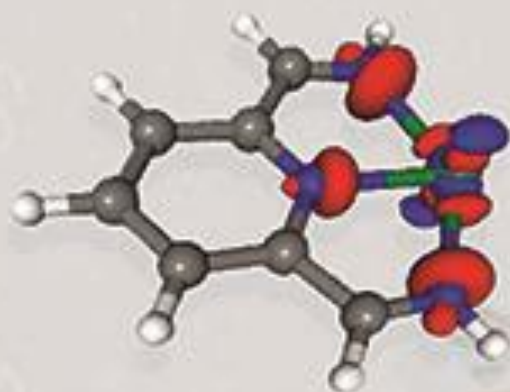




# Egyptian Journal of Chemistry



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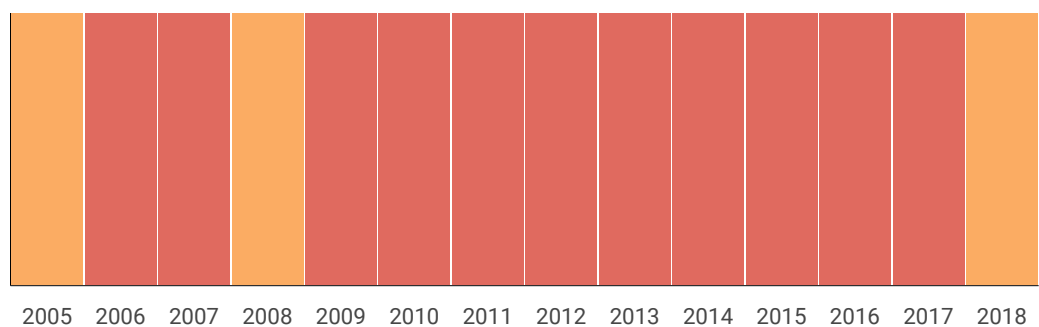
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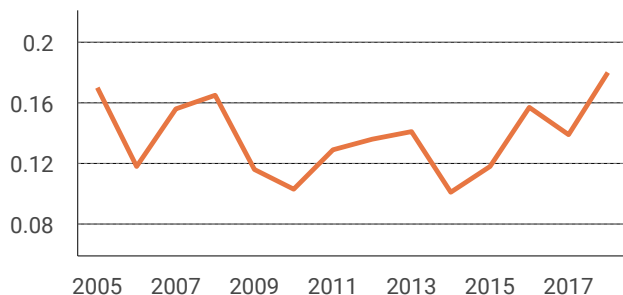
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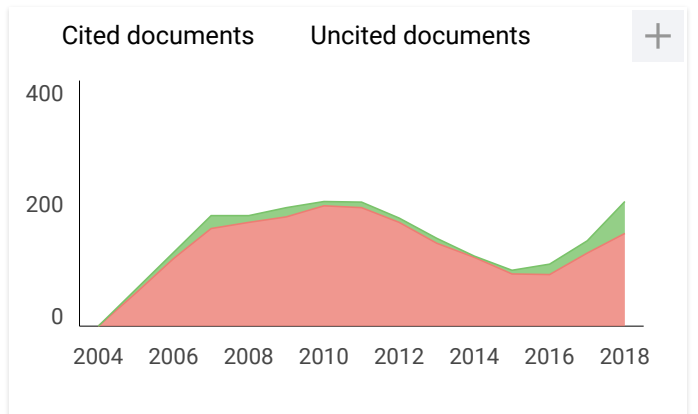
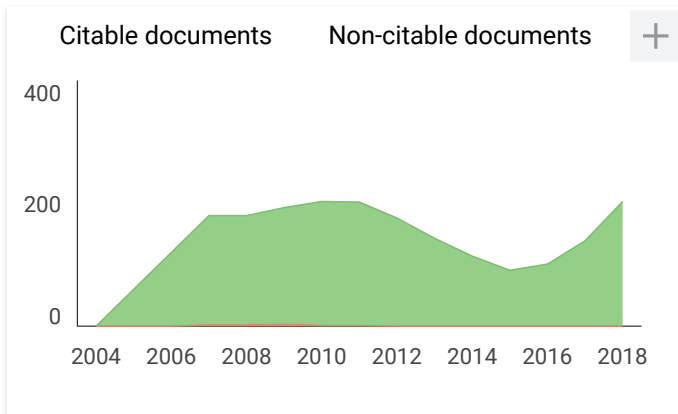
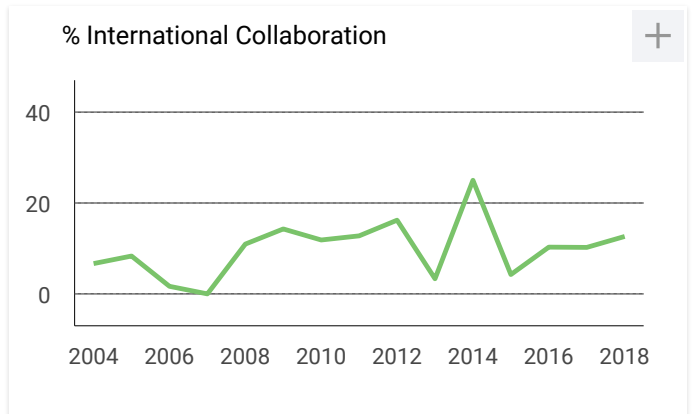
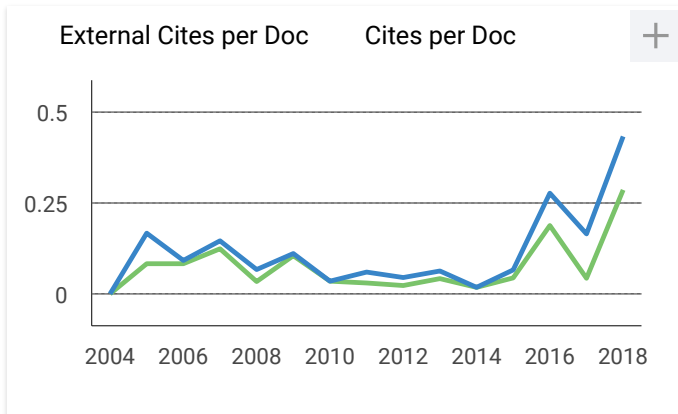
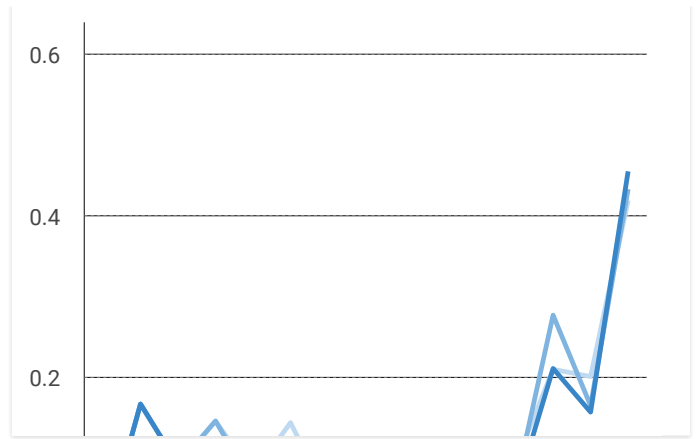
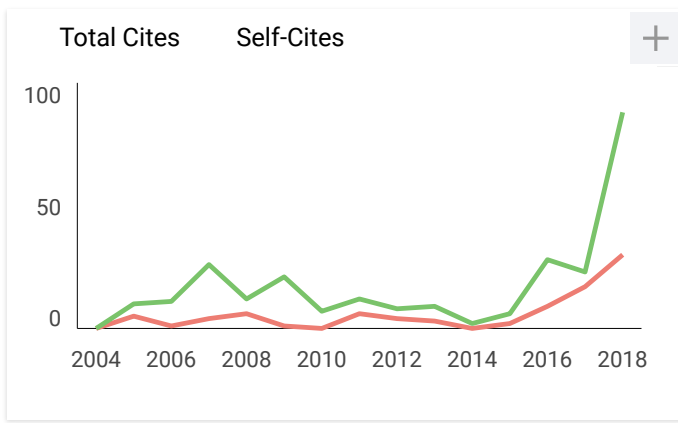


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## Flavonoid from Stem Bark of *Aquilaria microcarpa*

A. N. Kristanti<sup>1\*</sup>, M. Tanjung<sup>1</sup> and O. P. Rahayu<sup>1</sup>

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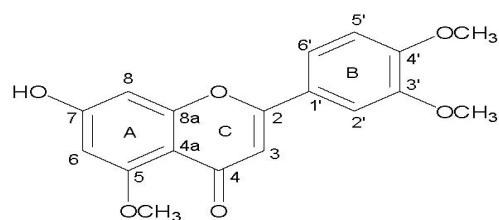
**T**HIS study reported the isolation of 7-hydroxy-5,3',4'-trimethoxyflavone (**1**) from stem bark of *Aquilaria microcarpa*, a species belonging to Thymelaeaceae family. This report is our continuation study about this plant. Previously, we reported the presence of 5,3',4'-trihydroxy-7-methoxyflavon and 6-hydroxy-2-(2-phenylethyl) chromon. The chemical structure of compound (**1**) has been elucidated based on spectroscopy method including FTIR, NMR and HRESI-MS analysis.

**Keywords:** 7-hydroxy-5,3',4'-trimethoxyflavone; flavonoid, *Aquilaria microcarpa*; Thymelaeaceae

### Introduction

The Thymelaeaceae is a family of dicotyledonous plants mainly found in the tropics and subtropics. They are mostly trees and shrubs, but include also a few vines and herbaceous plants. It is recognized that Thymelaeaceae composed by 45 genus [1]. Among these 45 genera, *Aquilaria*, *Daphne*, *Gnidia* dan *Phaleria* are the most widely studied and reported genus. The genus of *Aquilaria* is distributed widely in Asia. *A. sinensis*, *A. malaccensis*, *A. hirta*, *A. crassna*, and *A. agallocha* are the widely studied species of *Aquilaria*, but some species have not been investigated, such as *A. acuminata*, *A. baillonii*, *A. citrinicarpa*, *A. filaria*, *A. grandiflora*, *A. microcarpa* etc. Certain trees of *Aquilaria* produce the fragrant resinous wood, called agarwood, eaglewood, gaharu, kanankoh, jinkoh, chen xiang or tram in different region [2,3]. Other people also call it aloeswood or agalloch [3]. This agarwood could be used as incense which has been widely present in the religious ceremony of traditional culture [4,5] and used also as traditional medicine [2,6-10]. Due to the odor produced, agarwood now is a material for perfume and aromatherapy, in addition to all the other benefits since antiquity. The *Aquilaria* is of prime importance owing to its richness in a variety of different classes of natural product, especially sesquiterpenes and chromones. Other classes of compounds are flavonoid, benzophenone, diterpenoid, triterpenoid and lignan.

In continuation of our research about the secondary metabolites contained in *A. microcarpa*, we report here the isolation and structural elucidation of a flavonoid, 7-hydroxy-5,3',4'-trimethoxyflavone (**1**) (Figure 1) from the stem bark of this plant. Previously, we reported the presence of two phenolic compounds, namely 5,3',4'-trihydroxy-7-methoxyflavon or known as 3'-hydroxy genkwanin and 6-hydroxy-2-(2-phenylethyl) chromon from the same plant [11]. Compound (**1**) has only ever been reported once in the plant by some Chinese researchers. It was first isolated and identified from the leaf of *Murraya paniculata*, but the spectroscopy data was not available [12]. There is not any publication reported about the presence of this compound in *Auilaria*. even in Thvmelaeaceae.



**Fig. 1. Structure of 7-hydroxy-5,3',4'-trimethoxyflavone (1)**

### Experimental

#### General experimental

The UV spectrum was measured with Shimadzu series 1800 spectrophotometer (Kyoto, Japan). The FTIR spectrum was recorded in KBr

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powder with the Diffuse Reflectance Method on spectrophotometer IRTracer 100 (Shimadzu, Kyoto, Japan). NMR Spectra ( $^1\text{H}$ , APT, HMBC and HMQC) were recorded on JEOL 400 ECA spectrometer (JEOL, Tokyo, Japan) using  $\text{CDCl}_3$  as a solvent and internal standard. The mass spectrum was recorded by HRESI-MS (Waters LCT Premier XE, Waters Corp. Milford, MA, USA).

#### Plant Material

Samples of stem bark of *A. microcarpa* were collected in October 2015 from Conservation forest Bukit Bangkirai, Samboja, Samarinda, East Kalimantan, Indonesia and the voucher specimen (UA-TAM011015) was deposited at the Herbarium of Universitas Airlangga. The stem bark was cleaned, air dried under the shade, cut into small pieces and milled.

#### Extraction and Isolation

The dried stem barks of *A. microcarpa* (1.69 kg) were macerated with n-hexane at room temperature for 2x24 hours followed by maceration using methanol for 3x24 hours. The methanol extract was evaporated under reduced pressure to give a crude methanol extract (120 g). Into this extract was then added water and partitioned with ethyl acetate. The ethyl acetate extract obtained was evaporated under reduced pressure to give a crude ethyl acetate extract (10.8 g). Ethyl acetate extract was separated by flash chromatography on silica gel using the mixture of n-hexane-ethyl acetate as eluent. Elution was done by increasing the polarity gradually by increasing the amount of ethyl acetate to give five major fractions A-E. TLC on fraction E (250 mg) using eluent chloroform showed a potential spot. Purification of this fraction using flash chromatography twice with eluent n-hexane-ethyl acetate and n-hexane-chloroform respectively, yielded compound (**1**) (20 mg).

### Results and Discussion

Compound (**1**) was obtained as a yellow solid (mp 172 – 174°C) after passing through a series of isolation steps, including extraction followed by separation and purification using chromatographic techniques. The molecular formula is  $\text{C}_{18}\text{H}_{17}\text{O}_6$ , whereas that of the protonated molecule  $[\text{M}+\text{H}]^+$  is  $\text{C}_{18}\text{H}_{18}\text{O}_6$  at  $m/z$  329.1024 (calcd. 329.1025) by the HR-ESI-MS. The UV spectrum showed two absorption bands, benzoyl and cinamoyl moiety, characteristic of flavonoid skeleton at

$\lambda_{\text{maks}}$  269 (4.19) and 340 (4.24) nm. The IR spectrum showed absorption bands at  $\nu_{\text{max}}$  3280, 3093, 2924, 1618, 1587, 1517, 1261, 831  $\text{cm}^{-1}$  indicating the presence of a hydroxyl, aromatic group, conjugated carbonyl and methoxy group.  $^1\text{H}$ -NMR spectrum showed a singlet signal at  $\delta_{\text{H}}$  6.60 ppm which was a characteristic of flavon group. There were also five signals of aromatic protons which appeared at  $\delta_{\text{H}}$  7.53 ppm ( $\text{H}_6$ , *dd*,  $J = 8.6$  and  $2.1$  Hz); 7.34 ppm ( $\text{H}_2$ , *d*,  $J = 2.1$  Hz); 6.98 ppm ( $\text{H}_5$ , *d*,  $J = 8.6$  Hz). These three signals described the existence of ABX system. Two other signals appeared as doublet at  $\delta_{\text{H}}$  6.50 and 6.38 ppm. Both of signals indicated that these two protons were in meta position. In addition, it was also observed the presence of three singlet signals of methoxy group at  $\delta_{\text{H}}$  3.99; 3.97 and 3.89 ppm (Table 1).  $^{13}\text{C}$ -NMR ATP spectrum showed 18 completely separated signals, which is consistent with the structure of substituted flavone. Through the spectrum it can be seen that this compound was composed by six methins (CH) ( $\delta_{\text{C}}$  120.2; 111.2; 108.8; 104.8; 98.2 and 92.8 ppm), three methoxy ( $\text{OCH}_3$ ) ( $\delta_{\text{C}}$  56.2; 56.1; and 55.9 ppm), and 9 quaternary carbon ( $\delta_{\text{C}}$  182.4; 165.5; 164.7; 164.1; 162.3; 152.2; 149.3; 123.8 dan 105.6 ppm) (Table 1).

The HMQC spectrum gave the information about the correlation between directly-bonded H on C, so through this spectrum we obtained the information about which proton is attached to which carbon. In the HMBC spectrum, it was observed the presence of long range correlations between the proton signal aromatic H-8 ( $\delta_{\text{H}}$  6.98) with three quaternary carbon signals at  $\delta_{\text{C}}$  164.7 (C-7), 162.3 (C-8a), 105.6 (C-4a) and one methin at  $\delta_{\text{C}}$  98.2 (C-6). The appearance another long range correlations between the proton signal aromatic H-6 ( $\delta_{\text{H}}$  6.38) with three quaternary carbon signals at  $\delta_{\text{C}}$  165.5 (C-5), 164.7 (C-7), 105.6 (C-4a) and one methin at  $\delta_{\text{C}}$  92.8 (C-8) placed certainly the methoxy at the C-5 and not at C-7 in the ring A. This argument was supported by the existence of the correlation of three methoxys with three oxyaryl carbons, which are  $-\text{OCH}_3$  ( $\delta_{\text{H}}$  3.99) with an oxyaryl carbon ( $\delta_{\text{C}}$  152.2; C-4');  $-\text{OCH}_3$  ( $\delta_{\text{H}}$  3.97) with an oxyaryl carbon ( $\delta_{\text{C}}$  149.3; C-3') and  $-\text{OCH}_3$  ( $\delta_{\text{H}}$  3.89) with an oxyaryl carbon (at  $\delta_{\text{C}}$  165.5; C-5). All of data obtained from NMR are presented in Table 1. Correlations observed in HMBC spectrum are described in Fig. 2. Therefore, compound (**1**) was elucidated as 7-hydroxy-5, 3', 4'-trimethoxyflavone.



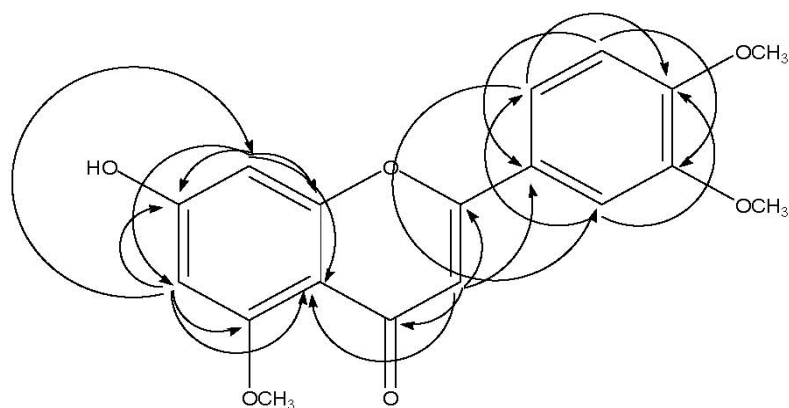


Fig. 2. HMBC correlations of compound (1)

TABLE 1.  $^1\text{H}$ ,  $^{13}\text{C}$  and HMBC NMR data of compound (1) in  $\text{CDCl}_3$  ( $\delta$  in ppm)

No. Atom	$\delta_{\text{H}}$ (mult, $J$ Hz)	$\delta_{\text{C}}$	HMBC
2	-	164.1	
3	6.60 (s)	104.8	C-2, C-4, C-1', C-4a
4	-	182.4	
4a	-	105.6	
5	-	165.5	
6	6.38 (d, $J = 2.2$ Hz)	98.2	C-4a, C-5, C-7, C-8
7	-	164.7	
8	6.50 (d, $J = 2.2$ Hz)	92.8	C-4a, C-6, C7, C-8a
8a	-	162.3	
1'	-	123.8	
2'	7.34 (d, $J = 2.1$ Hz)	108.8	C-4', C-6'
3'	-	149.3	
4'	-	152.2	
5'	6.98 (d, $J = 8.6$ Hz)	111.2	C-1', C-3'
6'	7.53 (dd, $J = 8.6$ & 2.1 Hz)	120.2	C-2', C-4'
5-OCH <sub>3</sub>	3.89 (s)	55.9	C-5
3'-OCH <sub>3</sub>	3.97 (s)	56.1	C-3'
4'-OCH <sub>3</sub>	3.99 (s)	56.2	C-4'

The spectrum data was compared with similar compound, namely 5,7,3',4'-tetramethoxyflavone which was isolated and identified from *Kaempferia parviflora*, reported by Sutthanut [13].

### Conclusion

A flavonoid namely 7-hydroxy-5,3',4'-trimethoxyflavone was successfully isolated and identified from stem bark of *Aquilaria microcarpa*,

a species belonging to Thymelaeaceae. This is the first time that this compound reported found in *Aquilaria*, even in Thymelaeaceae.

### Acknowledgements

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(Received 28/11/2017;  
accepted 12/2/2018)

## Reset Password Link

1 message

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**Egyptian Journal of Chemistry** <jsekb@ekb.eg>  
Reply-To: Egyptian Journal of Chemistry <ejchemistry2017@gmail.com>  
To: alfinda-n-k@fst.unair.ac.id, krisnosuwono@yahoo.com

Mon, Nov 27, 2017 at 2:44 PM

Dear Dr. Alfinda Novi Kristanti

For reset password click the link below:

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Truly yours,

**Egyptian Journal of Chemistry** Webmaster

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1 message

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**Egyptian Journal of Chemistry** <jsekb@ekb.eg>  
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To: alfinda-n-k@fst.unair.ac.id, krisnosuwono@yahoo.com

Mon, Nov 27, 2017 at 2:45 PM

Dear Dr. Alfinda Novi Kristanti

Username: **@15nov1967**

Your password has been resetted as following:

Password: **27313318**

[Click here to login](#)

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## Acknowledgement of Submission (Manuscript #EJCHEM-1711-1174)

2 messages

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**Egyptian Journal of Chemistry** <jsekb@ekb.eg>  
Reply-To: Egyptian Journal of Chemistry <ejchemistry2017@gmail.com>  
To: alfinda-n-k@fst.unair.ac.id, krisnosuwono@yahoo.com  
Cc: ejchemistry2017@gmail.com

Tue, Nov 28, 2017 at 1:42 PM

Manuscript ID: EJCHEM-1711-1174

Manuscript Title: **Flavonoid from Stem Bark of Aquilaria microcarpa**

Authors: Alfinda Kristanti, Mulyadi Tanjung, Okky Putri Rahayu

Dear **Dr. Alfinda Novi Kristanti**

I wish to acknowledge receiving the above mentioned manuscript.

It should be noted that the manuscript will be reviewed for possible publication in the Egyptian Journal of Chemistry

Please be sure that the submitted manuscript has not been published previously and will not be submitted elsewhere prior to our decision.

Our editorial decision will be brought to your attention once the paper has been reviewed due the referees consideration.

I wish to take this opportunity to thank you for sharing your work with us.

Truly yours,

Executive managing Editor of **Egyptian Journal of Chemistry**

### **Required Fees**

**Upon submitting the manuscript:**

**A sum of 70 Egyptian pounds (The manuscript will not be processed without paying the submission fees(LE 70)),**

**Upon receiving the acceptance for publication letter ,**

**A sum of 230 Egyptian pounds (for Egyptians )**

**A sum of 30\$ (for foreigners )**

is to be delivered to National Information and Documentation Centre that is located at El-Tahrir Street , Dokki , Giza either manually or via the following bank account:

**Bank : Central Bank of Egypt**

**Bank account: 9/450/81639/5**

**Institutional number for the Academy: 11101201**

**Beneficial: Academy of Scientific Research and Technology**

---

**alfinda novi kristanti** <alfinda-n-k@fst.unair.ac.id>  
To: Egyptian Journal of Chemistry <ejchemistry2017@gmail.com>

Thu, Dec 7, 2017 at 8:09 AM

Dear Executive managing Editor of  
**Egyptian Journal of Chemistry**

I want to inform you that I have some problems to pay the submission fee. :

1. Banks in Indonesia need the **swift code** of Central Bank of Egypt, so that I can send the payment for Manuscript ID : EJCHEM-1711-1174
2. Banks in Indonesia can not pay in Egyptian pounds, so I have to pay in US\$. For submission fee, how much US\$ I have to pay.

Thank you for your kind understanding on my situation.

Best regards,  
Dr. Alfinda Novi Kristanti

[Quoted text hidden]

---

## Manuscript Needs Major Revision (Manuscript #EJCHEM-1711-1174 (R1))

1 message

---

**Egyptian Journal of Chemistry** <jsekb@ekb.eg>  
Reply-To: Egyptian Journal of Chemistry <ejchemistry2017@gmail.com>  
To: alfinda-n-k@fst.unair.ac.id, krisnosuwono@yahoo.com

Sun, Dec 10, 2017 at 5:57 PM

Manuscript ID: EJCHEM-1711-1174

Manuscript Title: **Flavonoid from Stem Bark of Aquilaria microcarpa**

Authors: Alfinda Kristanti, Mulyadi Tanjung, Okky Putri Rahayu

Dear **Dr. Alfinda Novi Kristanti**

Your manuscript has obtained major revisions. In this case, we normally treat it as unacceptable for publication. However, as numerous editorial errors have pointed out by the reviewers, the Egyptian Journal of Chemistry editor believes that the manuscript could be rectified and prepare for possible publication.

Please let us know your views in this regard and in the case of positive response, reply us within 7 days time.

Truly yours,

Editorial Office of **Egyptian Journal of Chemistry**

**Reviewer 2:**

**the abstract has to be rewrite,  
check the language mistakes especially at the introduction line 27**

Reviewers Recommendation:

**Reviewer 1:**

File Sent by Reviewer:

[http://ejchem.journals.ekb.eg/jufile?\\_\\_file=MzcyRjM1MkUyQzIxMjA3NzcyNkUyMTlyMzlyNDJGMjcyNDI5NzgzRDcxN0E3MjZCMjMyMzJGMkQgQjJDMjgyRjdFN0E3NDdBNzYxNTFDN0E3NTdGN0Q3RjFDMTc3NDc4NzQ3ODdCN0M3MjdFNzI3QTZEMzgyMTJCNjMyNjlxMjQ3OCwMjQyNDM2M0lyNjNGMkMzQTM3NjggMCA3IDYgMiA2IDU2ODdDNzI3QjcyNjU3NDdDNzI3RTZFNzk2QjNEMjEyQw](http://ejchem.journals.ekb.eg/jufile?__file=MzcyRjM1MkUyQzIxMjA3NzcyNkUyMTlyMzlyNDJGMjcyNDI5NzgzRDcxN0E3MjZCMjMyMzJGMkQgQjJDMjgyRjdFN0E3NDdBNzYxNTFDN0E3NTdGN0Q3RjFDMTc3NDc4NzQ3ODdCN0M3MjdFNzI3QTZEMzgyMTJCNjMyNjlxMjQ3OCwMjQyNDM2M0lyNjNGMkMzQTM3NjggMCA3IDYgMiA2IDU2ODdDNzI3QjcyNjU3NDdDNzI3RTZFNzk2QjNEMjEyQw)

Reviewer Comment For Author:

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**Reviewer 2:**



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3 messages

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Reply-To: Egyptian Journal of Chemistry <ejchemistry2017@gmail.com>  
To: alfinda-n-k@fst.unair.ac.id, krisnosuwono@yahoo.com

Wed, Dec 13, 2017 at 2:05 AM

Manuscript ID: EJCHEM-1711-1174 (R1)

Manuscript Title: **Flavonoid from Stem Bark of Aquilaria microcarpa**

Authors: Alfinda Kristanti, Mulyadi Tanjung, Okky Putri Rahayu

Dear **Dr. Alfinda Novi Kristanti**

Your manuscript has obtained major revisions. In this case, we normally treat it as unacceptable for publication. However, as numerous editorial errors have pointed out by the reviewers, the Egyptian Journal of Chemistry editor believes that the manuscript could be rectified and prepare for possible publication. Ad

Please let us know your views in this regard and in the case of positive response, reply us within 7 days time.

Truly yours,

Editorial Office of **Egyptian Journal of Chemistry**

**Reviewer 3:**

at Abstract and keywords

line 4

The only compound isolated is written wrong at all paper...

7-hydroxy-5,3',4'-trimethoyflavon (1),

7-hydroxy -5,3',4'-trimethoxyflavone

Its methoxy group not methoyl ??

Only at Line 85

Therefore, compound 1, was elucidated as **7-hydroxy-5, 3', 4'-trimethoxyflavon**.

Line 14

Nevertheless, Aquilaria is a widely studied

And at line 25

an Aquilaria species that has not been studied

line 97

This is the first time that this compound reported found in this family.

But at line 85

The spectrum data was compared with 86 some similar compounds reported by Sutthanut [12].

How the write at line 97 .This is **the first time** that this compound reported

### **Reviewer 2:**

the abstract bring out the main scope of the paper but it makes some confusion for the reviewer

please rewrite the abstract to be in the form of ref.10, of the same [plant.as](#) an example,  
Kristanti, A.N., Tanjung, M. and Rahayu, O.P., Phenolic compounds from Aquilaria microcarpa stem bark. J. Chem. Technol. Metall., 52, 1111 (2017).

the abstract has to be rewrite, check the language mistakes especially at the introduction line 27

### **Reviewer 3:**

Is one compounds (known compound) is enough for publication?  
It can be published as notes

Follow the attached file

Reviewer 2

the abstract has to be rewrite,

check the language mistakes especially at the introduction line 27

Reviewers Recommendation:

**Reviewer 1:**

File Sent by Reviewer:

[http://ejchem.journals.ekb.eg/jufile?\\_\\_file=MzcyRjM1MkUyQzlxMjA3NzcyNkUyMTlyMzlyNDJGMjcyNDI5Nzg3RDcxN0E3MjZCMjMyMzJGMkQgQjJDMjgyRjdFN0E3NDdBNzYxNTFDN0E3NTdGN0Q3RjFDMTc3NDc4NzQ3ODdCN0M3MjdFNzI3QTZEMzgyMTJCNjMyNjlxMjQ3OCAMjQyNDM2M0lyNjNGMkMzQTM3NjggMCA3IDYgMiA2IDU2ODdDNzI3QjcyNjU3NDdDNzI3RTZFNzk2QjNEMjEyQw](http://ejchem.journals.ekb.eg/jufile?__file=MzcyRjM1MkUyQzlxMjA3NzcyNkUyMTlyMzlyNDJGMjcyNDI5Nzg3RDcxN0E3MjZCMjMyMzJGMkQgQjJDMjgyRjdFN0E3NDdBNzYxNTFDN0E3NTdGN0Q3RjFDMTc3NDc4NzQ3ODdCN0M3MjdFNzI3QTZEMzgyMTJCNjMyNjlxMjQ3OCAMjQyNDM2M0lyNjNGMkMzQTM3NjggMCA3IDYgMiA2IDU2ODdDNzI3QjcyNjU3NDdDNzI3RTZFNzk2QjNEMjEyQw)

Reviewer Comment For Author:

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**Reviewer 2:**

---

**alfinda novi kristanti** <alfinda-n-k@fst.unair.ac.id>  
To: Egyptian Journal of Chemistry <ejchemistry2017@gmail.com>

Wed, Dec 13, 2017 at 11:47 AM

Dear Editorial Office of  
**Egyptian Journal of Chemistry**

Thank you very much for your kind information about some corrections on our manuscript. We will try to do our best to make revisions based on reviewer's suggestions to improve the performance of our manuscript. I will send you immediately after all the revisions.

Best regards  
Dr. Alfinda Novi Kristanti

[Quoted text hidden]

---

**alfinda novi kristanti** <alfinda-n-k@fst.unair.ac.id>  
To: Egyptian Journal of Chemistry <ejchemistry2017@gmail.com>

Wed, Dec 20, 2017 at 3:01 PM

Dear Editorial Office of  
**Egyptian Journal of Chemistry**

Herewith, I send you the revision of our manuscript. I hope that the revisions that I did can make our manuscript suitable to be published in your journal. I thank you for giving me an opportunity to improve our manuscript. I hope also that I will receive good news from you.

Best regards  
Dr. Alfinda Novi Kristanti

[Quoted text hidden]



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## Scientific Acceptance (Manuscript #EJCHEM-1711-1174 (R2))

1 message

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**Egyptian Journal of Chemistry** <jssub@ekb.eg>  
Reply-To: Egyptian Journal of Chemistry <ejchemistry2017@gmail.com>  
To: alfinda-n-k@fst.unair.ac.id, krisnosuwono@yahoo.com

Tue, Feb 6, 2018 at 5:02 PM

Manuscript ID: EJCHEM-1711-1174 (R2)

Manuscript Title: **Flavonoid from Stem Bark of Aquilaria microcarpa**

Authors: Alfinda Kristanti, Mulyadi Tanjung, Okky Putri Rahayu

Dear **Dr. Alfinda Novi Kristanti**

This is to confirm that after technical and in-house evaluation, the above mentioned manuscript has been finalized and accepted for publication in the Egyptian Journal of Chemistry.

Required Fees

Upon submitting the manuscript:

A sum of 70 Egyptian pounds,

Upon receiving the acceptance for publication letter,

A sum of 230 Egyptian pounds (for Egyptians )

A sum of 100 \$ (for foreigners )

The fees should be paid in one of the following ways:

i) **By cash or**

ii) **By Bank transfer**

L.E. 300 for Egyptians

U\$ 100 for non-Egyptians.

**For Foreigner researchers: A sum of 100\$ is required to be delivered to the bank account:**

**Bank: Central Bank of Egypt, 54 El Gomhria st., Cairo, Egypt.**

**Bank code: CBEGEGCXXXX**

**Bank account: 9/450/81639/5**

**Organization code: 11101201**

**Beneficial: Academy of Scientific Research and Technology**

**Please write your name and "NIDOC" on your bank transfer.**

To complete the publishing process, please we need you to fulfill the following:

A confirmation from you that the acceptance fees have been paid that is in the case of paying through the bank account (more information about fees and payment process is found in Guide for Authors section and in the acknowledgment of submission letter that you received upon submitting the paper.

After receiving the above mentioned, you will receive the final acceptance of the paper and the publishing procedure will be continued.

Thank you for submitting your work to our journal.

With kind regards,  
Truly yours,

Editorial Office of **Egyptian Journal of Chemistry**



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## Acceptance of Manuscript (Manuscript #EJCHEM-1711-1174 (R2))

2 messages

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Reply-To: Egyptian Journal of Chemistry <ejchemistry2017@gmail.com>  
To: alfinda-n-k@fst.unair.ac.id, krisnosuwono@yahoo.com

Mon, Feb 12, 2018 at 3:08 PM

Manuscript ID: EJCHEM-1711-1174 (R2)

Manuscript Title: **Flavonoid from Stem Bark of Aquilaria microcarpa**

Authors: Alfinda Kristanti, Mulyadi Tanjung, Okky Putri Rahayu

Dear **Dr. Alfinda Novi Kristanti**

Congratulations! This is to confirm that after scientific and technical evaluation, the above mentioned manuscript has been finalized and accepted for publication in The Egyptian Journal of Chemistry.

Your accepted manuscript will now be transferred to our production department and work will begin on the creation of the proof. If we need any additional information to create the proof, we will let you know. If not, you will be contacted again in the next few days with a request to approve the proof and to complete a number of online forms that are required for publication.

I will be your contact person during the production process of the paper towards the final publication on the web (<http://http://ejchem.js.iknito.com>) and on paper (in the printed-on-paper issue).

Proofs will be sent to you in due course.

Thank you for submitting your work to our journal.

Truly yours,

Editorial Office of **Egyptian Journal of Chemistry**

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**alfinda novi kristanti** <alfinda-n-k@fst.unair.ac.id>  
To: Egyptian Journal of Chemistry <ejchemistry2017@gmail.com>

Mon, Feb 12, 2018 at 3:25 PM

Dear Editorial of **Egyptian Journal of Chemistry**



Thank you very much for this good news.

Best regards,  
Dr. Alfinda Novi Kristanti

[Quoted text hidden]

---

**Manuscript Published Online (Manuscript #EJCHEM-1711-1174 (R2))**

2 messages

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Reply-To: Egyptian Journal of Chemistry <ejchemistry2017@gmail.com>  
To: alfinda-n-k@fst.unair.ac.id, krisnosuwono@yahoo.com

Tue, Jul 3, 2018 at 3:47 PM

Manuscript ID: EJCHEM-1711-1174 (R2)

Manuscript Title: **Flavonoid from Stem Bark of Aquilaria microcarpa**

Authors: Alfinda Kristanti, Mulyadi Tanjung, Okky Putri Rahayu

Dear **Dr. Alfinda Novi Kristanti**

I am pleased that your published article is on the net. Kindly visit:

<http://ejchem.journals.ekb.eg/>

Your paper will be published in print in one of the upcoming issues of the .

I am sorry, I cannot say exactly in which issue because we have a huge backlog of online articles that are waiting for printing.

After publication, the article corresponding author will receive one journal issue along with 5 reprints.

I wish you luck and Thank you for sharing your work with us.

Truly yours,

Editorial Office of **Egyptian Journal of Chemistry**

---

**alfinda novi kristanti** <alfinda-n-k@fst.unair.ac.id>  
To: Egyptian Journal of Chemistry <ejchemistry2017@gmail.com>

Fri, Jul 6, 2018 at 3:33 PM

Dear Editorial Office of **Egyptian Journal of Chemistry**,

Thank you very much for your kind information and thank you again for accepting our manuscript to publish in Egyptian Journal of Chemistry.

Best regards,  
**Alfinda Novi Kristanti**

[Quoted text hidden]