# Catalyzer



Journal of the 39th International Chemistry Olympiad Moscow Russia Issue no.3 Monday 16 July 2007

































# «I wish you every success in the Olympiad and great discoveries in chemistry!»



Dear participants, guests and organizers of the 39th International Chemistry Olympiad! It is a great honor for us to welcome the participants of the 39th International Chemistry Olympiad! Young scientists from more than 60 countries will come to Moscow to demonstrate their theoretical knowledge

and practical skills and, what is more important, to exchange new ideas in chemistry.

All our life is anyway connected with chemistry. Chemical industry is one of the leading branches of many national economics, and chemists make an essential contribution to national scientific and technical potential. Chemistry also plays an exclusive role in maintaining vital needs of society. I am confident that thanks to the International Chemistry Olympiad young scientists will discover many new applications of chemistry. Talented youth is the «gold reserve» of any nation. And the goal of teachers, parents, state organizations is to support clever children and develop their creativity. Every child is talented in his own way, and it is very important to help him in revealing his abilities in proper time, to make him believe in himself. International Science Olympiads contribute a lot to solving these problems. Hosting International Olympiads is of significant importance for our education system, since such outstanding events promote scientific knowledge both in Russia and all over the world as well as allow talented pupils to show their skills.

Participation in International Chemistry Olympiad is not only a great honor for each of you. It is also a serious responsibility because you represent your country. We hope that while staying in Moscow you will enjoy really friendly and warm atmosphere, find new friends and make significant contribution to the development of education and science!

Andrey Fursenko Minister of Education and Science of Russian Federation

# «It is a significant event for all of us!»

Dear participants, guests and organizers of the 39th International Chemistry Olympiad!

This year the Olympiad is held in Moscow, at Chemistry Department of M.V. Lomonosov Moscow State University. It is a significant event for all of us because the founder of



our University, an outstanding encyclopedist Mikhail Lomonosov, paid great attention to scientific research in chemistry. His results and discoveries are not widely known abroad, but in Russia we regard him a predecessor of Lavoisier. IChO in Moscow is an original tribute to the memory of the talented scientist and enlightener.

Thanks to International Chemistry Olympiad, young scientists improve their knowledge, develop decision, making skills, strengthen competitive spirit and express themselves. Olympiad is not just a scientific competition; it is an important stage for young people in becoming personalities capable of changing the world for the better. Moscow State University has al-

ways been a reference point in the educational system of Russia. At the same time, exceptional importance of collaborative educational and scientific projects should not be forgotten. The International

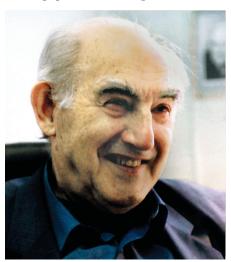
Chemistry Olympiad has proved to be effective for establishing contacts between scientists from different countries. M.V. Lomonosov Moscow State University is always open for those who care of education and science, for those to whom scientific research has become a guiding star!

We hope you will find many new friends here and enjoy your staying in Moscow!

V.A. Sadovnichy Rector of M.V.Lomonosov Moscow State University, Professor, Member of Russian, Academy of Scienes



# «I appreciate your interest in natural science»



Dear friends! I'm glad to greet you in Moscow, in one of the worlds biggest intellectual forum – the 39th International Chemistry Olympiad. As far as I'm concerned the future development of civilization is possible only in conditions of flourishing of science.

I appreciate your interest in natural science, because nowadays world science demands talented and energetic youth. A fascinating world is opened before you, and you are about to learn and improve it. You are to follow the greatest maids of mankind who glorified Russia – M. V. Lomonosov, D. I. Mendeleyev, A. M. Butlerov and others.

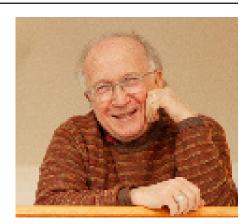
I wish you success in the contests and I hope that your future will be closely connected with the field of science.

Vitaly Ginsburg
The Nobel Prize laureate in physics, the
academic of Russian Academy of Science

# **«You will demonstrate that chemists are humans and not machines»**

Young friends! We are all good in chemistry — you, whose qualities have brought you to Moscow, your mentors, even me. As you face competition, and as chemistry, the science, faces the mixed attitudes toward it of the world at large, it is important that you also have fun. And that you, and chemistry, by relaxing a little, communicate to the world that scientists are human beings, and just enjoy the magic of substances and their transformations. Others will feel your passion.

Part of alchemy was a philosophy, part a pseudoscience. Whatever it was, by placing transformation at its core, alchemy captured the imagination of ordinary people and intellectuals in its time. Modern chemistry has a problem - we are incredibly good at transformation, but people don't feel our magic. Relax, show people that chemistry (and chemists) gives you pleasure, that you can smile around it. In the process you will demonstrate that chemists are humans and not ma-

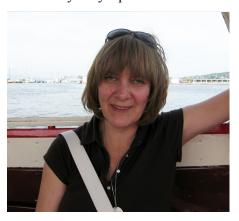


chines. You will make friends for life, and help chemistry be part of the human condition.

**Roald Hoffmann**The Nobel Prize laureate in chemistry

# «The whole world will belong to you»

It's a real lucky chance that you participate in the International Chemistry Olympiad in Moscow.



And it is not important, what results you will gain because there are more important things than medals. The main of them is a dialogue between friends. Just imagine that you will have friends from different parts of the world. And all together hand in hand you will develop the science tomorrow. You will change our world for the better, not making harm to nature where the substances exist in amazing harmony. You will find answers

to the questions that worry us today. The whole world will belong to you because you have chosen chemistry - a marvelous science about the world around us, because everything consists of substances. You will have success, because as Louie Paster said «chance and success favour only to trained brains». And your brains are brilliant.

**Lubov Strelnikova**The chief editor
of «Chemistry & Life» magazine



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## The great force



Russian team at press-conference

Vasiliy Vorobjev: It was a school Olympiad. My score was twice higher than that of my rival, which really surprised me. I can't say that before this school Olympiad I was keen on chemistry, I was just good in it. My first victory showed me that chemistry is my vocation.

**Leonid Romashov:** I was born in Moscow suburb and thought, that I had no chances to win in a region Olympiad because I was sure, that there must be a lot of talented children there. But as a result I got two first prizes, because I took part in two Olympiad simultaneously – for the pupils of the 8th and 9th grades.

#### Why chemistry?

Leonid Romashov: It was in my early childhood. I was greatly impressed by spectacular experiments I watched on TV. And when I grew up, I understood that I wanted to practice the research effort, chemistry as a science indeed. Most of all I like organic chemistry. Chemistry is surely a wonderful science.

#### Before the Olympiad

**Leonid Romashov:** Now we mainly prepare ourselves in moral way, work on our practical skills, for instance, solving the tasks in conditions of limited time.

#### Wishes

Leonid Romashov: For all the members of the 39 International Chemistry Olympiad and for myself personally I wish good luck, because it is the most important point for us now. We have already got all the necessary knowledge, we have learned everything that we could, now it is important not to forget anything and use it practically. Also there is nothing to be afraid of because in our life, as well as in chemistry, everything is possible.

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#### Lessons in Russian

Yes – Да [Da] No – Нет [Net] Please – Пожалуйста! [pojaluista] Thank you! – Спасибо! [spasibo] Excuse me! – Извините! [izvinite]

## Call

Police - 02 Fire station and ambulance - 911

**39th IChO office (for urgent calls only):** Alexander Gladilin +7 (916) 555 - 70 - 27 Vadim Eremin +7 (916) 611 - 88 - 90 Elena Eremina +7 (916) 133 - 00 - 55

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Hello! – Здравствуйте! [zdravstvuite] Good bye! До свидания! [do svidaniya]

Hi! – Привет! [privet] See you! – Пока [poka]

**Tomorrow program Tuesday July 17th** 

8.00 - 9.00 Breakfast, Olympiets9.00 Buses depart to the North Shipping Terminal

10.00 - 17.00 Boat trip along Moscow-river, lunch included

17.00 - 18.00 Transfer to Olympiets

19.30 - 21.00 Lab safety instruction in groups