Bukti Submission (sebagai koresponden)

Judul Paper :

Functionalization of congo red dye as a light harvester on solar cell

Bukti Corresponding Substantif berisi

1. Komentar dari reviewer terkait substantif paper
2. Bukti respon author terhadap hasil review

Bukti print email berisi

1. Bukti submit ke jurnal
2. Bukti persetujuan Jurnal terhadap hasil review
3. Bukti accepted

Bukti Corresponding Substantif

Judul Paper :

Functionalization of Congo red dye as a light harvester on solar cell

Dear Editor of Open Chemistry Journal,

Many thanks for your useful comments and suggestions about our manuscript (OPENCHEM-D-19-00174(OCY-008)). We have modified the manuscript accordingly reviewers' comments and answered accurately. Some parts of the manuscript have been changed. All exerted changes can be seen in highlight manner.

Best Regards,

Harsasi Setyawati

Reviewers' comments:

Reviewer #1:

1. Please check line 63 and Table 3 (there are some editing errors)

Has been changed

2. Please indicate in the presentation of preparation methods the amount of the prepared material

Has been added.

"Previously, metal salt and ligand was weighed based on the mole ratio determination, one mole of metal and three mole of ligand congo red."

3. Please describe more detailed the chemical analyses by EDAX indicating also the precision of the method!

Has been described.

"In order to characterize the composition of complexes, all complexes were determined their element by Energy Dispersive X-Ray (EDX). EDX is one of a chemical microanalysis technique which can be used for *qualitative* (the type of elements) as well as *quantitative* (the percentage of the concentration of each element of the sample). This analysis could detects the x-rays emitted from the sample through the bombardment of electron beam to characterize the elemental composition. The data that is generated by EDX analysis consists of *spectra* with peaks corresponding to all the different elements that are present in the sample. One more advantage of the EDX technique is that it is a non-destructive characterization technique, which requires little or no sample preparation (Antonis Nanakoudis, 2019). EDX also have been used to determine elemental composition in many research (AKenda et al.,1999; AnettaHanć et al., 2016), Abubakr M.Idris et al., 2019, G.Zadora and Z.Brożek-Mucha, 2003)".

4. Please put on the IR spectra the assingments!

Has been put in manuscript.

Reviewer #2:

The manuscript: “Functionalization of Congo red dye as a light harvester on solar cell” describes the preparation of new series of complexes compound based on the common dye Congo Red and then the complexes use as light harvester on the solar cell. The paper is interesting to read and contains original data. I think the manuscript it is largely acceptable, but I have a number of comments for the authors’ consideration.

1. In the manuscript authors do not describe how the checked degree of oxidation of the metal in complexes. This is especially important for complexes with iron ions.

Has been added.

“In order to ensure the degrees of oxidation of the metal on complex compounds, each solution of congo red complexes was determined their conductance by conductometer. In this method, the conductance of metal complexes was compared by the conductance of the reference solution. Potassium chloride (KCl) as a reference compound with degree oxidation of metal +1. Magnesium chloride ($MgCl_2$) as a reference compound with degree oxidation of metal +2. Iron tri-chloride ($FeCl_3$) as a reference compound with degree oxidation of metal +3. Based on Table 3, we can conclude that all of the congo red complexes have a degree of metal oxidation +2 because the value of their conductance was close to the conductance of Magnesium chloride”.

2. Congo red is common industrial dye but it is carcinogen. The authors emphasize the ecological nature of the use of DSSC, and suggest using an environmentally unfriendly component to build a solar cell. Authors should explain the purpose of using such compounds.

Has been described at introduction.

“On the other hand, in Indonesia, the growth of the economic drives the development of the garment/ textile industry, in particular, Batik industry. In order to cope-down the industrial costs, many industries tend to use synthetic dye such as rhodamine B, congo red, naphthol blue black and methyl orange for their dyeing process. Because of the lack of waste treatment technology, many industries dispose of dye waste directly into the environment. Hence, in this

research, we focus on how to reduce dye waste and convert them into a component of solar cell technology".

Reviewer has minor comments:

1. The manuscript text contains errors in references to literature, e.g. line 82: is [15] [16], and should be [15,16]. Similarly in the lines: 147 (additionally change the order; it should be [18,21,22]) and 163.

Has been changed.

2. In line 63, the word "solutions" is written as a subscript.

Has been changed.

Reviewer #3:

Manuscript entitled "Functionalization of Congo Red Dye as a Light Harvester on Solar Cell", submitted by Harsasi Setyawati, Handoko Darmokoesoemo, Irmina Kris Murwani, Ahmadi Jaya Permana, Faidur Rochman, can be accepted for publishing in the Open Chemistry Journal, after major revision. In this study is developed a light harvester as a main part of DSSC. Congo red dye has been functionalized with metals (Fe, Co, Ni) forming a series of complexes compounds and proposed as a novel light harvester on the solar cell. The manuscript presents original results, but unfortunately their interpretation is very poor. In my opinion, this manuscript should be published in your Journal after a major revision. Here is a list of my specific comments:

1. General comment: The interpretation of the experimental results should be presented in more detail, because it is too short and reduces the importance of this study.

Has been detailed on the manuscript.

2. Line 45: "In this study, congo red…". At the end of Introduction, the main objectives of this study should be clearly formulated.

Has been changed.

"This research will be synthesized a series of the complex compounds by reacting congo red dye with various metal ions such as Fe(II), Co(II), Ni(II). All compounds will be characterized by spectrophotometers UV-VIS, EDX (Energy-Dispersive X-ray) spectroscopy for the elemental analyzer, spectrophotometer Fourier-Transform Infrared Spectroscopy (FTIR) and conductometer. The performance of all complex compounds as a light harvester on

a solar cell device will be analyzed and compared to the performance of congo red itself. In this study, a solar cell device consists of a thin layer of titanium dioxide (TiO_2) as a semiconductor, graphite as a counter electrode, potassium iodide (KI_3) solution as an electrolyte solution and FTO (Fluorine-doped tin oxide) glass as solar cell body".

3. Line 67: "Photovoltaic performance…". How was measured these performances??? What parameters were measured? What equipments were used??? All these details should be included here.

Has been detailed on the 2.5 Preparation of DSSC cell.

"For a working-electrode, first, a glass plate with a size of 2.5 cm x 2.5 cm with 1 mm of thickness was sanded to obtain a rough-surfaced. Then, the glass plate was soaked with ethanol for 24 hours. Furthermore, the glass plate was coated by sol-gel titanium dioxide to obtain a thin layer of titanium dioxide. A sol-gel solution of TiO_2 was dropped on the glass plate surface and flattened using a stirring rod until obtained a homogenous coating. Then, a coated glass plate was calcined at a temperature of 450 °C for 30 minutes. The obtained titanium dioxide was characterized by X-Ray Diffraction. Subsequently, the adsorption of dyes from congo red complexes onto FTO glasses-TiO_2 were done by immersing the electrodes in the complexes of congo red solution (0.1 $mmolL^{-1}$) for 24 hours at room temperature and then dried. Three complexes of congo red, and congo red were immersed with TiO_2 glasses, respectively.

Counter electrodes were prepared by coating carbon on the conducting side using a graphite pencil until evenly distributed. Furthermore, FTO glasses were heated at 450 °C for 30 minute and then washed with ethanol and dried. Electrolyte solution was prepared by dissolve Iodine (I_2) by potassium iodide (KI) solution until KI_3 solution was obtained. The light harvester solar cells were assembled by sandwiched TiO_2-dye as working electrode and graphite as counter electrodes and describes in Figure 1. Between the two electrodes were dropped an electrolyte solution KI_3. Then, the two electrodes were clamped with clips and connected to the multimeter and potentiometer 100 kΩ. The solar cell circuit was connected to a multimeter cable where the positive pole was connected to the counter electrode and the negative pole was connected to the working electrode. Then, the solar cell device was irradiated for 2 weeks by direct sunlight and every day the maximum current and voltage were measured. The intensity of the sunlight was also measured using a lux meter"

4. 2.3 Determination of ratio mole metal to ligand: Add the most important technical details (concentration of components, volume of solution, etc.) in this section.

Has been detailed.

"Stoichiometry of metal complexes is determined by the ratio mole method using the maximum wavelength of the congo red ligand that has been predetermined using a spectrophotometer UV-VIS. The solution of metal was made with a constant mole, while the congo red solution was made with a variation mole. Eight volumetric flasks (10 mL) were prepared. The solution of metal 5 x 10^{-5} M in a fixed mole (1 mL) was filled to the flask and added by congo red 5 x 10^{-5} M with a variation mole (1 mL; 2mL;.....8mL). Furthermore, the solution is diluted with aquabidest. Hereafter, the mole ratio of metal to ligand was determined by intersection between the straight line equation of curve between a mole ratio of metals to ligand and absorbance of ligand."

5. Figure 2: The results in figure 2 should be represented in a different way, because in this form they are not clear.

Has been changed.

6. Figure 3: The maximum wave numbers of the most important absorption bands should be mentioned in this figure.

Has been mentioned.

7. Line 159: This is Figure 4 or Figure 5??? Please check.

Has been changed. Supposed to be Figure 5.

8. Line 184: "Based on Table 5, the efficiency of the metal complex….". Add here a more detailed explanation of the obtained experimental results. Only a general remark is not enough, because this is the main novelty of this study.

Has been detailed.

Reviewer #4:

The manuscript titled "Functionalization of ... On Solar Cell" is a good research work that has some very interesting results. This is apt to be published in OPEN CHEMISTRY. However, I would like to suggest some minor changes to the manuscript that might being a bit more clarity to some ambiguous parts of the paper in its current form. In general the paper has a few grammatical error that can be corrected by any native English speaker. Some of my technical comments are as follows:

1. on line 33 the authors refer to extraordinary research, I feel that this should be rephrased. they can make it a bit less intense. Utilisation of waste streams for useful material synthesis is common knowledge in Environmental Engineering and waste valorization in particular. I do not feel it to be extraordinary.

Has been changed.

Extraordinary research has been changed with a prominent research.

2. line 43, can the authors list a few examples of the many fields that they are refereeing to. It will make the readers more aware of other interesting applications.

Has been added.

“The incorporation of metal and ligand form a complex compound provides many opportunities to improve ligand performance in many fields. For example, the presence of iron on the rhodamine B structure has proven improving the efficiency of solar cell from 0.0019 (rhodamine B) to 2.03 % (Fe-rhodamine B). The presence iron metal complex on the antibiotic structure has proven could enhanced their antibacterial activity (Kumar et al., 2019)”.

3. line 50, please correct the potassium tri-iodide chemical formula. Also, please write the full form of FTO.

Has been changed.

“In this study, a solar cell device consists of a thin layer of titanium dioxide (TiO_2) as a semiconductor, graphite as a counter electrode, potassium tri-iodide (KI_3) solution as an electrolyte solution and FTO (Fluorine-doped tin oxide) glass as solar cell body”.

4. line 81, can the authors mention the temperature of hot ethanol.

Has been mentioned.

Hot ethanol (40 °C).

5. Figure 1, please make the figure a bit more clear. the dye molecule is hardly readable.

Has been changed with the readable one.

6. line 110, why only these three concentrations namely 0.25, 0.27, 0.34 are chosen for the discussion? Figure 2 shows that there is absorbance in all concentration ratios from 0.1-1.0. The justification is missing. Additionally, I would recommend the authors, to show the absorbance spectra of all the combinations at one concentration ratio the least in the appendix section to have a clear understanding of the metal-ligand conjugation. All the values in table 1 are immaterial without the spectral proof.

Figure 2 has been changed.
Figure 2 obtained from analyzing the series of complex solutions (8 combinations of solution that mentioned in 2.3 Determination of ratio mole metal to ligand) using spectrophotometer UV-VIS in “Photometric” mode. In this mode, I set the wavelength of congo red at the spectrophotometer and analyze the absorbance of each solution.

7. In table 1, what does superscript "a" and "b" indicate. It has not been specified.

Has been indicated in Table 1.

8. According to my knowledge EDX is a qualitative method and it is very hard to quantify it. As the authors are using this information for quantification, I would request them to specify the surface area of EDX measurement and the beam penetration depth, so a rough idea of the volume for quantification can be identified. I would rather suggest a CHNS(O) analysis for such quantification along with ICP for metal ion determination.

Has been explained in manuscript.

In order to characterize the composition of complexes, all complexes were determined their element by Energy Dispersive X-Ray (EDX). EDX is one of a chemical microanalysis technique which can be used for qualitative (the type of elements) as well as quantitative (the percentage of the concentration of each element of the sample). This analysis could detects the x-rays emitted from the sample through the bombardment of electron beam to characterize the elemental composition. The data that is generated by EDX analysis consists of *spectra* with peaks corresponding to all the different elements that are present in the sample. One more advantage of the EDX technique is that it is a non-destructive characterization technique, which

requires little or no sample preparation (Antonis Nanakoudis, 2019). EDX also have been used to determine elemental composition in many research (AKenda, et al., 1999, AnettaHanć et al., 2016), Abubakr M.Idris et al., 2019, G.Zadora et al., 2003).

9. Table 2, can the authors provide EDX spectra in the appendix so that presence of any leftover Cl in Cobalt-dye complex can me ruled out.

Has been provided in Appendix.

10. Figure 4: there is no peak corresponding to Fe-Dye co-ordination is present like in the case of Co-dye and Ni-dye conjugate ~ 355 (1/cm). Can the authors explain this result and provide appropriate referencing to the peak assignment observed in figure 4. Also, mention figure 4 in the manuscript, it is missing in the main text.

Has been explained in manuscript.

11. line 159, that figure no should be figure 5 and not figure 4.

Has been changed.

12 the description of table 5 data needs proper referencing. This explanation can be used effectively to explain the observations of table 4.

Has been explained in manuscript. Table 4 and Table 5 became Table 5 and Table 6 because I have inserted one Table in manuscript.

"Based on Table 5 and Table 6 we can see that there is a correlation between the efficiency of the metal complex and the metal atomic number. The higher of metal atomic number, the decrease in efficiency of solar cells. It can be explained that the higher metal atomic number cause the higher of effective nuclear charge of the metal. This condition will cause the electron density ligand to become more attracted to the metal. As a result, the electrons transferred by the dye to the semiconductor are reduced partially. This causes the electron cycle in the solar cell to decrease so that the electricity produced decreases".

13. line 181, it is not clear to me what does the authors mean by more levels of solar energy. if they are referring to the electron excitation energy in the UV-Viz spectrum then they should be explicit about what energy bands they are referring to with appropriate referencing.

Has been explained in manuscript.

It means that iron(II) (d^6) has more levels of energy state (Term Symbol : ^5D, ^1S, ^1D, ^1G, ^3P, ^3F, ^3P, ^3D, ^3F, ^3G, ^3H, ^1S, ^1D, ^1F, ^1G, ^1I) which can absorb photon energy of the sun. (Miessler., 2014). The more levels of energy state that can absorb photon, the higher electron flow can be generated by light harvester, and the greater of electricity obtained [25,27].

ROUND 2

Comments from the Editors and Reviewers and the response

Reviewer #1:

1. line 63: word "solutions" are written subscript
   Response : has been changed into solution
2. please give more details related the EDX measurements: how many measurements did you performed, the accuracy of the method etc.
   Response :

   In order to characterize the composition of complexes, all complexes were determined their element by Energy Dispersive X-Ray (EDX) twice. EDX is one of a chemical microanalysis technique that can be used for qualitative (the type of elements) as well as quantitative (the percentage of the concentration of each element of the sample). This analysis could detect the x-rays emitted from the sample through the bombardment of the electron beam to characterize the elemental composition. The data that is generated by EDX analysis consists of spectra with peaks corresponding to all the different elements that are present in the sample. One more advantage of the EDX technique is that it is a non-destructive characterization technique, which requires little or no sample preparation [26]. EDX also have been used to determine the elemental composition in many research [27–30].

3. line 115: all obtained complexes "were characterized" and not "was characterized"
   Response : has been changed into were characterized
4. please explain more about Fig 2, determination of the mol ratio metal to ligand
   Response :

   The mole ratio of metal to ligand was determined by intersection between the straight line equation of curve between a mole ratio of metals to ligand and absorbance of a ligand. All complexes show that the mole ratio almost 0.3. This result means that all of the complexes were stable synthesized on mole ratio metal to ligand 1:3. Based on this determination, one metal (Fe, Co, Ni) could bind 3 ligands (congo red) and form an octahedral structure which has six coordination number. It means that a congo red is a bidentate ligand that donating two pairs of electrons to metal [23]. The incorporation of three ligands to the metal as a center metal formed a chelate structure which could increase the stability of the complex compound. The stability of the

complex compound highly contributes to the ability of the complex compound in capturing photons of sunlight.

Response to the reviewer comment ROUND 3

1. . (language editor comment: surely the values are closer to 0.25, which means a metal:ligand ration of 1:4??)

   After re-checking and re-calculation process, the mole ratio Fe-congo red complex is **0.274 ~ 0.27**. Detail of calculation:

   1st regression equation = 2nd regression equation

   $y1 = y2$

   $-2.2235x + 0.8112 = -0.1865x + 0.2528$

   $-2.037x = -0.5584$

   $x = 0.274$

   So, it's clear that Fe-congo red complex has mole ratio 0.27 ~ 0.3

2. (It is unclear if the authors have identified the d-d transitions of the complexes. The entry in the table says they have, but the statement "it will be very difficult to determine the d-d transitions of the complexes" suggest they cannot?? This should be clarified by the authors)

   The electronic absorption spectra of complexes give different characteristic bands such as intraligand transition, charge transfer (MLCT or LMCT), and d-d transition. All synthesized congo-red complexes indicate the octahedral structure. Based on orbital selection rule and Laporte forbidden rule, the complex compound with an inversion center like octahedral structure will have a weak d-d transition that caused the low in intensity. If the complex has a ligand with a very intense color such as congo red, it will be hard to determine the d-d transition of a complex compound because of the color of ligand and LMCT phenomenon masking its d-d transition.

3. (I disagree. There is a large discrepancy in the "calculated" atomic composition and the experimentally determined atomic composition (using EDX) in ALL complexes – see highlighted values in the table. No explanation is provided (I doubt it can be explained) for these. The discrepancies for most comparisons are greater than 100%.).

Compound		Element				
		C	**N**	**O**	**S**	**Metal**
Fe(II)-congo red	Wt found/ Wt calc. (%)	43.01/42.65	8.75/8.74	36.89/3689	8.62/9.22	2.73/2.50
	At found/ At calc. (%)	52.44/59.50	9.15/13.02	33.77/14.88	3.94/9.92	0.71/2.68
Co(II)-congo red	Wt found/ Wt calc. (%)	44.47/44.53	9.27/8.89	33.88/33.57	8.47/9.08	3.91/3.93
	At found/ At calc. (%)	59.44/54.58	13.00/9.36	14.86/30.91	9.91/4.71	2.79/0.98
Ni(II)-congo red	Wt found/ Wt calc. (%)	51.28/51.39	5.79/5.93	33.73/33.89	6.43/6.02	2.77/2.76
	At found/ At calc. (%)	60.62/59.38	5.89/12.99	29.97/14.85	2.85/9.89	0.67/2.89

4. (why are there no Hydrogen atoms in any of these empirical formulae? Each congo red ligand has 18H present as C-H protons. Were the complexes examined by Mass Spectrometry? Was the Ni(II) complex studied by 1H and 13C NMR? These techniques would provide confirmation of proposed structures and/or evidence of claimed (but dubious) purity)

5. (I am far from convinced this is a valid technique. Ions with a +1 oxidation state (1+ charge in the case of metal ions) do not necessarily have a similar conductance. The same is true for a collection of metal ions with a +2 oxidation state, etc. Does a reference exist for this approach to drawing conclusion of charge on the metal centre?) Should the units of conductivity in Table 3 be (μmho)?

6. Based on Tabe 4, the azo (N=N) bands in each complex compound shifted from 1612.49 cm^{-1} to 1604.77 and 1512.19 cm^{-1}, which indicates the coordination of N on azo group to the metal center (Ozlem) (this sentence in contradictory and makes no sense).

7. This means that iron(II) (d^6) has more energy levels (Term Symbol : ^5D, ^1S, ^1D, ^1G, ^3P, ^3F, ^3P, ^3D, ^3F, ^3G, ^3H, ^1S, ^1D, ^1F, ^1G, ^1I) which can absorb photon energy [24]. The more energy levels available, the higher electron flow can be generated by light harvester, and the greater amount of electricity that can be obtained [34,36]. The Fe(II) complex obtained the highest Open Circuit Voltage (**Voc**) comparing with the Co(II) and Ni(II) complex which are 0.872 V (Fe(II)), 0.268 V (Co(II)) and 0.445 V (Ni(II)).

CAS no.	573-58-0
CA index name	1-Naphthalenesulfonic acid, 3,3′-[(1,1′-biphenyl)-4,4′-diylbis(2,1-diazenediyl)]bis[4 amino-, sodium salt (1:2)]
Molecular formula	$C_{32}H_{22}N_6Na_2O_6S_2$
Molecular weight	696.66 g mol^{-1}

Physical form	Brownish-red powder
Molecular surface area	557.6 $Å^2$
Solubility	Soluble in water, ethanol; very slightly soluble in acetone; practically insoluble in ether, xylene
Melting point	>360 °C
pH range	3.0–5.0
Color	Blue (pH 3.0) to red (pH 5.0)
pKa	4.1; 3.0
Absorption wavelength (λ_{max})	497 nm

Bukti Print Email

Judul paper :

Functionalization of congo red dye as a light harvester on solar cell

harsasi setyawati <harsasi-s@fst.unair.ac.id>

Your Submission to 1st ICoSASTE 2019

1 message

fnic FKIP Nasional and Internasional Conference <fnic@staf.undana.ac.id> Thu, Apr 18, 2019 at 10:54 AM
To: harsasi-s@fst.unair.ac.id

Dear **Harsasi Setyawati**,

1st ICoSASTE 2019 committee would like to thank you for submitting your abstract for presentation at “1st International Conference on Science, Applied Science, Teaching and Education 2019" to be held in Kupang, Indonesia, May 14-15, 2019.

The publication committee would like to inform you the publication processes for your submission to 1st ICoSASTE 2019 as follows:

1. Your paper entitled
Green light harvester by porphyrin derivatives: The influence of metals in photovoltaics (OCY-008)
has been recommended by 1st ICoSASTE 2019 reviewers to be included for publication in **Open Chemistry (indexed by SCOPUS)** for paper with code **OCY-008**

2. The publication cost is not fully imposed to 1st ICoSASTE 2019. Therefore, it is possible that there will be additional fees that need to be paid by the authors.

3. If you agree to publish your paper in **Open Chemistry (indexed by SCOPUS)**, we request that you can write a full paper and complete the related documents according to the file attached in this email. Please send full papers and related documents to fnic@staf.undana.ac.id by **April 26, 2019** (not April 19, 2019 like the timeline that has been published on the website or poster) with
Subject:
Code of Paper-Open Chemistry-Name of First Author
Name of File:
   a. **Code of Paper-Full Paper-Full Name of First Author** (for full paper)
   b. **Code of Paper-Supplementary File-Full Name of First Author** (for supplementary file, if any)

4. If you don’t agree to publish your paper in **Open Chemistry (indexed by SCOPUS)**, we request that you can immediately confirm to us no later than **April 22, 2019**. If after **April 22, 2019** we do not receive a confirmation from you, we assume that you agree to publish your paper in **Open Chemistry (indexed by SCOPUS)**.

5. In general, the author needs to write a full paper by following the rules, such as:
   a. Manuscripts must be typed in font size 12 (Times New Roman)
   b. Double-spaced throughout, including the Reference section
   c. All pages should be numbered (Page Numbers) starting from the title
   d. Continual line numbering (Line Numbers) should be used throughout the manuscript
   e. References should be written using **Mendeley**. This is recommended because it can facilitate the authors in citing and making references. In addition, it will also facilitate 1st ICoSASTE 2019 committee to check the style of references used by the authors.

Note:
If the attached file already has a template, you are asked to follow the rules contained in the template. So you no longer need to follow 4 (four) general points (points a, b, c and d) that

need to be considered in writing a full paper (except for point e about using **Mendeley** in writing references).

Feel free to contact us (fnic@staf.undana.ac.id) if you have any questions about your full paper submission. We try to respond to you quickly.

We would to thank you again for your submission to 1st ICoSASTE 2019, and we look forward to working with you on a successful conference.

Best regards,

1st ICoSASTE 2019 Committee

OCY.zip
841K

harsasi setyawati <harsasi-s@fst.unair.ac.id>

OCY-008-Open Chemistry-Harsasi Setyawati

1 message

harsasi setyawati <harsasi-s@fst.unair.ac.id> Fri, Apr 26, 2019 at 11:31 AM
To: fnic FKIP Nasional and Internasional Conference <fnic@staf.undana.ac.id>, yantusneolakaunc@gmail.com

Dear committee,
Herein I send my full paper and supplementary file. I used open chemistry guideline to create them.
Because of a personal matter, **I must change my paper with the title** :
"Green light harvester by porphyrin derivatives: The influence of metals in photovoltaic
BECOME :
"Functionalization of Congo red dye as a light harvester on solar cell"

I guarantee that the quality of both of paper is the same.
Hopefully, my explanation could assist you well.

Best regards,
Harsasi Setyawati

3 attachments

OCY-008-Full Paper-Harsasi Setyawati.docx
50K

OCY-008-Supplementary File-Harsasi Setyawati.docx
223K

OCY-008-Full Paper-Harsasi Setyawati.rar
250K

Gmail **Harsasi Setyawati <harsasi85@gmail.com>**

REVISED MANUSCRIPT OPEN CHEMISTRY

2 pesan

Yantus Neolaka <yantusneolakaunc@gmail.com> 23 Oktober 2019 pukul 21.17
Kepada: harsasi setyawati <harsasi-s@fst.unair.ac.id>, Harsasi Setyawati <harsasi85@gmail.com>

selamat malam,

Berikut saya kirimkan komentar dari reviewer untuk paper bapak/ibu yang akan dipublikasikan di Open Chemistry.

Berikut beberapa hal yang perlu diperhatikan dalam merevisi paper yang akan dipublikasikan di Open Chemistry, antara lain:
1. Authors perlu merevisi paper dengan memberikan highlight warna kuning pada bagian yang direvisi dan memberikan respon atau tanggapan atas setiap komentar yang telah diberikan oleh reviewer. Contoh paper yang telah direvisi dan respon atau tanggapan untuk setiap komentar yang telah diberikan oleh reviewer dapat dilihat pada file "**Revised-Manuscript.pdf**" dan "**Revised-Response to reviewer.pdf**".
2. Authors perlu mengisi file "**Licence to Publish.pdf**" dan mengirimkannya bersama dengan paper yang telah direvisi (diberikan highlight warna kuning pada bagian yang direvisi) dan respon atau tanggapan atas setiap komentar yang telah diberikan oleh reviewer.
3. Deadline untuk mengirimkan paper yang telah direvisi (diberikan highlight warna kuning pada bagian yang direvisi), respon atau tanggapan atas setiap komentar yang telah diberikan oleh reviewer, dan file "**Licence to Publish.pdf**" yang telah diisi dan ditanda tangani adalah **4 November 2019**.

terima kasih

Yantus Neolaka
Sekretaris 1st ICoSASTE 2019

5 lampiran

OPENCHEM-D-19-00174 (OCY-008).docx
541K

OPENCHEM-D-19-00174.pdf
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Harsasi Setyawati <harsasi85@gmail.com> 23 Oktober 2019 pukul 21.41
Kepada: Yantus Neolaka <yantusneolakaunc@gmail.com>

suwun sanget pak yantus
[Kutipan teks disembunyikan]

Gmail **Harsasi Setyawati <harsasi85@gmail.com>**

OPENCHEM-D-19-00174R1

1 pesan

Heri Septya Kusuma <heriseptyakusuma@gmail.com> 10 Maret 2020 pukul 11.12
Kepada: Harsasi Setyawati <harsasi85@gmail.com>

Dear Ibu Harsasi Setyawati,

Please find attached your article after language polishing. Note to check the references list carefully (especially year of publication and the journal title - both are essential for a proper indexing), and adjust it according to our Instructions for Authors (attached) – new references style Vancouver/ICMJE https://www.nlm.nih.gov/bsd/uniform_requirements.html#journals . For any corrections use the attached version of your manuscript.

Note there are some extra comments in the text (highlighted in light blue).

Please, send me the final version ASAP.

Thank you!

Best regards,

Heri Septya Kusuma

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Gmail **Harsasi Setyawati <harsasi85@gmail.com>**

Revision for OPENCHEM-D-19-00174R1

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Heri Septya Kusuma <heriseptyakusuma@gmail.com> 24 Maret 2020 pukul 11.48
Kepada: Harsasi Setyawati <harsasi85@gmail.com>, harsasi-s@fst.unair.ac.id

Dear Heri,

Thank you for the feedback. But please, ask authors to double check the highlighted parts. Also, to check the correctness of highlighted references. These are very important issues.

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Article: OPENCHEM-D-19-00174R1
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Dear Ibu Harsasi,

At the Editorial Manager system you may find your manuscript after technical edition for final proofreading.
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Please do not make any major changes to the work at this stage. Please check the manuscript carefully. Once it is ready for publication there will be no possibility to make any correction. Please return your proof in one working day. If we do not receive any corrections by that time, we will assume that no corrections are necessary. Please acknowledge receipt of this email and reply with confirmation even though there are no corrections needed in the proofs of your paper.

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Best regards,

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