



ITMO UNIVERSITY

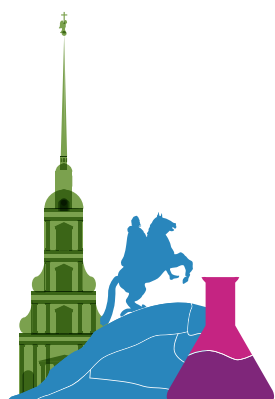


RUSSIAN
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The event is financially supported by Russian Foundation for Basic Research, the project № 19-03-20067

CONFERENCE BOOKLET

FEEL THE CHEMISTRY OF ST. PETERSBURG



International Sol-Gel Conference

Next Generation

St Petersburg, Russia
August 25-30, 2019

WELCOME TO SOL-GEL 2019!

Dear participant of the International Sol-Gel Conference, St Petersburg, August 25-30, 2019,

We are glad you are taking part in this **20th conference anniversary**, the first in Russia in this series of conferences.

For this conference we have launched several novelties:

- To keep a high level and broad scope of all lectures they are all either invited or plenary lectures, given by group leaders or broad-scope researchers.
- Selecting the invited speakers: We have asked the whole community of the members of the International Sol-Gel Society for recommendations on whom to invite. In that way we gave the community an active role in deciding on the nature and content of the conference.

The response to our invitations for plenary and invited lectures was overwhelmingly positive, and the resulting oral program is rich and diverse with all of the frontier topics in sol-gel science and technology.

- The more specific topics, which characterize usually the work of PhD students, post-docs and early career researchers, will be presented in high quality posters.

At our focus in this conference are these young scientists – therefore the theme of the conference is, **"The Next Generation"**.

- Plenty of special activities are devoted to **the Next Generation**, including 10 minutes slam presentations, a panel discussing their future career, various awards, participation of the younger generation in all social activities including the banquet, and substantial financial support and low or zero registration fees.
- Last but not least in the novel aspects, the local organizing committee was international, bringing in that way local expertise with long-term experience of previous conferences.

Finally, we thank the International Sol-Gel Society and particularly the Chairman Prof. Masahide Takahashi for the full support he gave us in organizing these conference with its special features.

We did our best – Please, enjoy the meeting!

The local organizing committee

Vladimir Vinogradov, Vadim Kessler and David Avnir

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PRACTICAL INFORMATION

Venue

XX International Sol-Gel Conference will be held
at **ITMO University**

Lomonosova st, 9, St. Petersburg



The Opening ceremony will be held at

Tovstonogov Bolshoi Drama Theatre

(7 minutes' walk from the main venue)

Fontanka river embankment, 65, St. Petersburg

Three subway stations within 10-minute walk
from ITMO University

- Vladimirskaya/Dostoyevskaya
- Zvenigorodskaya
- Gostiny dvor



Navigate around city

You can download an offline app called Yandex.Metro to navigate in the metro.
And to navigate around the city, we suggest an offline app called maps.me (you
need to download the map of St. Petersburg before using it).

All apps are available in App Store and Google Play.



If you plan to use public transport you can buy the special transport card which
is valid for all kind of public transport - Podorozhnik Smart Card . It is topping up
card which is used as an electronic wallet. It costs 50 roubles and can be bought
in machine or in ticket office (you can pay for it with your bank card).

PRACTICAL INFORMATION

How to get from Pulkovo airport to the city?



By public transport

Bus stop in front of the Arrivals hall exit at Pulkovo. City buses 39, 39Ex and Minivan Taxi K39 between Moskovskaya metro station and the airport. Price – 40 RUB.

By taxi

1) You can fill in the arrival form

<https://forms.gle/aVY9bgnZucHS38C57> and we will

order taxi for you. You can pay for your taxi by credit card



2) The official taxi is called Taxi Pulkovo. You can order it at the counters located at Arrivals hall on the first floor of the Terminal.

You can pay for your taxi by credit card/cash at the Taxi Pulkovo counter or by cash to the driver at the end of a ride. If you need a receipt, please ask for it at the Pulkovo Taxi counter.

3) It's also possible to use taxi apps like Uber Russia, Gett taxi or Yandex.Taxi for your ride.

The approximate price for the ride to the city center is 1300 RUB (about 18 euros).

PRACTICAL INFORMATION

Currency

The only currency used in Russia is roubles.

In most of the places you can pay by card but please note that at the Conference site you can pay only in cash and only in rubles (e.g. for optional activities)

Dinner places



The Buddy Cafe

Lomonosova St. 14



Hunt

Rubinstein St. 13



Terrassa

Kazanskaya St. 3A



Fiolet

Lomonosova St. 4



Gastronomika

Marata St. 5/21



Subzero

Rubinstein St. 38



Crab Story

Razyezzaya St. 12



Duo Asia

Rubinstein St. 20



Smoke BBQ

Rubinstein St. 11



Schast'ye

Rubinstein St. 15-17



CHAIRS



Dr. Vladimir Vinogradov

(Chair)
ITMO University



Prof. Vadim Kessler

(Co-Chair)
Swedish University of Agricultural



Prof. David Avnir

(Co-Chair)
Hebrew University, Israel



Dr. Daria Kozlova

(Co-Chair)
ITMO University

LOCAL ORGANIZING COMMITTEE

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**International
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Conference**

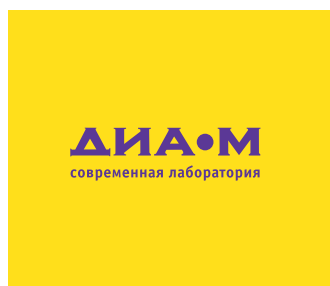
Next Generation

St Petersburg, Russia
August 25-30, 2019



MILLAB Company.

MILLAB Company commenced its activity in 1996. The Company specializes in the supply of analytical, laboratory, testing, pilot, and industrial equipment. Strategy: To provide customers with high-quality equipment having the highest level of service support to effectively solve technological and analytical tasks. While developing our sales program, we give preferences to the manufacturers of premium-class equipment with excellent price-quality ratio.



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Dia-M has been equipping laboratories for 30 years. We supply with the equipment, supplies and chemical reagents of Russian and foreign manufacturers for the needs of scientific biological, chemical, medical laboratories, control and sanitary laboratories, forensic and forensic laboratories, agricultural production laboratories, food, pharmaceutical, and biotechnological industries. We also provide the supply of equipment and raw materials for pilot chemical and biotechnological industries.



The event is financially supported by Russian Foundation for Basic Research, the project № 19-03-20067

SPONSORS



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is a company acting as R&D service provider and scale up producer in the field of functional monomers & polymers with high specificity. The main goal of the innovative product developed by SPECIFIC POLYMERS is, in close collaboration with the customers, to validate proof of concepts. In other words, SPECIFIC POLYMERS propose R&D services for academic laboratories and R&D departments of high tech industrial groups. In almost 15 years, SPECIFIC POLYMERS developed the synthesis of more than 10 000 functional building blocks, monomers and polymers and is now working with more than 500 customers and partners in more than 50 countries worldwide.



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LOIP company offer are special manual and automatic equipment for testing the quality control of oil and oil products. LOIP equipment built in accordance to GOST, ASTM, ISO, IP, DIN, FTM, and many more specifications.

Products line include next analyzers:

- Fully automatic and manual equipment for atmospheric distillation of petroleum products
- Flash point testers for determination of flash point temperature of petroleum products in close cup (by Pensky-Martens method) and open cup (by Cleveland method)
- Full automatic testers line for determination of cold properties of petroleum products such as Cold Filter Plugging Point, Cloud Point, Freeze Point, Pour Point
- density
- Automatic ultimate vapor pressure tester for all types of liquids, from gasoline to LPG, as well as crude oil, solvents, fragrances and polymers.
- Liquid thermostatic circulators for determination of physical parameters of petroleum products
- Sets and kits of auxiliary equipment



GENERAL PURPOSE LAB EQUIPMENT

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- Automatic Water Still
- Dryer and Ceramic ovens



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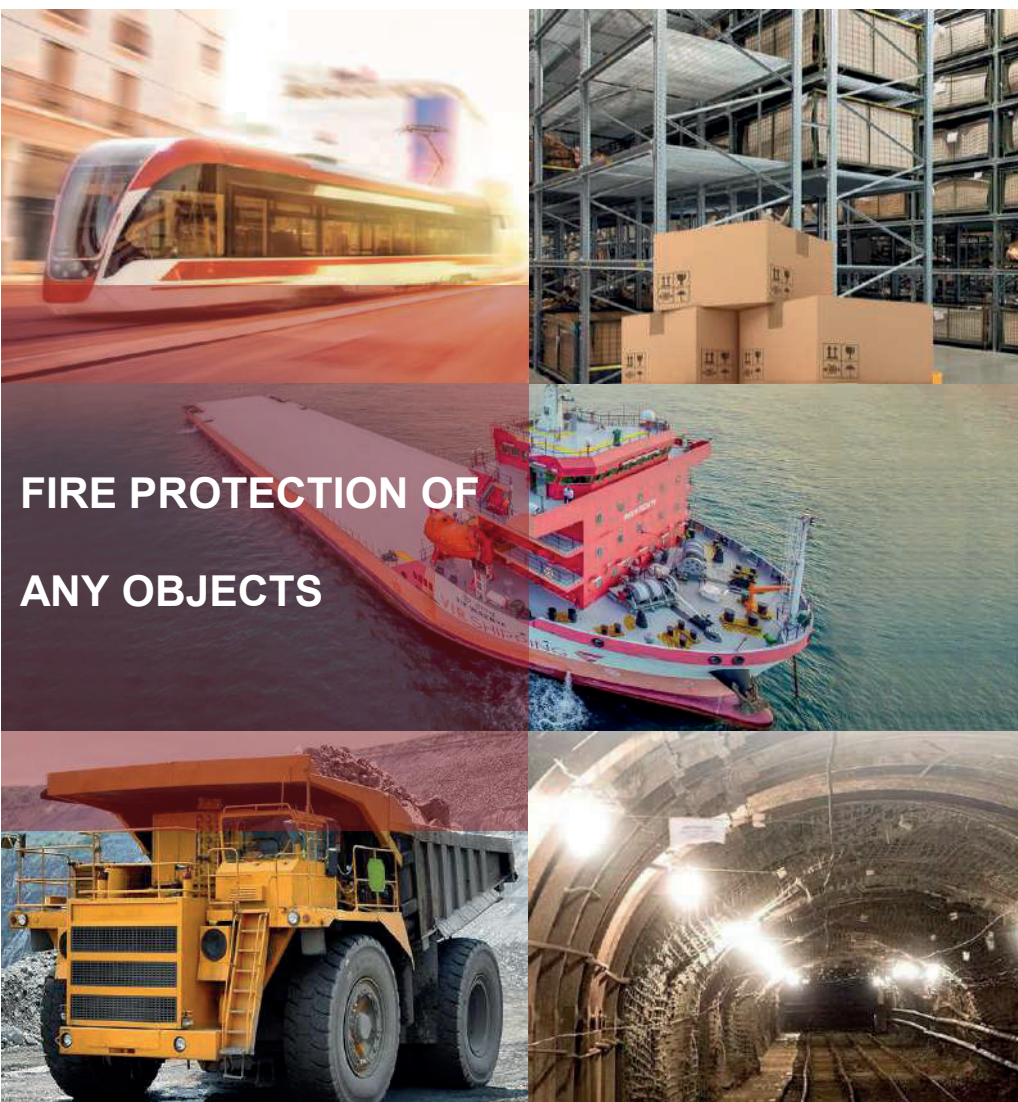
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SPEAKERS OF XX INTERNATIONAL

SOL-GEL CONFERENCE

PLENARY SPEAKERS



Frank Caruso (Australia)
The University of Melbourne

Frank Caruso is a professor at the University of Melbourne and the Deputy Director of the ARC Centre of Excellence in Convergent Bio-Nano Science and Technology. His research interests focus on engineered materials for biological applications. He has published over 450 peer-reviewed papers and was on Thomson Reuters' 2014 list of World's Most Influential Scientific Minds. He is an Executive Editor of Chemistry of Materials. He was elected a Fellow of the Australian Academy of Science in 2009 and a Fellow of the Royal Society in 2018.



Joanna Aizenberg (USA)
Harvard University

Joanna Aizenberg is a Professor of Materials Science and of Chemistry & Chemical Biology at Harvard University, and she is also the co-director of the Kavli Institute for Bionano Science and Technology, and a core faculty member of the Wyss Institute for Biologically Inspired Engineering. Joanna Aizenberg pursues a broad range of research interests that include biomineralization, biomimetics, self-assembly, crystal engineering, surface chemistry, nanofabrication, biomaterials, biomechanics and biooptics. She has received many awards including the Havinga Medal (2017) and the George Ledlie Prize for most valuable contribution to science.



Mari-Ann Einarsrud (Norway)
Norwegian University of
Science and Technology

Mari-Ann Einarsrud is a Professor of inorganic chemistry at the Department of Materials Science and Engineering of Norwegian University of Science and Technology. Her research areas include ceramics, nanostructured and inorganic materials, wet chemical synthetic methods; powders, nanoparticles, and thin films; functional oxides for energy technology; ferric oxide materials; and thermoelectrics. She is a co-founder of CerPoTech AS. She was elected member of The Norwegian Academy of Science and Letters (2009). Her awards and activities are profiled in Lynette D. Madsen, "Successful Women Ceramic and Glass Scientists: 100 Inspirational Profiles", Wiley, (2016).



Nicola Huesing (Austria)
University of Salzburg

Nicola Huesing is a Professor and Head of the Department Materials Science and Physics at the Paris Lodron University of Salzburg, Austria. In addition, she is a Vice President of the Austrian Society of Chemists, a member of the Selection Committee for the Alexander von Humboldt Foundation, a member of the Executive Committee of the Austrian Science Funds, and a full member of the Austrian Academy of Sciences. Her areas of specialization include sol-gel processes, aerogels, template-directed synthesis, porous materials, hybrid materials, interface-determined materials, and synthesis – structure – property relationships. She is a recipient of the Harry-Klopfer Aerosil Award.



Peter Fratzl (Germany)
Max Planck Institute of
Colloids and Interfaces

Peter Fratzl is a Director at the Department of Biomaterials, Max Planck Institute of Colloids and Interfaces. His research fields include biomimetic materials, structure-function relations in biological materials, bone minerals research, mechanical properties, modeling of composite materials, and solid-state phase transformations. He has published on these topics more than 450 publications. Some of his recognitions are his election as a member of the Academy of Science and Literature / Mainz (2015), as a member of the German Academy of Science and Engineering, and as a Fellow of the Materials Research Society, USA (2012).



Eugenia Kumacheva (Canada)
University of Toronto

Eugenia Kumacheva is a Professor of Chemistry at the University of Toronto and a Canada Research Chair in Advanced Functional Materials. Her research interests span across the fields of fundamental and applied polymers science, nanotechnology, microfluidics, and interface chemistry. She is a recipient of the L'Oréal-UNESCO Awards for Women in Science in 2008, and serves on the advisory boards of the Brookhaven National Laboratory, of the Triangle Materials Science and Engineering Center (USA), of the RIKEN Institute (Japan), of the Leibnitz Institute for Interactive Materials (Germany), and more.



Kazuki Nakanishi (Japan)
Kyoto University

Kazuki Nakanishi is a Professor and Vice-Director at the Institute of Materials and Systems for Sustainability of Nagoya university, Japan. His fields of research include porous materials, phase separation, macroporous monoliths, aerogels and hierarchically porous monoliths which can be applied as adsorbents, separation media and catalysts supports. He co-authored over 300 papers in these fields which are highly cited and received several awards in recognition of his achievements, including the ICG Gottardi Prize and more. He has served as a co-editor of the Journal of Sol-Gel Science and Technology since 2009.



Mario Pagliaro (Italy)
National Research
Council of Italy (CNR)

Mario Pagliaro is a materials scientist and energy scholar based in the National Research Council of Italy (CNR) laboratories in Palermo. His research activities include nanochemistry, chemical and materials sustainability, solar energy materials and bioeconomy of materials and catalysts. He has co-authored over 200 research papers many of which are highly cited. He is a very prolific book writer and has authored or co-authored 21 books on various topics in materials science, green science and more. In recognition of his "significant contributions to the chemical sciences", he was elected Fellow of the Royal Society of Chemistry (2014).



**Markus Niederberger
(Switzerland)** ETH, Zurich

Markus Niederberger is a Professor of materials science at the ETH, Zurich and holds the Chair of the Laboratory for Multifunctional Materials. His research focuses on chemical synthesis of inorganic functional materials and nanoparticles, mainly for energy storage and conversion, gas sensors and electronics, and the development of non-hydrolytic methods for the preparation of inorganic nanoparticles. Markus Niederberger holds the Golden Owl award.



Andrey Rogach (China)
City University of Hong Kong

Andrey Rogach is a Chair Professor of Photonic Materials at the Department of Materials Science and Engineering, City University of Hong Kong. His research interests include colloidal semiconductors and quantum dots, nanophotonics, metal nanocrystals, hybrid nanostructures, photovoltaics, water splitting, biological fluorescent labels, SERS and more. He has co-authored over 360 publications, which are highly cited, and is ranked 8th in the "Top authors publishing on nanocrystals in the past decade" (Thomson Scientific). His recognitions include the Walton Award of the Science Foundation, Ireland (2005), Fellow of the Electromagnetics Academy, USA (2014), and more. Since 2011 he is an Associate Editor of ACS Nano.



Aziz Muzafarov (Russia)
A. N. Nesmeyanov Institute of
Organoelement Compounds of
the Russian Academy of Sciences

Aziz Muzafarov is a Professor, an Academician and the Director of the A. N. Nesmeyanov Institute of Organoelement Compounds of the Russian Academy of Sciences, Moscow. His research interests are related to organosilicon compounds and include novel macromolecular syntheses, organosilicon dendrimers and hyperbranched polymers, nanoscale polymeric stars, molecular brushes, and nanogels. In recognition of his scientific achievements, he was awarded the S. V. Lebedev Prize in 1998.

INVITED SPEAKERS



Olim Ruzimuradov
Turin Polytechnic University
in Tashkent **Uzbekistan**



Alicia Duran
Ceramic and glass
institute (CSIC) **Spain**



Nicola Pinna
Humboldt University
of Berlin **Germany**



Xiaomin Zhu
DWI - Leibniz Institute for
Interactive Materials **China**



Angelja K. Surca
National Institute of Chemistry,
Ljubljana Slovenia



Gulaim A. Seisenbaeva
Swedish University of
Agricultural Sciences **Sweden**



Petr V. Prikhodchenko
Kurnakov Institute of General and
Inorganic Chemistry, Russian
Academy of Sciences **Russia**



Ingolf Voigt
Fraunhofer Institute for Ceramic
Technologies and
Systems IKTS **Germany**



Guido Kickelbick
Saarland University **Germany**



Pilar Aranda
CSIC **Spain**



Daniel Mandler
Hebrew University of Jerusalem **Israel**



Andrea Feinle
Paris Lodron University Salzburg **Austria**



Hiromitsu Kozuka
Kansai University **Japan**



Masahide Takahashi
Osaka Prefecture University **Japan**



Yajun Wang
Fudan University **China**



Raz Gvishi
Soreq Nuclear Research Center **Israel**



Yoshiro Kaneko
Kagoshima University **Japan**



Klaartje De Buysser
Ghent University **Belgium**



John D. Brennan
McMaster University **Canada**



Ubirajara Pereira Rodrigues-Filho
University of Sao Paulo **Brazil**



Tat'yana G. Khonina
Postovsky Institute of Organic
Synthesis of the Russian
Academy of Sciences **Russia**



Dong-Pyo Kim
POSTECH (Pohang University
of Science and Technology)
South Korea



Shuyun Chng
Singapore Institute of Manufacturing
Technology **Singapore**



Rui M. Almeida
University of Lisbon **Portugal**



Jean-Marie Nedelec
SIGMA Clermont Institut
Universitaire de France **France**



V. de Zea Bermudez
University of Trás-os-Montes
and Alto Douro **Portugal**



Jadra Mosa
Consejo Superior de Investigaciones
Científicas (CSIC) **Spain**



Michel Wong Chi Man
Institut Charles Gerhardt
Montpellier **France**



Jun Yang
Shanghai Jiao Tong University, **China**



Plinio Innocenzi
University of Sassari **Italy**



Insung S. Choi
KAIST **South Korea**



Robin Wordsworth
Harvard University **USA**



Marco Faustini
Sorbonne University **France**



Ekaterina V. Skorb
ITMO University **Belarus**



Go Kawamura
Toyohashi University of
Technology **Japan**



Alon Seri-Levy
Sol-Gel Technologies Ltd. **Israel**



Olga A. Shilova
Institute of Silicate Chemistry
of the Russian Academy
of Sciences **Russia**



**Gowsihan
Poologasundarampillai**
University of Birmingham
United Kingdom



Luca Malfatti
University of Sassari **Italy**



Johan Alauzun
CNRS - Institut Charles
Gerhardt Montpellier, **France**



Aleksandra Lobnik
University of Maribor **Slovenia**

AWARDS SPEAKERS

The Donald R. Ulrich Award

Marco Faustini Sorbonne University, France



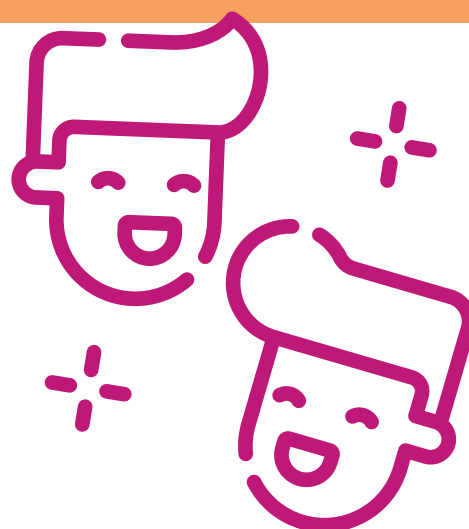
The ISGS Life Achievement Award

Massimo Guglielmi, University of Padova, Italy

Kazuyuki Kuroda, Waseda University, Tokyo, Japan



SCIENCE SLAM SPEAKERS



1. Nir Ganonyan

The Hebrew University of Jerusalem, Israel



2. Naumova Klavdiya

Institute of Physical Chemistry and Electrochemistry of Russian Academy of Sciences, Russia



3. Murielle Schreck

ETH Zürich, Switzerland



4. Léa Dejob

Université Claude Bernard Lyon, France



5. Anne DESPONDS

French National Center for Scientific Research, France



6. Natalia Guerrero

Swiss Federal Laboratories for Materials Science and Technology, Switzerland



7. Daniela NEACSA

University of Tours, France



8. Romain Civioc

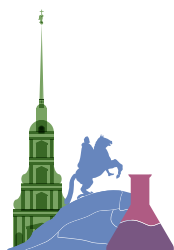
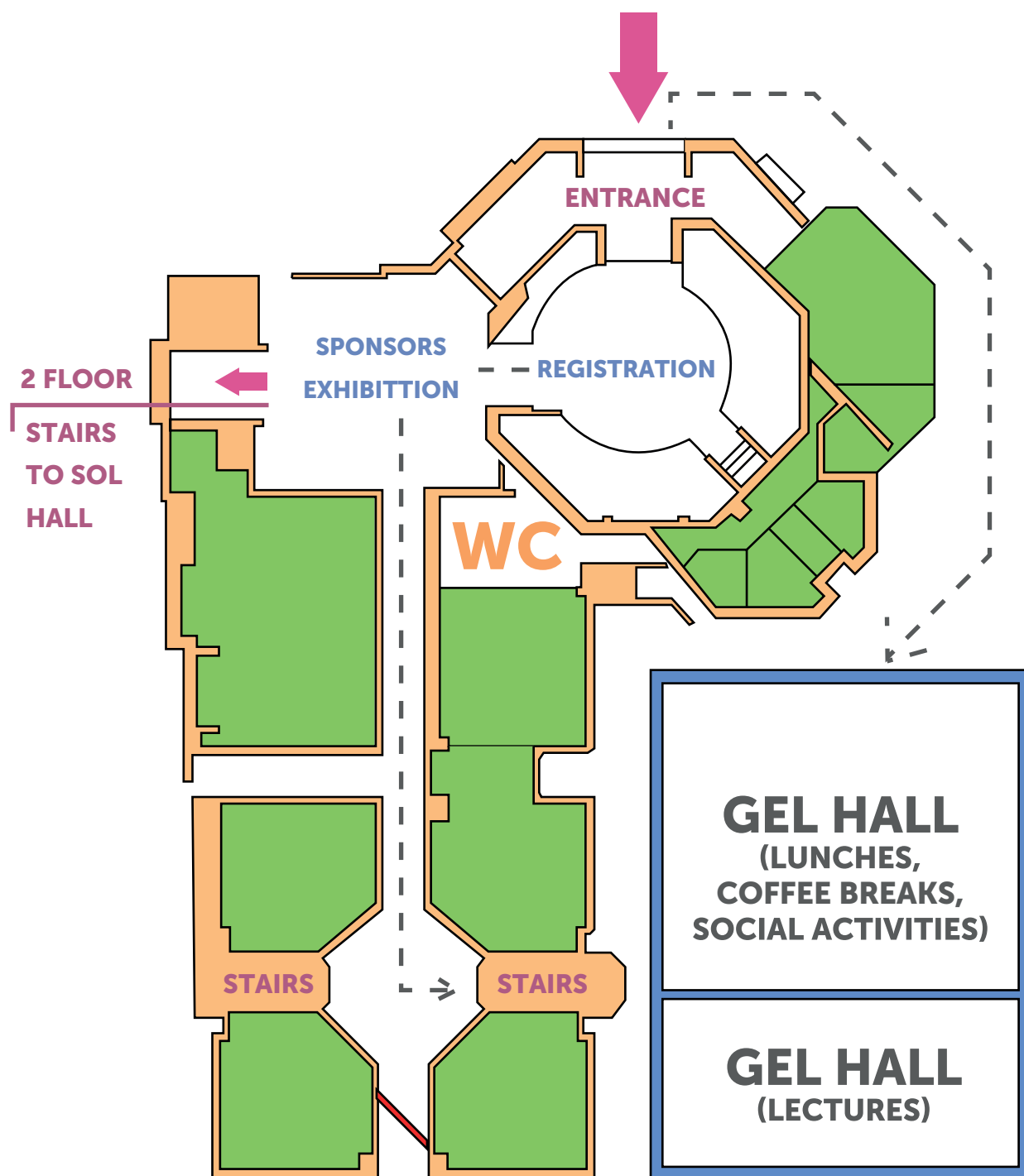
Swiss Federal Laboratories for Materials Science and Technology, Switzerland

TIMETABLE

	Sunday 25th August	Monday 26th August	Tuesday 27th August	Wednesday 28th August	Thursday 29th August	Friday 30th August
8:00						
8:30		Registration* 8:00-18:00	Registration 8:30-18:00	Registration 8:30-18:00	Registration 8:30-18:00	
9:00	Registration 9:00-18:30		Poster mounting	Poster mounting		
9:30						
10:00		Opening ceremony at BDT theatre	Andrey Rogach Kazuki Nakanishi	Aziz Muzafarov Mario Pagliaro	Life Achievement Award.	Markus Niederberger
10:30		Mari-Ann Einarsrud at BDT theatre			Ulrich Award.	Session: Non-hydrolytic sol-gel materials
11:00		Coffee break at BDT theatre. Move	Coffee break. Poster mounting	Coffee break. Poster mounting	ISGS Fellow Ceremony	Coffee break
11:30						
12:00		Peter Fratzl	Parallel sessions: 1. Photonic sol-gel materials 2. Hybrid materials	Joanna Aizenberg Bicasa presentation	Coffee break	Frank Caruso
12:30						
13:00						
13:30		Buffet lunch	Buffet lunch + Poster Session I 13:00 - 15:00	Parallel sessions: 1. Silica and Silsesquioxanes 2. Fundamental aspects of sol-gel chemistry	Parallel sessions: 1. Optically active sol-gel 2. Biomaterials	Closing session
14:00	Aerogel Workshop				Buffet lunch 13:30 - 15:30	
14:30			ISGS Meeting			
15:00		Nicola Huesing		Buffet lunch + Poster Session II	Meeting of ISGS and the JSST board	
15:30		Break	Eugenia Kumacheva Merck presentation		Science communication lecture	
16:00		Parallel sessions: 1. Coating and Films 2. Biosafety and Bioapplication	Parallel sessions: 1. Processing of sol-gel materials 2. Membranes		Parallel sessions: 1. Electrochromism, electrocatalysis and electrospinning 2. Sol-gel coatings	
16:30						
17:00		Coffee break	Coffee break			
17:30				Guided city bus tour		
18:00		Parallel sessions: 1. Applied sol-gel materials 2. Silica and sesquioxanes	Panel discussion: How to build a successfull career?			
18:30						
19:00	Welcome Reception					
19:30						
20:00		Russian Evening	Evening on own/ "Like a local" program		Closing Reception and Science Slam	
20:30						
21:00						

* 08:00 - 18:00 at ITMO University
08:00 - 11:00 at BDT theatre

MAP. 1 FLOOR



**International
Sol-Gel
Conference**

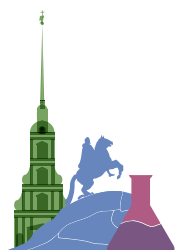
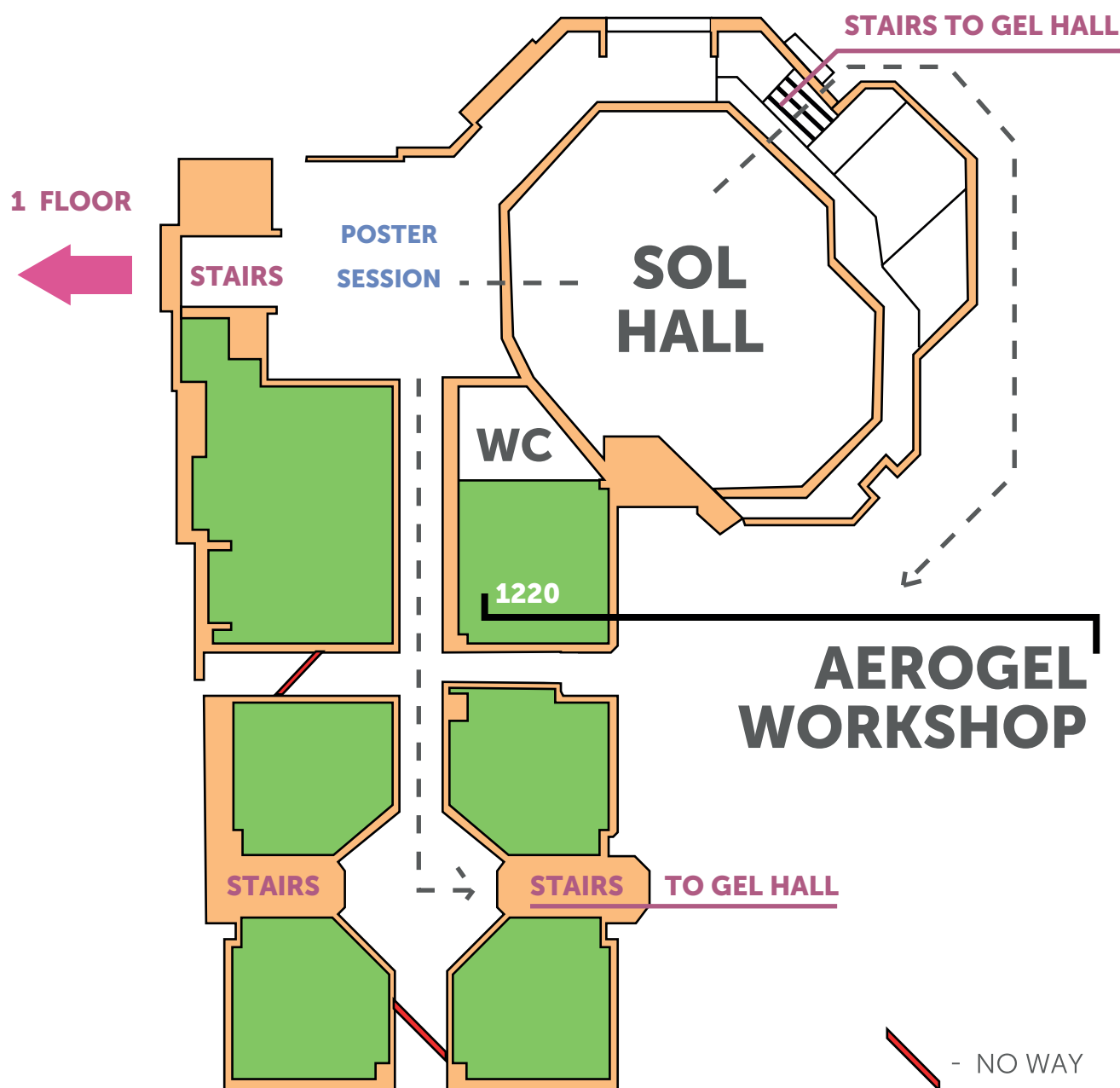
Next Generation

St Petersburg, Russia
August 25-30, 2019



- NO WAY

MAP. 2 FLOOR



**International
Sol-Gel
Conference**

Next Generation

St Petersburg, Russia
August 25-30, 2019

25/08 Sunday



ITMO University, Lomonosova, 9

Time

9.00-18.30

Registration

10.00-18.00

Aerogel Workshop

18.00-20.00

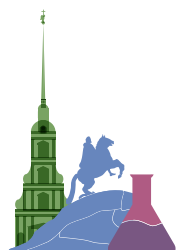
Welcome reception

Location

Hall, 1 floor

Room 1220

Gel Hall



**International
Sol-Gel
Conference**

Next Generation

St Petersburg, Russia
August 25-30, 2019

26/08 Monday
Tovstonogov Bolshoi Drama Theater //
ITMO University, Lomonosova, 9
Time**Location****8.00-18.00**
 Registration
 (8.00-11.00 - Tovstonogov Bolshoi Drama Theater,
 11.45-18.00 - ITMO University)

 Tovstonogov Bolshoi Drama
 Theater // ITMO University
9.30-10.15

Opening ceremony

10.15-11.00
Mari-Ann Einarsrud / Chair David Avnir
 "Aqueous chemical deposition of thin oxide films"

 Tovstonogov Bolshoi Drama
 Theater
11.00-11.45

Coffee break

11.45-12.00

Break

12.00-12.50
Peter Fratzl / Chair David Avnir
 "Water-mediated forces in biological materials"

 ITMO University, Lomonosova, 9
 Sol Hall
12.50-14.15

Lunch

Gel Hall

14.15-15.05
Nicola Huesing / Chair David Avnir
 "Porous sol-gel derived functional architectures"

Sol Hall

15.05-15.20
Valentino Inama / Chair David Avnir
 "Smart laboratory solutions for sol lab"

Sol Hall

15.20-15.30

Break

15.30-16.00
 Biosafety and Bioapplication
 Chair Sara Aldabe Bilmes

Insung Choi
 "Titania gels for cell encapsulation"

 Coatings and Films
 Chair Masahide Takahashi

Go Kawamura
 "Liquid phase fabrication of multiferroic
 nanocomposite films"

 Green - Sol Hall
 Yellow - Gel Hall
16.00-16.35
Gulaim Seisenbaeva
 "Multifunctional nanosurfaces for water
 purification and biocatalysis"

Luca Malfatti
 "A hybrid organic-inorganic platform for
 the detection of pesticides in water
 through Raman spectroscopy"
16.35-17.10
Jean-Marie Nedelec
 "Better (bio)ceramics through chemistry"

Chng Shuyun
 "Multi functional sol-sel based coatings"
17.10-17.40

Coffee break

Gel Hall

17.40-18.10
 Applied sol-gel materials
 Chair Kazuki Nakanishi

Alon Seri-levy
 "From academic work to a sol-gel
 company and innovative drug
 candidates"

 Silica and sesquioxanes
 Chair Jean-Marie Nedelec

Xiaomin Zhu
 "Hyperbranched polyethoxysiloxane – a
 unique silica precursor polymer for
 preparation of silica-based
 nanostructured materials"

 Green - Sol Hall
 Yellow - Gel Hall
18.10-18.45
Gowsihan Poologasundarampillai
 "Novel sol-gel derived bioinks for 3D
 bioprinting"

Andrea Feinle
 "Stimuli-responsive porous
 polysilsesquioxanes"
18.45-19.20
Ekaterina Skorb
 "Coupling pH-regulated multilayers with
 inorganic surface for bionic devices and
 infochemistry"

Michel Wong Chi Man
 "Design of functional hybrid silicas for
 several application fields"
19.30

Russian evening

Gel Hall

27/08 Tuesday**ITMO University, Lomonosova, 9****Time****Location****08.30-18.00**

Registration

Hall, 1st floor

9.00-9.30

Poster mounting

Hall, 2nd floor

9.30-10.15**Andrey Rogach** / Chair Vadim Kessler

"Solution processable light-emitting colloidal nanostructures"

Sol Hall

10.15-11.05**Kazuki Nakanishi** / Chair Vadim Kessler

"Porous inorganic monoliths: challenges in extending chemical compositions for broader applications"

Sol Hall

11.05-11.30

Coffee break + Poster mounting

Gel Hall / Hall, 2nd floor

Photonic sol-gel materials
Chair David LevyHybrid materials
Chair Benoît HeinrichsGreen - Sol Hall
Yellow - Gel Hall**11.30-12.00****Plinio Innocenzi**

"Sol-gel chemistry for carbon dots, making of fluorescent new generation hybrids"

Dong-pyo Kim

"Tailoring mesopores in metal organic framework (MOF) and the structural fabrications"

12.00-12.35**Raz Gvishi**

"3D sol-gel printing for fabrication of macro- and micro/nano-structured photonic devices"

Ubirajara Pereira Rodrigues-Filho"PDMS-based hybrid materials synthesized from CO₂ chemical fixation: a multifunctional platform"**12.35-13.10****Robin Wordsworth**

"Enabling Martian habitability with silica aerogel via the solid-state greenhouse effect"

John Brennan

"Optimizing piezoelectric ink-jet printing of silica sols for biosensor production"

13.10-14.00

Lunch

Gel Hall

14.00-15.00

Poster session I, Bar

Hall, 2nd floor

15.00-15.50**Eugenia Kumacheva** / Chair Byeong-Soo Bae

"Bridging the gap between molecules and nanoparticles"

Sol Hall

15.50-16.00**Yaroslav Sedov** / Chair Byeong-Soo Bae

"Merck presentation"

Sol Hall

16.00-16.10

Break

Processing of sol-gel materials
Chair Byeong-Soo BaeMembranes
Chair Nicola HüsingGreen - Sol Hall
Yellow - Gel Hall**16.10-16.40****Daniel Mandler**

"Molecular and nanoparticle imprinting by electrochemically deposited sol-gel thin films"

Ingolf Voigt

"Sol-gel-synthesis of inorganic nanofiltration membranes"

16.40-17.15**Petr Prikhodchenko**

"Hydrogen peroxide sol gel processing: fundamentals and applications"

Jadra Mosa Ruiz"sSEBS/SiO₂-P₂O₅-ZrO₂ hybrid membranes with improved methanol crossover and cell performance for DMFCs applications"**17.15-17.45**

Coffee break

Gel Hall

17.45-19.15

Panel discussion: How to build a successful career?

Sol Hall

20.00

Evening on own/ "Like a local" program*/Boat trip*

* optional

28/08 Wednesday



ITMO University, Lomonosova, 9

Time

Location

08.30-18.00

Registration

Hall, 1st floor

09.00-09.30

Poster mounting

Hall, 2nd floor

09.30-10.15

Aziz Muzafarov / Chair David Avnir

Sol Hall

"Hyperbranched polyethoxysiloxanes and molecular nano-gels based on them"

10.15-11.05

Mario Pagliaro / Chair David Avnir

Sol Hall

"Sol-gel catalysts for synthetic organic chemistry: milestones in 30 years of successful innovation"

11.05-11.30

Coffee break + Poster mounting

Gel Hall / Hall, 2nd floor

11.30-12.20

Joanna Aizenberg / Chair David Avnir

Sol Hall

"Sol-gel-derived inverse-opal structures for photonic, catalytic and sensing applications"

12.20-12.30

Break

Silica and Silsesquioxanes
Chair Michel Wong Chi Man

Fundamental aspects of sol-gel chemistry
Chair Aleksandra Lobnik

Green - Sol Hall
Yellow - Gel Hall

12.30-13.00

Yoshiro Kaneko

"New developments on ammonium-functionalized polyhedral oligomeric silsesquioxane (POSS)"

Masahide Takahashi

"Directing pores in framework compounds via sol-gel approach"

13.00-13.35

Guido Kickelbick

"Sol-gel derived siloxanes for (opto)electronic applications"

Pilar Aranda

"Clay particles assembly through sol-gel: a new route to clay-based nanoarchitected materials"

13:35-14:10

Yajun Wang

"One-dimensional silica nanomaterials: from synthesis, functionalization to applications"

Olim Ruzimuradov

"Perovskite-based photocatalysts: sol-gel synthesis, properties and doping for application in visible light"

14:10-15:00

Lunch

Gel Hall

15:00-16:00

Poster session II, Bar

Hall, 2nd floor

16:00-19:30

Guided city tour by bus

Hall, 1st floor

from 19:30

Free evening

29/08 Thursday



ITMO University, Lomonosova, 9

Time			Location
08.30-18.00	Registration		Hall, 1st floor
9.30-12.00	ISGS awards ceremonies, lectures of awardees, announcement of board election results and the host of Sol-Gel 2021 Conference		Sol Hall
12.00-12.30	Coffee break		Gel Hall
	Optically active sol - gel materials Chair Stephane Parola	Biomaterials Chair John Bartlett	Green - Sol Hall, Yellow - Gel Hall
12.30-13.00	Alicia Duran "Transparent glass-ceramics produced by sol-gel: a suitable alternative for photonic materials"	Aleksandra Lobnik "Sol gel nanomaterials and their applications: challenges, opportunities and risks"	
13.00-13.35	Rui M. Almeida "Frequency conversion in lanthanide-doped materials for solar energy and solid state lighting applications"	Tat'yana G. Khonina "Pharmacologically active polyolates of biogenic elements and hydrogels based thereof"	
13.35-15.30	Lunch		Gel Hall
15.30-16.30	Science Communication lecture		Sol Hall
16.30-16.40	Break		
	Electrochromism, electrocatalysis and electrospinning Chair Sidney Ribeiro	Sol-gel coatings Chair Luca Malfatti	Green - Sol Hall Yellow - Gel Hall
16.40-17.10	Jun Yang "Nano/micro-structured Si materials for high energy lithium batteries"	Hiromitsu Kozuka "Mechanical stress in sol-gel-derived coatings"	
17.10-17.45	Klaartje De Buysser "Electrospinning and functionalisation of silicon oxide nanofibres via sol-gel technology"	Angelja Kjara Surca "Spectroelectrochemistry of sol-gel protective coatings for AA 2024"	
17.45-18.20	Verónica de Zea Bermudez "Lanthanide-based ionosilicas for smart electrochromic windows of nearly-zero buildings"	Olga Shilova "Fractals, morphogenesis and triply periodic minimal surfaces in sol-gel-derived thin films"	
19.00-21.00	Conference reception including Science Slam		Gel Hall

30/08 Friday



ITMO University, Lomonosova, 9

Time

09.30-10.15

Markus Niederberger /

Chair Verónica Cortés de Zea Bermudez

"Aqueous and nonaqueous sol-gel chemistry: similarities and differences"

Location

Sol Hall

Non-hydrolytic sol gel materials

Chair Verónica Cortés de Zea Bermudez

Sol Hall

10.15-10.50

Nicola Pinna

"Fluorolytic sol-gel route and electrochemical properties of AFeF₃ (A=Na,K) perovskite nanoparticles and polyanionic transition metal phosphate fluorides"

10.50-11.25

Johan Alauzun

"Recent advances in non-hydrolytic sol-gel synthesis of mesoporous materials"

11.25-12.00

Coffee break

Gel Hall

12.00-12.45

Frank Caruso / Chair Vladimir Vinogradov

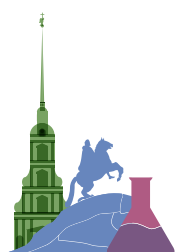
"Advanced materials via supramolecular gelation"

Sol Hall

12.45-13.30

Closing session

Sol Hall



**International
Sol-Gel
Conference**

Next Generation

St Petersburg, Russia
August 25-30, 2019



POSTER GROUP1

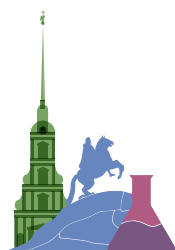
Nº of Poster	Abstract	Presenting author
1	Ex situ infrared and Raman spectroscopy of electrochromic vanadium-alkoxide-based films	Angelja K. Surca
2	Study of corrosion of AA2024-T3 protected by sol-gel coating with Electrochemical Impedance Spectroscopy and Ellipsometry in liquid cell	Elise Medina
3	Superhydrophobic sol-gel coatings with high temperature resistance	Itziar Azpitarte
4	IONPs@ Au/Ag Core-Shell Constructs for Magnetically-Targeted Photothermal Therapy	Li-Fang Wang
5	Sol-gel bioprinting	Titouan Montheil
6	Efficient Adsorption and Sustainable Degradation of Gaseous pollutants using rGO-TiO ₂ Photocatalyst	Xiaofeng Xie
7	Corrosion protection of light alloys by smart innovation sol-gel systems	Y. Castro
8	Photo-patternable QD/siloxane composite with high thermal stability for color filters	Yun Hyeok Kim
9	Design of Glutathione-sensitive Poly(ethylene glycol) Hydrogels with Thiol-Based Crosslinking	Ayumi Kashiwada
10	Nanopatterning of metallic nanostructures on flexible substrates by "sol-gel" of noble metals	Maxime Gayraud
11	Sustainable hybrid aerogels made of tannin and silica	A. Koopmann
12	Sol-gel synthesis of composites based on titania and microcrystalline cellulose	A.V. Zdravkov
13	Monitoring and control of the aging of a hybrid sol-gel formulation for the protection of polymeric materials	Adrian Angulo
14	Upconversion natural spider silk-based hybrids	Aleksandra Kiseleva
15	Sol-gel revitalization of porous refractory ceramics	Alexei Evstratov
16	Aramid-zirconia nanocomposite coating with superior corrosion protection of stainless steel in saline media	Ali Bumajdad
17	Metformin-Functionalized Mesoporous SBA-15 Nanocomposite as Feasible and Cost-effective Catalyst for Reduction of p-Nitrophenol to p-Aminophenol	Amirhossein Fallah
18	Periodic silver based structures assembled in gel	Anastasia Nenashkina
19	Gel materials on the basis of disperse sodium hydro silicate for carbonate and terrigene collectors conditions	Anastasiia Antuseva
20	Functionalization of Hafnium Oxide Nanoparticles	Anastasiia Sherstiuk
21	Radio controlled enzymatic composites based on sol-gel magnetite	Andrey Drozdov
22	Iridium supported on aluminum oxo-fluorides – characteristics and hydrogenating properties	Angelika Kiderys
23	Two-photon microfabrication processes for highresolution 3D printing of hybrids and ceramics	Anne Desponds
24	Enzyme Immobilization on Ordered Mesoporous Materials	Artium BELET
25	Synthesis parameters of silica aerogels responsible for changes in mechanical properties	Bartosz Babiarczuk
26	Cold-Sprayed TiO ₂ and Ag-TiO ₂ coatings produced using sol-gel amorphous powders	Baszczuk Agnieszka
27	Siloxane-based nanocomposites with up-conversion properties	Beatriz Julián-López
28	Studying Water Adsorption on Mesoporous Silica Films by ATR-IR Spectroscopy: Determination of Porosity and Structure of Adsorbed Water	Bettina Baumgartner
29	Molecular Design of Hybrid Porous Titanium Phosphonates	Bharadwaj Mysore Ramesha
30	Synthesis and structural characterization of LaSrAl _{1-x} Cu _x O _{4-δ}	Bochra Negri
31	Sol-gel preparation of nanocarbon – glass materials	Bogdan Alexandru Sava
32	Comprehensive characterization of TiO ₂ inks and their application for inkjet printing of microstructures	Bugakova Daria
33	Mesoscopic computer simulation and theory of P-graft-H polymer dilute solutions	Buglakov Alexander Igorevich
34	Preparation of calcium phosphates via aqueous solution routes	Byeong Woo Lee
35	Continuous structural gradients in sol-gel derived organic and carbon aerogels	Christian Scherdel
36	Template-free seed-assisted synthesis of hierarchical zeolite ZSM-5	D.O. Shestakova
37	Sol-gel synthesis of titanium dioxide and its testing in dehydrogenative cross-coupling of (hetero)arenes for creating new drugs	Dorosheva I.B.
38	Sol-gel electrospinning preparation of metal oxide nanofibers for electronics and photonics	Elena Kolobova

N° of Poster	Abstract	Presenting author
39	The inkjet printing of the microlenses raster	Eremeeva E.
40	Structure and Luminescent Properties of Sol-Gel Derived Lanthanide Doped Hybrid Organic-Inorganic Materials	Ewa Rysiakiewicz-Pasek
41	Springback Effect in Silica-Based Aerogels	Fabian Zemke
42	Titanium phosphonate oxo-alkoxide "clusters": solution stability and facile hydrolytic transformation into nano titania	Fredric G. Svensson
43	Aerogels: mechanical and thermal properties measured by Molecular Dynamics	Geneviève Foray
44	Functionalization of silica particles for metal ions sequestration	Genoveva Hernández Padrón
45	Hafnium oxide nanoparticles as radiosensitizers	Grigori Kiselev
46	Bimetallic PT/PD nanoparticles in silica film and xerogels	Gubanova N.N.
47	Sol-Gel Method for the synthesis of Novel Phosphate based Bioactive Glass	H.M.O Nasim
48	Hybrid dielectric materials obtained in situ sol-gel reaction	Herbei Elena Emanuela
49	Decellularized Plant Extracellular Matrices as a Scaffold for Tissue Engineering	How TSENG
50	Single-injecting, bioinspired nanocomposite hydrogel that can recruit host immune cells in situ to elicit potent and long-lasting humoral immune responses	Hsing-Wen Sung
51	Micro mechanical studies of urethane-linked siloxane hybrid materials for flexible display	Hyunhwan Lee
52	Preparation of 2,5-Bis(triethoxysilylvinyl)pyridine and Its Application to Reverse Osmosis Membrane	Ibuki Saito
53	Aqueous citrate sol-gel synthesis towards the double $A_2Ni(Te, W)O_6$ and triple $A_3(Fe, Co)_2(Te, W)O_9$ perovskites	Igor Djerdj
54	Preparation of Photocatalytic Titania on Organic Support via Sol-Gel Method for Water Clarification	İlker Erdem
55	A mixed thermosensitive hydrogel system for sustained delivery of tacrolimus in skin allotransplantation	I-Ming Chu
56	Production of aerogels in form of microparticles: new techniques allowing the transfer from lab to pilot scale	Irina Smirnova
57	Anisotropic Nanocellulose Gel–Membranes for Drug Delivery: Tailoring Structure and Interface by Sequential Periodate–Chlorite	Jean-MARie Nedelec
58	Deeper insights in bioactive glass nanoparticles synthesis protocol to control their morphology, dispersibility and composition.	Jean-MARie Nedelec
59	Characterization of pore interconnectivity in mesoporous thin films by ellipsometry porosimetry : an experimental study	Jerome Loizillon
60	High conductive carbon aerogels for battery applications	Jessica Schettler
61	Preparation of an ultra-low density aerogel and a modified supercritical drying treatment process	Jian Li
62	Sol-gel derived alumina glass: NMR elucidation of molecular mechanism	Jin He
63	Synthesis of silica aerogels via APD methods and their applications beyond	Jin Wang
64	Sol-gel-derived mesoporous metal-oxide granules for VOC adsorption	Jinsoo Kim
65	Aluminophosphate and -phosphonate Xerogels by Non-Hydrolytic Sol-Gel Reactions	Jiri Pinkas
66	Influence of solvents on corrosion mitigation property of the organic-inorganic sol-gel coating	Jolanta Gąsiorek
67	Sol-gel barrier layers with lower oxygen permeability	Kamila Startek
68	Graphene-based Multifunctional Electronic Skin	Karamysheva S.P.
69	Structural features and properties of new hybrid solid electrolytes for dye-sensitized solar cells	Karim Dahmouche
70	Physicochemical evolution of siloxane-peo-pla hybrids matrixes during long-term delivery of penicillin G	Karim Dahmouche
71	Annealing temperature dependence of structural and optical properties of sol-gel derived copper gallium oxide films	Katsuhiro Uesugi
72	Polysiloxane-based organic-inorganic hybrid aerogels via ambient pressure drying	Kazuyoshi Kanamori
73	Modeling and intensification of aerogel particles production processes	Khudeev I.I.
74	Anti-fogging coatings by a sol-gel process using alkoxysilanes containing polyglycerin structure	Kimihiko Matsukawa
75	Metal-Organic-Framework (MOF) Aerogels with Hierarchical Pore Structures	King Lun Yeung
76	Holographic polyelectrolyte film formation via gel coacervate complex	Konstantin Nikolaev
77	Structural influence of silica-based ionogels on their performance as electrolytes for all-solid-state Lithium-ion microbatteries	Korina Hartmann
78	Hybrid CNC/Fe ₃ O ₄ Glucose Biosensors	Krivoshapkina E.F.
79	Preparation of PDA/TiO ₂ Composite Film on PTFE and Its Cellular Response	Kui Cheng
80	Surface-tension gradient on Sol-Gel coatings for liquid droplet handling	Kurt HERMANGE

Nº of Poster	Abstract	Presenting author
81	Electrochemically assisted deposition of sol-gel films: manipulation and applications	Liang Liu
82	Development and Application about Aerogels from Natural Polymers	Lingbin Lu, Sujuan Pang
83	Polymer-based aerogels doped with nanoclays	Luz Sánchez-Silva
84	A novel method for polyimide aerogels production	Luz Sanchez-Silva
85	Sol-Gel-derived Luminescent Di-Urethanesil Electrolytes for Electrochromic Devices	M. C. Gonçalves
86	Synthesis, thermal evolution and photoluminescence of Nd ₃₊ -doped TiO ₂ xerogels	M.T. Colomer
87	Vanadium and Manganese doped ZnO thin films obtained by sol-gel method	Maria Cristina Vladut
88	Silicon polyethylene glycol as a new biocompatible precursor in sol-gel biomimetic mineralization of polysaccharides	Maria E. Novoselova
89	Influence of zinc oxide nanoparticle size on the antibacterial and photocatalytic activity	Mariana Busila
90	Water-regulated synthesis of homogeneous Al ₂ O ₃ -SiO ₂ monolithic aerogel composites	Markus Heyer
91	SiliOrange: Sol-gel microencapsulation of orange essential oil for sustainable pest control	Marzia Sciortino
92	Styryl cage silsesquioxanes: novel building blocks towards functional hybrid materials	Mathilde Laird
93	Unexpected dual mesoporosity formation in a Periodic Mesoporous Organosilica	Mathilde Laird
94	Fabrication and characterization of Zr-induced P (AM/NVP/AMPS) mesoporous networks hydrogel nanoparticles and the temperature resistance mechanism	Meiqin Lin and Jianfang Jiang
95	Inverting swelling trends in hybrid self-oscillating gels cross-linked by redox-active metal complexes	Michael Aizenberg
96	Hybrid sol-gel coating for dropwise condensation of pure steam	Michele Rigon
97	Sol-gel Fe-Alumina Films for Optical, Catalytic and Adsorption Applications	Mikhaylov Vasily
98	Magnetite-boehmite heteroaggregates as adsorbents for Cr(VI) removal	Mikhaylov Vasily
99	Preparation of small multifunctional silica nanoparticles for the generation of vaccine formulations	Milena Schenck
100	Hybrid Carbon Spherogels	Miralem Salihovic
101	Preparation of quadruple-chain polysiloxane by intramolecular polycondensation of dialkoxysilane side chains in ladder-like polysilsesquioxane	Misaki Nobayashi
102	Novel Fibrous Materials for the Treatment of Chronic Wounds	Miss V E Seville
103	Photoluminescent properties of MNbO ₄ (M=La,Y,Lu) nanocrystals doped with Eu ₃₊ ions	Mitsunobu Iwasaki
104	Ir/SBA-type catalysts active in the hydrogenation reaction - synthesis, characterization and catalytic application	Monika Kot
105	Preparation of organic-inorganic hybrid emissive thin films by sol-gel reaction using photo-curing binary crosslinking	Naoki Ohtani
106	Hierarchically ordered porous materials using hydroxide-based organic-inorganic hybrid crystals.	Naoki Tarutani
107	Fluoride nanocrystals MF ₃ (M = La, Y) in sol-gel materials	Natalia Pawlik
108	Charge transfer complexes of silsesquioxane cages with polycyclic aromatic hydrocarbons and fluoride in organic solvents	Nattaya Srirattanpravit
109	Sol-gel synthesis of multifunctional mesoporous silica nanocontainers with the use of hybrid micellar templates	Naumova Klavdiya
110	Lithium inspired silsesquioxane cage formation	Nicha Prigyai
111	Functionalization of silica synthesized by sol-gel process with PDLLA via "grafting to" method	Nicolas Régibeau
112	Electrochemical properties of anode materials Li ₂ ZnTi ₃ O ₈ /C	NIKIFOROVA P.A.
113	One-pot Ni@SBA-15 monoliths as efficient catalysts for Methane Dry Reforming	Oscar DAOURA
114	Coupling and decoupling of building blocks in nanocrystal network structures	Pascal Rusch
115	Enhancements of electrical and mechanical properties of silica aerogel by embedded CNT	Pavel Tsygankov
116	Molecular simulation-based study of composites of silica aerogels and polymers	Pedro N. Simões
117	Controllable Photothermal Temperature of Redox-responsive Polymer Dot-incorporated Hydrogel for Memory Storage	Pham Thi My Phuong
118	Novel 3D open-structures using sol-gel chemistry and stereolithography	Philippe Belleville
119	CO ₂ Capture Adsorbents using Sol-gel Technology to develop a Carbon Neutral Cement	Pooja Anil Kumar Nair
120	Development of In-Situ Formation of Injectable Pegylated PLGA Thermosensitive Hydrogel to Deliver BiTEE (Bispecific Anti-CD3/Anti-EGFR T cell/EGFR Engager) for Enhancing Therapeutic Efficacy of EGFR-overexpression Cancer	Pu-Sheng Wei

Nº of Poster	Abstract	Presenting author
121	Facile preparation and enhanced dielectric properties of organic-inorganic nanocomposite materials	Qilong Zhang
122	Rapid Preparation of Li_3PS_4 -Lil Electrolytes by Liquid-Phase Shaking for All-Solid-State Lithium Batteries	Reiko Matsuda
123	Preparation of flexible polysiloxane porous materials in non-aqueous condition and their characterizations	Rikuo Shigetake
124	Silica-coated carbon dots in titania-based photocatalysts for water decontamination	Robert Ludmerczki
125	Wet-chemical processed thermochromic coatings for energy efficient glazing	Roberto Habets
126	Silica-organic composite aerogels and their pyrolyzed carbon-silica counterparts	Romain Civioc
127	Study of the effectiveness of antimicrobial effects on biofilms of magnetically controlled composites with a biocidal component	Rumyantceva Viktoriya
128	Preparation of cationic silsesquioxanes that can stably retain triiodide ion	Ryoya Hasebe
129	Combining sol-gel process and plasmonic nanostructures: an efficient strategy towards enhanced optical properties	S. Parola
130	Macro- and mesoporous sulfated tin oxide from an integrated sol-gel surfactant-template	Sandra H. Pulcinelli
131	Design of wrinkled $\text{SiO}_2/\text{TiO}_2$ particles for photocatalytic enhancement	Sara A. Bilmes
132	Thermal Insulation Materials based on Bridged Polysilsesquioxanes	Satoru Tsukada
133	Synthesis and characterization of biocompatible protein nanocontainers (NCs) with the ability of magneto-controllable delivery and short-term release of hemostatic agent ϵ -aminocaproic acid (EACA).	Schekina Alexandra
134	Sol-gel synthesis of nanocrystalline PbS/TiO_2 composite	Selyanin I.O.
135	Fabrication of novel magnetic polyaniline nanocomposites based on diluted magnetic oxides (DMOs) of Co-doped ZnO nanostructured synthesized using sol-gel technique	Shehab. A. Mansour
136	Preparation and Characteristic Evaluation of Quercetin-loaded Polyacrylate Adhesive Gel for Enhanced Activity of Brown Fat Cell	Shwu-Jen Chang
137	Large area luminescent solar concentrators	Sidney J.L. Ribeiro
138	Hybrid sensor systems based on polyelectrolytes and semiconductor carbon material for analysis of biologically significant analytes	Stekolshchikova Anna
139	Syntheses and photophysical properties of pyrene functionalized-cyclic siloxane (D_4)	Sutthiroj Thanyalax
140	Synthesis of new hierarchical flower-like structures	Tarasenko Evgenia
141	Fluorescent materials conjugated with Silsesquioxane cages as fluoride sensors	Teeraya Bureerug
142	Preparation of soluble polyamides by condensation of POSSs containing carboxyl and ammonium groups	Tomoya Kozuma
143	Innovative sol-gel routes for the preparation of highly efficient Ti- SiO_2 epoxidation Catalysts	Valentin Smeets
144	Inkjet printing and spin coating technology for obtaining polystyrene crystal monolayers	Valeriia Neterebskaia
145	Peroxo-methods for the synthesis of mixed metaloxide materials	Viacheslav Avdin
146	The study of aggregation processes in mono- and bicomponent ZrO_2 and $\gamma\text{-Al}_2\text{O}_3$ hydrosols	Volkova A.V.
147	Flexible Silica Aerogel for Thermal-insulation	Wu Wenjun
148	rGO/ MoS_2 hybrid system for enhancing fluorescence of carbon dots self-assembled multilayers	Xiangying Sun
149	Preparation and characterization of methylsilsesquioxane (MSQ) aerogels by microwave drying	Xingzhong Guo
150	The "Morse Code" between Solvent Polarity and Morphology Flexibility	Xu Wang
151	$\text{SiO}_2/\text{Al}_2\text{O}_3$ core shell nanoparticles prepared by sol-gel emulsion method	Yi Hu
152	Preparation of brochosomes tungsten oxide with enhanced electrochromic performance	Yong Liu
153	Preparation of the self-standing electroconductive metal oxide with controlled multiscale porosity	Yosuke Hara
154	Synthesis and high SERS Sensitivity of Non-stoichiometric $\text{W}_{18}\text{O}_{49}$ nanowires for the detection of rhodamine B	Yuhua Shen
155	Hierarchical Y zeolite obtained by NH_4HF_2 dealuminization: Porosity, and toluene adsorption property	Yun Yu
156	Preparation and properties of microporous materials using organic bridged polysilsesquioxanes	Yuzuko Ideno

Nº of Poster	Abstract	Presenting author
157	Modified voltammetric, impedimetric and optical behavior of polymer-assisted sol-gel MgFe_2O_4 nanostructured thin films	ZAHRA BAZHAN
158	Resilient, Fire-retardant, Robust Polyimide-Polyvinylpolymethylsiloxane Composite Aerogel prepared via Stepwise Chemical Liquid Deposition	Ze Zhang
159	Redox behavior of two-component systems based on MgO obtained via sol-gel route	Timofey M. Karnaukhov
160	Photoactive metal sulfide and metal oxide modified bacterial cellulose aerogels for environmental applications	Elias Paiva Ferreira Neto
161	A combination of copper oxide nanoparticles and N-acetylcysteine as possible agent for chronic myeloid leukemia treatment	Sergey Tsymbal
162	Liquid crystals as pores template for sulfated zirconia ceramics	Pulcinelli, S.H.
163	Sol-gel preparation and mechanical properties of lithium disilicate glass-ceramics	Congqin Ning



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4	A new method based on CO ₂ -switchable wormlike micelles for controlling CO ₂ breakthrough in tight fractured oil reservoir	Zihao Yang
5	Synthesis of graphene-zirconia nanocomposites	Afzal Asya Mokhammadovna
6	Sol-Gel synthesizing of strontium ferrite–cobalt nickel ferrite exchange spring magnets with maximum energy product	Ali Ghasemi
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8	Control over Multiscale Pore Size of Hierarchically Porous Carbon Monoliths	George Hasegawa
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10	Preparation and properties of oligo(cyclohexylsilsesquioxane)/PMMA composite film	Kazuki Yamamoto
11	Photocatalytic self-cleaning TiO ₂ -WO ₃ -rGO composite thin films	Maria Covei
12	Optimising Sol gel synthesis of Nano magnesia partially stabilized zirconia for thermoluminescence dosimetry	Rasoul Sarraf-Mamoory
13	Colored sol-gel derived coatings for solar collectors and photovoltaic modules	Zeger Vroon
14	Hybrid Organic-Inorganic photoresists, a promising class of materials for Optofluidic integration.	J. ELIAS
15	Effect of hydrophilic polymers on architecture, stability and activity of biocatalysts based on living cells into sol-gel silica	Lavrova D.G.
16	Sol-gel derived metal oxide thin films as electron transport layer for efficient perovskite solar cells	Yi-Bing Cheng
17	Electrical properties of Al doped zinc oxide films: influence of deposition parameters	A. Mosbah
18	Gel-like ion-conducting nanocomposites based on ionic liquids and aluminosilicates. Effect of anion type on physical and chemical properties	Agafonov A.V.
19	Porous MgF ₂ -NiF ₂ binary fluorides as hydrogenation catalysts	Agata Suchora
20	The impact of pores surface on physical properties and phase transition of porous glass-based ferroelectric nanocomposites	Agnieszka Ciżman
21	Three-dimensional Graphene aerogel attached with polar compounds for High performance Li-S Battery	Aishui Yu
22	Combined first principles and experimental insights on Eu-, Ho-, Yb-doped Bi ₂ Ti ₂ O ₇	Aleksei Krasnov
23	Porous microspheres for chemical immobilization	Ana C. Marques
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29	The sound of silica: ultrasonic monitoring of silica sol-gel materials for tamper indicating purposes	Angela Suriyakumaran
30	Heavy metals removal from water by bacterial biofilm grown on sol-gel particles	Ani Vardanyan

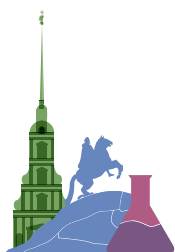
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33	The behaviour of ZrO ₂ -Y ₂ O ₃ coatings deposited on 316L steel in the SBF	Anna Mazur-Nowacka
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79	Evaporation-driven deposition of WO ₃ electrochromic films by low-speed dip-coating technique	Hiroaki Uchiyama
80	Fabrication of Topological SERS Sensing Film by One-Push Wrinkle Processing	Hiroshi ENDO
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82	Facile preparation and white-light-emitting properties of Flexible nano-sized POSS-based hybrid materials	Hongyao Xu
83	Hierarchically Targetable Polysaccharide/Lipid Hybrid Nanoparticles for Oral Chemo/Thermotherapy against Colon Cancer	Hsin-Cheng Chiu
84	Silver nanowire conductive film for flexible electrodes and devices	Hui HUANG
85	Sol-gel based buffer layers and their roles in growth of optoelectronic films	Hui Ye
86	Preparation and properties of alumina nanoparticles modified with phenolic antioxidants	Ilia Martakov
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88	Long-chain ionic liquids assisted sol-gel synthesis of ZnO and their antibacterial properties	Jingkun ZHANG
89	Fluorescent pH sensors based on a sol-gel matrix for acidic and neutral pH ranges in a microtiter plate	Jong Il Rhee
90	Hybrid sol-gel multilayered coatings nanodoped for corrosion protection of Magnesium AZ31B substrates	Juan Pablo Fernández Hernán
91	Development of innovative coatings using sol-gel process for high power laser application	K. Valle
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103	Osteoconductive 45S5 Bioglass® coatings based on novel and nitrate-free sol-gel system for applications as bone prosthetics	Léa Dejob
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116	The Beauty behind Hydrogen Production – Titania Nanoparticle-Based Aerogels as Photocatalysts	Murielle Schreck
117	Tunable-sized perovskite BaMO ₃ (M= Ti, Zr and Hf) nanoparticles stable on YBa ₂ Cu ₃ O ₇ superconducting nanocomposites	Natalia Chamorro
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