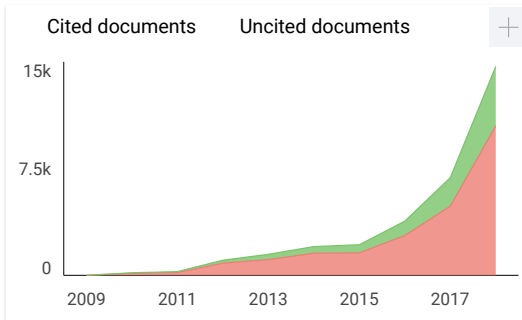
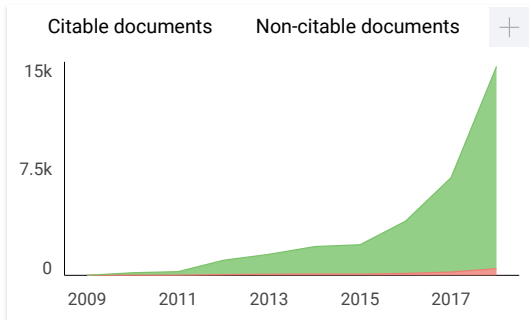
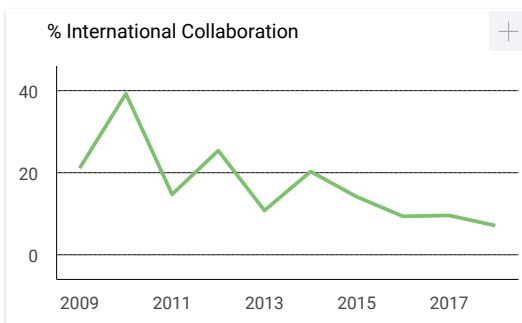
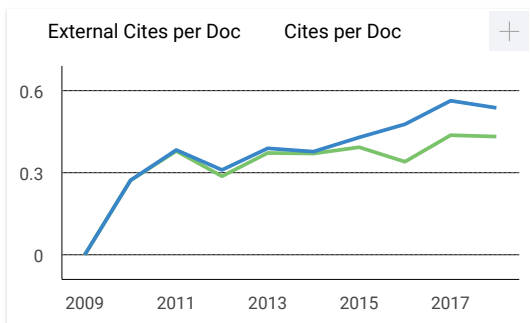
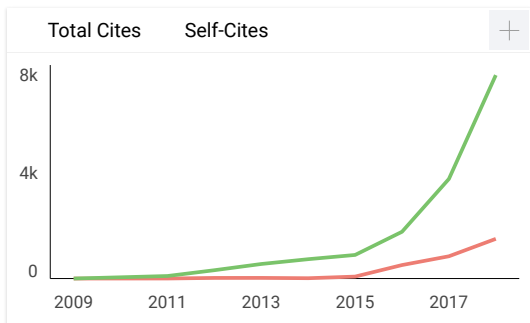
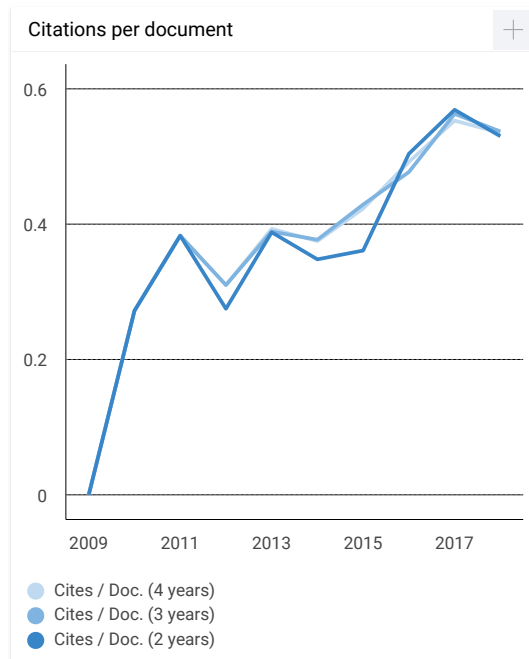
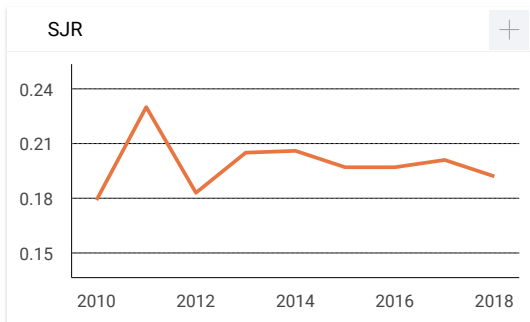
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08.15-08.35	Opening Ceremony
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	Welcoming Dance
08.35-08.40	Chairman speech Cepi Kurniawan, PhD
08.40-08.50	Welcoming from the head of department
08.50-09.00	Welcoming speech and opening the conference by the Dean Prof. Dr. Zaenuri M., S.E, M.Si, Akt.
09.00-09.20	Coffee Break
09.20-10.00	Prof. Guoping Chen Hybrid Scaffolds of Biodegradable Polymers and Biomimetic Matrices for Tissue Engineering Applications
	Chair: Sri Kadarwati, PhD
10.00-11.00	Prof. David Harding Designing Molecular Switches: A Molecular Magnetism Approach
	Prof. Hadariah Bahron Imines and Metals: Marriage Made in Heavens
	Chair: M. Alauhdin, PhD
11.00-12.00	Prof. Kasmadi Imam Kasmadi The Cultivation of Religious Characters in Chemical Science Learning
	Prof. Subramaniam Ramanathan
	Chair: Sri Kadarwati, PhD
12.00-13.00	Lunch Break
13.00-14.00	Prof. Ni Nyoman Tri Puspaningsih Strengthening The Academic Network on Bioresource Technology Research towards Green Industry
	Prof. Hajime Hirao Computationally Exploring Complex Molecular Systems
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JCC2017065	Optimization Recovery Yttrium Oxide (Y ₂ O ₃) In Precipitation, Extraction and Stripping Process	NizarKamil Pewira ¹ , Kris Tri Basuki ¹ , Dwi Biyantoro ² , Nuradam Effendy ¹
JCC2017069	The Effect of Mole Comparison of Acetone as Co-Solvent to Methanol in Transesterification Reaction of Waste Cooking Oil	TatangShabur Julianto ¹ , Rizqy Nurlestari ¹
JCC2017073	Antimicrobial Activity of Saponin Compounds from Oil-Free Mahogany Seeds (Swieteniamacrophylla, King)	Sri Mursiti ¹ , Supartono ¹
JCC2017074	Generic Science Skills Enhancement of Students Through Implementation of IDEAL Problem Solving Model On Genetic Information Course	Aisyah Zirconia ¹ , Florentina Maria Titin Supriyanti ¹ ., Asep Supriatna ¹
JCC2017079	Sunlight-Assisted Synthesis of Colloidal Silver Nanoparticles Using Chitosan as Reducing agent	Endang Susilowati ¹ , Maryani ² , Ashadi ³
JCC2017083	Modification of PolyeugenolDirivate Contain Ethylene Glycol Dimethacrylate (EGDMA) as a Carrier for Phenol Trasport	AgungAbadi Kiswandono ¹ , Dwi Siswanta ² , NurulHidayat Aprilita ² , Sri Juari Santosa ²
JCC2017086	Determination of Urease Biochemical Properties of Asparagus Bean (Vignaunguiculatasspsesquipedalis L.)	Zusfahair ¹ , D R Ningsih ¹ , A Fatoni ¹ , D S Pertiwi ¹
JCC2017088	Concentration Effect of Silver Doped Titania Synthesized by Sonochemical Method and Ability Test of Anti Bacterial S. Aureus	Heri Sutanto ¹ , Eko Hidayanto ¹ , Mukholit ¹ , Jhon Wesley Manik ¹ , Ahmad Nimatullah Al-Baarri ²
JCC2017092	Membran-Based Synthesis of Chitosan Crosslinked Succinic Acid Grafted with Heparin/Pva-Peg (Polyvinyl Alcohol-Polyethylene Glycol) and its Characterization	RetnoAriadi Lusiana ¹ , Yayuk Astuti ¹ , ViviDia A Sangkota ¹
JCC2017098	Characterization of Bio-Oil from Fast Pyrolysis of Palm Frond and Empty Fruit Bunch	Maharani Dewi Solikhah ¹ , Fatimah Tresna Pratiwi ¹ , Yayan Heryana ¹ , AndriasRahman Wimada ¹ , Feri Karuana ¹ , AlfonsusAgus Raksodewanto ¹ , Agus Kismanto ¹
JCC2017101	Simultant Encapsulation of Vitamin C and Beta-Carotene in Sesame (Sesamum Indicum L.) Liposomes	Dwi Hudiyan ¹ , Heralda Fawrin ¹ , and Parsaoran Siahaan ¹
JCC2017103	Renewable Copolymer of Eugenol-Stearyl Acrylate as an Oil Absorbent	Alifia H. Rachma ¹ , Lia F. ¹ , Marita M. Putri ¹ , and Desi S. Handayani ¹
JCC2017108	Study of Catalyst Variation Effect in Glycerol Conversion to Hydrogen by Steam Reforming Process	Widayat ^{1,2} , Richard Hartono ¹ , Eunice Elizabeth ¹ , AriantiNuur Annisa ¹

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JCC2017165	Effectiveness Study of Drinking Water Treatment In Indonesian Regulation of Health Minister Using Adsorbent Clays Appeal Andisol In Lariat Heavy Metal Cadmium (Cd) and Bacterial Pathogens	Dr. Pranoto, M.Sc ¹ , Inayati, S.T., M.T, Ph.2 , Fathoni Firmansyah ³
JCC2017166	Radical Scavenging Activity from Ethanolic Extract of Malvaceae Family's Flowers	AnifNur Artanti ¹ , Niki Rahmadanny ¹ , Fea Prihapsara ¹
JCC2017167	Golden Wattle (<i>Acacia pycnantha</i>) Flower: Is it Only Floral Emblem of Australia?	Rudi Hendra ^{1,2} , Paul Keller ²
JCC2017169	Electrochemical Disinfection of Coliform and Escherichia Coli for Drinking Water Treatment By Electrolysis Method Using Carbon Electrode	Riyanto ¹ , Wanda Rusma Agustiningih ¹
JCC2017172	Prenylation of Pinostrobin and Antibacterial Activity Against Clinical Bacteria	Soerya Dewi Marliyana ¹ , Didin Mujahidin ² and Yana M Syah ²
JCC2017178	Simple Approach in Understanding Interzeolite Transformations Using Ring Building Units	Dede Suhendar ^{1,2} , Buchari ² , Rino R. Mukti ² , Ismunandar ²
JCC2017179	The Effect of Mangoosteen Extract (<i>Gracinia Mangostana</i> L.) on Synthesis of Ag ₃ PO ₄ Photocatalyst	Mohammad Afif ¹ , Alfa Marcorius ¹ , Khusnul Afifah ¹ , Siti Nurfiyah ¹ , Khanifudin Khanifudin ² , Febiyanto Febiyanto ² , Uyi Sulaeman ^{1*}
JCC2017185	Transformation of Indonesian Natural Zeolite into Analcime Phase under Hydrothermal Condition	Witri Wahyu Lestari ¹ , Dien Nur Hasanah ¹ , Riandy Putra ^{1,2} , Rino Rakhmata Mukti ³ , and Khoirina Dwi Nugrahaningtyas ¹
JCC2017188	Synthesis and Characterization of SrO/Zeolite Nanoparticle as Catalyst for Transesterification Reaction of Used Cooking Oil	Widiarti Nuni ¹ , Utami Nofita Sari ¹ , F. Widhi Mahatmanti ¹ Harjito ¹ , Cepi Kurniawan ¹ , Didik Prasetyoko ² , Suprpto ²
JCC2017189	Ar-Turmerone a Sesquiterpenoid from <i>Curcuma Soloensis</i> . Val (Temu Glenyeh) Rhizome Extract	Gesti Munasah ¹ , M. Widyo Wartono ¹ , Fajar Rakhman Wibowo ¹ , Soerya Dewi Marliyana ¹
JCC2017193	Identification and Control of Unknown Impurity in Trimetazidine Dihydrochloride Tablet Formulation	Jefri ¹ , Didik Harmoko ¹ , Agustina Dian Puspitasari ² , Joseph Sunder Raj Talpaneni ¹ , Raymond R Tjandrawinata ^{1,2,3}
JCC2017197	Modifications of Deoxynojirimycin (DNJ) Compound as α -Glucosidase Inhibitor for the Dengue Fever Treatment	Usman Sumo Friend Tambunan, Hanum Ariza Deski, Moch. Arifin Fardiansyah Nasution
JCC2017198	5-Substituted Isatin Derivatives: Synthesis and Anti-tubercular Activity Against Mycobacterium tuberculosis H37Rv	M. Riza Ghulam Fahmi ¹ , Laili Khumaidah ¹ , Trividiati Khusnul Ilmiah ¹ , Arif Fadlan ¹ , Mardi Santoso ¹
JCC2017199	Formulation of Antibacterial Liquid Soap from Nyamplung Seed Oil (<i>Calophyllum inophyllum</i> L.) with Addition of <i>Curcuma heyneana</i> and its Activity Test on <i>Staphylococcus aureus</i>	Senny Widyaningsih ¹ , Moch. Chasani ¹ , Hartiwi Diastuti ¹ , Novayanti ¹

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JCC2017203	Chitosan as Natural Coagulant to Minimize Hg (II) Levels in Bone River Waters of Gorontalo Province	Astin Lukum ¹ , Asda Rauf ² , Jefrin Akume ¹ , Arfiani Rizki Paramata ³
JCC2017206	Adsorption Kinetics of Sodium Lauryl Sulfate (SLS) and Hexadecyltrimethylammonium Bromide (HDTMABr) Surfactants on Activated Carbon	Arnelli ¹ , Aditama WP ¹ , Zul Fikriani ¹ , Yayuk Astuti ¹
JCC2017207	The Effect of Cellulose Acetate Concentration from Coconut Nira on Ultrafiltration Membrane Characteristics	Eva Vaulina ¹ , Senny Widyaningsih ¹ , Dwi Kartika ¹ , Mia Putri Romdoni ¹
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JCC2017216	Ab Initio Computational Study of –N-C and –O-C Bonding Formation : Functional Group Modification Reaction Based Chitosan	Parsaoran Siahaan ¹ , Siti NurMilatus Salimah ¹ , Marta J. Sipangkar ¹ , Dwi Hudiyaniti ¹ , M. Cholid Djunaidi ¹ , Marlyn Dian Laksitorini ²
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JCC2017226	Chemical and Physical Composition and Mosquito Repellent Activity of Fractionation Active Component from Java Citronella Oil (Cymbopogon winterianus)	Willy Tirza Eden ¹ , Dante Alighiri ¹ , Edy Cahyono ² , Kasmadi Imam Supardi ³ , Nanik Wijayati ²
JCC2017228	Removal of Cadmium from Wastewater by Adsorption with The Modified Iron-Mesoporous Silica SBA-15	Desita ¹ , M Maria Ulfa ¹ , Teguh Endah Saraswati ² And Bakti Mulyani ¹
JCC2017237	Molecular Docking Simulation of Neuraminidase Influenza a Subtype H1N1 with Potential Inhibitor of Disulfide Cyclic Peptide (DNY, NNY, LRL)	Usman Sumo Friend Tambunan ¹ , Riski Imaniastuti ¹ , Mochammad Arfin Fardiansyah Nasution ¹ , Djati Kerami ²
JCC2017240	Analysis of Hydrogen Gas Production from Seawater Electrolysis Using Variation of Voltage	Yoyon Wahyono ¹ , Heri Sutanto ¹ , Eko Hidayanto ¹ , Ladaina Noura ¹ , Eko Siswoyo ²
JCC2017244	Aluminium - Cobalt-Pillared for Dye Filtration Membrane	Adi Darmawan ¹ , Widiarsih ¹
JCC2017247	Fractionation of Glucosaminan, New Hope for Corneal Lamellar Laceration Therapy, "A Preliminary Study"	A. Kartiwa ¹ , M. Prayoga ¹ , S. Heryati ¹ , N. Atik ² , D. Sariawati ² , S. Bardi ³ , M. Fadhillah ⁴ , T. Subroto ⁴
JCC2017248	Characterization of ZnO Nanoparticles from Waste Galvanized by Using Acetic Acid Extraction Followed by Precipitation	Risma Dewi Dahlianti ¹ , Aprian Rudina Sukma ² , Iftitah ³ , Daisman P. Bayuaji ¹ , Dody Prayitno ¹ , Ersan Y. Muhlis ¹

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JCC2017298	Carp Operculum Bone (Cyprinus Carpio Sp.) Scaffold is A Potential Xenograft Implant Material: A Histological Study	A Kartiwa ¹ , B Abbas ² , P Pandansari ² , N Atik ³ , RAA Syamsunarno ⁴ , SF Boesoerie ¹ , MR Dahlan ¹ , K Boesoerie ¹ , A Prahasta ¹ , M Nandini ⁵ , M Fadhillah ⁶ , A Switania ¹ , T Subroto ⁶ and R Panigoro ⁴
JCC2017300	Photodegradation of Methyl Violet Using Graphite/PbTiO ₃ Composite	C. Purnawan ¹ , S. Wahyuningsih ² , V. Nawakusuma ²
JCC2017301	Synthesis and Characterization of Bismuth Oxide using Sol Gel Method	Yayuk Astuti ¹ , Darul Amri ¹ , Krisna Dian Purnama ¹ , Fauzan Musthafa ¹ , Agus Muslim ¹ , Arnelli ¹
JCC2017302	Ascorbic Acid Encapsulation in Silica Gel from Teos/Mtes Precursor by Sol-Gel Process	Sriyant ¹ , Sriatun ¹
JCC2017303	Method of ERASI (Electro Assisted Phytoremediation-Aeration) with Vetiveira Grass (Vetiveira Zizaniodes L) As Remediation of Heavy Metal Waste Fe and Cu	Iis Setianingrum ¹ , EgaDwi Sintadani ¹ , Vivin Viani ¹ , Durrotul Uuliyah ¹ , Muhammad FaiqFaridani ² , Rudy Syah Putra ³
JCC2017304	Identification of Flavonoid Compounds from the Active Fraction of the α -Glucosidase Inhibitor from Carrot Leaves Extract (Daucuscarota L.)	Khairul Anam ¹ , FatikhaAulia Said ¹ , Dewi Kusri ¹
JCC2017305	A New Sorbent of Silica Magnetite: The Influence of Variation of Sodium Silicate Concentration on The Character of The Silica Magnetite	C Azmiyawati ¹ , S Farnola ¹ and A Darmawan ¹
JCC2017306	Effect of Potentials and Electric Charges Copper and Indium Depositions to The Photocurrent Responses of CuInS ₂ Thin Film Fabricated By Stack Electrodeposition Followed by Sulfurization	Gunawan ¹ , Abdul Haris ¹ , Hendri Widiyandari ² , Wilman Septina ³ , Shigeru Ikeda ⁴
JCC2017307	Synthesis of 4-hydroxy-3-methylchalcone from Reimer-Tiemann Reaction Product and Its Antibacterial Activity Test	Mutiara Hapsari ¹ , Tri Windarti ¹ , Purbowatingrum ¹ , Ngadiwiyan ¹ , Ismiyanto ¹
JCC2017308	Antiglycation and α -Glucosidase Inhibitory Properties of Alpiniapurpurata K Schum Fermented by Aspergillusniger	Agustina L. N. Aminin ¹ , Ratnasari ¹ , Meiny Suzery ¹ , Bambang Cahyono ¹
JCC2017309	Synthesis and Characterization of NaCo(1-x)MnxO ₂ Solid Electrolyte Using Sol-Gel Method: The Effect of Milling Speed Variations	Linda Suyati ¹ , OksitaAsri Widyayanti ¹ , Muhammad Qushoyyi ¹ , Rahmad Nuryanto ¹
JCC2017310	The Impact of Template Types on Polieugenol to The Adsorption Selectivity of Ionic Imprinted Polymer (Iip) Ion Metal Fe	Muhammad Cholid Djunaidi ¹ , Abdul Haris ¹ , Pardoyo ¹ , Rosdiana K ¹
JCC2017311	Antidiabetic Activity from Cinnamaldyde Encapsulated by Nanochitosan	Purbowatingrum ¹ , Ngadiwiyan ¹ , Enny Fachriyah, Ismiyanto, Bonita Ariestiani, Khikmah

JCC2017167

Golden Wattle (*Acacia pycnantha*) Flower: Is it Only Floral Emblem of Australia?

Rudi Hendra^{1,2}, Paul Keller²

¹Department of Chemistry, University of Riau, Indonesia, ²School of Chemistry, University of Wollongong, Australia.

E-mail : rudi.hendra@lecturer.unri.ac.id

Acacia pycnantha, commonly known as the golden wattle, belongs to the Fabaceae family. Typically, it grows from 3 to 8 meters in height, and is native to New South Wales, Victoria, and South Australia.¹ Despite their bright colourful flowers, and that it is regarded as Australia's national flower, there are no reports on the structures present within the flower. Therefore, we present the phytochemical constituents in the flower, as well as correlations to their biological activities. The crude methanol were subjected to liquid-liquid extraction to provide hexane, ethyl acetate, and residual fractions. RP-HPLC profiles of both the ethyl acetate and residual fractions produced similar profiles. Thus, the ethyl acetate fraction was selected, and subjected to HPLC separation. Utilising the optimized preparative HPLC method, eight known compounds were isolated, and identified as (2*S*)-isohemiphloin (**1**), (2*S*)-naringenin-5-*O*-glucoside (**2**), kaempferol 3-rutinoside (**3**), quercetin 3-glucoside (**4**), myricetin 3-rhamnoidise (**5**), kaempferol-3-rhamnoside (**6**), isosalipurposide (**7**), naringenin (**8**) by comparison of their spectral data with those reported in the literature. Furthermore, the extract and all isolated compounds were assessed for antibacterial activities against several human pathogenic bacteria by Hit-confirmation method with various results.

References

- 1) Ndlovu, J.; Richardson, D. M.; Wilson, J. R. U.; O'Leary, M.; Le Roux, J. J., Elucidating the native sources of an invasive tree species, *Acacia pycnantha*, reveals unexpected native range diversity and structure. *Ann. Bot.* **2013**, *111* (5), 895-904.

JCC2017179

The Effect of Mangoosteen Extract (*Gracinia Mangostana L.*) on Synthesis of Ag_3PO_4 Photocatalyst

Mohammad Afif¹, Alfa Marcorius¹, Khusnul Afifah¹, Siti Nurfiyah¹, Khanifudin Khanifudin², Febiyanto Febiyanto², Uyi Sulaeman^{1*}

¹Universitas Jenderal Soedirman, Indonesia; ²Kookmin University, South Korea

E-mail : uyi_sulaeman@yahoo.com

Today, silver orthophosphate has been developed as photocatalyst for dye removal under visible light irradiation due to owing small-band gap energy of ~ 2.42 eV (1), strong photooxidative (2,3) and high quantum yield (3). The morphology and composites design have been applied to improve this photocatalyst. Morphology of saddle-like tetrahedron (4), coral-like microspheres (5), branched Ag_3PO_4 crystal with porous structure (6) and truncated tetragonal bipyramids (7) had improved the photocatalytic activity.

The big challenge of Ag_3PO_4 development is improvement the surface area and stability of photoreaction. The photocatalytic activity of Ag_3PO_4 is strongly affected by the size and surface area (8). Previous work showed that the synthesis of Ag_3PO_4 using PEG and PVP increased the specific surface area and enhanced the photocatalytic activity (9). Most of the preparation of Ag_3PO_4 catalyst using co-precipitation method resulted in low surface area. The poor performance of Ag_3PO_4 is attributed to the large particle size, which results in a low surface area, and thus low photocatalytic activity. Therefore, the development of the Ag_3PO_4 synthesis to design the small particle size is very important.

Herein, the Ag_3PO_4 prepared under mangoosteen (*Gracinia mangostana L.*) extract addition to the starting solution of AgNO_3 and $\text{Na}_2\text{HPO}_4 \cdot 12\text{H}_2\text{O}$ could significantly decrease the particle size and increase the crystalline of Ag_3PO_4 . This result enhances the photocatalytic activity. The mangoosteen extract solution of 0%, 1% and 1.5% were applied to producing the Ag_3PO_4 using the starting material of AgNO_3 and $\text{Na}_2\text{HPO}_4 \cdot 12\text{H}_2\text{O}$. Samples were characterized using x-ray diffraction and scanning electron microscopy. Photocatalytic activities were evaluated using Rhodamine B photooxidation under blue light irradiation. The mangoosteen extract addition greatly decreases the particle size and increases the crystallinity of Ag_3PO_4 which significantly enhances the photocatalytic activity.

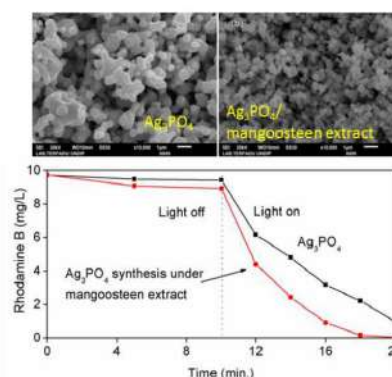


Fig. 1 Morphology and Catalytic Activity

References

1. U. Sulaeman, I. R. Nisa, A. Riapanitra, P. Iswanto, S. Yin, T. Sato, *Adv. Mater. Res.* **896** (2014) 141–144
2. U. Sulaeman, F. Febiyanto, S. Yin, T. Sato, *Catal. Commun.* **85** (2016) 22–25.
3. P. Dong, Y. Wang, H. Li, H. Li, X. Maa, L. Hana, *J. Mater. Chem.* **A1** (2013) 4651–4656.
4. Y. Xu, W. Zhang, *CrystEngComm* **15** (2013) 5407–5411.
5. X. Guo, C. Chen, S. Yin, L. Huang, W. Qin, *J. Alloy. Compd.* **619** (2015) 293–297.
6. U. Sulaeman, B. Liu, S. Yin, T. Sato, *BCREC12* (2017) 206–211.



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Supramolecular Assembly of Group 11 Phosphorescent Metal Complexes for Chemosensors of Alcohol Derivatives

Hendrik O. Lintang^{1,2,3}, **Nur Fatiha Ghazalli**^{4,5}, **Leny Yuliati**^{1,2,3}

¹Ma Chung Research Center for Photosynthetic Pigments, Universitas Ma Chung, Indonesia, ²Department of Chemistry, Faculty of Science and Technology, Universitas Ma Chung, Indonesia, ³Centre for Sustainable Nanomaterials, Ibnu Sina Institute for Scientific and Industrial Research, Universiti Teknologi Malaysia, Malaysia, ⁴Department of Chemistry, Faculty of Science, Universiti Teknologi Malaysia, Malaysia, ⁵School of Fundamental Science, Universiti Malaysia Terengganu, Malaysia
E-mail : hendrik.lintang@machung.ac.id

Transition metal complexes with phosphorescent properties have been utilized as chemical sensors (chemosensors) with high sensing capability for sensing different kinds of volatile organic compounds (VOCs). However, there is no study on molecular design of metal complexes toward high sensing capability. Therefore, by using 4-(3,5-dimethoxybenzyl)-3,5-dimethyl pyrazole ligand¹ (**1e**) and group 11 metal ions (Cu(I), Ag(I), Au(I)), we report the systematic study on vapochromic sensing of VOCs such as alcohol derivatives using phosphorescent trinuclear pyrazolate complexes with supramolecular assembly of a weak intermolecular metal-metal interactions. Previously, the resulting trinuclear copper(I) 4-(3,5-dimethoxybenzyl)-3,5-dimethyl pyrazolate complex **2e(Cu)** revealed positive response to ethanol vapors by blue-shifting its emission band from 616 to 555 nm and emitting bright orange to green where the original intensity can be easily recovered and then reused without external stimuli.² Moreover, **2e(Cu)** still showed the best performance for chemosensor of ethanol vapors compared to the same complexes synthesized from different side-chains at the pyrazole rings such as non-side chain, 3,5-dimethyl, 3,5-bis(trifluoromethyl), and 3,5-diphenyl pyrazole ligands.³ In this lecture, we particularly discuss the sensing capability of group 11 metal ions with the same ligand **1e**. Upon excitation at 284, the resulting complexes showed emission bands with a peak centered at 616, 473 and 612 nm for **2e(Cu)**, **2e(Ag)** and **2e(Au)**, respectively. Comparing to **2e(Cu)** with shorter metal-metal distance for sensing ethanol vapors in 5 mins, **2e(Au)** gave shifting from its emission band centered at 612 to 587 nm with $\Delta\lambda$ of 25 nm and color changes from red-orange to light green-orange. This blue-shifting was 41% compared to **2e(Cu)** with the same exposure time while the reusability testing required the presence of external stimuli. On the other hands, **2e(Ag)** with longer metal-metal distance showed quenching in its original emission intensity at 473 nm in 40% with color changes from dark green to less emissive. These results demonstrate that shifting phenomenon in **2e(Cu)** with the shorter metal-metal distance compared to **2e(Au)** from the same ligand is due to a weak intermolecular hydrogen bonding interaction of O atom at the methoxy of the benzyl ring with the OH of the vapors at the outside of the molecules. Such sensing phenomenon cannot be achieved for the detection of propanol, butanol, pentanol and hexanol vapors with decreasing in the performance to 37%, 28%, 23% and 18%, respectively, indicating suitable molecular design of ligand and metal ion in pyrazolate complex as chemosensor **2e(Cu)** for sensing ethanol vapors.

References

1. Lintang, H.O., Kinbara, K., Tanaka, K., Yamashita, T., et al., *Angewandte Chemie International Edition***49**., 4241-4245, 2010.
2. Ghazalli, N.F., Yuliati, L., Endud, S., Shamsuddin, M., et al., *Advanced Materials Research***970**., 44-47, 2014.



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**Effect of Potentials and Electric Charges Copper and Indium
Depositions to The Photocurrent Responses of CuInS₂ Thin Film
Fabricated By Stack Electrodeposition Followed by Sulfurization**

Gunawan¹, Abdul Haris¹, Hendri Widiyandari², Wilman Septina³, Shigeru Ikeda⁴

¹Chemistry Department, Faculty of Sciences and Mathematics, Diponegoro University, Semarang Indonesia

²Physics Department, Faculty of Sciences and Mathematics, Diponegoro University, Semarang Indonesia

³University of Zurich, Switzerland

⁴Konan University, Osaka, Japan

E-mail: gunawan@undip.ac.id

Effect of potentials and electric charges copper and indium depositions to the photocurrent responses of CuInS₂ thin film fabricated by electrodeposition followed by sulfurization were investigated. The characterization and elemental compositions of as-deposited Cu/In and CuInS₂ thin films used X-RD and EDAX. Photocurrent responses of the obtained CuInS₂ thin films were analyzed by linear sweep voltammograms (LSVs) in europium solution under chopped irradiation. Photocurrent responses showed that fabricated CuInS₂ thin films had *p*-type photoresponses. Improving potentials and electric charges reduced the photocurrent responses of the semiconductor films, although from XRD and EDAX data had no significant different.



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