



**Catalyst Design**  
From Molecular to Industrial Level

16-19 May 2021

Novosibirsk, Russia

## 6<sup>th</sup> International School-Conference on Catalysis for Young Scientists

Dear colleagues,

It is a pleasure to announce the **6<sup>th</sup> International School-Conference on Catalysis for Young Scientists «Catalyst Design: From Molecular to Industrial Level»** to be held at Boreskov Institute of Catalysis (Novosibirsk, Russia) on May 16 - 19, 2021. This event continues the tradition established in Novosibirsk, Russia (2002), Altay, Russia (2005), Yekaterinburg, Russia (2009), Kazan, Russia (2015) and Moscow, Russia (2018).

The School-Conference is directed to young researchers, Ph.D. students and undergraduates involved in catalysis research. This event will provide the students with approaches for acquiring a strong background on the fundamentals of catalysis. The lectures of leading scientists will be focused on recent advances in the basics of preparation and characterization of new catalysts, modelling catalytic systems and catalytic processes. The role of catalysis in processing renewable sources, fine organic synthesis, petroleum and electrochemistry, environmental protection will be considered during the conference. Participants will have an opportunity to discuss their own research with leading experts in various fields of catalysis.

We are looking forward to seeing you at the School-Conference!

*Organizing Committee*

### Organizers



Boreskov Institute of Catalysis, Novosibirsk, Russia



Center of New Chemical Technologies BIC, Omsk, Russia



Russian Mendeleev Chemical Society, Novosibirsk Department





## Scientific Committee

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<b>Prof. Alexander Yu. STAKHEEV</b>	Zelinsky Institute of Organic Chemistry RAS, Moscow, Russia
<b>Prof. Sergei V. SYSOLYATIN</b>	Institute for Problems of Chemical and Energetic Technologies, Biysk, Russia

## Organizing Committee

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<b>Dr. Liudmila N. Stepanova</b>	Center of New Chemical Technologies BIC, Omsk, Russia
<b>Secretariat</b>	
<b>Svetlana S. Logunova</b>	Boreskov Institute of Catalysis, Novosibirsk, Russia

## Scientific program

The scientific program of the School-Conference will include invited plenary lectures (45 min), oral presentations (15 min) and poster presentations.

**English** is the official language of the School-Conference.





### The main topics are:

- ❖ Preparation of catalysts and adsorbents
- ❖ Characterization and *in situ* studies of the catalysts
- ❖ Mechanism and kinetics of catalytic reactions
- ❖ Catalysis for renewable sources
- ❖ Catalysis for fine organic synthesis, natural gas and petroleum chemistry
- ❖ Catalysis for environmental protection, photocatalysis, electrocatalysis

## Plenary Speakers

### Topic 1 - Preparation of catalysts and adsorbents

**Dr. Noelia Barrabés**

*Technische Universität, Wien, Austria*

ATOMICALLY DESIGNED NANOCATALYSTS BY METAL CLUSTERS

### Topic 2 - Characterization and *in situ* studies of the catalysts

**Professor Anatoly Frenkel**

*Stony Brook University, New York, USA*

**Ass. Prof. Cristoph Rameshan**

*Technische Universität, Wien, Austria*

CORRELATING STRUCTURE AND REACTIVITY ON ENERGY MATERIALS BY IN SITU SPECTROSCOPY

### Topic 3 - Mechanism and kinetics of catalytic reactions

**Professor Dr. Ir. Emiel J.M. Hensen**

*Eindhoven University of Technology, The Netherlands*

**Dr. Janis Timoshenko**

*Fritz-Haber-Institut der MPG, Berlin, Germany*

PROBING KINETICS OF CATALYST TRANSFORMATIONS USING SYNCHROTRON-BASED OPERANDO TECHNIQUES AND MACHINE LEARNING

### Topic 4 - Catalysis for renewable sources

**Dr. David Kubička**

*Technopark Kralupy, University of Chemistry and Technology, Prague, Czech Republic*

BIOMASS VALORIZATION RELYING ON ALDOL CONDENSATION AND DEOXYGENATION

**Professor Valentine P. Ananikov**

*Zelinsky Institute of Organic Chemistry, Moscow, Russia*

COCKTAIL-TYPE CATALYTIC SYSTEMS FOR FINE CHEMICALS SYNTHESIS AND SUSTAINABLE DEVELOPMENT

### Topic 5 - Catalysis for fine organic synthesis, natural gas and petroleum chemistry

**Professor Pascal Fongarland**

*Laboratoire de Génie des Procédés Catalytiques (LGPC) - Université Claude Bernard Lyon 1, Lyon, France*

FISCHER-TROPSH SYNTHESIS: AN OLD REACTION FOR NEW PERSPECTIVES

**Professor Anton L. Maximov**

*A.V. Topchiev Institute of Petrochemical Synthesis, Moscow, Russia*





## Topic 6 - Catalysis for environmental protection, photocatalysis, electrocatalysis

**Professor Denis V. Kozlov**

*Boreskov Institute of Catalysis, Novosibirsk, Russia*

CATALYSIS FOR ENERGY CONVERSION

**Dr. Juan Velasco Vélez**

*Fritz-Haber-Institut der MPG, Berlin, Germany*

IN SITU/OPERANDO CHARACTERIZATION OF ELECTROCATALYTIC MATERIALS BY BULK AND SURFACE SENSITIVE X-RAY SPECTROSCOPIES

### Location



**Novosibirsk** is so-called Capital of Siberia. It is the third-most populated city in Russia (after Moscow and St. Petersburg) and the largest trade, business, cultural, transport, educational and scientific center of Siberia. It is located in the southwestern part of Siberia on the banks of the Ob River. Novosibirsk was founded in 1893 on the crossing point of the future Trans-Siberian Railway. It grew rapidly into a major transport,

commercial and industrial hub. Today, Novosibirsk is a large rapidly developing city with a rich social environment. The famous cultural attractions of Novosibirsk are Opera and Ballet Theatre, the most known theatre in Siberia, the symbol of Novosibirsk, and the world-renowned Novosibirsk Zoo.

**Akademgorodok** (or Academic Town) is a part of the city of Novosibirsk, located 30 km south of the city center. It is the educational and scientific centre of Siberia.

More than 35 research institutes, as well as Novosibirsk State University, a medical academy, apartment buildings and houses, and a variety of community amenities including stores, hotels, hospitals, restaurants and cafes, cinemas, clubs and libraries are located in Akademgorodok.



### Venue

The School-Conference will be held at **Boreskov Institute of Catalysis**. The Institute of Catalysis was founded in 1958 as a part of the Siberian Branch of the Russian Academy of Sciences. The founder and the first director of the Institute till 1984 was Academician **Georgii K. Boreskov**, an eminent scientist and science manager, an expert in the field of catalysis and chemical technology. In 1992, the Institute received its present name – Boreskov Institute of Catalysis. Federal Research





Center Boreskov Institute of Catalysis (BIC) is now one of the largest research centers worldwide specialized in catalysis. BIC's affiliations are in cities Omsk and Volgograd.

The BIC's R&D activities span the areas from fundamental problems of catalysis to development of new catalysts and catalytic technologies and to designing semi-commercial plants for the catalysts manufacturing. The main fields of catalytic research at the Boreskov Institute of Catalysis are establishment of general physicochemical regularities of catalysis, development of scientific bases for molecular design of materials and implementation of catalytic processes, creation of new generation catalysts for chemical, refinery and petrochemical industries, as well as creation of catalysts and technologies for innovative application areas. Boreskov Institute of Catalysis has two modern conference rooms with a whole complex of supporting facilities.



## Registration Fee

The registration fee covers all Conference documentation and materials, Welcome reception, refreshments, and excursion.

Participant	Registration fee (including VAT 20%)	
	Early registration rates January 20 – February 28, 2021	Standard registration rates March 1 – April 10, 2021
<b>For foreign participants:</b>		
Full regular participant	200 Euro	280 Euro
Student, PhD student	150 Euro	200 Euro
Virtual (abstract publication)	25 Euro	
<b>For Russian participants:</b>		
Full regular participant	8 000 Rubles	10 000 Rubles
Student, PhD student	6 000 Rubles	7 000 Rubles
Virtual (abstract publication)	1 500 Rubles	

### ***Cancellation policy:***

*Request for cancellation up to April 16, 2021 inclusive: refund 60% of paid amount.*

*Fees are not refundable after April 16, 2021.*

*Refund payment will be settled during 90 days.*





## Entry Visa to Russia



All foreign participants of the School-Conference need a valid passport and an entry visa to Russia (passport should be valid 6 months after School-Conference – at least until 19<sup>th</sup> of November 2021).

The visa validity dates will conform to the dates of your personal invitation letter. Visa invitations will be sent to all participants upon request.

Conference participants should ask **HUMANITARIAN** type of Russian visa. For obtaining more information about receiving Russian visa in your country, you can VISIT the VFS.Global web site:

<https://www.vfsglobal.com/en/individuals/index.html>

**Please note** that the Boreskov Institute of Catalysis is an organization with a special access control. For free access to the Institute, you need to send a scan of your passport and visa at least **20 days** before the start of the Conference.

## Key Dates

<b>December 20, 2020</b>	Deadline for application & abstract submission
<b>January 25, 2021</b>	Notification of acceptance
<b>February 1, 2021</b>	Distribution of the preliminary Scientific Program
<b>February 20, 2021</b>	Confirmation of participation
<b>February 28, 2021</b>	Deadline for early registration rates payment
<b>April 10, 2021</b>	Deadline for standard registration fee payment
<b>April 30, 2021</b>	Distribution of the final Scientific Program
<b>May 16 - 19, 2021</b>	Working days

## Contacts

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