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HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : PROSIDING

Judul Karya Ilmiah (Prosiding) : **Effect of Potentials and Electric Charges for Copper and Indium Depositions to the Photocurrent Responses of CuInS₂ Thin Films Fabricated by Stack Electrodeposition Followed by Sulfurization**

Nama/ Jumlah Penulis : **Gunawan/4**

Status Pengusul : Penulis ke-1

Identitas Prosiding :

- a. Judul Prosiding : IOP Conference Series: Materials Science and Engineering
- b. ISBN/ISSN : 17578981 atau 1757899X
- c. Thn Terbit, Tempat Pelaks. : 2018, Semarang
- d. Penerbit/Organiser : IOP Publishing
- e. Alamat Repository/Web : <https://iopscience.iop.org/journal/1757-899X>
- Alamat Artikel : <https://iopscience.iop.org/article/10.1088/1757-899X/349/1/012074/meta>
- f. Terindeks di (jika ada) : SJR (Scimago Journal & Country Rank)

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 (beri ✓ pada kategori yang tepat) ☐ Prosiding Forum Ilmiah Nasional

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c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9		9
d. Kelengkapan unsur dan kualitas terbitan /prosiding (30%)	9		8,5
Total = (100%)	30		29
Nilai Pengusul =			

Catatan Penilaian artikel oleh Reviewer:

1. Kesesuaian dan kelengkapan unsur isi jurnal:

Artikel yang dimuat sesuai dengan kepakaran penulis. Isi unsur jurnal lengkap sesuai yang dipersyaratkan oleh jurnal internasional (IOP Conference Series: Materials Science and Engineering). Dengan similarity 21%.

2. Ruang lingkup dan kedalaman pembahasan:

Ruang lingkup jurnal ini tentang efek potensial dan muatan listrik pada deposisi tembaga dan indium terhadap respon arus foton lapis tipis CuInS₂ yang dibuat dari elektrodeposisi bertahap dan sulfurisasi. Pembahasannya cukup mendalam dengan menggunakan instrumentasi pengujian XRD, SEM, EDX dan J-V respons. Pembahasannya disertai referensi yang menguatkan data yang diperoleh.

3. Kecukupan dan kemutakhiran data/informasi dan metodologi:

Data/informasi yang disampaikan cukup baik dan mutakhir dan metodologinya disampaikan secara detil sehingga peneliti lain bisa mengacu penelitian ini. Referensi yang digunakan up to date (16% referensi kurang dari 5 th artikel terbit dari 18 referensi)

4. Kelengkapan unsur dan kualitas terbitan:

Unsur artikel lengkap, kualitas jurnal sangat bagus IOP Conference Series: Materials Science and Engineering, terindek scopus.

Semarang, 25 Juli 2021

Reviewer I

Prof. Dr. Dra. Meiny Suzery, M.S.

NIP. 196005101989032001

Unit Kerja :FSM Universitas Diponegoro

Bidang Ilmu: Kimia Organik

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HASIL PENILAIAN SEJAWAT SEBIDANG ATAU PEER REVIEW
KARYA ILMIAH : PROSIDING

Judul Karya Ilmiah (Prosiding) : **Effect of Potentials and Electric Charges for Copper and Indium Depositions to the Photocurrent Responses of CuInS₂ Thin Films Fabricated by Stack Electrodeposition Followed by Sulfurization**

Nama/ Jumlah Penulis : **Gunawan/4**

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- f. Terindeks di (jika ada) : SJR (Scimago Journal & Country Rank)

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	Internasional 30	Nasional 	
a. Kelengkapan unsur isi prosiding (10%)	3		3
b. Ruang lingkup dan kedalaman pembahasan (30%)	9		9
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9		8,5
d. Kelengkapan unsur dan kualitas terbitan /prosiding (30%)	9		8,5
Total = (100%)	30		29
Nilai Pengusul = 0,6x29 = 17,4			

- Kesesuaian dan kelengkapan unsur isi jurnal:**
Artikel sesuai dengan kepakaran penulis, lengkap unsur dalam isi jurnal (4) yaitu judul, abstrak (berisi latar belakang, metode dan hasil), Grafik dan tabel disitasi dan dibahas, penulisan sesuai dengan panduan IOP Conference Series: Materials Science and Engineering. Kelengkapan jurnal meliputi editor, anggota, reviewer, petunjuk penulisan juga ada. Tata penulisan terjadi cukup baik (3)
- Ruang lingkup dan kedalaman pembahasan:**
Ruang lingkup artikel terkait untuk meneliti penelitian tentang efek muatan potensial dan listrik pada respon fotocurrent lapis **CuInS₂ yang didepositkan Cu dan Indium sengan Stack Electrodeposition yang diikuti dengan Sulfurisasi**, pembahasan penelitian sudah dilakukan dengan cukup mendalam dalam membahas nya dengan instrumen XRD, SEM EDX, beberapa pengujiannya adalah current density vs potensial, .. (9)
- Kecukupan dan kemutakhiran data/informasi dan metodologi:**
Referensi yang digunakan menunjang pembahasan dan metodologi yang digunakan uptodate (16% referensi dengan tahun terbit sebelum 5 tahun artikel ini terbit (2018) dari 18 jurnal. Metodologi singkat telah ditulis dan dibahas (8,5)
- Kelengkapan unsur dan kualitas terbitan:**
Secara umum kelengkapan unsur artikel lengkap. Kualitas jurnal IOP Conference Series: Journal of Physics: Conference Series yang diterbitkan oleh IOP Publishing terindex di Inspec, Scopus serta scimago dengan SJR 0,192 (2018), (8,5)
Catatan: Turnitin 21%

Semarang, 2 Februari 2021
Reviewer II

Prof. Dr. M. Cholid Djunaidi, S.Si, M.Si
NIP. 197007021996031004
Unit Kerja :FSM Universitas Diponegoro
Bidang Ilmu: Kimia Analitik

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HASIL PENILAIAN SEJAWAT SEBIDANG ATAU *PEER REVIEW*
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Judul Jurnal Ilmiah (Artikel) : **Effect of Potentials and Electric Charges for Copper and Indium Depositions to the Photocurrent Responses of CuInS₂ Thin Films Fabricated by Stack Electrodeposition Followed by Sulfurization**

Nama/ Jumlah Penulis : **Gunawan/4**

Status Pengusul : Penulis ke-1

Identitas Jurnal Ilmiah : a. Judul Prosiding : IOP Conference Series: Materials Science and Engineering
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Kategori Publikasi Jurnal Ilmiah : ☒ *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	3	3
b. Ruang lingkup dan kedalaman pembahasan (30%)	8.5	9	8.75
c. Kecukupan dan kemutakhiran data/informasi dan metodologi (30%)	9	8.5	8.75
d. Kelengkapan unsur dan kualitas penerbit (30%)	8.5	8.5	8.5
Total = (100%)	29	29	29
Nilai untuk Pengusul : 0.6x29=17.4			

Reviewer 1



Prof. Dr. Dra. Meiny Suzery, M.S.
NIP. 196005101989032001
Unit Kerja :FSM Universitas Diponegoro
Bidang Ilmu: Kimia Organik

Semarang,
Reviewer 2



Prof. Dr. M. Cholid Djunaidi, S.Si, M.Si
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 Volume 349, Issue 1, 2 May 2018, Article number 012074
 12th Joint Conference on Chemistry, JCC 2017; Crystall Ballroom, Aston Hotel and Convention
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Effect of potentials and electric charges for copper and indium depositions to the photocurrent responses of CuInS₂ thin films fabricated by stack electrodeposition followed by sulfurization (Conference Paper) ([Open Access](#))

Gunawan ✉, Haris, A., Widiyandari, H., Widodo, D.S.

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

Abstract

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Effect of potentials and electric charges of 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 voltammetry (LSV) in europium solution under chopped irradiation. Photocurrent responses showed that fabricated CuInS₂ thin films had p-type photoresponses. Indium deposition on copper was influenced by copper morphology resulted by a certain potential deposition. Increasing potential of indium deposition on copper and electric charge of copper deposition reduced photocurrent for the former but did not change photocurrent of CuInS₂ for the latter. © 2018 Institute of Physics Publishing. All rights reserved.

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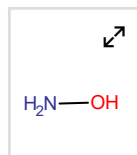
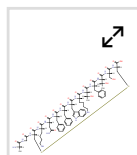
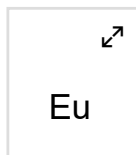
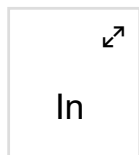
Topic: Thin Film Solar Cells | Indium Sulfide | Chalcopyrite

Prominence percentile: 86.752



Chemistry database information ⓘ

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Fabrication of CuInS₂ films from electrodeposited Cu/In bilayers: Effects of preheat treatment on their structural, photoelectrochemical and solar cell properties

Lee, S.M. , Ikeda, S. , Yagi, T. (2011) *Physical Chemistry Chemical Physics*

Characterization of CuInS₂ thin films prepared by sulfurization of Cu-In precursor

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Copper deposition Copper morphology CuInS₂ thin films Elemental compositions
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Engineering main
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Thin films

Funding details

Funding sponsor	Funding number	Acronym
	276-33/UN7.5.1/2017	

Funding text

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