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

Judul Jurnal Ilmiah (Artikel)	:	Modification of the analyzer on electrooptics for cooking oil quality testing		
Nama/ Jumlah Penulis	:	5 Orang		
Status Pengusul	:	~~Penulis pertama~~/ Penulis ke-4/ ~~Penulis Korespondesi **~~		
Identitas Prosiding	:	a. Nama Prosiding	:	Journal of Physics: Conference Series, (ISNPINSA 2020)
		b. Nomor ISSN	:	Online ISSN: 1742-6596, Print ISSN: 1742-6588
		c. Vol, No., Bln Thn	:	Vol.1943, No.012018, 2021
		d. Penerbit	:	IOP Publishing Ltd.
		e. DOI artikel (jika ada)	:	10.1088/1742-6596/1943/1/012018
		f. Alamat web prosiding	:	https://iopscience.iop.org/journal/1742-6596
		Alamat Artikel	:	https://iopscience.iop.org/article/10.1088/1742-6596/1943/1/012018
		g. Terindex	:	Scopus, SJR, Google Scholar, H-index : 85, Impact score : 0.48 (2021-2020)

Kategori Publikasi Jurnal Ilmiah (beri ✓pada kategori yang tepat) :
[√] *Prosiding* Forum Ilmiah Internasional terindeks
[ ] *Prosiding* Forum Ilmiah Nasional

Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Reviewer		Nilai Rata-rata
	Reviewer I	Reviewer II	
a. Kelengkapan unsur isi jurnal (10%)	3	3	3
b. Ruang lingkup dan kedalaman pembahasan (30%)	8,00	8	8
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	8,00	7,5	8,25
d. Kelengkapan unsur dan kualitas penerbit (30%)	8,00	8	8
Total = (100%)	**27,00**	**26,5**	**26,75**
Nilai untuk Pengusul : 40% x 1/4 x 26,75 = 2,675			

Semarang, 10 Februari 2023

Reviewer 1

Prof. Dr. Kusworo Adi, S.Si., M.T.
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Reviewer 2

Prof. Dr. Agus Subagio, S.Si., M.Si.
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Bidang Ilmu: Fisika Material

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Hasil Penilaian *Peer Review* :

Komponen Yang Dinilai	Nilai Maksimal Prosiding		Nilai Akhir Yang Diperoleh
	Internasional [√]	Nasional [ ]	
a. Kelengkapan unsur isi Prosiding (10%)	3		3,00
b. Ruang lingkup dan kedalaman pembahasan (30%)	9		8,00
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	9		8,00
d. Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	9		8,00
Total = (100%)	**30**		**27,00**
Nilai Pengusul = 40% x 1/4 x 27,00= 2,70			

Catatan Penilaian artikel oleh Reviewer :

1. **Kelengkapan unsur isi prosiding:**
   Penulisan artikel sudah baik dan mengikuti standard penulisan artikel di prosiding, yaitu Abstrak, Introduction, Method, Result and Discussion, Conclusions, Acknowledgement, and References. Substansi artikel sesuai bidang ilmu pengusul
2. **Ruang lingkup dan kedalaman pembahasan:**
   Lingkup bahasan dari artikel ini adalah bidang fisika. Pembahasan cukup baik yaitu merancang alat elektrooptik dengan membuat modifikasi pada penganalisa. Hasil desain tinta digunakan untuk menguji kualitas masakan minyak. Metode yang digunakan pada alat ini didasarkan pada sifat elektrooptik minyak goreng.. Kedalaman pembahasan baik.
3. **Kecukupan dan kemutakhiran data/informasi dan metodologi:**
   Informasi yang disajikan cukup baru dan hasil yang diperoleh memuat substansi orisinil dengan aspek aplikasi yang penting. Sumber gagasan penulis untuk artikel ini kurang komprehensif. Dari 7 referensi yang dipakai terdapat 2 paper yang lebih dari 10 tahun terakhir (out of date). Metodologinya dan penulisannya kurang terstruktur.
4. **Kelengkapan unsur dan kualitas terbitan:**
   Artikel dimuat di prosiding Journal of Physics: Conference Series (ISNPINSA 2019). Diterbitkan pada Vol.1943, No.012018, 2021, diterbitkan IOP Publishing Ltd. dan terindeks di Scopus.

Semarang, 10 Februari 2023
Reviewer 1

Prof. Dr. Kusworo Adi, S.Si., M.T.
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Bidang Ilmu: Fisika Instrumentasi

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a. Kelengkapan unsur isi jurnal (10%)	3		3
b. Ruang lingkup dan kedalaman pembahasan (30%)	9		8
c. Kecukupan dan kemutahiran data/informasi dan metodologi (30%)	9		7,5
d. Kelengkapan unsur dan kualitas terbitan/prosiding (30%)	9		8
Total = (100%)	**30**		**26,5**
Nilai Pengusul = 40% x 1/4 x 26,5 = 2,7 (Max 30)			

Catatan Penilaian artikel oleh Reviewer :

1. **<u>Kesesuaian dan kelengkapan unsur isi jurnal:</u>**
   Tulisan sudah lengkap yang terdiri dari title, abstract, introduction, method, result and discussion, conclusion, references. Artikel telah sesuai dengan bidang ilmu pengusul/anggota penulis.
2. **<u>Ruang lingkup dan kedalaman pembahasan:</u>**
   Pembahasan artikel terkait kajian modifikasi analiser system elektrooptik pengujian kualitas minyak telah dijelaskan dengan baik. Artikel ini juga dilengkapi dengan referensi pada bagian pembahasan untuk menguatkan diskusi.
3. **<u>Kecukupan dan kemutakhiran data/informasi dan metodologi:</u>**
   Metode standar serta referensi yang digunakan cukup baik terkait skema reaktor dan setting eksperimen. Makalah didukung oleh 7 daftar pustaka.
4. **<u>Kelengkapan unsur dan kualitas terbitan:</u>**
   Prosiding untuk artikel yang diterbitkan telah terindex dan memiliki kualitas internasional. Kelengkapan dan kualitas cukup baik terdapat tabel hasil perhitungan untuk memudahkan penjelasan.

Semarang, 10 Februari 2023
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Bidang Ilmu:Fisika Material

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Modification of the analyzer on electrooptics for cooking oil quality testing

Sugito H. ; Utomo G.N.; Firdausi K.S.; Sumariyah S.; Khumaeni A.
Save all to author list

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Abstract

The importance of cooking oil for human consumption makes cooking oil needs to be aware of its quality . This research aims to design electrooptic devices by making modifications to the analyzer . The results of the ink design are used to test the quality of cooking oil . The method used in this tool is based on the electrooptical properties of cooking oil . Because the optical properties or the polarization angle used as an indicator of the quality of cooking oil is relatively very small, it is necessary to modify the analyzer on the existing electrooptics to avoid parallax errors and increase the effectiveness in measurement. Modifications were made by adding a stepper motor as an actuator, gears that intersect with certain radius ratios, and an ATMega 328P microcontroller for data controller and processing. in the cooking oil quality test, it can be distinguished oil that has expired and is still suitable for consumption based on the average value of the change in the polarization angle. © Published under licence by IOP Publishing Ltd.

Indexed keywords

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Formation of toxic alkylbenzenes in edible oils submitted to frying temperature. Influence of oil composition in main components and heating time

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Design of Integrated Polarizer for Detection of Lard Impurities in Cooking Oil (Open Access)

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http://iopscience.iop.org/journal/1742-6596
doi: 10.1088/1742-6596/1524/1/012022

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Preface

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Modification of the analyzer on electrooptics for cooking oil quality testing

H Sugito, G N Utomo, K S Firdausi, S Sumariyah and A Khumaeni

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A study of relative dissociation energy through electro-optics effect as a potential tool for evaluation of cooking oil quality

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