

СОГЛАСИЕ

на использование научных публикаций

Я, Абдрахматов Канатбек Ермакович даю свое согласие на использование научных статей, опубликованных совместно с Мукамбаевым Айдыном Сериковичем для следующих работ:

1. Abdрахmatov K.E. et al., (2016), Multi-segment rupture in the July 11 th 1889 Chilik earthquake (M w 8.0-8.3), Kazakh Tien Shan, interpreted from remote-sensing, field survey, and palaeoseismic trenching: The Mw 8.0-8.3 Chilik earthquake. AGU Journal of Geophysical Research: Solid Earth. 2016, Volume 121, Issue 6, P. 4615–4640. DOI: 10.1002/2015JB012763.
2. Grützner C. et al., (2017a), Assessing the activity of faults in continental interiors: Palaeoseismic insights from SE Kazakhstan, Earth and Planetary Science Letters. 2017. Volume 459, 1 February, Pages 93–104. DOI: 10.1016/j.epsl.2016.11.025
3. Grützner C. et al., (2017b), Active tectonics around Almaty and along the Zailisky Alatau range front. Tectonics. 2017 Volume 36, Issue 10, 2017, P. 2192–2226. DOI: 10.1002/2017TC004657.
4. Mackenzie D. et al., (2018), A Creeping Intracontinental Thrust Fault: Past and Present Slip-Rates on the Northern Edge of the Tien Shan, Kazakhstan, Geophysical Journal International. 2018. Volume 215, Issue 2. P. 1148–1170. DOI: 10.1093/gji/ggy339.
5. Абдрахматов К.Е., и др. Сейсмотектоника Восточного Тянь-Шаня и Джунгарии // Вестник НЯЦ РК. - 2018. - Вып. 2. С. 101–106. DOI: 10.52676/1729-7885-2018-2-100-106.
6. Grützner C. et al., (2019), Shortening Accommodated by Thrust and Strike - Slip Faults in the Ili Basin, Northern Tien Shan. Tectonics. 2019, Volume 38, Issue 07, P.2255-2274. DOI: 10.1029/2018TC005459.

7. Абдрахматов К.Е., и др. Сейсмическая опасность района расположения Бартогайского водохранилища (Республика Казахстан) // Вестник Института Сейсмологии Национальной Академии Наук Кыргызской Республики. 2019. № 2 (14). С. 8-15.
8. Абдрахматов К.Е., Мукамбаев А. Современная сейсмичность и следы древних землетрясений в зоне Восточно-Джунгарского разлома // Наука, новые технологии и инновации Кыргызстана, Вып.1, 2021. С. 28-33.
9. Tsai et al., (2022), Probing the Upper End of Intracontinental Earthquake Magnitude: A Prehistoric Example From the Dzhungarian and Lepsy Faults of Kazakhstan. Tectonics. 2022, Volume 41, Issue 10.
DOI: 10.1029/2022TC007300.

Доктор геолого-минералогических наук,
Профессор, член-корр. НАН КР

Абдрахматов К. Е.

Ученый секретарь

Калысова Ж.К.

Подпись Абдрахматова К. Е. заверяю
Инспектор по кадрам ИС НАН КР



Осмонбаева Г. А.

СОГЛАСИЕ

на использование научных публикаций

Я, Полешко Наталья Николаевна, даю свое согласие на использование научной статьи, опубликованной совместно с Мукамбаевым Айдыном Сериковичем, для следующей работы:

1. Новые детали сейсмической истории и современной сейсмичности Джунгарии / Мукамбаев А.С., Михайлова Н. Н., Полешко Н.Н., Аристова И. Л. // Вестник НЯЦ РК. - 2019. - Вып. 2. С. 81–87.



Полешко Наталья Николаевна

Ученый секретарь

Игибаев Улан Аманович

Подписи заверяю:

Муханова Айнур Максутовна

Инспектор по отделу кадров




СОГЛАСИЕ

на использование научных публикаций

Я, Аристова Ирина Львовна, даю свое согласие на использование научных статей, опубликованных совместно с Мукамбаевым Айдыном Сериковичем, для следующих работ:

1. Central Asia earthquake catalogue from ancient time to 2009. / Mikhailova N.N., Mukambayev A.S., Aristova I.L., Kulikova G., Ullah S., Pilz M., Bindi D. // Ann. Geophys. 2015. 58 (1).
2. Новые детали сейсмической истории и современной сейсмичности Джунгарии / Мукамбаев А.С., Михайлова Н. Н., Полешко Н.Н., Аристова И. Л. // Вестник НЯЦ РК. - 2019. - Вып. 2. С. 81–87.


Аристова Ирина Львовна

Ученый секретарь  Игибаев Улан Аманович

Подписи заверяю: 
Инспектор по отделу кадров Муханова Айнур Максатовна



GFZ · P.O. Box 60 07 51 · 14407 Potsdam

To it may concern

Dino Bindi
Section 2.6
Telegrafenberg
14473 Potsdam, DE
bindi@gfz-potsdam.de
Telephone: +49 (0)331 6264-1287

Potsdam, 12 January 2024

Joint publications with Mr. Aidyn Mukambayev

Dear Sir or Madam,

Hereby I confirm that Mr. Aidyn Mukambayev (mukambayev@kndc.kz) has co-authored our common listed scientific papers, and that I agree that he lists them for the purpose of his PhD defense.



Dino Bindi



UP Transfer GmbH
Am Neuen Palais 10,
14469 Potsdam
Germany



21.01.2024

To whom it may concern

Confirmation of joint publications with Mr. Aidyn Mukambayev

Dear ladies and gentlemen,

Herewith, I confirm that Mr. Aidyn Mukambayev has co-authored the scientific paper listed below, and that I agree that he lists this work for the purpose of his PhD defense.

1. Mikhailova N.N., Mukambayev A.S., Aristova I.L., Kulikova G, Ullah S, Pilz M, Bindi D. Central Asia earthquake catalogue from ancient time to 2009. Ann. Geophys. [Internet]. 2015 Apr.24;58(1).
DOI: <https://doi.org/10.4401/ag-6681>

Please do not hesitate to contact me in case of further questions.

With best regards,

Dr. Galina Kulikova
Researcher at the University of Potsdam, Germany

+49 (0)331 977 6175



galina.kulikova@uni-potsdam.de



UP Transfer GmbH an der Universität Potsdam
Haus 29, Raum 5
Karl-Liebknecht-Straße 24 - 25
14476 Potsdam
Germany





Earthquake Engineering Center,
Department of Civil Engineering,
University of Engineering and
Technology Peshawar, KPK, Pakistan,
25120

Dr. Shahid Ullah
shahid.ullah@uetpeshawar.edu.pk

January 22, 2024

To whom it may concern

Hereby I confirm that Mr. Aidyn Mukambayev (mukambayev@kndc.kz) working at Kazakhstan National Data Center (www.kndc.kz) has co-authored our common listed scientific papers titled as “Central Asia earthquake catalogue from ancient time to 2009” published on April 2015 in the Annals of geophysics volume 58(1) with DOI: 10.4401/ag-6681, and that I agree that he lists it for the purpose of his PhD defense.

Dr. Shahid Ullah
Assistant Professor
Department of Civil Engineering,
UET Peshawar, Pakistan



UNIVERSITY OF CAPE TOWN
DEPARTMENT OF
GEOLOGICAL SCIENCES
FACULTY OF SCIENCE
Geological Sciences Building, Level 5
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Rondebosch
Tel: +27 (0) 21 650 2925
alastair.sloan@uct.ac.za

Re: Joint publications with Mr. Aidyn Mukambayev

To whom it may concern,

I hereby confirm that Mr. Aidyn Mukambayev has co-authored the listed scientific papers, and that I agree that he lists them for the purpose of his PhD defence.

Yours faithfully,

A handwritten signature in black ink that reads 'R. Alastair Sloan'.

Dr R. Alastair Sloan
Senior lecturer: structural geology and tectonics



To whom it may concern

Date 18. Januar 2024
Our reference Lfa/ias Dokument1
Direct dial +41 56 437 1259
E-mail angela.landgraf@nagra.ch

Joint publications with Mr. Aidyn Mukambayev

Dear Ladies and Gentlemen,

It is my pleasure to confirm that Mr. Aidyn Mukambayev has co-authored the listed scientific paper:

Multi-segment rupture in the July 11 th 1889 Chilik earthquake (M w 8.0-8.3), Kazakh Tien Shan, interpreted from remote-sensing, field survey, and paleoseismic trenching: The Mw 8.0-8.3 Chilik earthquake (DOI:10.1002/2015JB012763
<http://onlinelibrary.wiley.com/doi/10.1002/2015JB012763/ful>)

I agree that he lists the paper for the purpose of his PhD defense and wish him best of success.

Please don't hesitate to contact me in case of further questions.

Yours sincerely

A handwritten signature in black ink, appearing to read "Angela Landgraf".

Dr. Angela Landgraf
Section Head Long-term Geological Evolution

Christian Hillemann
Carl-von-Ossietzky-Straße 26
14471 Potsdam
+49 178 167 1003
ch.hillemann@gmail.com

28th January 2024

To whom it may concern

Joint publications with Mr. Aidyn Mukambayev

Dear Ladies and Gentlemen,

I am pleased to confirm that Mr. Mukambayev has co-authored the following scientific paper:

Multi-segment rupture in the July 11th 1889 Chilik earthquake (Mw 8.0-8.3), Kazakh Tien Shan, interpreted from remote-sensing, field survey, and paleoseismic trenching: The Mw 8.0-8.3 Chilik earthquake (DOI:10.1002/2015JB012763)
<http://onlinelibrary.wiley.com/doi/10.1002/2015JB012763/ful>

I agree that Mr. Mukambayev lists the paper for the purpose of his PhD defense and wish him the greatest possible success and all the best for the future.

Please do not hesitate to contact me in case of further questions.

Yours faithfully,



Christian Hillemann



**School of Geography, Geology and
the Environment**

University Road
Leicester LE1 7RH,
UK

Head of School
Professor Stewart Fishwick

T: +44 (0)116 252 3933 (*Reception*)
T: +44 (0)116 252 3921 (*Secretary*)
E: geography@le.ac.uk

12.01.2024

Re: Joint publication with Mr. Aidyn Mukambayev

To whom it may concern:

I confirm that Mr. Aidyn Mukambayev co-authored the listed scientific papers and I agree to them being listed for the purposes of his PhD defence. Please feel free to contact me if you require any further information.

1. Abdrakhmatov K.E. et al., (2016), Multi-segment rupture in the July 11 th 1889 Chilik earthquake (M w 8.0-8.3), Kazakh Tien Shan, interpreted from remote-sensing, field survey, and palaeoseismic trenching: The Mw 8.0-8.3 Chilik earthquake. *AGU Journal of Geophysical Research: Solid Earth*. 2016, Volume 121, Issue 6, P. 4615–4640.
<https://doi.org/10.1002/2015JB012763>
2. Mackenzie D. et al., (2018), A Creeping Intracontinental Thrust Fault: Past and Present Slip-Rates on the Northern Edge of the Tien Shan, Kazakhstan, *Geophysical Journal International*. 2018, Volume 215, Issue 2, P. 1148–1170.
<https://doi.org/10.1093/gji/ggy339>

Yours sincerely

A handwritten signature in black ink, appearing to read 'Andrew Carr'.

Andrew Carr

Dr Andrew Carr
Senior Lecturer
Email: asc18@le.ac.uk
Tel: +44 (0)1162523851

By email
24 January 2024

Aidyn Mukambayev

Dear Sir/Madam

Aidyn Mukambayev, PhD Candidature, Kazakhstan National Data Center

I write to confirm that Aidyn can indicate our co-authored publications listed below in support of meeting the requirements of the National Attestation Commission:

- Abdrakhmatov K.E., et al. (2016), Multi-segment rupture in the July 11th 1889 Chilik earthquake (M w 8.0-8.3), Kazakh Tien Shan, interpreted from remote-sensing, field survey, and palaeoseismic trenching: The Mw 8.0-8.3 Chilik earthquake. American Geophysical Union Journal of Geophysical Research: Solid Earth Vol. 121, Issue 6. P. 4615–4640P. 4615–4640 DOI: 10.1002/2015JB012763
<http://onlinelibrary.wiley.com/doi/10.1002/2015JB012763/full>
- Grützner C., et al. (2017), Assessing the activity of faults in continental interiors: Palaeoseismic insights from SE Kazakhstan Earth and Planetary Science Letters. Volume 459, 1 February 2017, Pages 93–104
<http://dx.doi.org/10.1016/j.epsl.2016.11.025>
- Mackenzie D., et al (2018), A Creeping Intracontinental Thrust Fault: Past and Present Slip-Rates on the Northern Edge of the Tien Shan, Kazakhstan. Geophysical Journal International Vol. 215, Issue 2. P. 1148–1170 <https://doi.org/10.1093/gji/ggy339>
- Grützner C., et al., (2019), Shortening Accommodated by Thrust and Strike - Slip Faults in the Ili Basin, Northern Tien Shan. Tectonics. Vol. 38, Issue 7. 2019. P. 2255–2274
<https://doi.org/10.1029/2018TC005459>.

Yours sincerely,



Dr Grace Campbell

Senior Geologist | Natural Hazard and Risk Management
PhD MPhil MSci CGeol FGS

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**FRIEDRICH-SCHILLER-
UNIVERSITÄT
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**Institut für Geowissenschaften AG
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Universität Jena Structural Geology 07749 Jena

To whom it may concern

Dr Christoph Grützner

Burgweg 11
07749 Jena

Telefon: +49 36 41 9-48609 +49
Telefax: 36 41 9-48652
E-Mail: christoph.gruetzner@uni-jena.de

Joint publications with Mr. Aidyn Mukambayev

Jena, 11. Januar 2024

Dear ladies and gentlemen,

Hereby I confirm that Mr. Aidyn Mukambayev has co-authored the listed scientific papers, and that I agree that he lists them for the purpose of his PhD defense.

1. Grützner C. et al., (2017a), Assessing the activity of faults in continental interiors: Palaeoseismic insights from SE Kazakhstan, Earth and Planetary Science Letters. 2017. Volume 459, 1 February, Pages 93–104 <http://dx.doi.org/10.1016/j.epsl.2016.11.025>
2. Grützner C. et al., (2017b), Active tectonics around Almaty and along the Zailisky Alatau range front. Tectonics. 2017 Volume 36, Issue 10, 2017, P. 2192–2226, DOI: 10.1002/2017TC004657 <http://onlinelibrary.wiley.com/doi/10.1002/2017TC004657/full>
3. Mackenzie D. et al., (2018), A Creeping Intracontinental Thrust Fault: Past and Present Slip-Rates on the Northern Edge of the Tien Shan, Kazakhstan, Geophysical Journal International. 2018. Volume 215, Issue 2. P. 1148–1170, <https://doi.org/10.1093/gji/ggy339>
4. Grützner C. et al., (2019), Shortening Accommodated by Thrust and Strike - Slip Faults in the Ili Basin, Northern Tien Shan. Tectonics. 2019, Volume 38, Issue 07, P.2255-2274. <https://doi.org/10.1029/2018TC005459>
5. Tsai et al., (2022), Probing the Upper End of Intracontinental Earthquake Magnitude: A Prehistoric Example From the Dzhungarian and Lepsy Faults of Kazakhstan. Tectonics. 2022, Volume 41, Issue 10. <https://doi.org/10.1029/2022TC007300>

Please don't hesitate to contact me in case of further questions.

With best regards

Christoph Grützner



Dr. James Hollingsworth
CNRS Research Scientist
ISTerre
Université Grenoble Alpes
UMR 5275 CNRS

1381 rue de la Piscine
38610 Gières, France

Tel: +33 (0)4 76 63 52 33 / Office 223
james.hollingsworth@univ-grenoble-alpes.fr

Grenoble, January 12th 2024

RE: Aidyn Mukambayev publications

Dear Sir/Madam,

Hereby I confirm that Mr. Aidyn Mukambayev has co-authored the listed scientific papers, and that I agree that he lists them for the purpose of his PhD defense.

With best regards.

Yours sincerely,

James Hollingsworth

UNIVERSITY OF LEEDS
School of Earth & Environment
Maths/Earth & Environment Building, Leeds LS2 9JT
Tel: +44-113-3430457 Fax: +44-113-3435259
Web: <https://environment.leeds.ac.uk/see/staff/1248/dr-john-elliott>

Dr John Elliott
Tel: 0113 343 0457
j.elliott@leeds.ac.uk

15 January 2024

National Attestation Commission

Dear National Attestation Commission,

Aidyn Mukambayev, PhD Candidature, Kazakhstan National Data Center

I am writing to confirm that Aidyn Mukambayev is welcome to indicate the below publications on which I am a co-author and he has also co-authored in defense of his PhD.

Grützner C. et al., (2017a), Assessing the activity of faults in continental interiors: Palaeoseismic insights from SE Kazakhstan, *Earth and Planetary Science Letters*. Volume 459, 1 February 2017, Pages 93–104 <http://dx.doi.org/10.1016/j.epsl.2016.11.025>

Grützner C. et al., (2017b), Active tectonics around Almaty and along the Zailisky Alatau range front, *Tectonics*. 2017. Vol. 36, Issue 10. P. 2192–2226 DOI: 10.1002/2017TC004657 <http://onlinelibrary.wiley.com/doi/10.1002/2017TC004657/full>

Tsai et al., (2022), Probing the Upper End of Intracontinental Earthquake Magnitude: A Prehistoric Example From the Dzhungarian and Lepsy Faults of Kazakhstan, *Tectonics* 41(10). 2022 <https://doi.org/10.1029/2022TC007300>

Yours sincerely,

Dr John Elliott



Royal Society University Research Fellow & Senior Academic Fellow

Aix en Provence, 16.01.2024

Dr RIZZA Magali
Assistant Professor
Aix-Marseille Université – CEREGE
rizza@cerege.fr +33 663 641 238

Re: Joint publication with Mr. Aidyn Mukambayev

To whom it may concern:

I confirm that Mr. Aidyn Mukambayev co-authored the listed scientific papers and I agree to them being listed for the purposes of his PhD defence. Please feel free to contact me if you require any further information.

1. Abdrakhmatov K.E. et al., (2016), Multi-segment rupture in the July 11 th 1889 Chilik earthquake (M w 8.0-8.3), Kazakh Tien Shan, interpreted from remote-sensing, field survey, and palaeoseismic trenching: The Mw 8.0-8.3 Chilik earthquake. AGU Journal of Geophysical Research: Solid Earth. 2016, Volume 121, Issue 6, P. 4615–4640. <https://doi.org/10.1002/2015JB012763>
2. Mackenzie D. et al., (2018), A Creeping Intracontinental Thrust Fault: Past and Present Slip-Rates on the Northern Edge of the Tien Shan, Kazakhstan, Geophysical Journal International. 2018, Volume 215, Issue 2, P. 1148–1170. <https://doi.org/10.1093/gji/ggy339>

Yours sincerely



Magali Rizza



The
University
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University of Sheffield
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S10 2TN

Telephone: +44 7531 419878

Email: ed.rhodes@sheffield.ac.uk

12 January 2024

To whom it may concern

Joint publications with Mr. Aidyn Mukambayev

Dear ladies and gentlemen,

I confirm that Mr. Aidyn Mukambayev has co-authored the listed scientific papers, and that I agree that he lists them for the purpose of his PhD defence.

1. Grützner C. et al., (2017a), Assessing the activity of faults in continental interiors: Palaeoseismic insights from SE Kazakhstan, Earth and Planetary Science Letters. 2017. Volume 459, 1 February, Pages 93–104
<http://dx.doi.org/10.1016/j.epsl.2016.11.025>
2. Tsai et al., (2022), Probing the Upper End of Intracontinental Earthquake Magnitude: A Prehistoric Example From the Dzhungarian and Lepsy Faults of Kazakhstan. Tectonics. 2022, Volume 41, Issue 10. <https://doi.org/10.1029/2022TC007300>

Please do not hesitate to contact me in case of further questions.

With best regards,

Edward J. Rhodes
Professor of Physical Geography
University of Sheffield, UK

To whom it may concern:

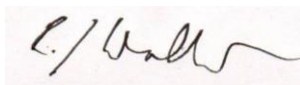
15 January 2024

Dear ladies and gentlemen,

I am writing to confirm that Aidyn Mukambayev is welcome to indicate the below publications on which I am a co-author and he has also co-authored in defense of his PhD.

1. Abdrakhmatov K.E. et al., (2016), Multi-segment rupture in the July 11 th 1889 Chilik earthquake (M w 8.0-8.3), Kazakh Tien Shan, interpreted from remote-sensing, field survey, and palaeoseismic trenching: The Mw 8.0-8.3 Chilik earthquake. AGU Journal of Geophysical Research: Solid Earth. 2016, Volume 121, Issue 6, P. 4615–4640. <https://doi.org/10.1002/2015JB012763>
2. Grützner C. et al., (2017a), Assessing the activity of faults in continental interiors: Palaeoseismic insights from SE Kazakhstan, Earth and Planetary Science Letters. 2017. Volume 459, 1 February, Pages 93–104 <http://dx.doi.org/10.1016/j.epsl.2016.11.025>
3. Grützner C. et al., (2017b), Active tectonics around Almaty and along the Zailisky Alatau range front. Tectonics. 2017 Volume 36, Issue 10, 2017, P. 2192–2226, DOI: 10.1002/2017TC004657 <http://onlinelibrary.wiley.com/doi/10.1002/2017TC004657/full>
4. Mackenzie D. et al., (2018), A Creeping Intracontinental Thrust Fault: Past and Present Slip-Rates on the Northern Edge of the Tien Shan, Kazakhstan, Geophysical Journal International. 2018. Volume 215, Issue 2. P. 1148–1170, <https://doi.org/10.1093/gji/ggy339>
5. Grützner C. et al., (2019), Shortening Accommodated by Thrust and Strike - Slip Faults in the Ili Basin, Northern Tien Shan. Tectonics. 2019, Volume 38, Issue 07, P.2255-2274. <https://doi.org/10.1029/2018TC005459>
6. Tsai et al., (2022), Probing the Upper End of Intracontinental Earthquake Magnitude: A Prehistoric Example From the Dzhungarian and Lepsy Faults of Kazakhstan. Tectonics. 2022, Volume 41, Issue 10. <https://doi.org/10.1029/2022TC007300>

Sincerely yours,



Professor RICHARD WALKER



UNIVERSITY OF CAPE TOWN
DEPARTMENT OF
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Geological Sciences Building, Level 5
Library Road, Upper Campus
Rondebosch
Tel: +27 (0) 21 650 2925
alastair.sloan@uct.ac.za

Re: Joint publications with Mr. Aidyn Mukambayev

To whom it may concern,

I hereby confirm that Mr. Aidyn Mukambayev has co-authored the listed scientific papers, and that I agree that he lists them for the purpose of his PhD defence.

Yours faithfully,

A handwritten signature in black ink that reads 'R. Alastair Sloan'.

Dr R. Alastair Sloan
Senior lecturer: structural geology and tectonics

Dr Chia-Hsin Tsai

Telephone: +44 7542617199

Email: C.Tsai@leeds.ac.uk

School of Earth and Environment,
University of Leeds,
United Kingdom

Joint publications with Mr. Aidyn Mukambayev

To whom it may concern,

Hereby I confirm that Mr. Aidyn Mukambayev has co-authored the listed scientific papers and that I agree that he lists them for his PhD defence.

Please do not hesitate to contact me if you have any further questions.

Best regards,



Chia-Hsin Tsai
13 January 2024

Tuesday 16th January 2024

To whom it may concern,

Aidyn Mukambayev has informed me that he will include a publication on which we are both co-authors in his list of joint publications, as part of the package of necessary papers for his PhD defence. I can confirm I have no objection to the inclusion of the publication in this list.

The relevant publication is:

Tsai et al. (2022), Probing the Upper End of Intracontinental Earthquake Magnitude: A Prehistoric Example From the Dzhungarian and Lepsy Faults of Kazakhstan

Many thanks,

Roberta Wilkinson

A handwritten signature in black ink, appearing to read 'Roberta Wilkinson', with a stylized flourish at the end.

PhD candidate
Department of Earth Sciences,
University of Oxford,
United Kingdom

To whom it may concern

31 October 2024

Joint publications with Mr. Aidyn Mukambayev

Dear ladies and gentlemen,

Hereby I confirm that Mr. Aidyn Mukambayev has co-authored the listed scientific papers, and that I agree that he lists them for the purpose of his PhD defense.

1. Abdrakhmatov K.E. et al., (2016), Multi-segment rupture in the July 11 th 1889 Chilik earthquake (M w 8.0-8.3), Kazakh Tien Shan, interpreted from remote-sensing, field survey, and palaeoseismic trenching: The Mw 8.0-8.3 Chilik earthquake. AGU Journal of Geophysical Research: Solid Earth. 2016, Volume 121, Issue 6, P. 4615–4640.
<https://doi.org/10.1002/2015JB012763>
2. Grützner C. et al., (2017b), Active tectonics around Almaty and along the Zailisky Alatau range front. Tectonics. 2017 Volume 36, Issue 10, 2017, P. 2192–2226.
DOI:10.1002/2017TC004657
<http://onlinelibrary.wiley.com/doi/10.1002/2017TC004657/full>
3. Tsai et al., (2022), Probing the Upper End of Intracontinental Earthquake Magnitude: A Prehistoric Example From the Dzhungarian and Lepsy Faults of Kazakhstan. Tectonics. 2022, Volume 41, Issue 10. <https://doi.org/10.1029/2022TC007300>

With best regards



Dr. Austin Elliot

To whom it may concern:

15 July 2024

Dear ladies and gentlemen,

I confirm that Mr. Aidyn Mukambayev has co-authored the listed scientific papers, and that I agree that he lists them for the purpose of his PhD defence.

1. Abdrakhmatov K.E. et al., (2016), Multi-segment rupture in the July 11th 1889 Chilik earthquake (M_w 8.0-8.3), Kazakh Tien Shan, interpreted from remote-sensing, field survey, and palaeoseismic trenching: The Mw 8.0-8.3 Chilik earthquake. *AGU Journal of Geophysical Research: Solid Earth*. 2016, Volume 121, Issue 6, P. 4615–4640. <https://doi.org/10.1002/2015JB012763>
2. Grützner C. et al., (2017a), Assessing the activity of faults in continental interiors: Palaeoseismic insights from SE Kazakhstan, *Earth and Planetary Science Letters*. 2017. Volume 459, 1 February, Pages 93–104
<http://dx.doi.org/10.1016/j.epsl.2016.11.025>
3. Mackenzie D. et al., (2018), A Creeping Intracontinental Thrust Fault: Past and Present Slip-Rates on the Northern Edge of the Tien Shan, Kazakhstan, *Geophysical Journal International*. 2018. Volume 215, Issue 2. P. 1148–1170, <https://doi.org/10.1093/gji/ggy339>
4. Grützner C. et al., (2019), Shortening Accommodated by Thrust and Strike - Slip Faults in the Ili Basin, Northern Tien Shan. *Tectonics*. 2019, Volume 38, Issue 07, P.2255-2274. <https://doi.org/10.1029/2018TC005459>

Sincerely yours,



Dr. David Mackenzie