



SECOND SÃO CARLOS SCHOOL ON GLASSES AND GLASS-CERAMICS

Vitreous Materials Lab (LaMaV) at Federal University of São Carlos (lamav.weebly.com). Instructors



and attendees of the **First School** (2015) with 70 international students and 30 Brazilians.



Pioneirismo e Excelência
Nota 7 CAPES



DEMa
UFSCar

SCHOOL OBJECTIVES

The CeRTEV team (www.certeve.ufscar.br) is organizing the second School on Glasses and Glass-ceramics from April 22 to 27, 2024, following the success of the First International School in 2015.

The main objectives of the school are:

- Provide state-of-the-art information on the structure, dynamic processes (diffusion, viscous flow, relaxation, and crystallization), and optical, electrical, mechanical, and bio chemical properties of glasses and glass-ceramics.
- Disseminate CeRTEV's faculty, infrastructure, and facilities to Brazilian and international Ph.D. students.
- Strengthen the international network of CeRTEV collaborators.
- Attract future students, post-docs, and visiting scientists.

The instructors are well-known experts in experimental, theoretical, and computer simulation studies of glasses.

LOGISTICS

This intensive six-day program selected 70 M.Sc. and Ph.D. students, post-docs, and guest researchers from 10 countries (China, Germany, India, USA, France, Morocco, Hungary, Slovakia, Turkey, and Brazil) for a stimulating exchange of knowledge and experience in glass science and engineering.

Led by faculty from the prestigious PPGCEM – DEMa program (CAPES level 7: Brazil's top ranking) at the Federal University of São Carlos, the program offers approximately 40 hours of instruction through a dynamic mix of lectures, poster presentations, and interactive discussions. Participants will explore cutting-edge topics, receive valuable feedback on their research, and build lasting connections with colleagues from around the world.

Upon successful completion of a homework assignment, interested participants can earn official course credits. This is not compulsory

FORMULÁRIO DE INSCRIÇÃO: **Aluno Especial 2024-1** - Tópicos Especiais em Cerâmicas: Structure, Dynamics and Properties of Vitreous Materials

<https://forms.gle/fZzBn3TqcmbQKvnr6>

REGISTRATION

There is no registration fee for the school. We will cover the hotel for six nights and the lunch expenses for the registered students.

Post-docs, industry researchers, and young professors are welcome to apply for a limited number of guest slots at our intensive school. However, hotel and meal expenses are not included for guests.

Contact: dedz@ufscar.br

PROGRAM (updated April 2024)

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Time	Monday, 22/04/2024	Tuesday, 23/04/2024	Wednesday, 24/04/2024	Thursday, 25/04/2024	Friday, 26/04/2024	Saturday, 27/04/2024
8:00 – 9:45	Welcome 1.5 min fire talks by the students	Glass structure by Raman P. S. Pizani and Rafaela Bartz	Optical properties Andrea de Camargo	Machine Learning Daniel Cassar	Mechanical properties Francisco C. Serbena	Visit to USP labs
9:45 – 10:00	Coffee Break					
10:00 – 12:30	Poster presentations Students	Glass crystallization E. D. Zanotto	Photonic glasses Marcelo Nalin ----- Sisecam Innovation İlkay Sökmen	MD simulations José P. Rino	Bio properties Oscar Peitl	Visit to USP's NMR and glass labs
12:30 – 14:00	Lunch Break					
14:00 – 15:45	Glass structure by EPR Hellmut Eckert	Glass sintering Ralf Müller	Free for shopping or guided tour	Ab-initio simulations G. Dalpian	Electrical properties Ana Rodrigues	Return to São Paulo
15:45 – 16:00	Coffee Break					
16:00 – 18:00	Glass structure by NMR Marcos Oliveira	Glass-ceramics Eduardo B. Ferreira	Free for shopping or guided tour	Corning innovation Claudio Mazzali & Jeffrey Kohli	Visit to UFSCar's glass labs	
	Welcome reception at ParqTec	Free to explore the city	Free	Free	Farewell Dinner	

** = online talks

SPONSORS

Fapesp - CeRTEV (UFSCar, USP, UNESP) , ParqTec, ICG, FunGlass Institute, Sisecam, Corning, and AGC.

INSTRUCTORS

Ana Candida M. **Rodrigues** – Electrical properties
 Andréa S. S. **de Camargo** -Optical Properties
 Claudio **Mazzali** – Introduction to Corning S&T
 Edgar Dutra **Zanotto** – Nucleation and crystallization
 Eduardo **Bellini Ferreira** – Glass-ceramics
 Daniel R. **Cassar** – Machine learning
 Gustavo **Dalpian** - Ab-inition simulations
 Hellmut **Eckert** – EPR

İlkay **Sökmen** – Sisecam innovation

Jeffrey **Kohli** – Corning collaboration with academia

José Pedro **Rino** – **MD simulations**

Marcos de **Oliveira Junior** - NMR

Francisco **Serbena** – Mechanical properties

Marcelo **Nalin** – Photonic glasses

Paulo S. Pizani and Rafaela Barts – Raman spectroscopy

Ralf **Müller** – Glass sintering

Oscar **Peitl** – Bioactive glasses

DATE and VENUE

April 22–27, 2024

São Carlos, São Paulo State, Brazil

The city is known as Brazil's capital of science and technology, with approximately 2,500 Ph.D. and 250,000 inhabitants; one Ph.D. for every 100 residents. The public universities (USP and UFSCar) and the Embrapa Research Center in São Carlos are among Brazil's best. The city also boasts over 100 high-tech companies, mainly in informatics, materials, optics, biotech, and chemistry. Finally, the weather is excellent with over 320 sunny days per year and many rivers, waterfalls, and natural forest areas around the city.