

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

Judul Karya Ilmiah : Risk Analysis using Corrosion Rate Parameter on Gas Transmission Pipeline
 Jumlah Penulis : 4 Orang
 Status Pengusul : Penulis ke-3
 Identitas Prosiding : a. Judul Prosiding : The 4th International Conference on Advanced Materials Science and Technology
 b. ISBN/ISSN : Online ISSN: 1757-899X, Print ISSN: 1757-8981
 c. Thn Terbit, Tempat Pelaks. : 2017, Universitas Negeri Malang, Indonesia
 d. Penerbit/Organiser : IOP Publishing Ltd
 e. Alamat Repository/Web : <http://iopscience.iop.org/issue/1757-899X/202/1>
 Alamat Artikel : <http://iopscience.iop.org/article/10.1088/1757-899X/202/1/012099>
 f. Terindeks di (jika ada) : Scopus

Kategori Publikasi Makalah : Prosiding Forum Ilmiah Internasional
 (beri ✓ pada kategori yang tepat) Prosiding Forum Ilmiah Nasional

Hasil Penilaian Peer Review :

Komponen Yang Dinilai	Nilai Reviewer		Nilai Rata-rata
	Reviewer I	Reviewer II	
a. Kelengkapan unsur isi prosiding (10%)	3,00	3,00	3,00
b. Ruang lingkup dan kedalaman pembahasan (30%)	8,00	7,50	7,75
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	8,00	8,50	8,25
d. Kelengkapan unsur dan kualitas terbitan/prosiding(30%)	8,00	8,50	8,25
Total = (100%)	27,00	27,50	27,25
Nilai Pengusul = (40% x 27,25)/3 = 3,63			

Semarang, 14 Mei 2019

Reviewer 2

Rusnaldy, S.T., M.T., Ph.D.
 NIP. 197005201999031002
 Unit Kerja : T. Mesin FT UNDIP

Reviewer 1

Dr. Agus Suprihantó, S.T., M.T.
 NIP. 197108181997021001
 Unit Kerja : Teknik Mesin FT UNDIP

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

Judul Karya Ilmiah : Risk Analysis using Corrosion Rate Parameter on Gas Transmission Pipeline
 Jumlah Penulis : 4 Orang
 Status Pengusul : Penulis ke-3
 Identitas Prosiding : a. Judul Prosiding : The 4th International Conference on Advanced Materials Science and Technology
 b. ISBN/ISSN : Online ISSN: 1757-899X, Print ISSN: 1757-8981
 c. Thn Terbit, Tempat Pelaks. : 2017, Universitas Negeri Malang, Indonesia
 d. Penerbit/Organiser : IOP Publishing Ltd
 e. Alamat Repository/Web : <http://iopscience.iop.org/issue/1757-899X/202/1>
 Alamat Artikel : <http://iopscience.iop.org/article/10.1088/1757-899X/202/1/012099>
 f. Terindeks di (jika ada) : Scopus

Kategori Publikasi Makalah : Prosiding Forum Ilmiah Internasional
 (beri pada kategori yang tepat) Prosiding Forum Ilmiah Nasional

Hasil Penilaian Peer Review :

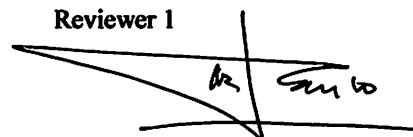
Komponen Yang Dinilai	Nilai Maksimal Prosiding		Nilai Akhir Yang Diperoleh
	Internasional <input type="checkbox"/>	Nasional <input type="checkbox"/>	
a. Kelengkapan unsur isi prosiding (10%)	3,00		3,00
b. Ruang lingkup dan kedalaman pembahasan (30%)	9,00		8,00
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9,00		8,00
d. Kelengkapan unsur dan kualitas terbitan/prosiding(30%)	9,00		8,00
Total = (100%)	30,00		27,00
Nilai Pengusul = (40% x 27,00)/3 = 3,60			

Catatan Penilaian Paper oleh Reviewer :

- Kesesuaian dan kelengkapan unsur isi paper:**
Makalah ditulis secara lengkap dan sistematis, telah sesuai dengan petunjuk penulisan yang ada dalam seminar/prosiding. Sesuai dengan bidang keilmuan pengusul (Reliability Material) (nilai: 3,00).
- Ruang lingkup dan kedalaman pembahasan:**
Substansi yang disampaikan dalam artikel sesuai dengan ruang lingkup seminar/prosiding (nilai: 8,00).
- Kecukupan dan kemutakhiran data/informasi dan metodologi:**
Ide dan hasil up to date, metode yang dikembangkan baru dan orisinal. (nilai: 8,00)
- Kelengkapan unsur dan kualitas terbitan:**
Artikel diterbitkan oleh IOP Conference Proceeding, terindeks Scopus, dengan SJR: 0,2 (2017). Artikel ini merupakan hasil dari The 4th International Conference on Advanced Materials Science and Technology (nilai: 8,00).

Semarang, 14 Mei 2019

Reviewer 1



Dr. Agus Suprihanto, S.T, M.T.
 NIP. 197108181997021001
 Unit kerja : Teknik Mesin FT UNDIP

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

Judul Karya Ilmiah : Risk Analysis using Corrosion Rate Parameter on Gas Transmission Pipeline
 Jumlah Penulis : 4 Orang
 Status Pengusul : Penulis ke-3
 Identitas Prosiding : a. Judul Prosiding : The 4th International Conference on Advanced Materials Science and Technology
 b. ISBN/ISSN : Online ISSN: 1757-899X, Print ISSN: 1757-8981
 c. Thn Terbit, Tempat Pelaks. : 2017, Universitas Negeri Malang, Indonesia
 d. Penerbit/Organiser : IOP Publishing Ltd
 e. Alamat Repository/Web : http://iopscience.iop.org/issue/1757-899X/202/1
 Alamat Artikel : http://iopscience.iop.org/article/10.1088/1757-899X/202/1/012099
 f. Terindeks di (jika ada) : Scopus

Kategori Publikasi Makalah : Prosiding Forum Ilmiah Internasional
 (beri \checkmark pada kategori yang tepat) Prosiding Forum Ilmiah Nasional

Hasil Penilaian Peer Review :

Komponen Yang Dinilai	Nilai Maksimal Prosiding		Nilai Akhir Yang Diperoleh
	Internasional <input type="checkbox"/>	Nasional <input type="checkbox"/>	
a. Kelengkapan unsur isi prosiding (10%)	3,00		3,00
b. Ruang lingkup dan kedalaman pembahasan (30%)	9,00		7,50
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9,00		8,50
d. Kelengkapan unsur dan kualitas terbitan/prosiding(30%)	9,00		8,50
Total = (100%)	30,00		27,50
Nilai Pengusul = (40% x 27,50)/3 = 3,67			

Catatan Penilaian Paper oleh Reviewer :

- Kesesuaian dan kelengkapan unsur isi paper:**
Substansi artikel sesuai dengan bidang keahlian pengusul, tata tulis artikel baik dan sesuai dengan acuan. (nilai: 3,00)
- Ruang lingkup dan kedalaman pembahasan:**
Isi kajian dalam artikel sesuai dengan ruang lingkup kegiatan seminar/prosiding. (nilai: 7,50)
- Kecukupan dan kemutakhiran data/informasi dan metodologi:**
Data yang ditampilkan cukup muktahir, dengan rujukan yang digunakan merupakan jurnal bereputasi yang terbit dalam 10 tahun terakhir. (nilai: 8,50)
- Kelengkapan unsur dan kualitas terbitan:**
Terindeks Scopus. SJR: 0,2 (2017). (nilai: 8,50).

Semarang, 14 Mei 2019
Reviewer 2

Rusnaldy, S.T., M.T., Ph.D.
NIP. 197005201999031002
Unit kerja : Teknik Mesin FT UNDIP

Document details

< Back to results | < Previous 21 of 33 Next >

Export Download Print E-mail Save to PDF Add to List More... >

View at Publisher

IOP Conference Series: Materials Science and Engineering
Volume 202, Issue 1, 31 May 2017, Article number 012099
4th International Conference on Advanced Materials Science and Technology 2016, ICAMST
2016; Universitas Negeri MalangMalang; Indonesia; 27 September 2016 through 28 September
2016; Code 128367

Risk Analysis using Corrosion Rate Parameter on Gas Transmission Pipeline

(Conference Paper) (Open Access)

Sasikirono, B.^a, Kim, S.J.^a, Haryadi, G.D.^a, Huda, A.^b

^aDepartment of Mechanical Engineering, Diponegoro University, Indonesia

^bDepartment of Mechanical and Automotive Engineering, Pukyong National University, South Korea

Abstract

View references (10)

In the oil and gas industry, the pipeline is a major component in the transmission and distribution process of oil and gas. Oil and gas distribution process sometimes performed past the pipeline across the various types of environmental conditions. Therefore, in the transmission and distribution process of oil and gas, a pipeline should operate safely so that it does not harm the surrounding environment. Corrosion is still a major cause of failure in some components of the equipment in a production facility. In pipeline systems, corrosion can cause failures in the wall and damage to the pipeline. Therefore it takes care and periodic inspections or checks on the pipeline system. Every production facility in an industry has a level of risk for damage which is a result of the opportunities and consequences of damage caused. The purpose of this research is to analyze the level of risk of 20-inch Natural Gas Transmission Pipeline using Risk-based inspection semi-quantitative based on API 581 associated with the likelihood of failure and the consequences of the failure of a component of the equipment. Then the result is used to determine the next inspection plans. Nine pipeline components were observed, such as a straight pipes inlet, connection tee, and straight pipes outlet. The risk assessment level of the nine pipeline's components is presented in a risk matrix. The risk level of components is examined at medium risk levels. The failure mechanism that is used in this research is the mechanism of thinning. Based on the results of corrosion rate calculation, remaining pipeline components age can be obtained, so the remaining lifetime of pipeline components are known. The calculation of remaining lifetime obtained and the results vary for each component. Next step is planning the inspection of pipeline components by NDT external methods. © Published under licence by IOP Publishing Ltd.

SciVal Topic Prominence

Topic: Inspection | Risks | Inspection RBI

Prominence percentile: 75.551 i

Author keywords

corrosion gas transmission pipeline Risk analysis

Indexed keywords

Engineering
controlled terms:

Corrosion Corrosion rate Gas industry Gases Inspection Natural gas pipelines
Natural gas transportation Pipe Pipelines Piping systems Risk analysis
Risk assessment Service life Water pipelines

Metrics i View all metrics >

1 Citation in Scopus

0.84 Field-Weighted
Citation Impact



PlumX Metrics v

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

Cited by 1 document

Pipeline two-dimensional impact location determination using time of arrival with instant phase (TOAIP) with piezoceramic transducer array

Chen, B. , Hei, C. , Luo, M.
(2018) *Smart Materials and Structures*

View details of this citation

Inform me when this document is cited in Scopus:

Set citation alert >

Set citation feed >

Related documents

Risk analysis of heat recovery steam generator with semi quantitative risk based inspection API 581

Prayogo, G.S. , Haryadi, G.D. , Ismail, R.
(2016) *AIP Conference Proceedings*

Risk Analysis of Central Java Gas Transmission Pipeline by Risk-Based Inspection Method

Mediansyah , Haryadi, G.D. , Ismail, R.
(2017) *IOP Conference Series: Materials Science and Engineering*

Engineering uncontrolled terms

Environmental conditions

Gas transmission

Gas transmission pipeline

Likelihood of failures

Natural gas transmission pipeline

Oil and gas distributions

Surrounding environment

Transmission and distribution

Engineering main heading:

Nondestructive examination

Development of a new approach to establish inspection frequency in a RBI assessment

Sobral, J. , Ferreira, L.A. (2010) *Reliability, Risk and Safety: Back to the Future*

View all related documents based on references

Find more related documents in Scopus based on:

Authors > Keywords >

ISSN: 17578981

Source Type: Conference Proceeding

Original language: English

DOI: 10.1088/1757-899X/202/1/012099

Document Type: Conference Paper

Volume Editors: Diantoro M., Hermawan H., Khairurijal, Nur H., Arramel, Amin I., Mufti N., Taufiq A., Sunaryono

Sponsors: PT. Era Mitra Perdana, PT. Indotech, PT. KGC (LJ-UHV) Technology, PT. Lab Sistematika (RIGAKU), PT. Vanadia, Universitas Negeri Malang

Publisher: Institute of Physics Publishing

References (10)

View in search results format >

All Export Print E-mail Save to PDF Create bibliography

- 1 Petroleum Institute, A. (2000) (Washington DC: API Publishing Services) Risk-based inspection, Base Resource Document API 581
- 2 Petroleum Institute, A. (2008) (Washington DC: API Publishing Services) Recommended Practice 581: Risk-Based Inspection Technology
- 3 Petroleum Institute, A. (2002) (Washington DC: API Publishing Services) Inspection, Repair, Alteration, and Rerating of In-service Piping Systems
- 4 Perumal, K.E. Corrosion risk analysis, risk based inspection and a case study concerning a condensate pipeline ([Open Access](#)) (2014) *Procedia Engineering*, 86, pp. 597-605. Cited 13 times. <http://www.sciencedirect.com/science/journal/18777058> doi: 10.1016/j.proeng.2014.11.085
View at Publisher
- 5 Peters, R.W. Understanding Risk-Based Maintenance by Using Risked-Based Planning with Risk-Based Inspections (2015) *Reliable Maintenance Planning, Estimating, and Scheduling*, 151, pp. 223-240.

□ 6 Satmoko, M.E.A.
Risk Assessment on Gas Piping Against Corrosion Using a Risk based inspection API 581
(2015) *Science and Engineering National Seminar*, 1, pp. 64-71.

□ 7 Tien, S.-W., Hwang, W.-T., Tsai, C.-H.
Study of a risk-based piping inspection guideline system
(2007) *ISA Transactions*, 46 (1), pp. 119-126. Cited 21 times.
http://www.elsevier.com/wps/find/journaldescription.cws_home/524244/description#description
doi: 10.1016/j.isatra.2006.06.006
View at Publisher

□ 8 Santosh, Vinod, G., Shrivastava, O.P., Saraf, R.K., Ghosh, A.K., Kushwaha, H.S.
Reliability analysis of pipelines carrying H₂S for risk based inspection of heavy water plants
(2006) *Reliability Engineering and System Safety*, 91 (2), pp. 163-170. Cited 22 times.
doi: 10.1016/j.ress.2004.11.021
View at Publisher

□ 9 Jusoh, I.
Onshore Pipeline Risk and Consequence Assessment
(1998) *Journal of Mechanical Engineering*, pp. 1-17.

□ 10 Seo, J.K., Cui, Y., Mohd, M.H., Ha, Y.C., Kim, B.J., Paik, J.K.
A risk-based inspection planning method for corroded subsea pipelines
(2015) *Ocean Engineering*, 109, pp. 539-552. Cited 14 times.
<http://www.journals.elsevier.com/ocean-engineering/>
doi: 10.1016/j.oceaneng.2015.07.066
View at Publisher

🔍 Sasikirono, B.; Department of Mechanical Engineering, Diponegoro University, Indonesia;
email:bambang.sasikirono@gmail.com
© Copyright 2017 Elsevier B.V., All rights reserved.

< Back to results | < Previous 21 of 33 Next >

^ Top of page

About Scopus

What is Scopus
Content coverage
Scopus blog
Scopus API
Privacy matters

Language

日本語に切り替える
切换到简体中文
切换到繁體中文
Русский язык

Customer Service

Help
Contact us

We use cookies to help provide and enhance our service and tailor content. By continuing, you agree to the use of cookies.

Source details

IOP Conference Series: Materials Science and Engineering

Scopus coverage years: from 2009 to Present

ISSN: 1757-8981 E-ISSN: 1757-899X

Subject area: [Engineering: General Engineering](#) [Materials Science: General Materials Science](#)

CiteScore 2018

0.53



SJR 2018

0.192



SNIP 2018

0.531



[View all documents >](#)

[Set document alert](#)

[Save to source list](#) [Journal Homepage](#)

[CiteScore](#) [CiteScore rank & trend](#) [CiteScore presets](#) [Scopus content coverage](#)

CiteScore 2018 ▼

Calculated using data from 30 April, 2019

CiteScore rank ⓘ

$$0.53 = \frac{\text{Citation Count 2018}}{\text{Documents 2015 - 2017}^*} = \frac{7,820 \text{ Citations} >}{14,668 \text{ Documents} >}$$

*CiteScore includes all available document types

[View CiteScore methodology >](#) [CiteScore FAQ >](#)

Category	Rank	Percentile
Engineering		
General Engineering	#171/275	38th
Materials Science		
General Materials Science	#306/439	30th

CiteScoreTracker 2019 ⓘ

Last updated on 09 September, 2019
Updated monthly

$$0.30 = \frac{\text{Citation Count 2019}}{\text{Documents 2016 - 2018}} = \frac{8,441 \text{ Citations to date} >}{28,226 \text{ Documents to date} >}$$

[View CiteScore trends >](#)
[Add CiteScore to your site](#)

Metrics displaying this icon are compiled according to Snowball Metrics ↗ , a collaboration between industry and academia.

About Scopus

- [What is Scopus](#)
- [Content coverage](#)
- [Scopus blog](#)
- [Scopus API](#)
- [Privacy matters](#)

Language

- [日本語に切り替える](#)
- [切换到简体中文](#)
- [切换到繁體中文](#)
- [Русский язык](#)

Customer Service

- [Help](#)
- [Contact us](#)

PAPER • OPEN ACCESS

The 4th International Conference on Advanced Materials Science and Technology

To cite this article: 2017 *IOP Conf. Ser.: Mater. Sci. Eng.* **202** 011001

View the [article online](#) for updates and enhancements.

Related content

- [Organizing Committee of ICAMST 2016](#)
- [The 5th International Conference on Advanced Materials Sciences and Technology \(ICAMST 2017\)](#)
- [The List of Committee ICAMST 2017](#)

Preface

The 4th International Conference on Advanced Materials Science and Technology 2016 (ICAMST-2016).

International Conference on Advanced Materials Science and Technology 2016 (ICAMST-2016) is an international forum for sharing knowledge and results in theory, computation, synthesis, characterization in all aspects of advanced materials and its technological application. This ICAMST is designated to promote research interests, knowledge sharing, and transfer, as well as to improve our common ground of science and technology.

The conference has brought together researchers and academicians from both academia as well as industry to meet and share cutting-edge development in the field. The Conference welcomes significant contributions in all major fields of theoretical & analyses, synthesis & Characterization, nanoscience, Functional Materials. This volume is a collection of 100 selected from 212 manuscripts by 503 authors. These papers were presented at the International Conference on Advanced Materials Science and Technology 2016 (ICAMST-2016) which was held in Malang, Indonesia, September 27 - 28, 2016. The selection of papers included in this volume was based on an international peer review procedure. We feel the variety of topics will be of interest to researchers.

I would like to thank:

- The Scientific Committee of ICAMST 2016 for their precious contribution.
- The distinguished keynote speakers and invited speakers for their difficult task and unique lectures Prof. Dr. Takayuki Ishida (Japan); Prof Dong-Sing Wu (Taiwan), Assoc. Prof. Dr. Graeme R. Blake (The Netherlands), Prof. Dr. Andriwo Rusydi (Singapore), Prof. Dr. Robert Jann (Taiwan), Prof. Hadi Nur, Universiti Teknologi Malaysia (Malaysia), Prof. Dr. Darminto, Indonesia, Dr. Edy Giri Rachman Putra (Indonesia), Dr. Atsushi Okazawa (Japan), Dr. Hendrik Lintang (Indonesia), on their respective fields of expertise.
- The Organizing Committee Prof. Arif Hidayat (UM), Prof. Khairurijal (ITB), Assoc. Dr. Nandang Mufti, Dr. Sunaryono, Dr. Ahmad Taufiq, Assoc. Prof. Kuwat Triyana (UGM), for their dedication.
- The Institute of Physics for the inclusion of these proceedings into the famous series of the IOP Conference Proceedings. Material Sciences and Engineering.
- PT. KGC-LJUVH Technology, Rigaku-Lab Sistemika, Vanadia, Eramitra Perdana, and PT Indotech for their sponsorship.
- My sincere thanks goes to Prof. Ahmad Rofi'udin, the Rector of Universitas Negeri Malang, for the valuable supports.

I would also like to express my gratitude to all authors and contributing reviewers. Last but not least, my special thanks goes to the respectable the president of KoSaTeM Consortia, Prof. Khairurijal, and his team.

Assoc. Prof. Dr. Markus Diantoro

Chairman of ICAMST 2016

Editor-in-Chief of ICAMST 2016

Department of Physics, Faculty of Mathematics and Natural Sciences,
Universitas Negeri Malang, Jl. Semarang 5 Malang 65145, Indonesia



PAPER • OPEN ACCESS

Organizing Committee of ICAMST 2016

To cite this article: 2017 *IOP Conf. Ser.: Mater. Sci. Eng.* **202** 011002

View the [article online](#) for updates and enhancements.

Related content

- [The 4th International Conference on Advanced Materials Science and Technology](#)
- [The List of Committee ICAMST 2017](#)
- [The 12th Joint Conference on Chemistry](#)

ORGANIZING COMMITTEE OF ICAMST 2016

Chairman	: Dr. Markus Diantoro, UM
Co-Chairmen	: Prof. Dr. Arif Hidayat, UM
	: Prof. Dr. Khairurijal, ITB
	: Prof. Dr. Heru Susanto, UNDIP
	: Prof. Dr. Sutiko, UNNES
	: Dr. Kuwat Triyana, UGM
	: Dr. Risa Suryana, UNS
	: Dr. Edy Giri Rachman Putra, BATAN
	: Dr. Nandang Mufti, UM
	: Dr. Djoko S, UB
International Advisory Board	: Prof. Dr. Andrivo Rusydi NUS, Singapore
	: Ass. Prof. Dr. Gareme Blake, RUG Netherlands
	: Dr. Edy Giri Rachman Putra, BATAN Indonesia
	: Prof. Dr. Hadi Nur, UTM Malaysia
	: Prof. Dr. Eko Hadi Sudjiono, UNM Indonesia
Secretary	: Dr. Eny Latifah
Administration Coord.	: Dr. Hari Wisodo
	Atsnaita Yasrina, M.Sc
Treasurer	: Era Budi Pryekti, M.Si
Information and Documentation	: Dr. Ahmad Taufiq
Paper Publication Division	: Nugroho Adi Pramono, M.Sc
	: Dr. Nandang Mufti
Sponsorship Division	: Abdulloh Fuad, M.Si
Plenary Presentation Division	: Dr. Sunaryono
	: Nurul Hidayat, M.Si
	Dr. Rr. Poppy Puspitasari
Supply Division	: Daeng Achmad Suaidi, M.Kom
Transportation and Accommodation Division	: Samsul Hidayat, M.T



EDITORIAL BOARDS

EDITOR IN CHIEF

Dr. Markus Diantoro, Universitas Negeri Malang, Indonesia

EDITORS

Dr. Nandang Mufti, Universitas Negeri Malang, Indonesia

Dr. Ahmad Taufiq, Universitas Negeri Malang, Indonesia

Dr. Sunaryono, Universitas Negeri Malang, Indonesia

Prof. Dr. Khairurijal, Institut Teknologi Bandung, Indonesia

Prof. Dr. Hadi Nur, Universiti Teknologi Malaysia, Malaysia

Dr. Hendra Hermawan, Laval University, Canada

Dr. Arramel, National University of Singapore, Singapore

Dr. Ihsan amin, TU Dresden, Germany

PAPER • OPEN ACCESS

Maps and Photographs

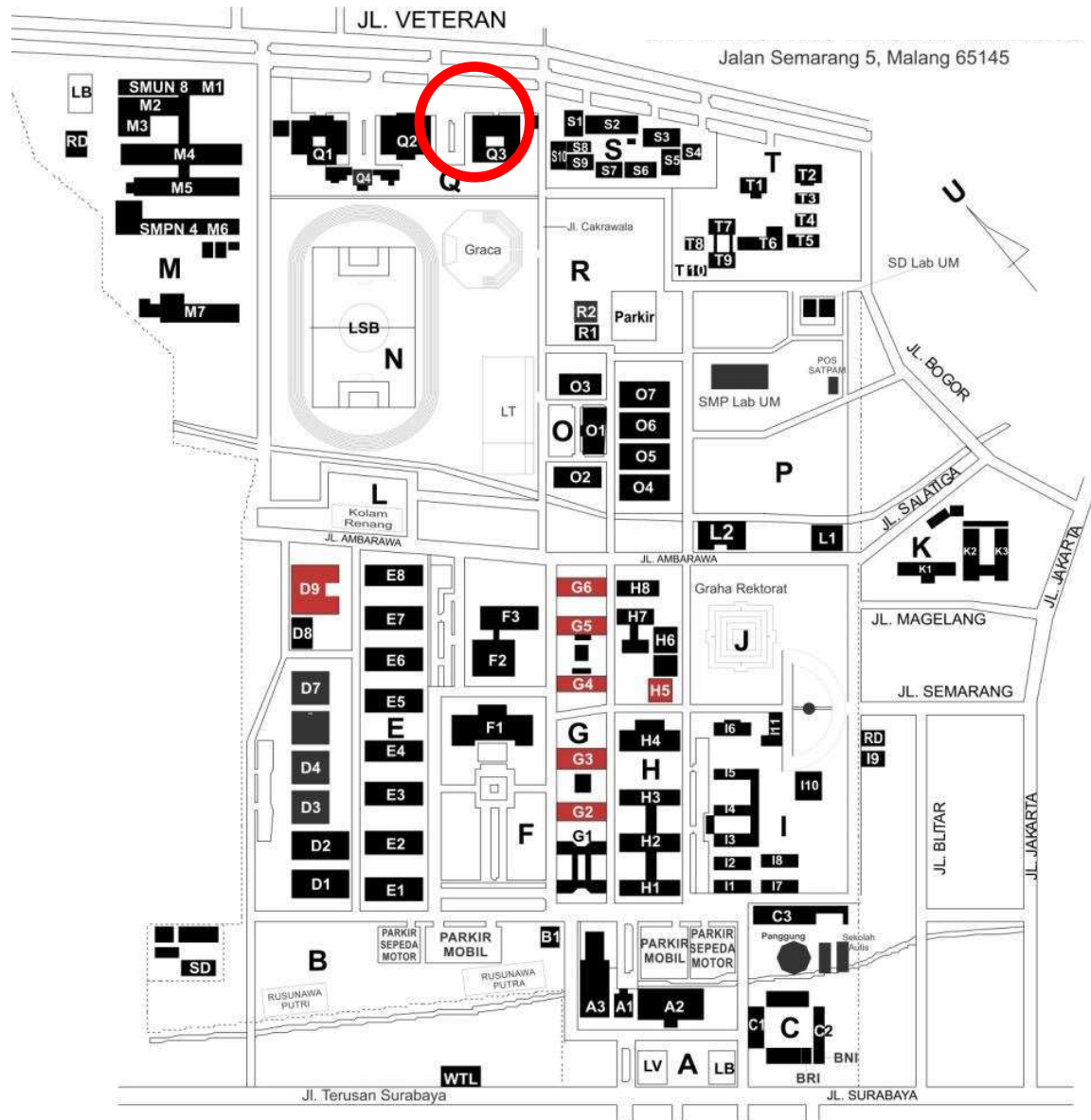
To cite this article: 2017 *IOP Conf. Ser.: Mater. Sci. Eng.* **202** 011003

View the [article online](#) for updates and enhancements.

MALANG REGENCY MAP



MAP OF UM CAMPUS I

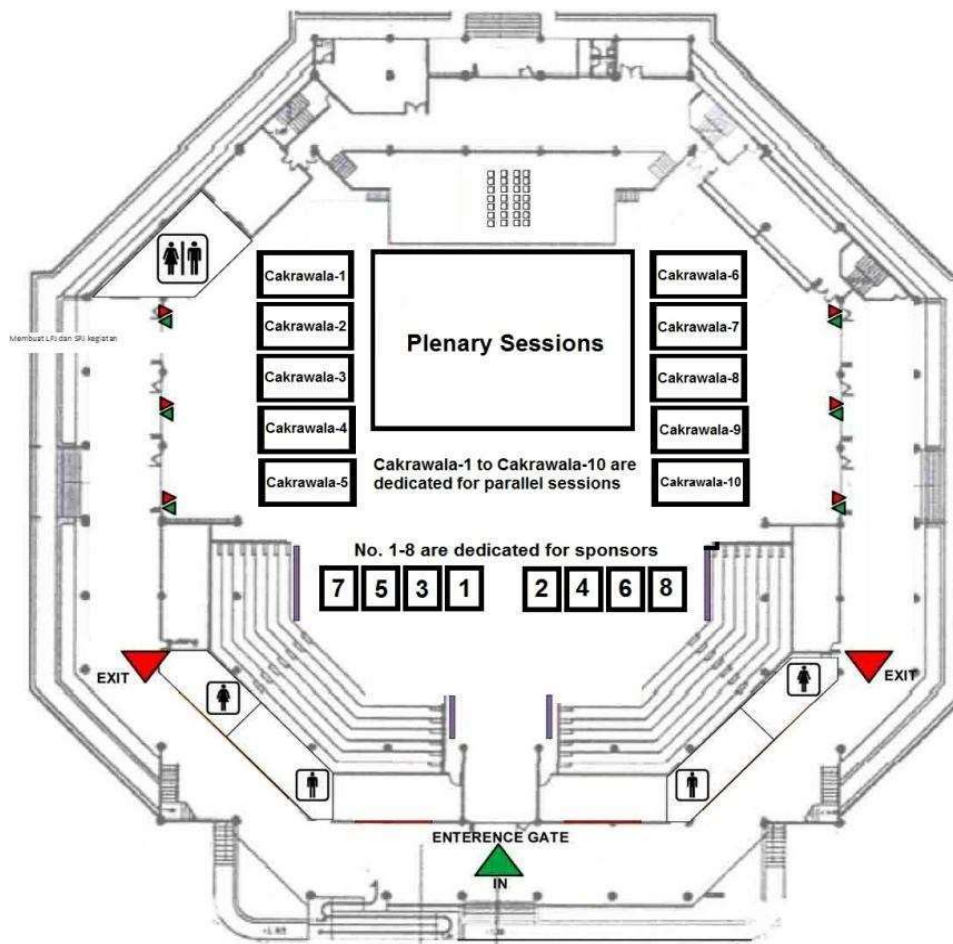


<http://ft.um.ac.id/wp-content/uploads/2012/03/kampus-1.jpg>

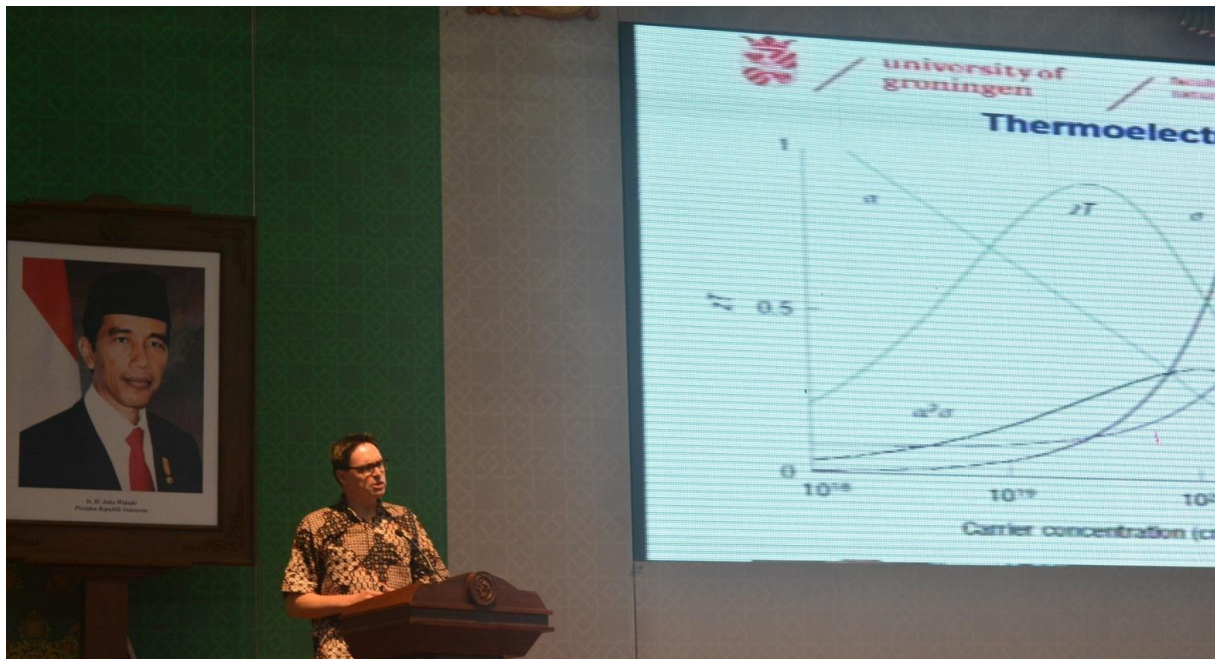
Index Map of UM Campus I

A1	Gedung Rektorat	I6	Gedung Multi Guna 2
A2	Gedung Administrasi Umum	I7	UKM 3
A3	Gedung Administrasi Akademik	I8	Kafetaria
B1	Gedung Hotma	I9	Dharma Wanita
C1	Gedung FPPPsi	I10	Sasana Budaya
C2	Bank BNI Cabang Pembantu UM	I11	LP2P
C3	UKM 1	J	Graha Rektorat
D1-D2	Fakultas Ilmu Pendidikan	K1	SD Percobaan
D3-D5	Gedung Ekonomi	K2	SD Laboratorium UM
D7-D8	Fakultas Sastra	K3	TK Laboratorium UM
D9	Gedung Teknik 6 Jurusan Teknik Sipil	L1	Kantor Pos Cabang Pembantu UM
E1	Gedung Ilmu Pendidikan 1	L2	Poliklinik
E2	Gedung Ilmu Pendidikan 2	M1-M5	SMU Negeri 8
E3	Gedung Ekonomi 1	M6	SLTP Negeri 4
E4	Gedung Ekonomi 2	M7	Bengkel
E5	Gedung Ekonomi 3	O1	Gedung Mipa 1
E6	Gedung Sastra 1	O2	Gedung Mipa 2
E7	Gedung Sastra 2	O3	Gedung Mipa 3
E8	Gedung Sastra 3	O4	Gedung Mipa 4
F1	Perpustakaan	O5	Gedung Mipa 5
F2	Masjid Al-Hikmah	O6	Gedung Mipa 6
F3	Perpustakaan Masjid	O7	Gedung Mipa 7
G1	Gedung WR4, HI, Pusat TIK, Kerjasama & Humas	Q1	Asrama Mahasiswa Putra
G2	Gedung Teknik 1, Jurusan Teknik Mesin	Q2	Sasana Krida
G3	Gedung Teknik 2, Jurusan Teknik Sipil	Q3	Gedung Sastra
G4	Gedung Teknik 3, Jurusan Teknik Elektro	Q4	Asrama Mahasiswa PGSD
G5	Gedung Teknik 4, Jurusan Teknolgi Industri	R1	Penerbit Percetakan UM
G6	Gedung Teknik 5, Jurusan Teknologi Industri	R2	Garasi
H1	Gedung Pascasarjana 1	S1-S3	Wisma UM, BKBK,SPI,P2LP
H2	Gedung Pascasarjana 2	S5-S10	Wisma UM
H3	Gedung Pascasarjana 3	S4	Pusat Pengkajian Pancasila
H4	LP2M	T1,T3	UPP PGSD 1
H5	Fakultas Teknik	T4,T6	UPP PGSD 1
H6	KPRI	T2	Fakultas Ilmu Keolahragaan
H7	LP3M	T5	SD Laboratorium UM
H8	Gedung Multi Guna 1	T7-T10	SLTP Laboratorium UM
I1	Ukm 2	RD	Rumah Dinas
I2	Gedung Ekonomi 4	WTL	Warung Telekomunikasi
I3	Gedung Ekonomi 5	LT	Lapangan Tenis
I4	Gedung Ekonomi 6	LSB	Lapangan Sepakbola
I5	Gedung Ekonomi 7	LB	Lapangan Basket
		LV	Lapangan Volly

CONFERENCE HALL MAP







The International Conference on Advanced Materials Science and Technology (ICAMST) 2016

Universitas Negeri Malang, 27-28 September 2016 2016 10:42
<http://icamst2016.um.ac.id>



The International Conference on Advanced Materials Science and Technology (ICAMST) 2016

Universitas Negeri Malang, 27-28 September 2016
<http://icamst2016.um.ac.id>



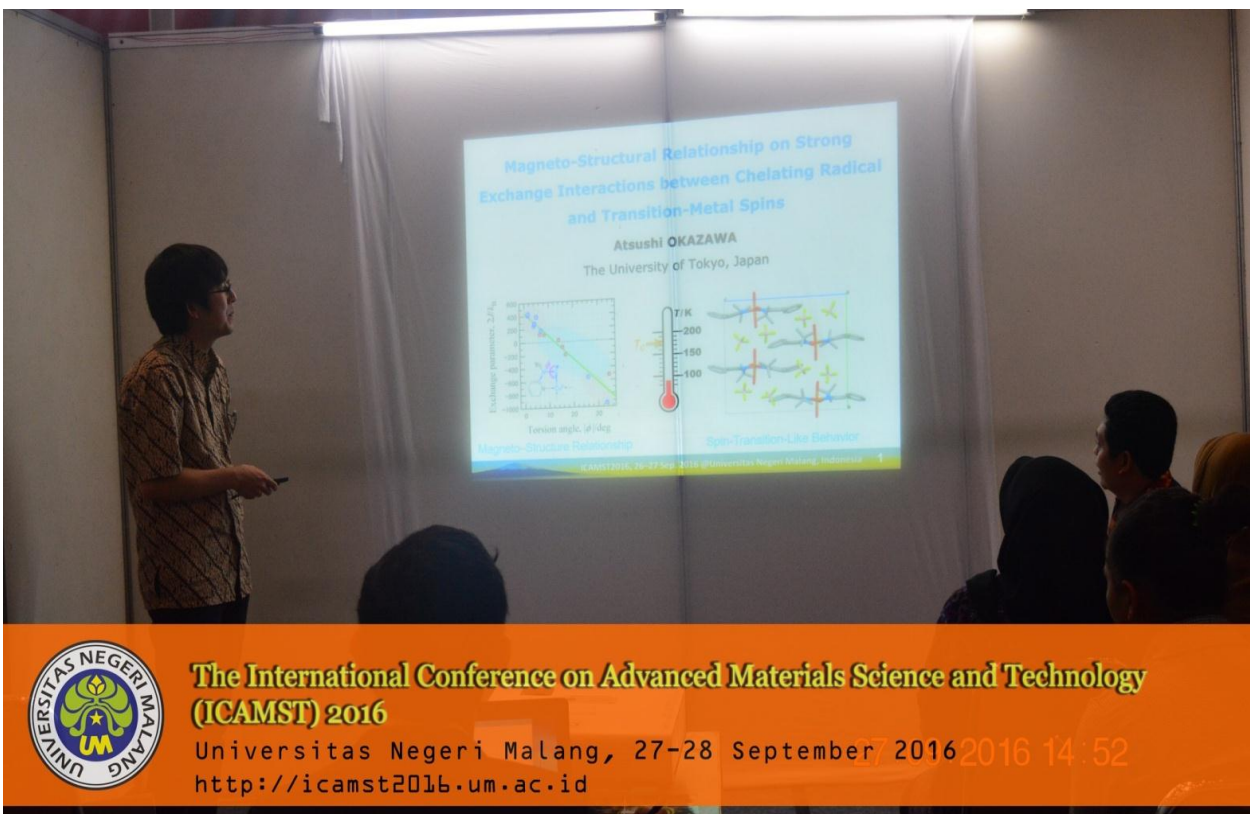
The International Conference on Advanced Materials Science and Technology (ICAMST) 2016

Universitas Negeri Malang, 27-28 September 2016 2016 11 22
<http://icamst2016.um.ac.id>



The International Conference on Advanced Materials Science and Technology (ICAMST) 2016

Universitas Negeri Malang, 27-28 September 2016 2016 11 22
<http://icamst2016.um.ac.id>







ICAMST 2016

The 4th International Conference on Advanced Materials Science and Technology

Funding Acknowledgement

On Behalf of Organizing Committee We Greatly Appreciate to The Following Partners for Sponsorship Support



UNIVERSITAS NEGERI MALANG



PT. KGC (LJ-UHV) TECHNOLOGY



PT. LAB SISTEMATIKA (RIGAKU)



PT. VANADIA



PT. INDOTECH



PT. ERA MITRA PERDANA

September 28, 2016
Universitas Negeri Malang, Indonesia



Dr. Markus Diantoro
Chairman

PAPER • OPEN ACCESS

Peer review statement

To cite this article: 2017 *IOP Conf. Ser.: Mater. Sci. Eng.* **202** 011004

View the [article online](#) for updates and enhancements.

Related content

- [Peer review statement](#)
- [Peer review statement](#)
- [Peer review statement](#)

Peer review statement

All papers published in this volume of *IOP Conference Series: Materials Science and Engineering* have been peer reviewed through processes administered by the proceedings Editors. Reviews were conducted by expert referees to the professional and scientific standards expected of a proceedings journal published by IOP Publishing.



This site uses cookies. By continuing to use this site you agree to our use of cookies. To find out more, see our Privacy and Cookies policy.



Table of contents

Volume 202

2017

◀ Previous issue Next issue ▶

**The 4th International Conference on Advanced Materials Science and Technology
27–28 September 2016, Universitas Negeri Malang, Indonesia**

[View all abstracts](#)

Accepted papers received: 12 May 2017

Published online: 31 May 2017

Preface

OPEN ACCESS	011001
The 4th International Conference on Advanced Materials Science and Technology	
+ View abstract	View article
PDF	
OPEN ACCESS	011002
Organizing Committee of ICAMST 2016	
+ View abstract	View article
PDF	
OPEN ACCESS	011003
Maps and Photographs	
+ View abstract	View article
PDF	
OPEN ACCESS	011004
Peer review statement	
+ View abstract	View article
PDF	

Papers

-
- OPEN ACCESS** 012001
Spin-Parity Behavior in the Exchange-Coupled Lanthanoid-Nitroxide Molecular Magnets
T Ishida
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012002
Magneto-Structural Relationship on Strong Exchange Interactions between Chelating Nitroxide Radical and Transition-Metal Spins
A Okazawa
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012003
Fabrication of Mesoporous Silica/Alumina Hybrid Membrane Film Nanocomposites using Template Sol-Gel Synthesis of Amphiphilic Triphenylene
H O Lintang, M A Jalani, L Yuliati and M M Salleh
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012004
Preparation of Low fouling Polyethersulfone Membranes by Simultaneously Phase Separation and Redox Polymerization
A Roihatin and H Susanto
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012005
Crystallinity and Electrical Conductivity of PANI-Ag/Ni Film: The Role of Ultrasonic and Silver Doped
M Diantoro, I N Fitriana, F Parasmayanti, Nasikhudin, A Taufiq, Sunaryono, N Mufti and H Nur
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012006
The Effect of Thickness of ZnO Thin Films on Hydrophobic Self-Cleaning Properties
N Mufti, D Arista, M Diantoro, A Fuad, A Taufiq and Sunaryono
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012007
Optimization of Freezing-Thawing Process in Enhancing Magnetic Properties of Fe₃O₄/PAA/PVA Magnetic Hydrogel Composites
Sunaryono, H Hifdziyah, A Taufiq, M Diantoro and N Mufti
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012008

Fabrication of Magnetite Nanoparticles Dispersed in Olive Oil and Their Structural and Magnetic Investigations

A Taufiq, R E Saputro, Sunaryono, N Hidayat, A Hidayat, N Mufti, M Diantoro, A Patriati, Mujamilah, E G R Putra and H Nur

[+](#) [View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012009

Magnetically Separable Fe₃O₄/SnO₂/Graphene Adsorbent for Waste Water Removal

V Paramarta, A Taufik and R Saleh

[+](#) [View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012010

Synthesis of High-Impact Polystyrene Fibers using Electrospinning

A Zulfi, A Fauzi, D Edikresnha, M M Munir and Khairurrijal

[+](#) [View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012011

Preparation of PVA/TiO₂ Composites Nanofibers by using Electrospinning Method for Photocatalytic Degradation

Nasikhudin, E P Ismaya, M Diantoro, A Kusumaatmaja and K Triyana

[+](#) [View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012012

Synthesis, Single Crystal Structure, and Magnetic Properties of 3-D Cu(NITpPy)₂[Cu(CN)₃].2CH₃OH.2H₂O Complexes

I W Dasna, S Golhen, L Ouahab and Subakti

[+](#) [View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012013

Preparation of MWCNT-Fe₃O₄ Nanocomposites from Iron Sand Using Sonochemical Route

R Rahmawati, A Melati, A Taufiq, Sunaryono, M Diantoro, B Yulianto, S Suyatman, N Nugraha and D Kurniadi

[+](#) [View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012014

The Scale Formation of Barite (BaSO₄) from Laminar Flowing Water in The Presence of Tartaric Acid and Ba²⁺ Concentration Variation of Solution

F Fatra, G Ivanto, N S Dera, S Muryanto and A P Bayuseno

[+](#) [View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012015

Citric Acid Addition to Controlling Crystallization of Barium Sulphate (BaSO₄) in Pipes through Ba²⁺ Concentration Variation in the Solution

G Ivanto, F Fatra, N S Dera, S Muryanto and A P Bayuseno

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012016

Phase Transformation of Limonite Nickel Ores with Na₂SO₄ Addition in Selective Reduction Process

W Mayangsari and A B Prasetyo

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012017

The Use of Heterogeneous Catalysts of Chitosan Sulfonate Bead on the Esterification Reaction of Oleic Acid and Methanol

H N Chamidy and Riniati

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012018

CaSO₄ Scale Inhibition by a Trace Amount of Zinc Ion in Piping System

W Mangestiyono and Sutrisno

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012019

Low-Temperature Carbothermic Reduction of Indonesia Nickel Lateritic Ore with Sub-Bituminous Coal

I Setiawan, S Harjanto and R Subagja

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012020

Preparation of Chitosan/Collagen Blend Membranes for Wound Dressing: A Study on FTIR Spectroscopy and Mechanical Properties

D J Indrani, F Lukitowati and Y Yulizar

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012021

Solid State Reaction Synthesis of Si-HA as Potential Biomedical Material: An Endeavor to Enhance the Added Value of Indonesian Mineral Resources

Hartatiek, Yudyanto, S D Ratnasari, R Y Windari and N Hidayat

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012022

Aging Time Effect on Porous Characteristics of Natural Mud-based Silica Prepared by Hydrothermal-Coprecipitation Route

A Ubaid, N Hidayat and Munasir

[+ View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012023

Magnetic Susceptibility and Morphology of Natural Magnetic Mineral Deposit in Vicinity of Human's Living

S Zulaikah, R Azzahro, S B Pranita, E S Mu'alimah, N Munfarikha, Dewiningsih, W L Fitria and H A Niarta

[+ View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012024

Preparation of Superparamagnetic $Zn_{0.5}Mn_{0.5}Fe_2O_4$ Particle by Coprecipitation-Sonochemical Method for Radar Absorbing Material

A Taufiq, S Bahtiar, Sunaryono, N Hidayat, A Hidayat, N Mufti, M Diantoro, A Fuad, Munasir, R Rahmawati, W A Adi, S Pratapa and Darminto

[+ View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012025

The Effect of Sintering Temperature on The Rolled Silver-Sheathed Monofilament Bi,Pb-Sr-Ca-Cu-O Superconducting Wire

Hendrik, P Sebleku, B Siswayanti and A W Pramono

[+ View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012026

Low-Temperature Nitriding of Pure Titanium by using Hollow Cathode RF-DC Plasma

J M Windajanti, D J Djoko H S and Abdurrouf

[+ View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012027

Optical Properties Characterization of Gamma Irradiated CeO_2 Nanoparticles Solution

I Nurhasanah, A Luthfia and Z Arifin

[+ View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012028

Microstructures and Mechanical Study of Mg Alloy Foam Based on Mg-Zn-Ca- $CaCO_3$ System

A Erryani, F Pramuji, D Annur, M I Amal and I Kartika

[+ View abstract](#) [View article](#) [PDF](#)

OPEN ACCESS

012029

Phase Analysis and Crystal Morphology of Barium Sulphate Precipitated from The Laminar Flowing Water

N S Dera, F Fatra, G Ivanto, S Muryanto and A P Bayuseno

[+ View abstract](#) [View article](#) [PDF](#)

-
- OPEN ACCESS** 012030
Noninvasive and Painless Urine Glucose Detection by Using Computer-based Polarimeter
Sutrisno, Y A Laksono and N Hidayat
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012031
Inexpensive Home-Made Single Wavelength Ellipsometer ($\lambda = 633$ nm) for Measuring the Optical Constant of Nanostructured Materials
L Z Maulana, K Megasari, E Suharyadi, R Anugraha, K Abraha and I Santoso
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012032
Effect of Fe₃O₄ Magnetic Nanoparticle Concentration on the Signal of Surface Plasmon Resonance (SPR) Spectroscopy
M Oktivina, D T Nurrohman, A N Q Z Rinto, E Suharyadi and K Abraha
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012033
Effects of Sintering Holding Time on the Structural, Electrical and Magnetic Properties of Zn_{0.95}Ni_{0.05}O
M Ginting, D Aryanto, C Kurniawan, A Y Sari, A Subhan, T Sudiro, P Sebayang, E R Tarigan, M N Nasruddin and K Sebayang
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012034
Synthesis and Characterization of Ti-6Al-6Mo Prepared by Arc Melting Process
G Senopati, I N G Putrayasa and A C Sutowo
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012035
Corrosion Behavior of Magnesium Based Foam Structure in Hank's Solution
P L Franciska, A Erryani, D Annur and I Kartika
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012036
The Effect of Substrate Temperature on Surface Modification of Polystyrene by using Nitrogen Plasma
A F Novi, D J D H Santjojo and Masrurh
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012037

Optimizing Heat Treatment Process of Fe-13Cr-3Mo-3Ni Martensitic Stainless of Steel

M S Anwar, S Prifiharni and E Mabururi

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012038

Fe-doped ZnO Supported with Montmorillonite: Synthesis, Characterization, and Photocatalytic Activity

M I Pratiwi, N Afifah and R Saleh

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012039

Study of Sigma Phase in Duplex SAF 2507

D M Fellicia, Sutarsis, B A Kurniawan, D Wulanari, A Purniawan and A T Wibisono

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012040

Study of Raman Spectra of Aluminum Powder-Substituted Barium Hexaferrite (BaM) $BaFe_{12-x}Al_xO_{19}$ as a Result of Solid State Reaction Process

S Mustofa, R Rizaldy and W A Adi

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012041

Analysis of Distribution of Polyvinyl Alcohol Hydrogel Nanocrystalline by using SAXS Synchrotron

Sunaryono, A Taufiq, N Mufti, N Hidayat, S Rugmai, S Soontaranon, E G R Putra and Darminto

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012042

Crystal Structure, Optical, and Electrical Properties of SnSe and SnS Semiconductor Thin Films Prepared by Vacuum Evaporation Techniques for Solar Cell Applications

Ariswan, H Sutrisno and R Prasetyawati

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012043

Synthesis of Polyvinylpyrrolidone (PVP)-Green Tea Extract Composite Nanostructures using Electrohydrodynamic Spraying Technique

Kamaruddin, D Edikresnha, I Sriyanti, M M Munir and Khairurrijal

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012044

Photodegradation of Rhodamine B by using $ZnFe_2O_4$ Nanoparticles Synthesized through Precipitation Method

Karnaji and I Nurhasanah

[+](#) View abstract [View article](#) [PDF](#)**OPEN ACCESS**

012045

Effect of Synthesis Parameter on Crystal Structures and Magnetic Properties of Magnesium Nickel Ferrite ($Mg_{0.5}Ni_{0.5}Fe_2O_4$) Nanoparticles

R Maulia, R A Putra and E Suharyadi

[+](#) View abstract [View article](#) [PDF](#)**OPEN ACCESS**

012046

Study on The Influence of Crystal Structure and Grain Size on Dielectric Properties of Manganese Ferrite ($MnFe_2O_4$) Nanoparticles

Kurnia, Heriansyah and E Suharyadi

[+](#) View abstract [View article](#) [PDF](#)**OPEN ACCESS**

012047

Study of Structural and Magnetic Properties of Silica and Polyethylene Glycol (PEG-4000)-Encapsulated Magnesium Nickel Ferrite ($Mg_{0.5}Ni_{0.5}Fe_2O_4$) Nanoparticles

F Deswardani, R Maulia and E Suharyadi

[+](#) View abstract [View article](#) [PDF](#)**OPEN ACCESS**

012048

Effect of Synthesis Temperature and NaOH Concentration on Microstructural and Magnetic Properties of $Mn_{0.5}Zn_{0.5}Fe_2O_4$ Nanoparticles

N Siregar, I P T Indrayana, E Suharyadi, T Kato and S Iwata

[+](#) View abstract [View article](#) [PDF](#)**OPEN ACCESS**

012049

Effect of Cu-Dopant on the Structural, Magnetic and Electrical Properties of ZnO

D Aryanto, C Kurniawan, A Subhan, T Sudiro, P Sebayang, M Ginting, S M K Siregar and M N Nasruddin

[+](#) View abstract [View article](#) [PDF](#)**OPEN ACCESS**

012050

Effect of Growth Time on the Characteristics of ZnO Nanorods

R Idiawati, N Mufti, A Taufiq, H Wisodo, I K R Laila, A Fuad and Sunaryono

[+](#) View abstract [View article](#) [PDF](#)**OPEN ACCESS**

012051

Synthesis and Characterization of Magnetic Elastomer based PEG-Coated Fe_3O_4 from Natural Iron Sand

C Kurniawan, A S Eko, Y S Ayu, P T A Sihite, M Ginting, P Simamora and P Sebayang

[+](#) View abstract [View article](#) [PDF](#)

-
- OPEN ACCESS** 012052
Synthesis, Investigation on Structural and Magnetic Behaviors of Spinel M-Ferrite [M = Fe; Zn; Mn] Nanoparticles from Iron Sand
S Bahtiar, A Taufiq, Sunaryono, A Hidayat, N Hidayat, M Diantoro, N Mufti and Mujamilah
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012053
Variation of Carbon Coating on $\text{Li}_2\text{Na}_2\text{Ti}_6\text{O}_{14}$ as Anode Material of Lithium Battery
B Prihandoko, S Priyono, A Subhan and A Mulya
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012054
Optical Properties of Fe_3O_4 Magnetic Fluid from Iron Sand
A Puspitaningrum, A Taufiq, A Hidayat, Sunaryono, N Hidayat and Samian
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012055
High-Performance Silver Nanowire Film on Flexible Substrate Prepared by Meyer-rod Coating
Junaidi, K Triyana, Harsojo and E Suharyadi
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012056
Effect of NiO and Light Intensity on Dielectric Constant of $\text{SiO}_2\text{-B}_2\text{O}_3\text{-Bi}_2\text{O}_3\text{-Na}_2\text{CO}_3$ Glass Based on Silica Gel of Natural Sands
M Diantoro, Z Muniroh, B Zaini, A A Mustikasari, Nasikhudin, A Hidayat, A Taufiq, Sunaryono and N. Mufti
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012057
Composites of $\text{Fe}_3\text{O}_4/\text{SiO}_2$ from Natural Material Synthesized by Co-Precipitation Method
Munasir, A S Dewanto, A Yulianingsih, I K F Saadah, Z A I Supardi, A Mufid and A Taufiq
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012058
Fabrication of $\text{TiO}_2/\text{Carbon}$ Photocatalyst using Submerged DC Arc Discharged in Ethanol/Acetic Acid Medium
T E Saraswati, A O Nandika, I F Andhika, Patiha, C Purnawan, S Wahyuningsih and S B Rahardjo
[+](#) View abstract [View article](#) [PDF](#)
-
- OPEN ACCESS** 012059
Synthesis and Characterization of Microwave Absorber SiO_2 by Sol-Gel Methode

S Wardiyati, W A Adi and Deswita

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012060

Natural Silica Sand/Alumina Ceramic Composites: Promising Candidates for Fuel-Cell Sealants

N Hidayat, Istiqomah, M Y H Widiyanto, A Taufiq, Sunaryono, Triwikantoro, M Zainuri, M A Baqiya, G Aristia and S Pratapa

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012061

Ag/Fe₃O₄/ZrO₂ Composite: Ternary Magnetically Separable UV-light-driven Photocatalyst for Removal Methylene Blue Dyes

Y Kristianto, A Taufik and R Saleh

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012062

Effect of Fe₃O₄ on the Electro-Optic and Magneto-Electric Characteristics of (PANI/Fe₃O₄)-Ag Film

M Diantoro, D Pradhana, A A Mustikasari, A D Kusumawati, A Taufiq, Sunaryono, N Mufti and H Nur

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012063

Effect of Crystallite Structure and Graphene Incorporation on Photocatalytic Performance of LaFeO₃

N Afifah and R Saleh

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012064

Factors Influence the Structural and Magnetic Properties of Ag-Fe₃O₄ Nanocomposites Synthesized by Reduction Method

F Fajaroh and Nazriati

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012065

Sonocatalytic Degradation of Methylene Blue with LaMnO₃ Supported by Different Surface Area of Graphene

N Afifah and R Saleh

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012066

Nanoneedles of Lanthanum Oxide (La_2O_3): A Novel Functional Material for Microwave Absorber Material

W A Adi, S Wardiyati and S H Dewi

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012067

Effect of Thermal Processes on the Electrical and Optical Properties of Fe_2TiO_5 Ceramics

R Fajarin, Widyastuti, M A Baqiya and I Y S Putri

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012068

Mechanosynthesis of A Ferritic ODS (Oxide Dispersion Strengthened) Steel Containing 14% Chromium and Its Characterization

A K Rivai, A Dimiyati and W A Adi

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012069

Methyl Ester Production via Heterogeneous Acid-Catalyzed Simultaneous Transesterification and Esterification Reactions

S Indrayanah, Erwin, I N Marsih, Suprpto and I K Murwani

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012070

Synthesis of Zinc Oxide Nanoparticles using Anthocyanin as a Capping Agent

N L W Septiani, B Yulianto, M Iqbal and Nugraha

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012071

Microstructure Transformation of Mg-1.6Gd during Hot Rolled at High Deformation Ratio

O Susanti, M A Mochtar and S Harjanto

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012072

The Effect of Molar Ratio on Crystal Structure and Morphology of $\text{Nd}_{1+x}\text{FeO}_3$ ($X=0.1, 0.2,$ and 0.3) Oxide Alloy Material Synthesized by Solid State Reaction Method

V Zharvan, Y N I Kamaruddin, S Samnur and E H Sujiono

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS

012073

Modification of Pseudobrookite $\text{Fe}_{2-x}\text{Mn}_x\text{TiO}_5$ with Solid State Reaction Method using a Mechanical Milling

Y Sarwanto and W A Adi

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012074

Effect of Precursor Concentration Ratio on The Crystal Structure, Morphology, and Band Gap of ZnO Nanorods

A Fuad, A A Fibriyanti, Subakti, N Mufti and A Taufiq

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012075

Physical and Magnetic Properties of $\text{La}_{0.5}\text{Ca}_{0.5}\text{Mn}_{0.9}\text{Cu}_{0.1}\text{O}_3$ at Temperature in the Range of 10-100 K

Y E Gunanto, W A Adi, E Steven, B Kurniawan, T Ono and H Tanaka

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012076

Effect of Heat Treatment on The Crystal Structur, Electrical Conductivity and Surface of $\text{Ba}_{1.5}\text{Sr}_{0.5}\text{Fe}_2\text{O}_5$ Composite

P Purwanto, WA Adi and Yunasfi

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012077

Monitoring Microalgae Population Growth by using Fe_3O_4 Nanoparticles-based Surface Plasmon Resonance (SPR) Biosensor

D T Nurrohman, M Oktivina, E Suharyadi, E A Suyono and K Abraha

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012078

The Addition of Graphene and Magnetite Materials in TiO_2/CuO Catalyst for Enhancing Photosonocatalytic Performance and Reusability

A Taufik, A Muzaki and R Saleh

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012079

Synthesis and Characterization of Acrylic-Based Photopolymer as a Candidate for Denture Base Material

S T Wicaksono, Rasyida and H Ardhyananta

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012080

Composite Based Chitosan/Zinc-Doped HA as a Candidate Material for Bone Substitute Applications

S T Wicaksono, A Rasyida, A Purnomo, N N Pradita, H Ardhyananta and M I P Hidayat

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012081

Investigation on the Mechanical Properties of A356 Alloy Reinforced AlTiB/SiC_p Composite by Semi-Solid Stir Casting Method

E I Bhiftime and N F D S Gueterres

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012082

Poly (1,8 Octanediol-co-Citrate) Hydroxyapatite Composite as Antibacterial Biodegradable Bone Screw

P Widiyanti, I Sholikhah, A Isfandiary, NAF Hasbiyani, M B Lazuardi and R D Laksana

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012083

The Effects of the Addition of Silica Mol Fraction ($x = 1.5; 2; 2.5$) as a Solid Electrolyte on Ion Conductivity of NASICON ($\text{Na}_{1-x}\text{Zr}_2\text{Si}_x\text{P}_{3-x}\text{O}_{12}$) Using Solid-State Method

V M Pratiwi, H Purwaningsih, Widyastuti, R Fajarin and H Setyawan

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012084

Effects of Austenitizing and Forging on Mechanical Properties of MIL A-12560/AISI 4340 Steel

S Herbirowo, B Adjiantoro and T B Romijarso

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012085

Influence of Austenitizing Heat Treatment on the Properties of the Tempered Type 410-1Mo Stainless Steel

E Mabruuri, Z A Syahlan, Sahlan, S Prifiharni, M S Anwar, S A Chandra, T B Romijarso and B Adjiantoro

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012086

Fluorescence Sensing of Nitrite Ions on Polyvinylpyrrolidone/Zinc Oxide Composites Prepared by Impregnation Method

L Yuliaty, S Z M So'ad, N S Alim and H O Lintang

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012087

Blending of Low-Density Polyethylene and Poly-Lactic Acid with Maleic Anhydride as A Compatibilizer for Better Environmentally Food-Packaging Material

A H Setiawan and F Aulia

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012088

Mechanical and Thermal Properties of Unsaturated Polyester/Vinyl Ester Blends Cured at Room Temperature

H Ardhyananta, F D Puspawati, S T Wicaksono, Widyastuti, A T Wibisono, B A Kurniawan, H Ismail and A V Salsac

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012089

Characteristics of Al-Si-Mg Reinforced SiC Composites Produced by Stir Casting Route

A Zulfia, T Zhakiah, D Dhaneswara and Sutopo

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012090

The Structure, Magnetic and Absorption Properties of Zn-Ti Substituted Barium-Strontium Hexaferrite Prepared by Mechanochemical Process

D S Winataputra, T L Ujijanti and W A Adi

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012091

Influence of External Magnetic Field on Potential Differences of Long Josephson Junction

A Hidayat, Y P Hardianto, E Latifah, H Wisodo and A Taufiq

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012092

The Effect of Temperature in Induction Surface Hardening on the Distortion of Gear

N F D S Guterres, Rusnaldy and A Widodo

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012093

Effect of Temperature on the Conduction Properties of Oligo-phenyl-phenylene (OPP) Molecule

S Setianto, H S Aswad and Y M Jajat

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

012094

Risk Analysis of Central Java Gas Transmission Pipeline by Risk-Based Inspection Method

Mediansyah, G D Haryadi, R Ismail and S J Kim

[+ View abstract](#)[View article](#)[PDF](#)**OPEN ACCESS**

Finite Element Study of the Effect of UHMWPE Liner Thickness on the Contact Area and Stress Distribution in a Bipolar Hip Joint 012095

J Jamari, E Saputra, I B Anwar, R Ismail and E V D Heide

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS 012096

Influence of Glass Fiber Nonlinearity and Dispersion on Light propagation in Double Core Optical Fiber

A Hidayat, A Listanti, E Latifah, H Wisodo, Nugroho A P and A Taufiq

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS 012097

A Study of Chip Formation Feedrates of Various Steels in Low-Speed Milling Process

L Prasetyo, M Tauviqirrahman and Rusnaldy

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS 012098

Investigation of the Influence of Shapes-Texture on Surface Deformation of UHMWPE as a Bearing Material in Static Normal Load and Rolling Contact

W D Lestari, R Ismail, J Jamari and A P Bayuseno

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS 012099

Risk Analysis using Corrosion Rate Parameter on Gas Transmission Pipeline

B Sasikirono, S J Kim, G D Haryadi and A Huda

[+](#) View abstract [View article](#) [PDF](#)

OPEN ACCESS 012100

Vector Analysis of Ionic Collision on CaCO_3 Precipitation Based on Vibration Time History

W Mangestiyono, S Muryanto, J Jamari and A P Bayuseno

[+](#) View abstract [View article](#) [PDF](#)

JOURNAL LINKS

[Journal home](#)

[Information for organizers](#)

[Information for authors](#)

[Search for published proceedings](#)

[Contact us](#)

[Reprint services from Curran Associates](#)

