

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

Judul Jurnal Ilmiah (Artikel) : Synthesis and Characterization of Composite Sulphonated Polyurethane / polyether sulphone membrane for blood purification application
Jumlah Penulis : 12 orang, Penulis ke: 12
Penulis Jurnal Ilmiah : Sumarni Mansur, Mohd Hafiz Othman, Ahmad Fauzi Ismail, Siti Haminah S.A.K., Pei Sean Goh, Hasrinah H., Be Cheer Ng, Mohd Sohaimi A., Fatmawati Kaml, M. Nidzhom Zainol Abidin, **Retno Ariadi Lusiana**

Identitas Karya Ilmiah
a. Nama Jurnal : Materials Science & Engineering C
b. ISSN : 0928-4931
c. Nomor/bulan/tahun : 01/2019
d. Penerbit : Elsevier
e. DOI (jika ada) : <https://doi.org/10.1016/j.msces.2019.01.092>
f. Alamat Web Jurnal : <https://www.journals.elsevier.com/materials-science-and-engineering-c>
g. Indexing : SJR: 1,110 (Q1), scopus indkes

Kategori Publikasi Jurnal Ilmiah : Jurnal Ilmiah Internasional/ Internasional Bereputasi
 Jurnal Ilmiah Nasional Terakreditasi
 Jurnal Ilmiah Nasional/ Nasional Terindeks di DOAJ, CABI

Hasil Penilaian Peer Review

Komponen yang dinilai	Nilai maksimum Jurnal Ilmiah			Nilai akhir yang diperoleh
	Internasional/Internasional bereputasi	Nasional terakreditasi	Nasional/Nasional Terindeks di DOAJ	
	40	<input type="text"/>	<input type="text"/>	
a. Kelengkapan unsur isi artikel (10%)	4			4
b. Ruang lingkup dan kedalaman pembahasan (30%)	12			11,5
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	12			11,5
d. Kelengkapan unsur dan kualitas terbitan (30%)	12			11,4
Total = (100%)	40			38,4

- Kesesuaian dan kedalaman unsur isi jurnal:**
Unsur artikel sesuai dan kedalaman lengkap sesuai template jurnal. Artikel sudah sesuai dengan bidang ilmu penulis.
- Ruang lingkup dan kedalaman pembahasan :**
Ruang lingkup dan pembahasan sangat baik dan mendalam. Isi artikel cukup dalam. Metoda dan data yang ditampilkan cukup banyak dan detail.
- Kecukupan dan kemutakhiran data/informasi dan metodologi:**
Artikel memiliki nilai pembaharuan yang cukup. Pustaka yang digunakan *uptodate*. Original paper ditunjukkan dengan nilai Turnitin sebesar : 23%
- Kelengkapan unsur dan dan kualitas terbitan :**
Jurnal memiliki reputasi tinggi, terindeks scopus dengan SJR >1, masuk dalam Q1

Semarang, 2019
Reviewer 1

Dr. Parsaoran Siahaan, M.Si
NIP. 1964 04 24 1990 01 1 001.
Unit Kerja: Kimia Fisik/Kimia UNDIP

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : JURNAL ILMIAH

Judul Jurnal Ilmiah (Artikel) : Synthesis and Characterization of Composite Sulphonated Polyurethane / polyether sulphone membrane for blood purification application
 Jumlah Penulis : 12 orang, Penulis ke: 12
 Penulis Jurnal Ilmiah : Sumarni Mansur, Mohd Hafiz Othman, Ahmad Fauzi Ismail, Siti Haminah S.A.K., Pei Sean Goh, Hasrinah H., Be Cheer Ng, Mohd Sohaimi A., Fatmawati Kaml, M. Nidzhom Zainol Abidin, **Retno Ariadi Lusiana**

Identitas Karya Ilmiah

a. Nama Jurnal : Materials Science & Engineering C
 b. ISSN : 0928-4931
 c. Nomor/bulan/tahun : 01/2019
 d. Penerbit : Elsevier
 e. DOI (jika ada) : <https://doi.org/10.1016/j.mscs.2019.01.092>
 f. Alamat Web Jurnal : <https://www.journals.elsevier.com/materials-science-and-engineering-c>
 g. Indexing : SJR: 1,110 (Q1), scopus indkes

Kategori Publikasi Jurnal Ilmiah

: Jurnal Ilmiah Internasional/ Internasional Bereputasi
 Jurnal Ilmiah Nasional Terakreditasi
 Jurnal Ilmiah Nasional/ Nasional Terindeks di DOAJ, CABI

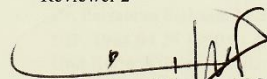
Hasil Penilaian Peer Review

Komponen yang dinilai	Nilai maksimum Jurnal Ilmiah			Nilai akhir yang diperoleh
	Internasional/Internasional bereputasi	Nasional terakreditasi	Nasional/Nasional Terindeks di DOAJ	
	40	<input type="text"/>	<input type="text"/>	
a. Kelengkapan unsur isi artikel (10%)	4			4
b. Ruang lingkup dan kedalaman pembahasan (30%)	12			11,4
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	12			11,4
d. Kelengkapan unsur dan kualitas terbitan (30%)	12			11,2
Total = (100%)	40			38,0

Catatan penilaian Karya Ilmiah oleh Reviewer:

- Kesesuaian dan kedalaman unsur isi jurnal:**
 unsur jurnal sudah sangat baik, artikel sesuai dengan template jurnal. Artikel cukup dalam dan bagus cara penyajian mendalam.
- Ruang lingkup dan kedalaman pembahasan :**
 Pembahasan topik sudah sangat baik dan lengkap. Dilengkapi data gambar, table dan mekanisme reaksi.
- Kecukupan dan kemutakhiran data/informasi dan metodologi:**
 Data/informasi dan metodologi sudah cukup jelas. Original paper ditunjukkan dengan nilai Turnitin sebesar : 23%
- Kelengkapan unsur dan dan kualitas terbitan :**
 Jurnal berupati Internasional terindeks scopus, masuk dalam Q1.

Semarang, 2019
 Reviewer 2



Dr. Bambang Cahyono, M.Sc
 NIP. 19630319631988101001.
 Unit Kerja: Kimia Organik/Kimia UNDIP

LEMBAR
HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : JURNAL ILMIAH

Judul Jurnal Ilmiah (Artikel) : Synthesis and Characterization of Composite Sulphonated Polyurethane / polyether sulphone membrane for blood purification application
 Jumlah Penulis : 12 orang, Penulis ke: 12
 Penulis Jurnal Ilmiah : Sumarni Mansur, Mohd Hafiz Othman, Ahmad Fauzi Ismail, Siti Haminah S.A.K., Pei Sean Goh, Hasrinah H., Be Cheer Ng, Mohd Sohaimi A., Fatmawati Kaml, M. Nidzhom Zainol Abidin, **Retno Ariadi Lusiana**

Identitas Karya Ilmiah

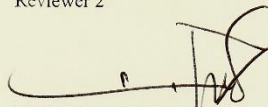
a. Nama Jurnal : Macience & Engineering C
 b. ISSN : 0928-4931
 c. Nomor/bulan/tahun : 01/2019
 d. Penerbit : Elsevier
 e. DOI (jika ada) : <https://doi.org/10.1016/j.mses.2019.01.092>
 f. Alamat Web Jurnal : <https://www.journals.elsevier.com/materials-science-and-engineering-c>
 Indexing : SJR: 1,110 (Q1)

Kategori Publikasi Jurnal Ilmiah : Jurnal Ilmiah Internasional/ Internasional Bereputasi
 Jurnal Ilmiah Nasional Terakreditasi
 Jurnal Ilmiah Nasional/ Nasional Terindeks di DOAJ, CABI

Hasil Penilaian Peer Review

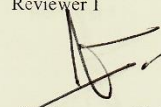
Komponen Yang Dinilai	Nilai Reviewer		Nilai Rata-rata
	Reviewer I	Reviewer II	
a. Kelengkapan unsur isi artikel (10%)	4	4	4
b. Ruang lingkup dan kedalaman pembahasan (30%)	11,5	11,4	11,45
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	11,5	11,4	11,45
d. Kelengkapan unsur dan kualitas terbitan (30%)	11,2	11,2	11,20
Total = (100%)	38,2	38,0	38,1

Reviewer 2

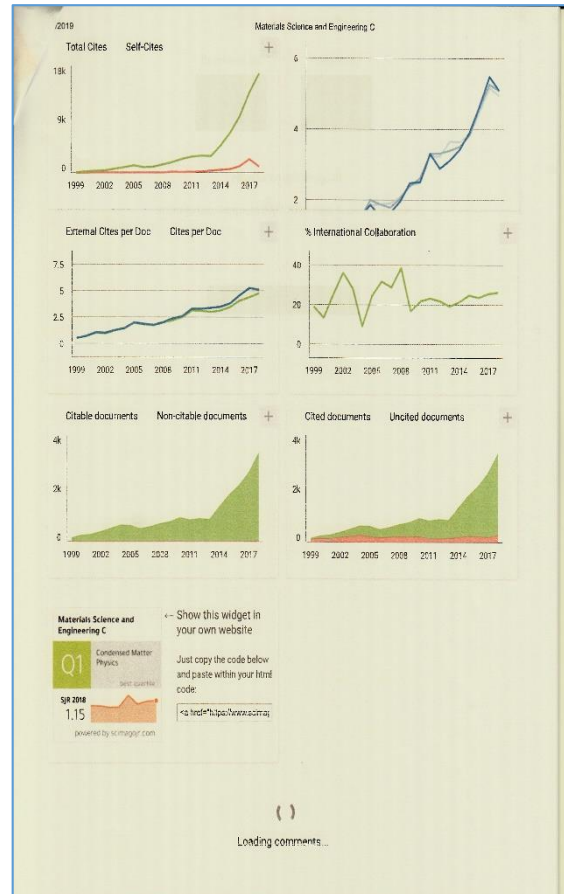
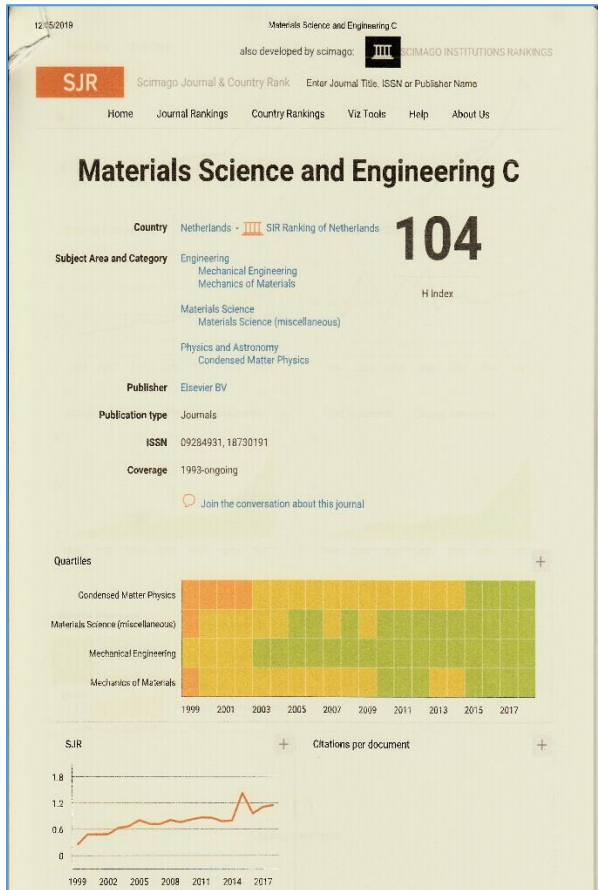


Dr. Bambang Cahyono, M.Sc
 NIP. 19630319631988101001
 Unit Kerja: Kimia Organik/Kimia UNDIP

Semarang, 2019
 Reviewer 1



Dr. Parsaoran Siahaan, M.Si
 NIP. 1964 04 24 1990 01 1 001
 Unit Kerja: Kimia Fisik/Kimia UNDIP



Order Journal (<https://www.elsevier.com/journals/institutional/materials-science-and-engineering-c/0928-4931>)

Journal Metrics

- > CiteScore: **5.07**
- Impact Factor: **4.959**
- 5-Year Impact Factor: **4.708**
- Source Normalized Impact per Paper (SNIP): **1.344**
- SCImago Journal Rank (SJR): **1.149**
- > View More on Journal Insights

Your Research Data

- > Share your research data (<https://www.elsevier.com/authors/author-services/research-data>)
- > Data in Brief co-submission (<https://www.elsevier.com/authors/author-resources/research-data/data-articles/DIB-co-submission>)
- > MethodsX co-submission (<https://www.elsevier.com/authors/author-resources/research-data/materials-and-methods/mex-co-submission>)

Related Links

- > Author Stats
- > Researcher Academy
- > Author Services (<https://www.elsevier.com/authors/author-services>)
- > Try out personalized alert features

Related Publications

- Biomaterials (<https://www.elsevier.com/locate/jmca/30392>)
- Materials Today Bio (<https://www.elsevier.com/locate/jmca/747277>)

Journal Metrics

- [CiteScore](#): **5.07** i
- Impact Factor: **4.959** i
- 5-Year Impact Factor: **4.708** i
- Source Normalized Impact per Paper (SNIP): **1.344** i
- SCImago Journal Rank (SJR): **1.149** i
- [View More on Journal Insights](#)



MATERIALS SCIENCE AND ENGINEERING C

Editor-in-Chief
M. Oyen (University of Cambridge, UK)

Editors
Q. Cheng (Beihang University, Beijing, China)
D.-H. Kim (University of Washington, United States)
M. Vamvakaki (Foundation for Research and Technology-Hellas, Greece)
L.G. Zhang (The George Washington University, United States)

Managing Editor
W. Yang (Del Mar, USA)

Associate Editors

E. Arzt (Leibniz Institute for New Materials (IWM), Germany)	N.A. Monteiro-Riviere (North Carolina State University, United States)
A. Atala (Wake Forest University, United States)	W.M. Mullins (University of North Carolina at Chapel Hill, United States)
G. Bao (Georgia Institute of Technology, United States)	M. Niino (Tohoku University, Japan)
B. Basu (Indian Institute of Technology, Kharpur, India)	R. Nair (Air Force Research Laboratory, United States)
C. Cheng (Beihang University, Beijing, China)	B. Poudyal (North Carolina State University, United States)
B. Chichkov (Laser Zentrum, Hannover, Germany)	S. Ramakrishna (National University of Singapore, Singapore)
W. Cui (Shanghai Jiao Tong University, Shanghai, China)	R. Ramanujan (Nanyang Technological University, Singapore)
B. Derby (University of Manchester, United Kingdom)	T.H. Richardson (University of Sheffield, United Kingdom)
E. Greenbaum (Oak Ridge National Laboratory, United States)	F.J. Schoen (Harvard Medical School, United States)
Y. Hong (University of Texas at Arlington, United States)	S. Seal (University of Central Florida, United States)
R.L. Juliano (University of North Carolina, Chapel Hill, United States)	D. Shi (University of Cincinnati, United States)
C.T. Laurencin (University of Connecticut Health Center, United States)	J.F.V. Vincent (University of Bath, United Kingdom)
A. Malhotra (University of Arkansas, United States)	J.Y.R. Ying (NanoBio Lab, Singapore)
M.A. Meyers (University of California at San Diego (UCSD), United States)	

Synthesis and characterisation of composite sulphonated polyurethane/polyethersulphone membrane for blood purification application

Materials Science and Engineering: C
Volume 99, June 2019, Pages 491-504

Sumarni Mansur^a, Mohd Hafiz Dzarfan Othman^{a, R. S.}, Ahmad Fauzi Ismail^a, Siti Hamimah Sheikh Abdul Kadir^a, Pei Sean Goh^a, Hasrinah Hasbullah^a, Be Cheer Ng^a, Mohd Sohaimi Abdullah^a, Fatmawati Kamal^b, Muhammad Nidhom Zainol Abidin^a, Retno Ariadi Lusiana^c

<https://doi.org/10.1016/j.msec.2019.01.092>

Start tracking your Reading History
Sign in and never lose track of an article again.
[Register for free >](#)

Highlights

- Synthesised polyurethane was utilized in fabrication of PES-PU flat-sheet membranes via dry-wet phase inversion technique.
- High concentration of PU incorporation in PES showed a smoother surface of membrane.
- Modified membrane was a negative charge membrane
- PU incorporation in PES membrane enhanced the haemocompatibility of the membrane.

Abstract
Polyurethane (PU) with three different functional groups: carbonyl, hydroxyl and sulphonyl group on its molecular structure were synthesised in this work. The synthesised material