



## XIX INTERNATIONAL YOUTH CONFERENCE ON LUMINESCENCE AND LASER PHYSICS (LLPh-2023)

Irkutsk city, Russia

3 – 8 July 2023

[www.llph.ru](http://www.llph.ru)

### LLPh-2023

#### Program of the Conference

The program will include lectures by leading scientists (30 min.), as well as oral (15 min.) and poster presentations by scientific and pedagogical workers, engineers, graduate students and students in the field of laser physics, luminescence and related phenomena. The results of theoretical and experimental research in the following areas will be discussed at the conference:

#### **1. Spatial selective interaction of light and matter**

Investigation of the properties of single atoms and molecules in traps, on substrates and in media. Laser luminescent micro- and nanoscopy.

#### **2. Optics of artificial quantum systems**

Fundamental research of artificial quantum systems produced by methods of nano- and radiation-beam technologies. New emitters based on single quantum systems. Luminescence of nanocrystals and color centers.

#### **3. High-intensity laser pulses interaction with optical media**

Mechanisms of strongly nonlinear ionization and coloration of wide-gap crystals. Femtosecond laser filamentation and supercontinuum generation. Highly-nonlinear volumetric optical data carriers. Studies of the longitudinal and transverse selectivity of the interaction of light and matter. Mechanisms of luminescence excitation by high-intensive ultrashort laser pulses.

#### **4. Modern laser, luminescent and radiation methods and technologies**

New laser, beam and luminescent applications in physics, chemistry, biology, medicine, computer sciences, engineering, industries and ecology. Perspective materials, devices and equipment.

#### Contest of reports

The contest for the best scientific reports of young participants (under 35 years of age) in three categories: “Students”, “Postgraduates” and “Young scientists, teacher and engineers” will be held during the conference.

#### Hosts of the Conference

Irkutsk Branch of Institute of Laser Physics of the Siberian Branch (SB) of Russian Academy of Sciences (RAS); Geochemistry Institute of SB of RAS; Irkutsk State University; Irkutsk Branch of the Siberian Branch of RAS.

#### The conference coordinators

Scientific Council on Optics and Laser Physics of RAS; Scientific Council on Luminescence of RAS, Young Researchers Council of Irkutsk Branch of Institute of Laser Physics of SB of RAS.

#### The Conference Chairperson

Academician Sergey N. Bagaev, Chairperson of Scientific Council on Optics and Laser

Physics of RAS.

### The Conference Co-Chair

Prof. Evgueni F. Martynovich.

### Program Committee

A.G. Vitukhnovskiy, A.P. Voitovich, V.P. Dresvyanskiy, Feng Song, E.F. Martynovich (Chair), A.I. Nepomnyashchikh (Vice-Chairman), A.V. Taichenachev, I.F. Shaikhislamov.

### Advisory scientific council

V.G. Arkhipkin, A.T. Akilbekov, S.A. Babin, K.A. Barantsev, V.S. Berdnikov, K.N. Boldyrev, Odsuren Bukhtsooj, I.A. Vainshtein, Ruixue Wang, Jav Davaasambuu, A.V. Egranov, S.A. Zilov, N.A. Ivanov, R.Ya. Il'nikov, V.P. Kandidov, S.M. Kobtsev, E.A. Kotomin, A.G. Krechetov, S.I. Kudryashov, V.L. Kurochkin, Kisung Lee, E.I. Lipatov, V.M. Lisitsyn, V.F. Losev, A.N. Lukin, A.Ch. Lushchik, E.V. Malchukova, S.B. Mirov, V.P. Mironov, A.V. Naumov, S.V. Nikiforov, O.V. Ovchinnikov, L. Oster, V. Pankratov, V.L. Paperny, P.V. Pokasov, E.F. Polisadova, Yu.M. Popov, M.N. Popova, V.E. Privalov, E.A. Radzhabov, V.G. Ral'chenko, N.A. Ratakhin, P.A. Ryabochkina, I.I. Ryabtsev, A.D. Savvin, V.A. Svetlichnyi, O.I. Semenova, E.A. Slyusareva, V.I. Solomonov, Feng Song, B.G. Sukhov, V.F. Tarasenko, L. Trinklere, V.I. Trunov, A.N. Trukhin, H.-J. Fitting, D.R. Khokhlov, S.V. Chekalin, A.S. Chirkin, A.M. Shalagin, T.S. Shamirzaev, Tao Shao, B.V. Shulgin, Sodnom Enhbat, V. Yu. Yakovlev.

### Organizing Committee

V.P. Dresvyanskiy (chair) A.A. Shalaev (vice-chair), F.A. Stepanov (scientific secretary), A.V. Kuznetsov (scientific secretary for international contacts), M.A. Arsent'eva, S.V. Boychenko, D.S. Glazunov, Ya.I. Grigorov, A.S. Emelyanova, M.D. Zimin, N.L. Lazareva, N.T. Maksimova, S.V. Murzin, A.A. Myasnikova, E.A. Protasova, T.Yu. Sizova, A.A. Tyutrin, R.Yu. Shendrick, A.E. Shipunova.

**Languages of Conference:** Russian, English.

### Important dates:

**Application deadline:** May 10, 2023.

**Deadline for providing data for visa purposes:** May 10, 2023 (for details refer to section "Visa Support" below). Please, note that it takes about one month to issue an invitation.

**Mailing invitations:** 10 June 2023.

**Publication of abstracts:** 25 June 2023.

**Conference is held:** 3-8 July 2023.

**Deadline for the submission of manuscripts:** 3 July 2023.

### Application for participation

In order to participate in the conference it is necessary to register on the website (<http://www.llph.ru>) up to May 10, 2023. In case of any problems during the registration on the website you need to send e-mail with following attached files to the Organizing Committee (LLPh@bk.ru):

1. Filled registration form,
2. Abstract.

Please, fill in your registration forms carefully and according to the rules. The registration form and abstract guidelines are available on the official conference website.

If you will not receive confirmation of admission of your application within 7 days after the application sending, please, contact the Organizing Committee.

### *Publication of abstracts and manuscripts*

Abstracts of lectures and reports will be published in Book of Abstracts of the XIX Youth Conference with International Participation on Luminescence and Laser Physics indexed in Russian Science Citation Index (RSCI). The maximum size of abstract text is two pages.

The manuscripts of lectures and reports, selected on the basis of peer review, are planned to publish in the journals “Bulletin of Russian Academy of Sciences: Physics”.

### *Venue for the Conference, Cultural Program*

The conference will be held at Scientific Library of Irkutsk State University (Irkutsk, Lermontov street, building 124). Irkutsk and Lake Baikal excursions will be organized for participants during the conference.

### *Registration fee and participation fee*

Foreign participants will be required to pay a registration fee of \$500.

### *Visa support*

The Organizing Committee requires the following information in order to issue invitations to Russia for visa support:

1. Scan of passport pages which contain biographical particulars and a photo.
2. Information about person:
  - a. Name, Surname (as in the international passport);
  - b. Date of birth;
  - c. Citizenship;
  - d. International passport number, when and where issued and validity period.
3. Information about affiliation of invited person:
  - a. The name and the mailing address of the place of work;
  - b. Information on the kinds of activity of the organization of the invited person.
4. Proposed dates of visit to Russia.
5. Proposed Russian cities to be traveled through.
6. City where the Russian Consulate is located and where the participant will obtain their visa.

If you have accompanying persons on the planned trip, please provide the same information for all of them.

It takes about **1 month** to issue an invitation.

### *Addresses and phones of the Organizing Committee*

E-mail address: llph@bk.ru. Official web-site of the conference: <http://www.llph.ru>

Mailing address: Organizing Committee of LLPh-2023, Irkutsk Branch of Institute of Laser Physics SB RAS, Lermontov Str. 130a, Irkutsk, 664033, Russia.

Phones: +7 902 56-12-179, +7 3952 51-21-60

Fax/Phone: +7 3952 51-14-38.

**Registration form and abstract template**

Registration form and abstract text are formed in a single file of doc or rtf format, the file name contains the conference name, reporter's last name, city and abbreviation of the organization/institution represented by the reporter. File name is typed in Latin letters; underline symbol is used for separating words (e.g. "LLPh2023\_Petrov\_Irkutsk\_ISU.doc"). Language is Russian or English, Times New Roman font, size 14, maximum volume of abstract text is two pages of A4 format, single line spacing, all margins are 25 mm (1 inch).

The table of the registration form is placed on the 1<sup>st</sup> page of the file. The second page begins with the title of paper, list of authors, name and address of the organization where the paper was performed, and contact e-mail address. After two blank lines the abstract text begins.

Use of complicated mathematical expressions and pictures in abstracts is not recommended. Pictures in abstract text must be put into a table of 2 lines or columns so that the first line/column contains picture and the second one contains a centered caption in Times New Roman font, size 12. Formulae must be typed in Microsoft equation (the tool included with MS Word). The list of cited sources may be placed at the end of the text, after a blank line, starting with the word "*References:*" (Italic). It is followed by the list of sources, numbered by Arabic numerals. References in text must be isolated by square brackets (e.g. "... in papers [1,2]"), usage of hyperlinks is not allowed.

**Registration Form of Participant of International Conference on Luminescence  
and Laser Physics (LLPh-2023)**

1	Full name (First, Surname)	
2	Degree, title, position	
3	Year of birth	
4	Form of participation (lecture, talk, poster, without presentation)	
5	Paper Title in Russian (if applicable)	
6	Paper Title (in English)	
7	Full name of organization – place of work	
8	Full mailing address of the place of work, including country	
9	Contact information: personal phone, business phone and fax, e-mail.	

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## NEW METHODS OF DIAGNOSTICS...

A.A. Ivanov, B.B. Petrov

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664033, Irkutsk, Lermontov str. 130a, mail@mail.com*

In this work authors...

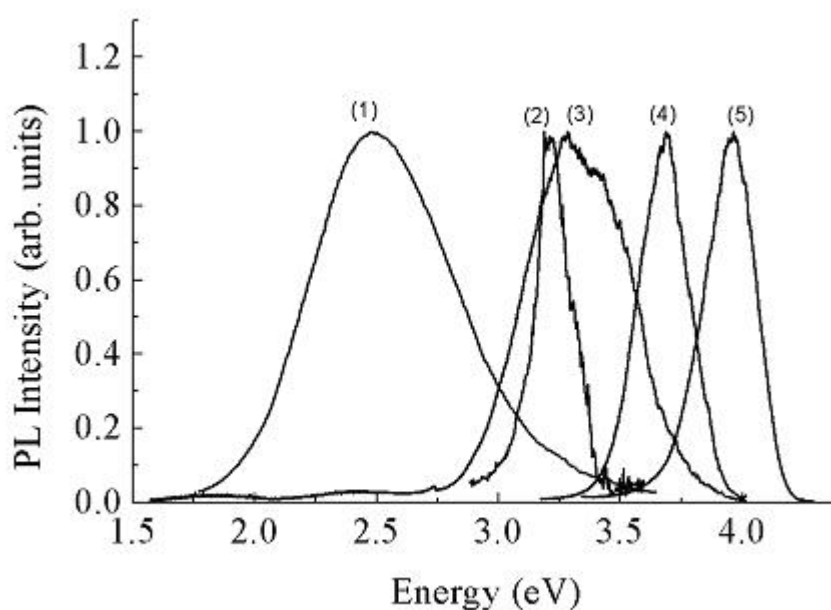


Fig. 1. Description of the picture.

### References:

1. J.A. Armstrong, N. Bloembergen, J. Ducuing, P.S. Pershan, *Phys. Rev.*, 127, 1918-1939, (1962).
  2. V.G. Bespalov, N.S. Makarov, *Proc. SPIE*, 4638, 30-40, (2002).
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