

# SID Russia Chapter Report

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Director

22 May 2016

# General Chapter Meeting 14.04.2016

Venue: Moscow Region State University.

Attendance: 15 SID Russia Chapter members including 5 Committee members.

Agenda:

- Report by Chapter Director V. Belyaev
- Report MRSU Student Branch (A. Kurilov)
- Report by Chapter Treasurer D. Chausov
- Discussion of the Chapter work in 2015-2016 and its assessment
- 2016 plans
- Information on SID voting
- Information about display events and publications

## Events

1. International conference “Physics of dispersed materials for IT elements and nanoelectronic devices”. Moscow Region State University. 14 April 2016. 40 participants, 12 SID members.



2. Permanent Display and Optics Seminar in House of Scientists, Saint-Petersburg.
  - 3.1. L.D. Lozhkin, Povolzhsky State University, Yoshkar-Ola. “Isocontrast color space for video display terminals”
  - 3.2. K.A. Ogurtsov, Technology University, Saint-Petersburg.



## European Conference on Liquid Crystals 2017

- Venue: Moscow State University.
- Co-Chair Victor BELYAEV. 4 SID members in the Organizing Committee.
- A big display session is planned with an exhibition

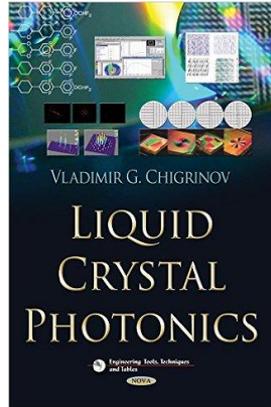
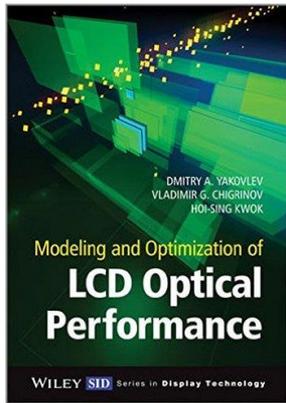


# Awards

1. K.A. Ogurtsov, Technology University, Saint-Petersburg. Winner of Saint-Petersburg City Government Competition in area of Science and Education for handbook “Displays Metrology”. 2016
2. Golden Medal of Russian Academy of Sciences for R&D works in area of Device Engineering to Student of Moscow Region State University Alexander KURILOV. February 2016
3. Golden Medal of Competition “Best Innovation Project and Best Science & Technology Development of the Year”, Saint-Petersburg Technology Fair, 2015



## Important Publications



- **Dmitry A. Yakovlev and Vladimir G. Chigrinov**, Modeling and Optimization of LCD Optical Performance (Wiley Series in Display Technology). 20 Mar 2015
- **Vladimir G Chigrinov**, Liquid Crystal Photonics (Engineering Tools, Techniques and Tables). 1 Dec 2014
- **Victor V. Belyaev, Gram S. Chilaya**, Liquid Crystals in the start of the XXIst Century. April 2015
- **Maxim M. Sychev**, A Review on Electrophosphor, in a Book “Nanoscale - Arranged Systems for Nanotechnology”, NY: Nova Publishers, 2015 Ed.: Kirill L. Levine
- Special issue of a Russian journal “Liquid Crystals and Their Practical Application” on LC application in electrooptical devices. **Guest Editor Victor V. Belyaev**. 20+ papers including 10 papers of SID members.
- **Victor V. Belyaev**, Reviews on SID events, display technologies, Electronics: Science, Technology, Business (a Russian Engineering Magazine), 2015-2016



## R&D of Russia SID Chapter

- ❑ 10+ R&D projects funded by Russian Foundation for Basic Researches, Russian Science Foundation, Russian Ministry of Education and Science.
- ❑ Topics:
  - Materials
    - LC – nematic, cholesteric, ferroelectric et al.,
    - OLED, EL,
    - For LC alignment: organosilicon, perfluorinated
    - For photoalignment and optical films
    - et al.
  - Displays
    - LCD, OLED, ELD
    - Optical films
  - Backlight
  - Transparent Electrodes (alternative to ITO)

- **R&D expertise** including projects on display technologies
- **Standards:**
  - 2015-2016 State Standard Methods
  - A) Measurement of LC refractive indices
  - B) Measurement of LC azimuthal anchoring energy

**A consortium of R&D groups from BRICS countries is in progress.**

- The project should be funded by governmental authorities of these countries.

## **Russia Chapter on web sites**

The Chapter site is updated

<http://www.sid.org/Chapters/Europe/Russia2.aspx>

At present it comprises Chapter information from 2002 to 2016.

## Student Branches activities

1. Current membership – 40 full time graduate and post-graduate (PhD) students from MRSU, Povolzhsky State Technical University, People's Friendship University of Russia, Higher School of Economics (University).
2. Renewal of SB members list. Some members graduated from the universities, some entered the SB from younger groups.
3. Application docs of Saint-Petersburg Technology University SB are not reviewed after a few months.

## Students' R&D

- Russian Exhibitions “Young Researchers Activity for Science and Technology”, 2015, 2016. MRSU students. Topics: Display Metrology, LC materials
- International Conference “Nanotechnologies & Nanomaterials”, Saint-Petersburg Technology University, 2015
- International Science and Technology Conference “Basic problems of radio & electronics engineering”, Moscow Technology University of Radio, Electronics & Automation, 2015
- Results of Students of Saint-Petersburg Technology University
- V. Malygin – oral presentation
- N. Podsypanina, P. Matveychikova – Diplomas of 1<sup>st</sup> and 2<sup>nd</sup> Grade
- Conference “New Materials”, Saint-Petersburg, 2015
- International Conference “InterAcademia”, Hamamatsu, Japan, 2015

Thank you