



# SCHOOL FOR YOUNG SCIENTISTS

## *“Magnetic Resonance and Magnetic Phenomena in Chemical and Biological Physics”*

16-21 July 2012 Novosibirsk



School for young scientists *“Magnetic Resonance and Magnetic Phenomena in Chemical and Biological Physics”* will be held 16-21 July 2012 in Novosibirsk Academgorodok as a satellite meeting of the VIII Voevodsky Conference *“Physics and Chemistry of Elementary Chemical Processes (VUV-2012)”*. We invite students, PhD students and young scientists from the field of magnetic resonance to participate in this School.

### Scope

- Theory of magnetic resonance
- Modern methods of NMR and EPR
- Magnetic resonance tomography in chemistry and medicine
- Spin labels in chemical and biological studies
- Novel materials and nanostructures
- Magnetic and spin phenomena in chemistry and biology

### Lectures

- E. G. Bagryanskaya (Novosibirsk, Russia) "Magnetic resonance study of polymers and key reactions in radical polymerization"
- V. A. Bagryansky (Novosibirsk, Russia) "Use of spin coherence for study of short-living radicals"
- S.A. Dzuba (Novosibirsk, Russia) "Pulsed EPR of spin-labeled biological membranes"
- K. L. Ivanov (Novosibirsk, Russia) "Spin hyperpolarization"
- M. V. Fedin (Novosibirsk, Russia) "EPR in molecular magnetism research"
- V. V. Khrantsov (Columbus, USA) "Magnetic resonance *in vivo*"
- E. P. Kirilina (Berlin, Germany) "Functional magnetic resonance imaging (fMRI) and its application in brain science"
- S. G. Kozlova (Novosibirsk, Russia) "The nuclear-independent chemical shifts in the study of aromaticity in systems with d-elements"
- L. V. Kulik (Novosibirsk, Russia) "Electron-nuclear double resonance (ENDOR) and its application in physical and biological chemistry"
- O.B. Lapina (Novosibirsk, Russia) "Quadrupolar metal NMR of oxide materials including catalysts"
- G. I. Likhtenshtein (Beer-Sheva, Israel) "Spin effects as a basis for physical labeling methods in chemistry and molecular biology"
- V. A. Nadolinny (Novosibirsk, Russia) "EPR of phosphorus - containing centers in synthetic diamond"
- P. A. Purtov (Novosibirsk, Russia) "Modern problems of spin chemistry"
- A.A. Savelov (Novosibirsk, Russia) "Magnetic resonance imaging of brain function"
- A. Savitsky (Muelheim an der Ruhr, Germany) "Advanced applications of high-field EPR spectroscopy"
- A. Schnegg (Berlin, Germany) "EPR for solar energy research"
- A. Tulupov (Novosibirsk, Russia) "Magnetic resonance tomography facilities in morpho-functional estimation of blood flow and cerebrospinal fluid circulation"
- Yu. D. Tsvetkov (Novosibirsk, Russia) "PELDOR - dipolar radiospectroscopy: basics of theory and examples of application in chemistry and biology"
- M. M. Yulikov (Zurich, Switzerland) "Basics of product operator formalism for pulse EPR and NMR"

The School will include invited lectures, oral talks by young scientists, poster session and practical work on modern magnetic resonance spectrometers. The book of abstracts will be published.

*There is no registration fee for the School for young scientists.*

## Organizers

- Institute of Chemical Kinetics and Combustion, Siberian Branch of the Russian Academy of Sciences
- International Tomography Center, Siberian Branch of Russian Academy of Sciences

## Organizing Committee

Sergey A. Dzuba – Chairperson  
Elena G. Bagryanskaya - Vice-chairperson  
Leonid V. Kulik - Vice-chairperson  
Tatiana Yu. Karogodina - Scientific Secretary  
Victor A. Bagryansky  
Igor V. Koptuyug  
Svetlana G. Kozlova  
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Oleg N. Martyanov  
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Valentin N. Parmon  
Renad Z. Sagdeev  
Kev M. Salikhov  
Yuriy D. Tsvetkov

## Official languages

English, Russian.

## Deadlines

Registration – June 15, 2012

Submission of abstracts for posters - June 15, 2012

Submission of abstracts to be considered for oral talks - May 15, 2012

More information, on-line registration, abstract submission, accommodation in our Web-Page:

**<http://www.kinetics.nsc.ru/vvv2012/p0055.htm>**

## Contact

**Dr. Tatiana Yu. Karogodina**

Scientific Secretary of the School

[school2012@kinetics.nsc.ru](mailto:school2012@kinetics.nsc.ru)

tel. +7383 333-15-61

Institute of Chemical Kinetics and Combustion, Siberian Branch of the Russian Academy of Sciences

