

[AP] Submission Acknowledgement

1 message

Editorial Office <acta@cvut.cz> To: Putu Wijaya Sunu <wijayasunu@pnb.ac.id> Sun, Nov 3, 2019 at 3:59 PM

Putu Wijaya Sunu:

Thank you for submitting the manuscript, "HEAT TRANSFER ENHANCEMENT AND FRICTION IN DOUBLE PIPE HEAT EXCHANGER WITH VARIOUS NUMBER OF LONGITUDINAL GROOVE" to Acta Polytechnica. With the online journal management system that we are using, you will be able to track its progress through the editorial process by logging in to the journal web site:

Manuscript URL: https://ojs.cvut.cz/ojs/index.php/ap/author/submission/5960 Username: wijayasunu

If you have any questions, please contact me. Thank you for considering this journal as a venue for your work.

Editorial Office Acta Polytechnica

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[AP] Editor Decision

2 messages

Editorial Office <acta@cvut.cz> Reply-To: Michelle O'Hara <Michelle.Ohara@cvut.cz> To: Putu Wijaya Sunu <wijayasunu@pnb.ac.id> Wed, Apr 8, 2020 at 3:49 PM

Dear Putu Wijaya Sunu:

We have reached a decision regarding your submission to Acta Polytechnica, "HEAT TRANSFER ENHANCEMENT AND FRICTION IN DOUBLE PIPE HEAT EXCHANGER WITH VARIOUS NUMBER OF LONGITUDINAL GROOVE".

Our decision is: Resubmit for review.

Please upload a revised article according to the reviews below. Also, please send us three letters of response, one for each reviewer. The letter should contain detailed point-by-point answers responding to each question and/or comment of the reviewer.

Please do not hesitate to contact me with any questions.

Best regards,

Michelle O'Hara Central Library, Czech Technical University in Prague, Czech Republic Michelle.Ohara@cvut.cz

Reviewer A:

Is the topic of this paper relevant to Acta Polytechnica?: Yes

- Does the manuscript contain original and significant information?: Yes
- Does the Abstract describe the content of the paper?: Yes
- Do the authors inform clearly about aim of the paper?: Yes
- Is the methodology described precisely and accurately?: No
- Is the approach and solution used by the authors appropriate, and is it described clearly?: Yes
 - res
- Are the Conclusions justified by the results?: Yes
- Can the paper be published in its present form, without major language revision?:

Yes

Comments to the Author(s):: In this manuscript, Authors presented the method to increase heat transfer in a double pipe heat exchanger by the application of longitudinal grooves. The results base on temperature and pressure measurement were presented. The heat transfer, heat transfer coefficient, friction factor, NTU and effectiveness relationship for a different number of grooves was showed. The paper is logically and well organised but the language needs minor correction. The introduction section should be supplemented with recent and relevant papers. The originality of the paper should be more clearly and more strongly indicated. Summarizing, this research was not spectacular but presented results seem to be original. Some minor revision is needed.

English grammar corrections are required throughout the text e.g. "bettween", "measuresd", "To achieve level ..." should be "To achieve the level ..." etc.

I. Comments to the Abstract section:

 The abstract part should be presented in general form, especially in the part describing the heat exchanger. (sentences 2 to 4)
 A missing dot at the end of the abstract.

II. Comments to the Introduction section:

The sentences "Many studies have been carried out ... the maximum increasing value." are not clear. Author needs to rewrite it for better clarity and understanding.
 A missing dot at the "... turbulent air flow [27]"
 Introduction section needs supplementation, answer the question: what is the literature gap and how the presented research overcomes the shortcomings based on the literature review?
 The introduction provides insufficient background and the literature should be improved. Only one reference is from the 2018 year, the rest are older. I suggest improving bibliography by add recent and relevant papers.

III. Comments to the Experimental method section:

1. The sentence "The temperature data ... flow rate." is not clear. Author needs to rewrite it for

better clarity and understanding.

2. In "Uncertainty Analysis" subsection, you wrote "... had precision

about ..." or "... the level of

accuracy of about ...", in a scientific article, this statement should be precise or rewrite it for better

clarity and understanding.

3. For the temperature data acquisition, Authors provide precision. For pressure measurement and

flow rate, the level of accuracy has been provided. These are two different guantities and should not

be combined. Add information about the level of accuracy, does it relates to the measured value or

the entire measuring range? For what value of Re was this accuracy calculated?

IV. Comments to the Results and discussions section:1. It should be "... Blasius equation" not "Blassius equation", wherever it appears in the text.2. The sentences "The actual increases ... of the annulus system" are not clear. Author needs to

rewrite it for better clarity and understanding. 3. In Figure 7, Authors should add a legend describing the dash and dot lines. 4. In the description below Figure 8, the authors have presented the observation only but the justification with a valid reason for such a trend is missing. Author needs to elaborate the observation with a valid statement. V. Comments to the Conclusions section: 1. Authors wrote "... good agreement and ...", it should be explained, with what the good agreement was and how it was calculated? _____ Reviewer B: Is the topic of this paper relevant to Acta Polytechnica?: Yes Does the manuscript contain original and significant information?: Yes Does the Abstract describe the content of the paper?: No Do the authors inform clearly about aim of the paper?: Yes Is the methodology described precisely and accurately?: Yes Is the approach and solution used by the authors appropriate, and is it described clearly?: No Are the Conclusions justified by the results?: No Can the paper be published in its present form, without major language revision?: No Comments to the Author(s):: Figures quality is very low. 1-The level of English throughout the manuscript does not meet the 2iournal's desired standard. There are a number of grammatical errors. sentence and paragraph structure, layout and formatting and instances of badly worded/constructed sentences. 3-The conducted literature survey is not thorough. Please update and expand your literature survey by referring to the most recent and relevant references that have been published in highly ranked and prestigious journals including this journal. Please focus on relevant publications during the last few (2-3) years. Avoid lumping references! 4-The methods presented in a paper must be able to be repeated by other 5researchers. Based on the manuscript data, cannot do this, for example, lack of many data. In conclusion, the article presents just a simple presentation of the 6related results, but not offers a novel ideas and/or original

interpretations. We strongly recommend to authors to rewriting this section.

- 7- What is the original contribution of this work to existing knowledge?
- 8- The authors should discuss the results obtained in more detail, how will

these be utilized? The limitations of the present study and scope for future work are 9missing. 10- while submitting the paper, please pay attention to a proper placing of equations and their numbers on the page 11-It is not understandable why the Reynold number (Re) around 33000 up to 46000 is considered? _____ Reviewer C: Is the topic of this paper relevant to Acta Polytechnica?: Yes Does the manuscript contain original and significant information?: No Does the Abstract describe the content of the paper?: Yes Do the authors inform clearly about aim of the paper?: Yes Is the methodology described precisely and accurately?: Yes Is the approach and solution used by the authors appropriate, and is it described clearly?: No Are the Conclusions justified by the results?: Yes Can the paper be published in its present form, without major language revision?: No Comments to the Author(s):: The manuscript is well written and presented. The paper is clearly • readable. The abstract if informative and concise. The current paper investigates effects of longitudinal grooves on heat transfer and friction with a double pipe counter flow heat exchanger. Authors investigated 4 different types of groves and reported a heat transfer enhancement by up to 15% at a cost of increase in pressure drop of up to 30%. The references are relevant and recent. The literature review is thorough and up to date. The paper is novel, original, clearly presented, and well organized. The length of the paper is appropriate. However, there are very simple equations that need to be rewritten in a more efficient way. Figure 6 presents U vs Re. However, there was no predefined method of estimating the value of U. This needs a closer look. Figure 7 present vs NTU. The trend for smooth pipe is clear. However, for the other cases, the trend is not clear. This should be revised and presented in a better way. It is recommended to provide a graph that shows the relation between heat enhancement and pressure drop on the overall performance of the heat exchanger. Is the 15% increase in heat transfer at a cost of 30% pressure drop justified? The conclusions were supported by the details provided throughout the manuscript.

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Putu Wijaya Sunu <wijayasunu@pnb.ac.id> To: Michelle O'Hara <Michelle.Ohara@cvut.cz> Mon, Jun 29, 2020 at 2:29 PM

Dear Michelle O'Hara,

We have uploaded a revised article according to the reviews in your submission system. We have improved our article according to the reviews from each reviewer. In this attachment email, you will find three letters of response for each reviewer. The letters contain detailed point-by-point answers to each question and comment of the reviewer.

Thank you for your kind attention.

Best regards,

Putu Wijaya Sunu Mechanical Engineering Department Bali State Polytechnic Kampus Bukit Jimbaran, Badung, Bali, Indonesia

[Quoted text hidden]

3 a	3 attachments	
W	Reviewer B.docx 14K	
W	Reviewer A.docx 15K	
W	Reviewer C.docx 13K	

LAMPIRAN

Reviewer A: Is the topic of this paper relevant to Acta Polytechnica?: Yes Does the manuscript contain original and significant information?: Yes Does the Abstract describe the content of the paper?: Yes Do the authors inform clearly about aim of the paper?: Yes Is the methodology described precisely and accurately?: No Is the approach and solution used by the authors appropriate, and is it described clearly?: Yes Are the Conclusions justified by the results?: Yes Can the paper be published in its present form, without major language revision?: Yes

Comments to the Author(s)::

In this manuscript, Authors presented the method to increase heat transfer in a double pipe heat exchanger by the application of longitudinal grooves. The results base on temperature and pressure measurement were presented. The heat transfer, heat transfer coefficient, friction factor, NTU and effectiveness relationship for a different number of grooves was showed. The paper is logically and well organised but the language needs minor correction.

The introduction section should be supplemented with recent and relevant papers. The originality of the paper should be more clearly and more strongly indicated [I have added in last paragraph of introductory section]. Summarizing, this research was not spectacular but presented results seem to be original. Some minor revision is needed.

English grammar corrections are required throughout the text e.g. "bettween", "measuresd", "To achieve level ..." should be "To achieve the level ..." etc. (fixed)

I. Comments to the Abstract section:

1. The abstract part should be presented in general form, especially in the part describing the heat exchanger. (sentences 2 to 4) [I have fixed sentences 2 to 4]

2. A missing dot at the end of the abstract. [I have fixed a missing dot.]

II. Comments to the Introduction section:

The sentences "Many studies have been carried out ... the maximum increasing value." are not clear. Author needs to rewrite it for better clarity and understanding. [I have fixed the sentences]
 A missing dot at the "... turbulent air flow [27]" [I have fixed the dot]

3. Introduction section needs supplementation, answer the question: what is the literature gap and how the presented research overcomes the shortcomings based on the literature review? [it is explained in the last sentence in the 3rd paragraph and in the 4th paragraph]

4. The introduction provides insufficient background and the literature should be improved. Only one reference is from the 2018 year, the rest are older. I suggest improving bibliography by add recent and relevant papers. [I have improved it]

III. Comments to the Experimental method section:

1. The sentence "The temperature data ... flow rate." is not clear. Author needs to rewrite it for better clarity and understanding. [I have improved it]

2. In "Uncertainty Analysis" subsection, you wrote "... had precision about ..." or "... the level of accuracy of about ...", in a scientific article, this statement should be precise or rewrite it for better clarity and understanding. [I have improved it]

3. For the temperature data acquisition, Authors provide precision. For pressure measurement and flow rate, the level of accuracy has been provided. These are two different quantities and should not be combined. Add information about the level of accuracy [I have added the information], does it relates to the measured value or the entire measuring range? [the level of accuracy (LOA) of measurement equipment related to the measuring device in this experiment. Off course the LOA have correlations with all the quantitative data. The LOA will influence the nominal measurement value in measuring instrument] For what value of Re was this accuracy calculated? [The accuracy of Re have correlation with the value of volume flow rate accuracy. To calculate the Re, we should known the value of volume flow rate.]

IV. Comments to the Results and discussions section:

1. It should be "... Blasius equation" not "Blassius equation", wherever it appears in the text. [I have fixed it]

2. The sentences "The actual increases ... of the annulus system" are not clear. Author needs to rewrite it for better clarity and understanding. [I have rearranged it]

3. In Figure 7, Authors should add a legend describing the dash and dot lines. [I have fixed it] 4. In the description below Figure 8, the authors have presented the observation only but the justification with a valid reason for such a trend is missing. Author needs to elaborate the observation with a valid statement. [Figure 8 illustrates the friction of all number of grooves. Validation has been carried out as shown in Figure 4. It can be seen that the friction factor in the smooth annulus has the same trend as Blasius correlation.] V. Comments to the Conclusions section:

1. Authors wrote "... good agreement and ...", it should be explained, with

what the good agreement was and how it was calculated?. what we mean here is that grooves 8 give the best results and can be seen in the compensation between heat transfer and friction factor. We have rearranged this sentence and added the increasing value of heat transfer and friction.

_____ Reviewer B: Is the topic of this paper relevant to Acta Polytechnica?: Yes Does the manuscript contain original and significant information?: Yes Does the Abstract describe the content of the paper?: No Do the authors inform clearly about aim of the paper?: Yes Is the methodology described precisely and accurately?: Yes Is the approach and solution used by the authors appropriate, and is it described clearly?: No Are the Conclusions justified by the results?: No Can the paper be published in its present form, without major language revision?: No

Comments to the Author(s)::

1- Figures quality is very low. [I think all of the figures have resolution 300 dpi]

2- The level of English throughout the manuscript does not meet the journal's desired standard. There are a number of grammatical errors, sentence and paragraph structure, layout and formatting and instances of badly worded/constructed sentences. [I have fixed it]

3- The conducted literature survey is not thorough. Please update and expand your literature survey

by referring to the most recent and relevant references that have been published in highly ranked and prestigious journals including this journal. Please focus on relevant publications during the last few (2-3) years. [I have added the literature]

4- Avoid lumping references! [I have fixed it]

5- The methods presented in a paper must be able to be repeated by other researchers. Based on the manuscript data, cannot do this, for example, lack of many data. [I have described the methods in this article step by step with a figure of experiment apparatus in detail. I have added some additional information in this section]

6- In conclusion, the article presents just a simple presentation of the related results, but not offers a novel ideas and/or original interpretations. We strongly recommend to authors to rewriting this section. [I have rewritten and added the quantitative data from the experiment at this section]

7- What is the original contribution of this work to existing knowledge? [The literature review demonstrates the experimental works that have been conducted on various shape of groove and characterize it to the heat transfer and pressure loss. Longitudinal surface grooves can increase the heat transfer but typically at the cost of increasing the friction. There have been few investigations concerned with flow characteristics associated with heat transfer and friction from annulus grooved. Most previous studies discussed heat transfer and pressure drop due to grooves on plane walls, channel flow, coils, shell and tube HX etc. It is hard to find the application of grooves in the annulus of double pipe heat exchanger. Another consideration for emerging this work is the number of grooves. No previous studies revealed the application of grooves on double pipe HX with considerate the number of grooves. So this experiment result will contribute significantly for high efficient double pipe heat exchanger.

8- The authors should discuss the results obtained in more detail, how will these be utilized?[I have added the discussion in the last paragraph in result and discussion section]

9- The limitations of the present study and scope for future work are missing.[The limitation of the present works was the ability to create smaller grooves. Off course we have limitation in our resources to create groove using conventional milling machine. Hopefully for future study the needed of additional equipment will fulfill, so will expand the analysis of application of grooves on heat exchanger.
10- while submitting the paper, please pay attention to a proper placing of equations and their numbers on the page[Thank you for your attention details.]

11- It is not understandable why the Reynold number (Re) around 33000 up to 46000 is considered?

[Thank you for the question. only on fluid perspective or only on heat transfer point of view or the experiment combine these two point of view. From the references, we found the experimental Re ([2, 4] Laminar flow; [5] Re=3000-10000; [7] Re=6000-20000; [8] Re=3000-10000; [11] Re=4000-10000; [12] Re=13000-46000 and Re=31000-375000; [13] Re=6000-18000; [16] Re=50-500; [17] Re=1000-3000; [18] Re =90-800; [19] Re=5000-20000; [20] Re=7500-50000; [21] Re=10000-100000; [22] Re=50-260; [26] Re=50-1000; ... [33] Re = 20000-60000). From the literature, we can show that the trend of research according to Re have changed. In 10 years and older, mostly the research on groove field pay attention on laminar flow regime. In recent decades, the research on grooves play on the turbulent flow. Why we took the Re= 33000-46000? From the literature, only two article [12,20] found in this range of Re. From the application perspective and recent industrial application, the need of highly efficient heat transfers only fulfilled with high Re working fluid. The Re was in turbulent flow regime. In the fabrication of experimental test section, we have limitation for creating the grooved heat exchanger as we mentioned in point 9 above. So our group research, take this (Re=33000-46000) range of Re as optimum

value of Re.

Reviewer C:

Is the topic of this paper relevant to Acta Polytechnica?: Yes

Does the manuscript contain original and significant information?: No

Does the Abstract describe the content of the paper?: Yes

Do the authors inform clearly about aim of the paper?: Yes

Is the methodology described precisely and accurately?: Yes

Is the approach and solution used by the authors appropriate, and is it described clearly?:

No

Are the Conclusions justified by the results?:

Yes

Can the paper be published in its present form, without major language revision?:

No

Comments to the Author(s)::

• The manuscript is well written and presented. The paper is clearly readable. [Thank you]

• The abstract if informative and concise. The current paper investigates effects of longitudinal grooves on heat transfer and friction with a double pipe counter flow heat exchanger. Authors investigated 4 different types of groves and reported a heat transfer enhancement by up to 15% at a cost of increase in pressure drop of up to 30%. [Thank you]

• The references are relevant and recent. The literature review is thorough and up to date. [Thank you]

- The paper is novel, original, clearly presented, and well organized. [Thank you]
- The length of the paper is appropriate. However, there are very simple equations that need to be rewritten in a more efficient way. [Thank you]

• Figure 6 presents U vs Re. However, there was no predefined method of estimating the value of U. This needs a closer look. [Thank you for your attention. I have added equation 11 to estimating the U value.]

• Figure 7 present ε vs NTU. The trend for smooth pipe is clear. However, for the other cases, the trend is not clear. This should be revised and presented in a better way. [I have increased the size of marker. Hopefully the trend will show clearly.]

• It is recommended to provide a graph that shows the relation between heat enhancement and pressure drop on the overall performance of the heat exchanger. Is the 15% increase in heat transfer at a cost of 30% pressure drop justified? [I have added figure 9 in the manuscript. In my analysis, the point of heat transfer enhancement should have position upper to the point of friction enhancement for good agreement of compensation. The increasing of these two parameters gap should be the indicator of increasing overall grooved system performance. For this investigation, annulus with number of groove 8 was the best candidate for compensation on heat transfer and friction.]

• The conclusions were supported by the details provided throughout the manuscript. [Thank you]



[AP] Editor Decision

2 messages

Editorial Office <acta@cvut.cz> Reply-To: Michelle O'Hara <Michelle.Ohara@cvut.cz> To: Putu Wijaya Sunu <wijayasunu@pnb.ac.id> Sat, Aug 8, 2020 at 5:00 AM

Dear Putu Wijaya Sunu:

We have reached a decision regarding your submission to Acta Polytechnica, "HEAT TRANSFER ENHANCEMENT AND FRICTION IN DOUBLE PIPE HEAT EXCHANGER WITH VARIOUS NUMBER OF LONGITUDINAL GROOVE".

Our decision is: Revisions required.

Please upload a revised article according to the review below. Also, please send us a letter of response, one for each reviewer. The letter should contain detailed point-by-point answers responding to each question and/or comment of the reviewer.

Please do not hesitate to contact me with any questions.

Best regards,

Michelle O'Hara Central Library, Czech Technical University in Prague, Czech Republic Michelle.Ohara@cvut.cz

Reviewer A:

1- The manuscript is very poorly written concerning sentence and paragraph structure.

2- The conducted literature survey is not thorough. Please update and expand your literature survey by referring to the most recent and relevant references that have been published in highly ranked and prestigious. Please focus on relevant publications during the last few (2-3) years.

3- The authors should discuss the results obtained in more detail, how will these be utilized?

4- While submitting the paper, please pay attention to a proper placing of equations and their numbers on the page

5- It is not understandable why the Reynold number (Re) around 33000 up to 46000 is considered?

Acta Polytechnica Editorial Office Central Library Czech Technical University in Prague Technická 6 160 80 Praha 6 - Dejvice **Putu Wijaya Sunu** <wijayasunu@pnb.ac.id> To: Michelle O'Hara <Michelle.Ohara@cvut.cz>

Dear Michelle O'Hara:

We have uploaded a revised article according to the reviews in your submission system. We have improved our article according to the reviews from reviewer A. In this attachment email, you will find one letter of response for reviewer A. The letter contain detailed point-by-point answers to each question.

Thank you for your kind attention.

Best regards,

Putu Wijaya Sunu Mechanical Engineering Department Bali State Polytechnic Kampus Bukit Jimbaran, Badung, Bali, Indonesia [Quoted text hidden]

Answer for Reviewer A.docx

LAMPIRAN JAWABAN

Reviewer A:

1- The manuscript is very poorly written concerning sentence and paragraph structure. [I have proofread the manuscript with native twice, and hopefully could fulfill your request. But if there are still mistakes concerning sentences in this article, please showed me. I will improve it]

2- The conducted literature survey is not thorough. Please update and expand your literature survey by referring to the most recent and relevant references that have been published in highly ranked and prestigious. Please focus on relevant publications during the last few (2-3) years. [I have added for the latest literature (2018-2020)]

3- The authors should discuss the results obtained in more detail, how will these be utilized? Of course, the results of this research can be used in surface engineering applications. The compensation for heat transfer and pressure drop values requires analytic considerations especially associated with number of grooves. The results of this study provide a gap in this consideration. Additionally, grooves provide an advantage in the weight of the heat transfer equipment. Heat exchanger equipment will be lighter with better heat transfer capability or we can call the ratio of the heat transfer per weight will increase.

[I have added some analysis in some section in the discussion part]

4- While submitting the paper, please pay attention to a proper placing of equations and their numbers on the page [I have improved the equation]

5- It is not understandable why the Reynold number (Re) around 33000 up to 46000 is considered?

Thank you for the question. Mostly researches conducted an experiment only on fluid perspective or on heat transfer point of view. In this experiment, two points of view (fluid and heat transfer) were elaborated and compensated for each other. Here are the value of Reynold number (Re) for each of the literature reviews on our articles, ([2, 4] Laminar flow; [5] Re=3000-10000; [7] Re=6000-20000; [8] Re=3000-10000; [11] Re=4000-10000; [12] Re=13000-46000 and Re=31000-375000; [13] Re=6000-18000; [16] Re=50-500; [17] Re=1000-3000; [18] Re =90-800; [20] Re=475-70000; [21] Re= 375; [22] Re=5000-20000; [23] Re=7500-50000; [24] Re=10000-100000; [25] Re=50-260; [31] Re= 5300-23000; [32] Re= 5500-11500; [33] Re=50-1000; [40]Re = 20000-60000; [42] Laminar flow). From the literature above, we showed that the trend of research according to Re have changed. In previous 10 years and older, mostly the research on groove field pay attention on laminar flow regime. In recent decades, the research on grooves play on high Re or the turbulent flow. Why we took the Re= 33000-46000? From the application perspective and recent industrial application, the need of highly efficient heat transfers only fulfilled with high Re working fluid. From the literature review, only two articles [12, 40] found in high Re range (Re = 13000 – 60000). This gap of Re (especially Re=33000-46000), considering with longitudinal grooves and the compensation of heat transfer and friction are the novelty of our research. So, our group research takes this (Re=33000-46000) range of Re as an opportunity to analyzed. We already added, "Why we took the Re= 33000-46000", in

introduction section



[AP] Editor Decision

2 messages

Michelle O'Hara <Michelle.Ohara@cvut.cz>

Tue, Oct 20, 2020 at 3:42 AM To: Putu Wijaya Sunu <wijayasunu@pnb.ac.id>, Daud Simon Anakottapary <daudsanakottapary@pnb.ac.id>, I Made Suarta <suarta@pnb.ac.id>, I Dewa Made Cipta Santosa <idmcsantosa@pnb.ac.id>, Ketut Suarsana <suarsana@unud.ac.id>

Dear Putu Wijaya Sunu, Daud Simon Anakottapary, I Made Suarta, I Dewa Made Cipta Santosa, Ketut Suarsana:

We have reached a decision regarding your submission to Acta Polytechnica, "HEAT TRANSFER ENHANCEMENT AND FRICTION IN DOUBLE PIPE HEAT EXCHANGER WITH VARIOUS NUMBER OF LONGITUDINAL GROOVE".

Our decision is: Accept submission.

Please upload all the supplementary files to your article (.tex and .bib) and also please upload all the images separately (pdf, png, or jpg).

Best regards,

Michelle O'Hara Central Library, Czech Technical University in Prague, Czech Republic Michelle.Ohara@cvut.cz

Acta Polytechnica Editorial Office

Central Library

Czech Technical University in Prague

Technická 6

160 80 Praha 6 - Deivice

Czech Republic

http://ojs.cvut.cz/ojs/index.php/ap

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Putu Wijaya Sunu <wijayasunu@pnb.ac.id> To: Michelle O'Hara < Michelle Ohara@cvut.cz> Wed, Oct 21, 2020 at 8:06 PM

Dear Michelle O'Hara:

First, I want to thank you for receiving our article in your journal. We do not add any supplementary material in this article. Here we send all images according to the article separately.

Best regards,

Putu Wijaya Sunu Mechanical Engineering Department Bali State Polytechnic Kampus Bukit Jimbaran, Badung, Bali, Indonesia [Quoted text hidden]

9 attachments



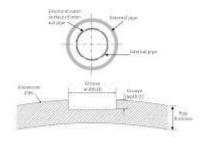


Figure-3. Groove cross sectional view on double pipe heat exchanger.jpg 190K

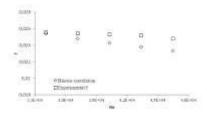


Figure-4. Validation test for friction of smooth pipe.jpg 75K

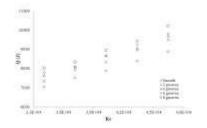


Figure-5. Real heat transfers on various Re for several number of grooves.jpg 75K

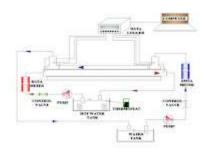


Figure-1. The outline of the experimental apparatus.jpg 97K

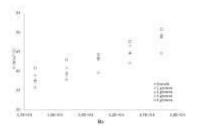


Figure-6. Overall heat transfer coefficient on various Reynold Number.jpg 70K

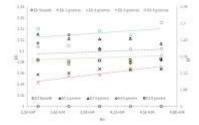


Figure-9. Heat transfer enhancement, friction factor enhancement and Reynold number correlation for various number of grooves.jpg 118K



Figure-8. Friction factor and Reynold number correlation for various number of grooves.jpg 86K

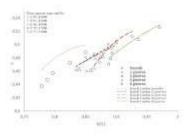


Figure-7. NTU and effectiveness relationship for different number of grooves.jpg 123K



Ianguage editing - Acta Polytechnica article

5 messages

Bulanova, Tereza <Tereza.Bulanova@cvut.cz> To: "wijayasunu@pnb.ac.id" <wijayasunu@pnb.ac.id> Tue, Dec 8, 2020 at 4:06 PM

Dear author,

your article is now going through the language editing. Our language editor asks you to reformulate several sentences from your article (they are highlighted in the attachment).

Also please send us full names of the authors.

Thanks in advance for your cooperation.

Best regards

Ing. Tereza Bulanova, Ph.D. Acta Polytechnica, Acta Polytechnica CTU Proceedings Editor in Chief https://ojs.cvut.cz/ojs/index.php/ap https://ojs.cvut.cz/ojs/index.php/app Central Library Czech Technical University in Prague Jugoslávských partyzánů 1580 (B-662a) 160 80 Praha 6 - Dejvice Czech Republic tereza.bulanova@cvut.cz +420-22435-9997 +420-727-841-872

Sunu-corrections.docx 1176K

Putu Wijaya Sunu <wijayasunu@pnb.ac.id> To: "Bulanova, Tereza" <Tereza.Bulanova@cvut.cz> I am sorry for the inconvenience.

Now our articles are read by the translator and proofreader. Hopefully it will finish today. I will send it to you immediately. For this moment, in this attachment you will find the full name of authors and affiliation. Thank you for your understanding.

Best regards Putu Wijaya Sunu

[Quoted text hidden]

Full afiliations of all authors (1).docx

Bulanova, Tereza <Tereza.Bulanova@cvut.cz> To: Putu Wijaya Sunu <wijayasunu@pnb.ac.id> Fri, Dec 11, 2020 at 3:32 PM

Thank you and regards

Tereza

Od: Putu Wijaya Sunu <wijayasunu@pnb.ac.id> Odesláno: pátek 11. prosince 2020 4:57 Komu: Bulanova, Tereza Předmět: Re: language editing - Acta Polytechnica article

[Quoted text hidden]

Putu Wijaya Sunu <wijayasunu@pnb.ac.id> To: "Bulanova, Tereza" <Tereza.Bulanova@cvut.cz>

Dear Tereza,

In this attachment email, you will find the revision of the articles. Thank you for your cooperation.

Best regards Putu Wijaya Sunu

[Quoted text hidden]

Sunu-corrections (detail).docx

Bulanova, Tereza <Tereza.Bulanova@cvut.cz> To: Putu Wijaya Sunu <wijayasunu@pnb.ac.id> Mon, Dec 14, 2020 at 3:22 PM

Fri, Dec 11, 2020 at 8:31 PM

Thank you very much.

Best regards

Tereza

Od: Putu Wijaya Sunu <wijayasunu@pnb.ac.id> Odesláno: pátek 11. prosince 2020 13:31

[Quoted text hidden]

[Quoted text hidden]



Acta Polytechnica article

7 messages

Bulanova, Tereza <Tereza.Bulanova@cvut.cz> To: Putu Wijaya Sunu <wijayasunu@pnb.ac.id> Wed, Dec 16, 2020 at 4:36 PM

Dear author,

please can you give us full names of the authors of your article?

Thanks in advance.

Best regards

Tereza Bulanova

Od: Bulanova, Tereza Odesláno: pondělí 14. prosince 2020 8:22 Komu: Putu Wijaya Sunu Předmět: Re: language editing - Acta Polytechnica article

Thank you very much.

Best regards

Tereza

Od: Putu Wijaya Sunu <wijayasunu@pnb.ac.id> Odesláno: pátek 11. prosince 2020 13:31 Komu: Bulanova, Tereza Předmět: Re: language editing - Acta Polytechnica article

Dear Tereza,

In this attachment email, you will find the revision of the articles.

Thank you for your cooperation.

Best regards Putu Wijaya Sunu

On Fri, Dec 11, 2020 at 3:32 PM Bulanova, Tereza <Tereza.Bulanova@cvut.cz> wrote:

Thank you and regards

Tereza

Od: Putu Wijaya Sunu <wijayasunu@pnb.ac.id> Odesláno: pátek 11. prosince 2020 4:57 Komu: Bulanova, Tereza Předmět: Re: language editing - Acta Polytechnica article

Dear Tereza.

I am sorry for the inconvenience.

Now our articles are read by the translator and proofreader. Hopefully it will finish today. I will send it to you immediately.

For this moment, in this attachment you will find the full name of authors and affiliation. Thank you for your understanding.

Best regards Putu Wijaya Sunu

On Tue, Dec 8, 2020 at 3:06 PM Bulanova, Tereza <Tereza.Bulanova@cvut.cz> wrote:

Dear author,

your article is now going through the language editing. Our language editor asks you to reformulate several sentences from your article (they are highlighted in the attachment).

Also please send us full names of the authors.

Thanks in advance for your cooperation.

Best regards

Ing. Tereza Bulanova, Ph.D. Acta Polytechnica, Acta Polytechnica CTU Proceedings https://ojs.cvut.cz/ojs/index.php/app Central Library Czech Technical University in Prague Jugoslávských partyzánů 1580 (B-662a) 160 80 Praha 6 - Dejvice Czech Republic tereza.bulanova@cvut.cz +420-22435-9997 +420-727-841-872

https://ojs.cvut.cz/ojs/index.php/ap

Editor in Chief

Putu Wijaya Sunu <wijayasunu@pnb.ac.id> To: "Bulanova, Tereza" <Tereza.Bulanova@cvut.cz> Wed, Dec 16, 2020 at 8:28 PM

Dear Tereza,

The author full name is:
1. Putu Wijaya Sunu.
2. Daud Simon Anakottapary
3. I Made Suarta
4. I Dewa Made Cipta Santosa
5. Ketut Suarsana
For the third and fourth authors, the letter "I" is their first name.

Thank you for your cooperation.

Best regards

Putu Wijaya Sunu [Quoted text hidden]

Bulanova, **Tereza** < Tereza.Bulanova@cvut.cz> To: Putu Wijaya Sunu < wijayasunu@pnb.ac.id>

Thank you very much.

Best regards

Tereza

Mon, Dec 21, 2020 at 7:48 PM

Od: Putu Wijaya Sunu <wijayasunu@pnb.ac.id> Odesláno: středa 16. prosince 2020 13:28 Komu: Bulanova, Tereza Předmět: Re: Acta Polytechnica article

[Quoted text hidden]

To: Putu Wijaya Sunu <wijayasunu@pnb.ac.id>

Dear author,

please find attached the proofreading version of your article, we ask for your approval for the publication.

Thanks in advance for your cooperation.

Best regards

Tereza Bulanova

Od: Bulanova, Tereza Odesláno: pondělí 21. prosince 2020 12:48 Komu: Putu Wijaya Sunu Předmět: Re: Acta Polytechnica article

[Quoted text hidden]



Bulanova, Tereza <Tereza.Bulanova@cvut.cz> To: Putu Wijaya Sunu <wijayasunu@pnb.ac.id> Thu, Jan 7, 2021 at 12:44 AM

Dear author,

we ask you to kindly check your article and approve it for publication.

Thanks in advance for your cooperation.

Best regards

Tereza Bulanova

Od: Bulanova, Tereza Odesláno: pondělí 4. ledna 2021 16:31 [Quoted text hidden]

[Quoted text hidden]



Putu Wijaya Sunu <wijayasunu@pnb.ac.id> To: "Bulanova, Tereza" <Tereza.Bulanova@cvut.cz>

Dear Tereza,

I agree with the proofread version. Thank you for your kindly attention

Best regard Putu Wijaya Sunu [Quoted text hidden]

Bulanova, Tereza <Tereza.Bulanova@cvut.cz> To: Putu Wijaya Sunu <wijayasunu@pnb.ac.id>

Thank you very much for your reply.

Best regards

Tereza

Od: Putu Wijaya Sunu <wijayasunu@pnb.ac.id> Odesláno: čtvrtek 7. ledna 2021 3:32 Komu: Bulanova, Tereza Předmět: Re: Fw: Acta Polytechnica article

[Quoted text hidden]

Thu, Jan 7, 2021 at 10:32 AM

Thu, Jan 7, 2021 at 4:25 PM