



中国矿物岩石地球化学学会
Chinese Society for Mineralogy, Petrology and Geochemistry



ACROFI-X

Asian Current Research on Fluid Inclusions

April 22-27, 2024

Satbayev University

Conference manual

Almaty, Kazakhstan

2024

ACROFI X SCHEDULE

April 22-24, 2024. Conference			
	April 22 Monday	April 23 Tuesday	April 24 Wednesday
8:30 09:30		Registration	
9:00	Registration		
09:30 10:10		Opening Ceremony and Group Photo	
10:10 10:50		Inviting Presentation	
10:50 11:00		Tea/Coffee break	Tea/Coffee break
11:00 12:00		Inviting Presentation	Ore-forming Process
12:00		Basin Fluids/ Petroleum/Uranium	
12:40			Tectonic Fluids/Melt Inclusions/Thermodynamic
12:55 14:00		Lunch Break	Lunch Break
14:00		Basin Fluids/ Petroleum/Uranium	Tectonic Fluids/Melt Inclusions/Thermodynamic
14:00			
14:20			
14:40			
15:25		Tea/Coffee break	Closing Ceremony
15:35		Basin Fluids/ Petroleum/Uranium	Visiting labs SU
16:00			
16:20			
17:00		Conference banquet	
18:00	Ice Breaker		Goodbye Dinner
25th – 26th April 2024, Field trips			

FOREWORD

Welcome to Satbayev University. We are pleased to host the tenth biennial Asian Current Research on Fluid Inclusions (ACROFI X) conference in Almaty, Kazakhstan, and thank you for your participation. We hope that you will find the conference enjoyable and stimulating.

The Organizing Committee is particularly pleased to present you with an outstanding scientific program that comprises three sessions. A total of 27 oral and 11 poster presentations are scheduled in the following topical categories: Ore forming process; Basin Fluids/Petroleum and gas/Uranium deposits; Tectonic Fluids/Melt Inclusions/Thermodynamic. Countries represented by conference participants include: China, Egypt, India, Kazakhstan, Russia and Turkey.

The 10th conference of ACROFI is honorably supported by Satbayev University. We would also like to thank for the generous support Chinese Society for Mineralogy, Petrology and Geochemistry.

Welcome to Almaty, Kazakhstan and enjoy a most interesting ACROFI Biennial Meeting!

Yerjan Kuldeev (Satbayev University, Kazakhstan)

Chair of the Organizing Committee

ACROFI X

CONFERENCE FIELDTRIP

There are two choices for the field trips listed here. If the attending numbers are less, the trip may be canceled. The "2 day trip" is highly recommended."

1 day trip. Charyn State National Nature Park is a natural area, which has been assigned the status of a national park and a nature park. It is located in the valley of the Charyn River in Almaty region. The distance is 210 kilometres east of Almaty. Departure from Almaty at 08 am. At the Charyn canyon there will be a walking geo-excursion through the Valley of Castles, on the way lunch boxes, visiting viewpoints and visit centre, lunch in Kokpek village on the way back. Arrival back to Almaty 18:30 pm.

2 day trip. Charyn State National Natural Park. Mountain lakes Kolsay, Kaindy. Field trip schedule 1-st day – Charyn canyon, there will be a walking geo-excursion through the Valley of Castles. The Charyn is a large and complex of sedimentary rocks 154 kilometres long, the height of its steep walls reaching up to 300 metres. The southern block is composed of rocks of the Carboniferous period, lavas and tuffs age of 330 million years. The northern block is composed of clays with interlayers of gravel and rubble, age. Neogene, 20 million years. The canyon is 12 million years old. Once the entire territory of the canyon was filled with a huge Ili Lake. Cenozoic continental sediments lie unconformably on Permian volcanic rocks. On the way lunch boxes, visiting viewpoints and visit centre. In the evening transfer to Saty settlement (there are different hotels). The second day - departure after breakfast to Kolsai lake (lower), visit to Kaindy lake (additional transport is provided), return to Almaty to the hotel.

Participants of the field trip to have - a headress, trainers (strong sports shoes), comfortable clothes.

REGISTRATION

All conference participants should register at the Registration Desk and take relevant conference materials. The Registration Desk will be open in the hall on the 1st floor of the Main Academic Building (GUK - Russian abbreviation) 09:00 to 18:00, 22th April, Monday. The Desk will be open again outside of the Auditorium 535, 5th Floor of the Main Academic Building (GUK) from 08:30 to 09:30, just before Opening Ceremony of ACROFI X conference.

NAME BADGE

Please wear your name badge at all times during the conference.

TICKETS FOR SOCIAL EVENTS

During check-in at the Registration Desk, you will be given an envelope containing the tickets for Icebreaker, lunches on April 23 and 24, Conference Banquet, Goodbye dinner. Please bring the appropriate ticket to all social events.

Ice-breaker, Conference Banquet, Goodbye dinner provided in the SANTIM DINING ROOM or in the ArtLab auditorium (Located on the -1st floor of the Main Academic Building (GUK) of Satbayev University.

TEE/COFFEE BREAKS

Tee/Coffee will be served just outside of the Auditorium.

HOW TO ARRIVE

Satbayev University is around 27 km away from Almaty International Airport. There are 2 ways to get to the university:

- 1) From the Ogareva bus stop (located at the intersection of Malina and Ogareva streets), located near Almaty International Airport, you can get to Satpayev University by "79" bus. You need to get off at the stop "Satpayev Street" (located at the intersection of Satpayev and Baitursynov streets). Time on the road is about 45 minutes. (Payment is accepted in tenge, money can be exchanged inside Almaty International Airport. Cash fare costs 200 tenge = 0,45 \$. The bus driver accepts cash payment and issues a ticket. The ticket will need to be saved and presented to the ticket inspector when checking the fare. The ticket is a one-time ticket. Money can be exchanged inside Almaty International Airport)
- 2) Also, moving away from the airport, you can catch a cheaper taxi or call a taxi using the «Yandex Taxi» or «Indriver application». You will need to write the destination in the application (Satpayeva 22) and wait for the taxi to arrive. (The fare is about 3500 tenge = 7,8\$. Payment is accepted in tenge. Money can be exchanged inside Almaty International Airport). Time on the road is about 50 minutes.

ACCOMMODATION

The participants of the conference, who have asked the organizer for a reservation, will be accommodated in hotels to choose from the proposed list. At the reception you will be informed of the location, which can also be found on the electronic map of the area.

HOTELS:

- Astana International Hotel (0.2 km): US\$65-70/day
- Grand Aiser (0.2 km): ~ US\$70-80/day
- Holiday Inn Almaty Hotel (1.0 km): ~US\$120-130/day
- Rahat Palace Hotel (1.1 km): US\$175-200/day
- InterContinental Almaty Hotel (1.2 km): US\$294/day
- Zylia Hotel (0.15 km): US\$63/day

INTERNET ACCESS/MOBILE PHONE

Internet facilities are available in the Auditorium. During the conference, please turn off your mobile phone or set it to mute during sessions.

SECURITY AND SAFETY

Please do not leave bags and luggage unattended, whether inside or outside the rooms.

DISCLAIMER

The ACROFI X organizers cannot assume liability for personal accidents, loss of or damage to private property of the conference participants and accompanying persons, either during, or directly arising from the ACROFI X. Participants should make their own arrangements with respect to health and travel insurance.

INFORMATION FOR PRESENTERS

SPEAKER GUIDELINES

A computer and a technician will be made available on site of the Auditorium during the conference, "Speaker Ready Desk" for those who will want to test their presentation in advance (ask at registration desk).

Only Microsoft PowerPoint (.ppt and .pptx) presentations will be accepted.

No overhead projector or carousel slide projector will be available (Also, in any case, besides to .ppt and .pptx, just in case, translate the presentation into a PDF file).

Presenters have the responsibility of making sure that their files are compatible with PC Windows operating system and Microsoft Office software. Suggested format is 16:9, although we can accept 4:3 format.

Presentations must be in English. Inviting and keynote presentations are 25 minutes long. Regular oral presentations are 20 minutes long. We recommend leaving some time (a couple of minutes) for questions. The Convenors will impose strict controls on time exceeding the allocated time will not be allowed.

Speakers can bring your presentation on a USB stick to the technician/volunteer in the Auditorium where you are to present, no less than 30 minutes before the

session. You can check the presentation with the technician/volunteer in advance. Presenters will not be allowed to use their own laptop to present.

POSTER PRESENTATION

The ACROFI X Poster Sessions will take place just outside of the Auditorium. The posters will be on display for the entire duration of the conference, i.e., from 23th to 24 th April. The poster presentations can be 120 cm long, and 90 cm wide. Presenters are expected to be present at the poster sessions (17:00 to 18:00, 24 th April). Posters not removed by 20:00 on April 24 will be discarded.

SECRETARIAT

- 1) Dr. Samal Muratova (Satbayev University, Kazakhstan)
- 2) Altynai Rysgalieva (Satbayev University, Kazakhstan)

Telephone: +7 707 763 3534

+7 705 574 4894

+7 707 185 7121

E-mail: acrofi10@satbayev.university

s.muratova@satbayev.university

a.rysgaliyeva@satbayev.university

ACADEMIC COMMITTEE

Christoph A. Heinrich (Inst. für Geochemie und Petrologie, ETH, Switzerland)

Robert J. Bodnar (Virginia Polytechnic Institute, USA)

Andrew H. Rankin (Kingston University, UK)

Jean Dubessy (University of Lorraine, France)

Thomas Ulrich (Aarhus University, Denmark)

Rainer Thomas (GeoForschungs Zentrum Potsdam, Germany)

Terry Mernagh (Geoscience Australia, Canberra, Australia)

Kingsley Burlinson (Burlinson Geochemical Services Pty. Ltd., Australia)

Yanbo Cheng (Geoscience Australia)

Jan Marten Huizenga (Norwegian University, Norway)

Benedetto De Vivo (University of Napoli Federico II, Italy)

Rosario Esposito (University of Milan Bicocca, Italy)

H S Pandalai (Indian Institute of Technology Bombay, India)

M K Panigrahi (Indian Institute of Technology Kharagpur, India)

Rajagopal Krishnamurthi (Indian Institute of Technology, Roorkee, India)

Huanzhang Lu (University of Quebec, Canada)

Guoxiang Chi (University of Regina, Canada)

Alexander Borisenko (Institute of Geology, SB RAS, Russia)

Sergey Smirnov (Institute of Mineralogy and Petrography, SB RAS, Russia)

Vladimir Naumov (Vernadsky Institute of Geochemistry, Russian Academy of Sciences, Russia)

Anatoly Tomilenko (Institute of Mineralogy and Petrography, SB RAS, Russia)

Pei Ni (Nanjing University, China)

Hongrui Fan (Institute of Geology and Geophysics, Chinese Academy of Sciences, China)

Jiuhua Xu (University of Science and Technology Beijing, China)

Hecai Niu (Guangzhou Institute of Geochemistry, Chinese Academy of Sciences, China)

Xiaodong Liu (East China University of Technology, China)

T Tsunogae (University of Tsukuba, Ibaraki, Japan)

Geroi Zholtayev (Institute of Geological Sciences, Kazakhstan)

Talgat Yensepbayev (Satbayev University, Kazakhstan)

Vyacheslav Zhemchuzhnikov (Kazakh-British Technical University, Kazakhstan)

ORGANIZING COMMITTEE

Chairman

Yerjan Kuldeev (Satbayev University, Kazakhstan)

Vice Chairmans

Geroi Zholtayev (Institute of Geological Sciences, Kazakhstan)

Askar Syzdykov (Satbayev University, Kazakhstan)

Members

Talgat Yensepbayev (Satbayev University, Kazakhstan)

Dina Alshimbayeva (Satbayev University, Kazakhstan)

Alia Akatayeva (Satbayev University, Kazakhstan)

Junyi Pan (Nanjing University, China)

Xinghui Li (Institute of Geology and Geophysics, Chinese Academy of Sciences, China)

Kingsley Burlinson (Burlinson Geochemical Services Pty. Ltd., Australia)

Gulzia Burshukova (Satbayev University, Kazakhstan)

Terry Mernagh (Geoscience Australia, Australia)

Yergali Auelkhan (Satbayev University, Kazakhstan)

H S Pandalai (Indian Institute of Technology Bombay, India)

M K Panigrahi (Indian Institute of Technology Kharagpur, India)

Vyacheslav Zhemchuzhnikov (Kazakh-British Technical University, Kazakhstan)

Anatoly Tomilenko (Institute of Mineralogy and Petrography SB RAS, Russia)

Rizakhan Uzbekgaliev (Satbayev University, Kazakhstan)

Muratova Samal (Satbayev University, Kazakhstan)

Джарасова Tolganai (Satbayev University, Kazakhstan)

SECRETARIAT

1) Dr. Samal Muratova (Satbayev University, Kazakhstan)

2) Altynai Rysgalieva (Satbayev University, Kazakhstan)

Telephone: +7 707 763 3534

+7 705 574 4894

E-mail: acrofi10@satbayev.university

s.muratova@satbayev.university

a.rysgaliyeva@satbayev.university

Asian Current Research on Fluid Inclusions X (ACROFI X)

22nd – 27th April 2024, Almaty

22 April 2024, Monday 09:00-18:00, Registration The hall on the 1st floor of the Main Academic Building (GUK), Satbayev University
18:00 - 21:00 Ice Breaker

23 April 2024, Tuesday, Auditorium 535, 5th floor, Main Academic Building (GUK), Satbayev University

08:30-09:30, Registration		
09:30 Opening Ceremony and Group Photo		
Convener: Rector or Vice-Rector		
Speech from Satbayev University - Rector Begentaev M.M. Speech from ACROFI - Vice-Rector Kuldeyev Ye.I. Speech from Institute of Geology and Petroleum Engineering – Director Syzdykov A.Kh. Group photo		
Convener: Vyacheslav Zhemchuzhnikov		
	10:00	<u>Inviting Presentation</u> Pei Ni Ore-forming fluid properties and deposition mechanics of wolframite-quartz vein systems
	10:25	<u>Inviting Presentation</u> Rajagopal Krishnamurthi Ore-forming fluids related to uranium mineralization in the Jahaz deposit, North Delhi Fold Belt, North-Western India
10:50 Tea/Coffee Break		
	11:00	<u>Inviting Presentation</u> Hong-Rui Fan The giant Bayan Obo REE-Nb-Fe deposit, China: Ore-forming processes and controversial origins
	11:25	<u>Inviting Presentation</u> Vyacheslav Zhemchuzhnikov Post-sedimentary alteration of the Famennian-Mississippian carbonates of Bolshoi Karatau mountains, Southern Kazakhstan
	11:50	<u>Inviting Presentation</u> Smirnov S. Hydrocarbons in magma reservoirs^ the new data from fluid and melt inclusion gas-chromatography-mass-spectrometry

Basin Fluids/ Petroleum/Uranium		
Convener: Ainura Zhanserkeyeva		
	12:15	Kunhe Zhu Study on fluid characteristics of the Haidewula uranium deposit, East Kunlun Orogenic Belt
	12:35	Shuai Zeng The significant contribution of early oil accumulation in Ordovician ultra-deep carbonate petroleum reservoirs in the Shuntuoguole Low uplift, Tarim Basin
12:55 14:00 Lunch Break		
	14:00	Ruiyun Ji Efficient hydrocarbon migration and accumulation characteristics of BY5 structure in Baiyun Depression, Pearl River Mouth Basin, South China Sea: evidence from fluid inclusions
	14:20	Keynote Fengjun Nie Epigenic Uranium Mineralization in Sandstone-type Uranium deposit superimposed by the Hydrothermal Process in Kailu Basin, NE China
	14:45	Ainura Zhanserkeyeva Tectonic Provinces and Geothermal Gradients for the Pre-Salt Complex in the Conjunction of Eastern Precaspian Basin and Southern Urals
	15:05	Xin Yang Formation mechanism of the Ordovician ultra-deep condensate gas reservoirs in the Shunbei No. 4 strike-slip fault zone, Tarim Basin: Insights from fluid inclusions and In-situ U-Pb dating of calcite.
15:25 Tea/Coffee Break		
	15:35	Keynote Yensepbayev T.A. Paleothermobarometry of Devonian-Carboniferous Carbonate Sediments of the Eastern Part of Precaspian Syncline and Sakmar Zone of Mugozhar
	16:00	Huang Yue Evolution of Paleopressure in the Lower Section of the Qingshankou Formation Shale in the Northern Songliao Basin Insights from Fluid Inclusion Evidence
Ore-forming Process		
Conveners: Elena Badanina		
	16:23 0	He Jia-Feng Deciphering the relative timing of alteration and Cu mineralization at the Dexing porphyry Cu–Au–Mo deposit (South China) using the temporal variations of Cu isotope composition of chalcopyrite
17:30 Conference banquet		

24 April 2024, Wednesday Auditorium 535, 5th floor, Main Academic Building (GUK), Satbayev University

Ore-forming Process		
Conveners: Elena Badanina		
	09:00	<u>Keynote</u> Bulat Damdinov Mineral composition and conditions for the formation of Nazarovskoye gold-polymetallic deposit (Western Transbaikalia)
	09:25	Yan Gao The role of fluid mixing in the formation of the large-scale Yanbei porphyry tin deposit, South China: evidence from fluid inclusion LA-ICP-MS analyses
	09:45	Kaihan Zhang The copper ore-forming fluid in super large copper-rich tungsten deposits may come from other magmatic source
	10:05	Natalia Ankusheva Precious-metal mineralization and formation conditions of Au-Ag ore mineralization from Ak-Sug ore cluster, Eastern Sayan, Russia
	10:25	Yu-Pei Liu Tracing metal source of copper-rich tungsten mineralization: Evidence from individual fluid inclusion analysis of the Huangsha Cu-rich W deposit in South China
10:45 Tea/Coffee Break		
	10:55	<u>Keynote</u> Wu Jia, Xiaodong Liu Fluid inclusion characteristics and trace element geochemistry of fluorite from the Haidewula uranium deposit, Qinghai, Northwest China: Implication for ore genesis
	11:20	Xinghui Li Mineral and fluid inclusions tracing the source-evolution-phase separation process of ore-forming fluids in Jiaodong gold deposits
	11:40	<u>Keynote</u> Damdinova Ludmila Conditions of recrystallization of ores of the Ozeroye lead-zinc deposit (Western Transbaikalia, Russia)
	12:05	Yong-Kang Chen Comparison of ore-forming fluids between skarn and cassiterite-sulfide type tin mineralization: An example at the Xianghualing tin deposit, South China
	12:25	<u>Keynote</u> Elena Badanina Evolution of mineral-forming environments in the process of formation of ore-bearing rare-metal granites of the Eastern Transbaikalia
12:50 14:00 Lunch Break		

Tectonic Fluids/Melt Inclusions/Thermodynamic		
Conveners: Talgat Yensepbaayev		
	14:00	Keynote Jiankang Li Determination of the NaCl-H ₂ O isochores up to 900 °C and 1.2 GPa in the hydrothermal diamond-anvil cell
	14:25	Keynote Jiuhua Xu Fluid inclusions in Orogenic-Metamorphic Terrance of the southern Altaides, China
	14:50	Wei Liu Fluid inclusion record of pressurization effect produced by crude oil cracking
15:20, Closing Ceremony		
	16:00	Visiting Laboratories in SU
18:00 Goodbye Dinner		

25 th – 26 th April 2024, Field trips

Poster Presentations

1	Auelkhan Yergali Thermal Energy Potential of The Zharkent Geothermal Water Deposit
2	Gao Zhen Li In-situ analysis of individual fluid inclusions by laser ablation protocols : LIBS-ICPMS
3	Long Hui Characterization of fluid inclusions in ultra-deep carbonate reservoirs in the Shunbei area of the Tarim Basin and their application to hydrocarbon accumulation
4	Nansheng Qiu Immiscible inclusion in petroliferous basin
5	Yuyuan Yang Garnet as a carrier of HREEs in highly fractionated peraluminous granite: implications for the formation of ion-absorption HREE deposits
6	Xin Xiong Physical and chemical evolution of melts and fluids in the Jiajika No.134 pegmatite, Sichuan, China: implications for the formation of albite-spodumene pegmatites
7	Zhang Xin Characterization of the nature of mineral-forming fluids in the Tamusu sandstone-type uranium deposit in the Bayingobi Basin, North China
8	Kang Yang Oil and gas accumulation process of ultra-deep Ordovician in the F I 17 strike-slip fault zone of the Fuman oil field in the Tarim Basin
9	Feng Yuan Implications of garnet composition on metallogenic chronology and ore-forming fluid evolution of skarn deposits: A case study of the Kendekeke Fe-polymetallic deposit in East Kunlun
10	Yufeng Deng Magmatic Fluids Implicated in the Formation of vein-type gold deposits: A case study of Wuhe Mining District in the North China Craton
11	Yensepbayev T. Paleodepths of the oil window within the eastern Pre-Caspian syncline and Pre-uralian basin (Kazakhstan)

Sponsoring Organisation

The Society of Chinese Mineralogy, Petrology and Geochemistry



中国矿物岩石地球化学学会

Chinese Society for Mineralogy, Petrology and Geochemistry