

# CONGRESO INTERNACIONAL DE LA SOCIEDAD QUÍMICA DE MÉXICO 2025

# 6° CONGRESO INTERNACIONAL DE EDUCACIÓN QUÍMICA

14 15 16 17

OCTUBRE 2025 EXPOQUÍMICA

"Química Inteligente para un Entorno Sostenible"







2nd Latin-American School on Environmental Applications of Advanced Oxidation Processes

OCTOBER 12ND - 13TH 2025

Symposium on AOPs in the ICMCS, "Recent advances on Sustainable Advanced Oxidation Processes (AOPs) for the environment"

**OCTOBER 15TH 2025** 

Professional and student poster presentations



OCTOBER 15th AND 16th, 2025

https://sqm.org.mx/ii-lasaops/

























2<sup>nd</sup> Latin-American School on

**Environmental Applications of Advanced Oxidation Processes** 

Venue: NH Collection Monterrey San Pedro, México

October 12<sup>nd</sup> – 13<sup>th</sup> 2025 – 2nd Latin America School on AOPs

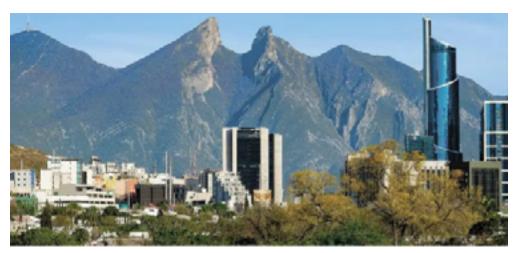
October 14<sup>th</sup> – 17<sup>th</sup> 2025 – International Congress of the Mexican Chemical Society (ICMCS)
October 15<sup>th</sup> 2025 – Symposium on AOPs in the ICMCS, "Recent advances on Sustainable Advanced Oxidation Processes (AOPs) for the environment"

October 15th and 16th, 2025 - Professional and student poster presentations"

### Ist announcement

In June 2014 to promote the higher education of young researchers in the environmental applications of Advanced Oxidation Processes (AOPs), a group of scientists from different European Universities and Research Institutes founded the "European PhD School on AOPs". Subsequently, with the intention to make the association international, institutions from non-EU countries joined the school. More countries have joined this initiative, and nowadays the "International PhD School on Advanced Oxidation Processes" (IPS-AOP) includes 75 Scientific Committee members from 25 different Countries.

The "International PhD School on Advanced Oxidation Processes" (IPS-AOP) will organize from October 12<sup>nd</sup> - 13<sup>th</sup> 2025 the 2<sup>nd</sup> Latin American School on "Environmental Applications of Advanced Oxidation Processes"; and in collaboration with Sociedad Química de México (SQM), a specialized symposium on AOPs and poster presentations, during the International Congress of Mexican Chemical Society (ICMCS) at San Pedro Monterrey, Mexico.



Landscape of "Cerro de la Silla" at Monterrey

The summer school is organized for IPS-AOP PhD candidates and other PhD students, MSc students, undergraduate students, post-doctoral researchers, and professionals. This School program includes (i) *Invited didactic lectures* to overview the most important aspects related to AOPs presented by experts of international relevance, (ii) *parallel discussion groups* on the topics of the day session, chaired by the respective speakers; PhD students can join the discussion group better fits their interest to discuss in more detail the topic the speaker introduced in the day session; (iii) *PhD short oral presentations* and (iv) *poster presentations of all the attendees* of the school, to be held during the Poster session during the 2025 International Congress of the Mexican Chemical Society, (v) *symposium of recent advances in AOPs* which will take place during the 2025 International Congress of the Mexican Chemical Society where expert in the AOPs will present their most recent studies in this field.

Invited didactic lectures at the school are typically 40 minutes (and 10 minutes for questions).

#### **Students Presentations**

#### a) Short oral presentations from PhD students

PhD students are strongly encouraged to prepare a short oral presentation, communicating the advances of their PhD thesis work on the environmental application of AOP. These presentations are 5-minute talks that will be presented on the second day of the school (October 13th) and should be prepared as a PowerPoint presentation with no more than five slides. The presentations must be sent to the organizers MANDATORILY MAXIMUM ON OCTOBER 12<sup>TH</sup> 16:00 HRS (CDMX TIME). PRESENTATIONS WILL NOT BE ACCEPTED IF THIS POINT IS NOT COVERED.

## b) Poster Presentation for all the students and professional school attendees

The advances in the environmental application of AOP for <u>all school attendees</u> will be displayed at the Poster Presentations sessions during the 2025 International Congress of the Mexican Chemical Society. Students' poster session will be on Thursday, 16th October, and professional Poster presentations will take place on Wednesday, 15<sup>th</sup> October. Poster requirements: (A0 size or 120mm (L) × 90 mm (W)). The best poster award will be selected from the participants of the students' session.

#### Program of the 2<sup>nd</sup> Latin America School on AOPs

Ist day, 12th October 2025

08.00- 09:00 Registration

08.15-08.30 Welcome greetings & Introduction (Organizing committee)

Session I: Complementary skills

Time	Title	Speaker	
08.30- 09.20 (50 min)	Strategies for successful application of high-performance liquid chromatography to determine emerging contaminants in water	Julia Liliana Rodríguez Santillan, Instituto Politécnico Nacional, México	
09.20- 10.10 (50 min)	Reaction Mechanisms in Photoelectrocatalysis for Advanced Oxidation Processes	Patricio Javier Espinoza Montero, Pontificia Universidad Católica del Ecuador, Ecuador	
10.10- 11.00 (50 min)	Quantification methods of hydroxyl radical	Bernardo A. Frontana Uribe, Universidad Nacional Autónoma de México, México	
11.00- 11.20	Coffee break		
11.20- 12.10 (50 min)	Fundamentals of electrocatalysis for high oxidation potential species	Carlos Alberto Martinez Huitle, Federal University of Rio Grande do Norte, Brasil	
12.10- 13.00 (50 min)	Overcoming limitations in photo-electrocatalysis to underpin industrial applications	Jorge Gabriel Váz- quez-Arenas, Instituto Politécnico Nacional, Mexico	
13.00- 15.00	Lunch break		

#### **Session 2: Fundamentals of AOPs**

Time	Title	Speaker	
15.00- 15.50 (50 min)	To confirm	Sixto Malato Rodríguez, Plataforma Solar de Almería, Spain	
15.50- 16.40 (50 min)	Advanced electrochemical oxidation processes coupled with sunlight on a pilot scale	Juan Manuel Peralta Hernández, Universidad de Guanajuato, México	
16.40- 17.30 (50 min)	Why five decades of massive research on heterogeneous photocatalysis has not driven to water treatment applications?	Cesar Pulgarin (virtual), École Polytechnique Fédérale de Lausanne, Switzerland	
17:30- 17:50	Coffee break		
17:50- 18.30	Parallel discussion groups on the topics of the session	Chaired by the keynote speakers	

2<sup>nd</sup> day, 13<sup>th</sup> October 2025

#### **Session 3: Fundamentals of AOPs**

Time	Title	Speaker	
08.30- 09.20 (50 min)	Characterization methods in the design of materials with photocatalytic applications	Aracely Hernández Ramírez, Universidad Autónoma de Nuevo León, México	
09.20- 10.10 (50 min)	Evaluación de procesos foto-asistidos: errores y aciertos	Reyna Natividad Rangel, Universidad Autónoma del Estado de México, México	

### **Session 4: Environmental applications of AOPs**

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Time	Title	Speaker	
10.10- 11.00 (50 min)	"Valorization of industrial wastes in the Advanced Oxidation Processes in gas phase"	Erika Bustos Bustos, Centro de Investigación y Desarrollo Tecnológico en Electroquímica, Mexico	
11.00- 11.20	Coffee break		
11.20- 12.10 (50 min)	Advanced Oxidation Processes based on Ultrasonic Waves	Ricardo A. Torres Palma, Universidad de Antioquia, Colombia	
12.10- 13.00 (50 min)	Sustainable innovation in water treatment: Sulfate radicals and their high activity in advanced oxidation  Jorge Rodrígue Chueca, Universi Politécnica de Mar Spain		
13:00- 13:30 (50 min)	(Photo)electro-Fenton and Related Processes: Fundamentals, Emerging Trends, and Future Perspectives	nd Related Processes: Indamentals, Emerging Trends, and Future  Hugo Olvera Vargas, Universidad Nacional Autónoma de México, Movico	
13.30- 15.00	Lunch break		

## Session 4: Environmental applications of AOPs (continuation)

Time	Title	Speaker	
15.00- 15.45	Parallel discussion groups on the topics of the session	Chaired by the	
15.45- 17.45	Short presentations (5 min each, 24 SP) only PhD students	organizers, All participants	
17:30- 17:50	Coffee Break		
17:50- 18:30	Best short presentation award	Chaired by the organizers, All participants	
18:30- 18:45	Summer School conclusions		

## In collaboration with the Congress of the Mexican Chemical Society

Symposium on AOPs, "Recent advances on Sustainable Advanced Oxidation Processes (AOPs) for the environment"

Call for oral presentations will be announced soon by the Mexican Chemical Society

October 15th and 16th, 2025 – Professional and student poster presentations"

Call for poster contributions will be announced soon by the Mexican Chemical Society

MCS webpage (<a href="https://sqm.org.mx/">https://sqm.org.mx/</a>) (Symposium & Posters presentation)

Category	2 <sup>nd</sup> Latin-American School on AOPs 12 <sup>th</sup> – 13 <sup>th</sup> October 2025	2 <sup>nd</sup> Latin-American School on AOPs + Mexican Chemical Society International Congresses 12 <sup>th</sup> – 17 <sup>th</sup> October 2025	2 <sup>nd</sup> Latin-American School on AOPs + Mexican Chemical Society Congresses 12 <sup>th</sup> - 17 <sup>th</sup> October 2025
Rates	Preferential	Mexican Chemical Society's NON-MEMBERS	Mexican Chemical Society's MEMBERS
Academics / Professionals	\$ 2,000.00	\$ 8,000.00 Principio del formulario	\$ 5,600.00
Graduate Students	\$ 1,750.00	\$ 6,250.00	\$ 4,450.00
Undergraduate Students	\$ 1,250.00	\$ 4,050.00	\$ 3,050.00 Final del formulario

### Key dates

June 9th 2025 – Registration Opens for School

August 15th 2025 - Deadline for Application for School

August 30th 2025 - Notification of Acceptance for School

12<sup>nd</sup> - 13<sup>th</sup> October 2025 - 2<sup>nd</sup> Latin America School on AOPs

15<sup>th</sup> October 2025 – Symposium on AOPs in the International Congress of MCS

15<sup>th</sup> October 2025 – Professional poster presentation during the International Congress of MCS

 $16^{\rm th}$  October 2025 – Students' poster presentation during the International Congress of MCS

Registration ONLY to the 2nd Latin America School on AOPs: <a href="https://forms.gle/eZSkD4Q6iFNCV5gJ6">https://forms.gle/eZSkD4Q6iFNCV5gJ6</a>

Please, check additional information concerning for registration for the International Congress of MCS webpage (https://sqm. org.mx/convocatoria-cisqm2025-6cieq/) (Symposium & Posters presentation)

The cost of the School is to <u>fund only the coffee-brakes & spaces</u> in the venue location: <u>NH Collection Monterrey San Pedro, México</u>

Become a MEMBER of the Mexican Chemical Society: https://sqm.org.mx/convocatoria-de-membresia-2025/

#### Payment by Interbank Electronic Transfer

Available accounts

BANCO: INBURSA, CLABE: 036180500371496588 BANCO: IXE-BANORTE, CLABE: 072180002783443102 Payment concept: SchoolPOAsSurnameFirstNameLetter

(Example: SchoolPOAsFrontanaB)

Payments under PayPal and Stripe, refer to: <a href="https://sqm.org.mx/ii-lasaops/">https://sqm.org.mx/ii-lasaops/</a>

<u>International attendee payments, please contact the School</u>
Chairmans

International Transfer to BANORTE account Bank details

Bank name: Banco Mercantil del Norte (BANORTE) Address: Insurgentes Sur 2do nivel 1605, Col. San José

Insurgentes, C.P. 03900, México, D.F. SWIFT code: MENOMXMTXXX

Name of recipient bank account: SOCIEDAD QUIMICA DE MEXICO, A.C.

(Name must be exactly as stated on bank account)

Bank name and Account number: BANORTE account 0278344310 CLABE number: 072180002783443102 Chase Bank: JP Morgan Chase Bank New York, NY Routing number for Chase Bank (ABA): 021000021

SWIFT code for Chase Bank: CHASUS33XXX

#### Recipient information:

Name of recipient: SOCIEDAD QUIMICA DE MEXICO, A.C.

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DE MEXICO, MEXICO.

Phone numbers: +5255 56626837 / +5255 56626823

e-mail: soquimex@sqm.org.mx

#### **Organizing Committee**

Prof. Dr. Jorge G. Vázquez Arenas (CMP+L, Instituto Politécnico Nacional, México), Chairman:

Email: jgvazquez@ipn.mx

Prof. Dr. Bernardo A. Frontana Uribe (Centro Conjunto en Investigación en Química Sustentable, Instituto de Química UNAM,

México), Chairman: bafrontu@unam.mx

Prof. Dr. Luigi Rizzo (University of Salerno - Italy), IPS-AOP General Coordinator

Prof. Dr. Sixto Malato (Plataforma Solar de Almeria), IPS-AOP Regional Coordinator for Europe

Prof. Dr. Ricardo Torres Palma (Universidad de Antioquia, Colombia), IPS-AOP Regional coordinator for Latin-America

Prof. Dr. Fernado Cortés Guzman (Facultad de Química UNAM), elected president of the Mexican Chemical Society

