#### Secretariate ISIF-2008

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All correspondence on ISIF-2008 holding, sponsorship, and offers for participation (with a titles of reports) should be addressed to Secretary General of Permanent Organizing Committee of ISIF Prof. Valentin Mitkin via e-mail <a href="mit@che.nsk.su">mit@che.nsk.su</a> with a copy to Scientific Secretary of ISIF-2008 Prof. Valeriy Kayun via e-mail <a href="mit@che.nsk.su">kayun@ich.dvo.ru</a> or by usual mail.

#### Working Language of ISIF-2008 - English.

Circular No 2 on ISIF-2008 will be available after March 31, 2008 in IC FEBRAS, NIIC SB RAS and TPU web-sites http://www.che.nsk.su/events and http://chemi.ich.dvo.ru/ and http://www.tpu.ru

#### **Important dates:**

Submission to participation Deadline – Before March 15, 2008
Submission of report abstracts Deadline – Before April 15, 2008
Manuscript submission Deadline – Before May 15, 2008
Registration form Deadline – Before April 15, 2008
Accomodation form Deadline – Before June 15, 2008
Invitation Letter Deadline – Before April 15, 2008

## Preliminary Registration Form for ISIF-2008 Participant 01-06 September 2008, Vladivostok, Russia

Please, fill this Form. Print or write with capital letters Your Data and send to Organizing Committee. Primary registration of participants would be made via e-mail of Secretariat. Final registration will be made after payment of Registration Fees only. Abstract submission, registration and accommodation form, registration fee (210 Euro or ~\$300) should be addressed to Scientific Secretary of ISIF-2008 Prof. Valeriy Kavun (or Prof. Ludmila Zemnukhova) after Circular No 2 publication.

This form should be filled and send to ISIF-2008 Organizing Committee by usual mail or via e-mail kavun@ich.dvo.ru and mit@che.nsk.su before March 15, 2008

Family Name	Given Name				
Scientific Degree, Title _	Position				
Institution, Company					
Mailing address					
Phone:	_fax:e-1	nail			
Type of report and participation: [] plenary, [] oral, [] poster [] no report					
Title of report:					
Authors:					
Date of filling		<u> </u>			

# **ISIF-2008**Vladivostok, 01-06 September 2008



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SIBERIAN BRANCH
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Seversk State Technological Institute
Angarsk Electrochemical Company

Joint Stock Novosibirsk Chemical Concentrates Plant
ADVANCE RESEARCH CHEMICALS, USA

## **Third International Siberian Workshop**

# **Advanced Inorganic Fluorides**

"INTERSIBFLUORINE-2008"



#### "INTERSIBFLUORINE-2008" Third International Siberian Workshop on Advanced Inorganic Fluorides ISIF-2008 International Organizing Committee (IOC) of ISIF-2008

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#### **Bienvenue to ISIF-2008**

Dear Colleague, it is our pleasure to invite you to take part in the Third International Siberian Workshop on Advanced Inorganic Fluorides "INTERSIBFLUORINE-2008" which will be held in Vladivostok, Russia.

Inorganic fluorinated materials are currently produced on an industrial scale and their applications are rapidly extending to multiple fields of everyday life. The conversion of former military applications of fluorine and fluorides into peaceful targets has opened new horizons, and new schemes of collaboration have appeared between former USSR countries and Western countries in the field of military plants conversion. Numerous research fields are involved into the process beside the inorganic fluorine chemistry: intensive basic studies and applications of energy conversion processes, electronics, opto-electronics, protection of metals, ceramics, textiles, wood, and environment protection by waste management.

The majority of the Russian fluorine industrial enterprises are located in the Siberian part of Russian Federation and this was one of the reasons for choosing the Novosibirsk Scientific Centre (the Novosibirsk Academy Town) as the location of the First International Siberian Workshop ISIF-2003 (02-05 April, 2003). The Second International Siberian Workshop on Advanced Fluorides ISIF-2006 has been held on 11-16 June 2006 in Tomsk Polytechnic University, which is one of the oldest educational and scientific centers in Russia.

In view of the above, the main objective of the 3rd ISIF-2008 Workshop is to allow Russian and Former Soviet Union scientists, who had no opportunity to attend the latest meetings on fluorine chemistry, participating in discussions with university and industry specialists from Inorganic Fluorine Groups worldwide and get up-to-date information on both fundamental and technological aspects of these fields of science and technology. On the other hand, scientists coming from Universities and Industry Research Centres will be able to implement the achievements of the prominent Russian scientists – from new development routes to functional fluorinated materials.

We are confident that a special friendly atmosphere of the major scientific centre of the Russia Far East will help us to achieve the above objective on both scientific and social levels. The Far-Eastern Branch of the Russian Academy of Sciences, the location of ISIF-2008 Workshop, is well-known in international science, educational trade, and high-tech industries. Located in the Far East Coast and being a terminal point of the Russian Great Trans-Siberian Railroad, Vladivostok is a city characterized by sustainable development. It was founded about 150 years ago at the Pacific Ocean coast. In 2012 Vladivostok will host the summit of the Asia-Pacific Economic Cooperation organization that is expected to boost its development in many fields including science and technology. It is also important to mention that Vladivostok is one of ecologically pure cities in Russia, being at the same time the most powerful East Gate of Russia for International Traded

#### Scientific Program of "ISIF-2008"

The scientific program will be settled by the Scientific Advisory Board, in connection with ISIF-2008 International Organizing Committee. Contributions on all aspects of inorganic fluorine chemistry and technology will be welcome. The ISIF-2008 will work in a seminar format and include nine plenary lectures and about 18-27 keynote lectures. In addition, there will be 18-27 oral presentations and three poster sessions.

- 1. General state of natural fluorine raw material sources and new approaches to operation of raw deposits of inorganic fluorine. The current state of the traditional natural sources of fluorine and environment at exploration of deposits. Secondary (manmade) and new possible operational resources of fluorine. Paths of risks reduction for production of global warming potential gases by use of inorganic fluoride technologies for making a safe and comfort life for both present and future generations.
- 2. New theoretical approaches to the description of electronic and molecular structure of inorganic fluorides. Quantum chemical calculations of real fluoride structures in their condensed state, including nanostructures and superstructures. Coexistence of fluorine and oxygen in the crystalline and nanocrystalline objects. New advanced methods of calculations for thermodynamic and kinetic aspects of reaction abilities and spectrochemical properties of inorganic fluorides.
- 3. New pathways of some specific inorganic fluoride syntheses, including objects in their nanosized state. New theoretical approaches to the description of processes of synthesis of some specific inorganic fluorides. F-organometallic precursors, sprayengineering, low-temperature synthesis, hydrothermal synthesis, photosynthesis, propagation of chips etc. The nanosized powders and films, single nanocrystals, nanocomposites on the basis of inorganic, organic and polymeric fluoride materials. Open structures zeolites, mesophases on the basis of inorganic fluorides.
- 4. Latest developments in structural, physical and analytical chemistry of inorganic fluorides, including coordination compounds. Problems of the description of correlation between theoretical structures and substantial properties. New generalizations in chemistry of the highest, lowest and unusual oxidation states of inorganic fluorides. Clustering fluorides, clathrating fluorides, supramolecular and permolecular F-compounds. Problems and new advanced solutions in analytical chemistry of fluorine and fluorides.
- **5.** The bridges between inorganic, organic fluorides and catalysis. Fluorine chemistry. Application of inorganic fluorides for replacement of CFCs onto HFC in fluorination of organic molecules, chemistry of perfluorinated organic solvents, catalysis, sorption technologies etc. Problems of catalytic degradation and disposal of CFCs. Possibilities of biomedical application of inorganic fluorides and aggregates on their basis.
- **6.** Application of fluorination in development of coatings on surfaces. Fluorination in gaseous fluid and F-containing plasma medium. Modification of surfaces of the materials (metals, ceramics, polymers, elastomers). Technical applications in antifriction and hydrophobic materials, textile and woollen tissues, architecture etc.
- 7. Role of inorganic fluorides in the chemical batteries and electrical engineering. Lithium chemical electrical cells, including lithium-ionic systems. Fuel cells. Various fluorinated carbon materials graphites, diamonds, nanotubes, fullerenes. Superionics, supercapacitors, actuators, and hybrid microassembly.
- **8.** Applications of inorganic fluorides in optoelectronics and semiconductor industry. Luminescent fluorides, glasses and ceramics, transducers of frequency, use in the optical and ultra-violet range, including laser microlytography and printer technologies.
- 9. Industrial production and prospective applications of inorganic fluorides. New technologies for effective ecologically safe production of fluorine, fluorine hydride, new fluorinating agents and other inorganic fluorides, including those for nuclear, laser and electronic engineering etc. Recent trends and explorations of application of inorganic fluorides in metallurgy of lithium, aluminium, magnesium, titanium, and heavy non-ferrous metals.

Format of ISIF-2008 – Workshop Seminar with discussion of engaged key-note, short oral and poster reports devoted to all sections of the Scientific Program. Materials of ISIF-2008 will be published in a Proceedings Volume (1-2-page abstracts or 5-6-page papers). Exhibition of scientific, analytic and laboratory equipment related to ISIF-2008 from sponsoring and producing is tentatively scheduled