

2nd Edition of

Carbon Science and Technology



October 26–28, 2026



Paris, France



www.carbonscitech.com

Organized by

CO IN

C-HORIZON 2026

PRE-PRINT PROGRAM

2nd Edition of Carbon Science and Technology

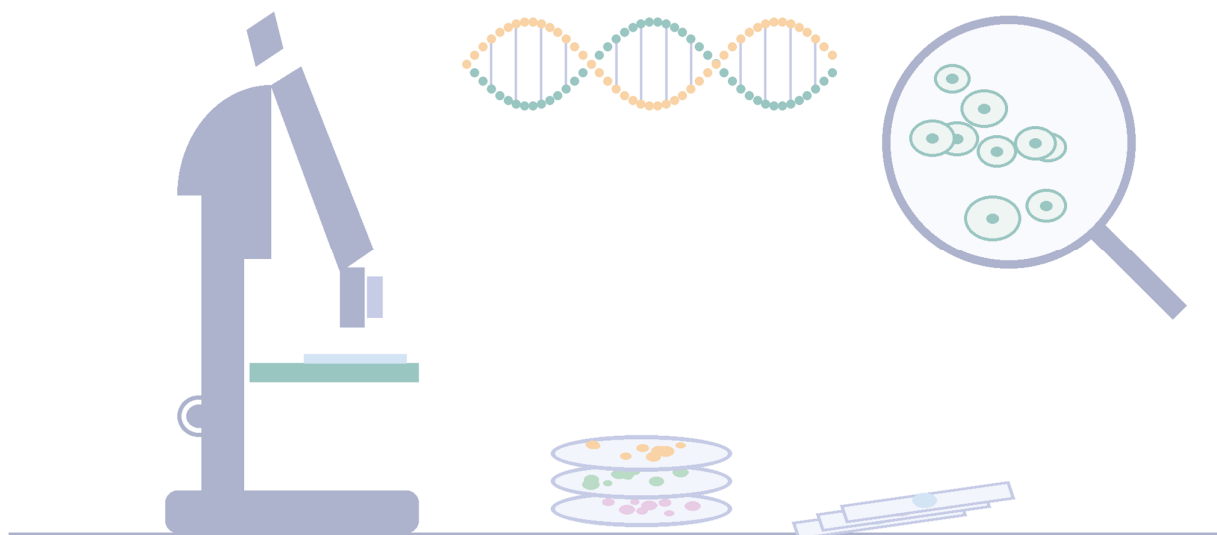
October 26–28, 2026 | Paris, France

Conference Information

Dates	October 26–28, 2026
Venue	Millennium Hotel Paris Charles de Gaulle, 2 Allée du Verger, 95700 Roissy-en-France, Paris, France
Format	Day 1 and Day 2 in person; Day 3 virtual
Time zone	Central European Time (CET, UTC+1)
Website	www.carbonscitech.com
Contact	secretary@carbonscitech.com carbon-horizon@coin-connect.net +1 512 270 2990
Organized by	COIN Symposia LLC

Scientific Program Overview

DAY	DATE	FORMAT	SCHEDULE (CET)
Day 1	Monday, October 26, 2026	In-Person	08:20 AM – 05:00 PM Keynote presentations and oral presentations
Day 2	Tuesday, October 27, 2026	In-Person	08:30 AM – 05:00 PM Oral presentations
Day 3	Wednesday, October 28, 2026	Virtual	09:30 AM – 09:35 PM Keynote presentations and oral presentations



DAY 1**Monday, October 26, 2026**

In-Person Sessions | Millennium Hotel Paris Charles de Gaulle

Time Zone: Central European Time (CET, UTC+1)08:20 – 08:40 AM **Badge Pickup**08:40 – 09:00 AM **Introduction****From Carbon Nanomaterials to Carbon Management****KEYNOTE PRESENTATIONS**

09:00 – 09:40 AM

Keynote 01*In-Person***High-performance Filter Capacitors Assembled with Integrated 3D Carbon Nanostructures****Bingqing Wei***University of Delaware, Newark, DE, USA***BIOGRAPHY**

Professor Bingqing (B.Q.) Wei is the George W. Laird Professor of Mechanical Engineering and Director of the Center for Fuel Cells and Batteries at the University of Delaware, USA. He received his B.S., M.S., and Ph.D. in Mechanical Engineering from Tsinghua University, China. Prior to joining the University of Delaware in 2007, he served as an Assistant Professor at Louisiana State University and as a Research Scientist at Rensselaer Polytechnic Institute. Prof. Wei is internationally recognized for his pioneering contributions to nanomaterials and nanotechnology for sustainable energy applications. He has published more than 400 peer-reviewed journal articles, is a Clarivate Highly Cited Researcher, a Fellow of the Royal Society of Chemistry (RSC), and serves as the inaugural Field Chief Editor of Frontiers in Nanotechnology. His research has significantly advanced carbon nanostructures for energy conversion and storage technologies.

09:40 – 10:20 AM

Keynote 02*In-Person***Is Graphite an Anode or Just a Capacitive Negative Electrode in Lithium-Ion Batteries?****Hubert Girault***EPFL, Switzerland***BIOGRAPHY**

Professor Hubert H. Girault is Emeritus Professor of Physical and Analytical Chemistry at the École Polytechnique Fédérale de Lausanne (EPFL), Switzerland. He obtained his Ph.D. from the University of Southampton, UK, and has established an internationally recognized career in electrochemistry and analytical chemistry. Prof. Girault is renowned for his pioneering contributions to electrochemistry at liquid–liquid interfaces, microfluidics, and mass spectrometry. He has authored over 500 scientific publications, several books, and numerous patents, and has received many prestigious international awards for his research achievements. Throughout his career, he has mentored generations of scientists while advancing innovative technologies for chemical analysis, energy conversion, and biomedical applications. His work has significantly influenced modern electrochemistry and analytical sciences.

10:20 – 11:00 AM

Keynote 03

In-Person

**Emerging Advances in Fullertube Research****Steven Stevenson***Purdue University, Fort Wayne, IN, USA***BIOGRAPHY**

Professor Steven Stevenson is a Professor of Chemistry at Purdue University Fort Wayne and serves as the Director of the FIRST Molecules Research Center (Fullertube Interdisciplinary Research, Science & Technology). He earned his Ph.D. in Analytical Chemistry from Virginia Tech, where he specialized in metallofullerene research. With more than three decades of experience in fullerene chemistry, he is internationally recognized for the discovery of several novel carbon nanostructures, including trimetallic nitride endohedral metallofullerenes and the recently discovered fullertubes. Prof. Stevenson has received numerous grants from the U.S. National Science Foundation, holds multiple patents, and has authored numerous high-impact publications, including papers in *Nature* and the *Journal of the American Chemical Society (JACS)*. His research has advanced the understanding of carbon nanomaterials and their applications in energy, electronics, and nanotechnology.

11:00 – 11:20 AM

Break

11:20 AM – 12:00 PM

Keynote 04

Online

**Laser-induced Graphitization of Commodity Polymers for Large Scale Fabrication of Flexible Micro-supercapacitors****Rabah Boukherroub***University of Lille & CNRS, France***BIOGRAPHY**

Prof. Rabah Boukherroub is a CNRS Research Director and Group Leader of the NanoBioInterfaces (NBI) group at the Institute of Electronics, Microelectronics and Nanotechnology (IEMN), University of Lille, France. He earned his Ph.D. in Organic and Organometallic Chemistry from Paul Sabatier University, Toulouse, France, and later obtained his Habilitation in Materials Chemistry from the University of Versailles. He is internationally recognized for his pioneering work in nanostructured functional materials and surface chemistry. Prof. Boukherroub serves as an Associate Editor of *ACS Applied Materials & Interfaces* and has authored more than 700 peer-reviewed publications, numerous book chapters, and holds several patents in nanotechnology and advanced materials. His research has significantly contributed to the development of innovative nanomaterials for biomedical, environmental, and energy applications. He has received several prestigious national and international awards for excellence in scientific research.

12:00 – 12:40 PM

Keynote 05

Online

**Unveiling the Atomic Configuration and Physical Properties of Low-Dimensional Materials via Advanced TEM****Raúl Arenal***Universidad de Zaragoza-CSIC, Spain***BIOGRAPHY**

Professor Raúl Arenal is a Research Scientist at the Spanish National Research Council (CSIC), affiliated with the Instituto de Nanociencia y Materiales de Aragón (INMA, CSIC–Universidad de Zaragoza), Spain. He earned his Ph.D. in Physics from the University of Zaragoza and has held research positions at leading international institutions, including the National Institute for Materials Science (NIMS), Japan, and CNRS laboratories in France. Prof. Arenal is internationally recognized for his expertise in advanced electron microscopy and spectroscopy for nanomaterials characterization. He has authored more than 250 peer-reviewed scientific publications and has made significant contributions to understanding the structure and properties of low-dimensional nanomaterials. His research integrates cutting-edge microscopy techniques with materials science to address challenges in nanotechnology, energy, and electronics.

12:40 – 01:20 PM

Keynote 06

Online

**Twistronics and Incommensurate Composite Materials****Kenneth M. Golden***University of Utah, Salt Lake City, UT, USA***BIOGRAPHY**

Professor Kenneth M. Golden is a Distinguished Professor of Mathematics at the University of Utah and an internationally renowned expert in applied mathematics and climate science. He earned his Ph.D. in Mathematics from New York University's Courant Institute of Mathematical Sciences. Prof. Golden is widely recognized for pioneering the use of mathematical theory to understand the physical properties of sea ice and its role in the Earth's climate system. He has authored more than 200 scientific publications, served as Director of the Vertical Integrated Projects (VIP) Program at the University of Utah, and has led numerous interdisciplinary research initiatives funded by the U.S. National Science Foundation and other agencies. He is a Fellow of the Society for Industrial and Applied Mathematics (SIAM), the American Physical Society (APS), the American Mathematical Society (AMS), and the American Association for the Advancement of Science (AAAS). His contributions have significantly advanced the mathematical understanding of complex composite materials and polar climate processes.

01:20 – 02:20 PM

Lunch**ORAL PRESENTATIONS**

02:20 – 02:45 PM

Oral Presentation 01*In-Person***From Carbon Dots to Nanodiamonds and Graphene: Engineering Functional Nanomaterials for Healthcare and Sustainability****Shadi Houshyar***RMIT University, Australia*

02:45 – 03:10 PM

Oral Presentation 02*In-Person***Simulation of Iron Ore Direct Reduction Using Biomass – A Step Forward to the Decarbonization of the Steel Industry****Frank Rogener***TH Köln – Institute of Materials and Process Technology, Germany*

03:10 – 03:35 PM

Oral Presentation 03*In-Person***Carbon Management – From Vision to Industrial Application****Görge Deerberg***Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT, Germany*

03:35 – 03:55 PM

Coffee & Networking Break

03:55 – 04:20 PM

Oral Presentation 04*In-Person***Catalytic Hydrogenation of Dibenzyltoluene-Based LOHC Using Non-Noble Mono- and Bi-Metal Catalysts****Asnakech Lass-Seyoum***University of Applied Sciences Berlin, Germany*

04:20 – 04:45 PM

Oral Presentation 05*In-Person***Carbon Materials in Battery Electrodes: From Conductive Additives to Active Components****Bharathi Konkana***Trinity College Dublin, Ireland*

04:45 – 05:00 PM

Closing Remarks / Discussion / Networking**END OF DAY 1**

DAY 2**Tuesday, October 27, 2026**

In-Person Sessions | Millennium Hotel Paris Charles de Gaulle

Time Zone: Central European Time (CET, UTC+1)

From Catalysts to Nanocomposites: Materials for Sustainability

08:30 – 09:00 AM Introduction

ORAL PRESENTATIONS

09:00 – 09:25 AM
Oral Presentation 01
In-Person

Energy-Efficient Catalytic Cracking of Light-Naphtha Over Zeolite-Based Composite for On-Purpose Propylene Production
Shinya Hodoshima
Research & Development Center, Chiyoda Corporation, Japan

09:25 – 09:50 AM
Oral Presentation 02
In-Person

Investigations of Carbonatization of Synthetic Hydroxyl Apatite OH-apatite via Ball Milling Activation
Vilma Petkova Stoyanova
Institute of Mineralogy and Crystallography, Bulgarian Academy of Sciences, Bulgaria

09:50 – 10:15 AM
Oral Presentation 03
In-Person

Efficient Carbon Capture by Growing and Separation of Wood
Hans-Otto Carmesin
University of Bremen, Germany

10:15 – 10:40 AM
Oral Presentation 04
In-Person

Interface Engineering of Low-Dimensional Materials for Sustainable Environmental Applications
Inmaculada Jéniffer Gómez
CICA, University of A Coruña, Spain

10:40 – 11:00 AM
Coffee & Networking Break

11:00 – 11:25 AM
Oral Presentation 05
In-Person

Carbon Nanoparticle–Liquid Crystal Composites: Experimental Studies and Theoretical Modelling
Cristina Cirtoaje
National University of Science and Technology Politehnica Bucharest, Romania

11:25 – 11:50 AM
Oral Presentation 06
In-Person

Transition Metal Dichalcogenide Selenides/rGO Nanocomposite Engineered Interfaces for Electrochemical Sensing
Priti Manon
Amity University Punjab Mohali, India

11:50 AM – 12:15 PM
Oral Presentation 07
In-Person

An Innovative Fabrication Route for Wrinkled Silver-Based Nanoporous Material
Damien Thiry
University of Mons, Belgium

12:15 – 12:40 PM
Oral Presentation 08
In-Person

Solid-State Synthesis of MXenes-Based Heterostructures
Ashik Manoj Neelur
University at Buffalo, Buffalo, NY, USA

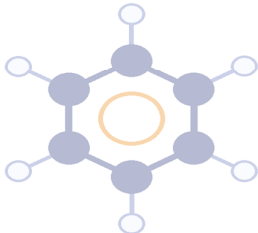
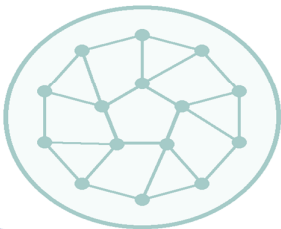
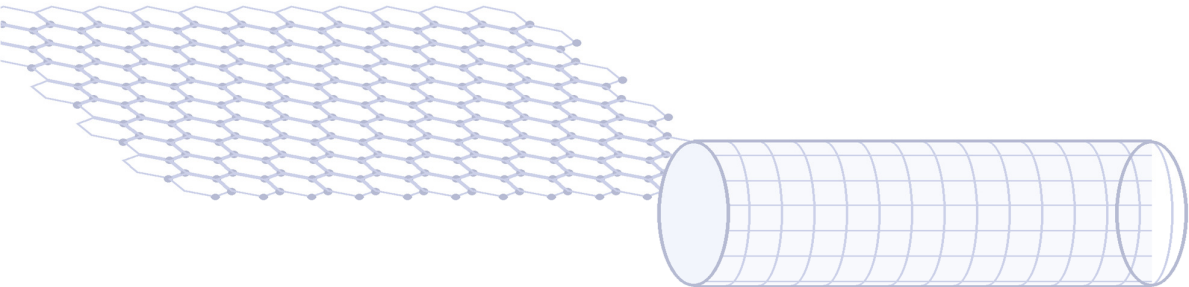
12:40 – 01:40 PM
Lunch Break

01:40 – 02:05 PM
Oral Presentation 09
In-Person

Impact of Carbonate Inert Filler on the Water Curing of White Cement Mortars as Green Approach to Circular Economy
Vilma Petkova Stoyanova
Institute of Mineralogy and Crystallography, Bulgarian Academy of Sciences, Bulgaria

02:05 – 02:30 PM Oral Presentation 10 <i>In-Person</i>	Long-term Electrochemical Performance and Corrosion Stability of Catalyst-coated Nickel Micromesh Electrodes for Alkaline Seawater Electrolysis Muhammad Maqbool <i>Teesside University, United Kingdom</i>
02:30 – 02:55 PM Oral Presentation 11 <i>In-Person</i>	Scalable CVD Growth of 2D Materials for NextGeneration Energy and Electronic Technologies Fei Yao <i>University at Buffalo, Buffalo, NY, USA</i>
02:55 – 03:20 PM Oral Presentation 12 <i>In-Person</i>	Impact Damage in Carbon Fiber Aircraft Structures: Climbing the Building-Block Pyramid with Numerical Accelerators Andrew Seamone <i>Exponent, Ann Arbor, MI, USA</i>
03:20 – 03:40 PM	Coffee & Networking Break
03:40 – 04:05 PM Oral Presentation 13 <i>In-Person</i>	Tunable Boron-Doped Carbon Nanotube Films for High-Performance VOC Sensing: A Structure-Property Correlation Study Sk taslim Ali <i>Homi Bhabha National Institute, India</i>
04:05– 04:30 PM Oral Presentation 14 <i>In-Person</i>	<i>Title to be confirmed</i> Simon Guy <i>Reusefully, United Kingdom</i>
04:30 – 04:55 PM Oral Presentation 15 <i>In-Person</i>	<i>Title to be confirmed</i> Devika Chithrani <i>University of Victoria, Victoria, BC, Canada</i>
DELEGATE	Jonghwa Oh <i>The University of Alabama at Birmingham, Birmingham, AL, USA</i>
04:55 – 06:00 PM	Session Closing Departures
Still Slots are Available	

END OF DAY 2



DAY 3**Wednesday, October 28, 2026**

Virtual Sessions | Online

Time Zone: Central European Time (CET, UTC+1)

Carbon and 2D Materials for Energy, Catalysis and Environment**KEYNOTE PRESENTATIONS****09:00 – 09:35 AM****Keynote Talk 01**

Virtual

**Recent Progress in 3D Printed High Energy Density Lithium-ion Batteries****Vinay Gupta***Khalifa University, UAE***BIOGRAPHY**

Dr. Vinay Gupta is an Assistant Professor of Physics and leads the Energy and Sustainability Group at Khalifa University of Science and Technology, Abu Dhabi. With more than 25 years of international research and teaching experience, his work focuses on carbon-based functional materials, energy storage, solar cells, optoelectronics, two-dimensional materials, and additive manufacturing. He has held research and academic appointments in India, Japan, Germany, France, and the United States, including an Indo-US fellowship with Nobel Laureate Alan J. Heeger at UC Santa Barbara. Dr. Gupta has authored more than 170 peer-reviewed publications and received several prestigious honors, including India's Shanti Swarup Bhatnagar Prize for Physical Sciences, the Thomson Reuters Research Excellence India Citation Award, and the NASI-SCOPUS Young Scientist Award.

09:35-10:05 AM**Keynote Talk 02**

Virtual

**AI and Emerging Electronics Materials to Answer Digitalization Demands****Rodrigo Ferrão de Paiva Martins***NOVA University Lisbon, Portugal***BIOGRAPHY**

Professor Rodrigo Ferrão de Paiva Martins is a Distinguished Professor of Materials Science at NOVA University Lisbon and one of Europe's leading researchers in advanced functional materials and electronics. He is the founder and former Director of the Centre of Excellence in Microelectronics, Optoelectronics and Processes (CENIMAT), now integrated into CENIMAT|i3N. Prof. Martins has played a pioneering role in the development of transparent and flexible electronic technologies based on oxide semiconductors. He has authored more than 700 scientific publications, holds numerous international patents, and has supervised a large number of graduate researchers. He is a member of several prestigious scientific academies, including the European Academy of Sciences, and has received numerous international awards for his contributions to materials science and sustainable technologies. His research has had a significant impact on next-generation electronics, renewable energy, and smart materials. Shanthi Iyer, North Carolina A&T State University, Greensboro, NC, USA

ORAL PRESENTATIONS**10:05-10:30 AM****Oral Presentation 01**

Virtual

Engineering Carbon-based and Two-dimensional Materials for Next-generation Energy Technologies**Nilanthi Balakrishnan***Keele University, United Kingdom***10:30 – 10:55 AM****Oral Presentation 02**

Virtual

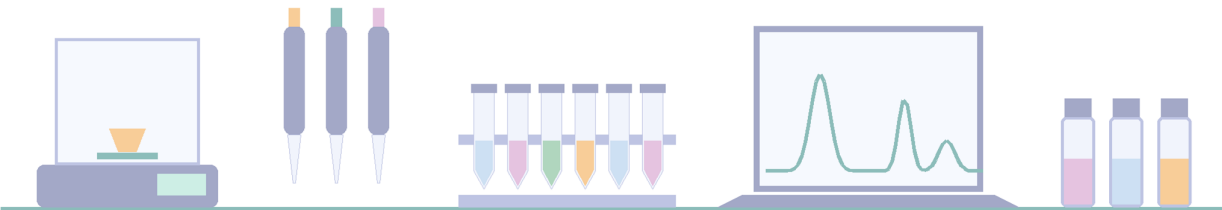
Metal–Organic Materials as Catalysts for PET Recycling**Mateusz Adam Baluk***University of Gdańsk, Poland*

10:55 - 11:20 AM Oral Presentation 03 <i>Virtual</i>	Engineering 2D Nanomaterials for Renewable Energy and Gas Sensing Applications Mohammed A. Al-Seady <i>University of Szeged, Hungary</i>
11:20 - 11:40 AM	COFFEE BREAK
11:40 - 12:05 PM Oral Presentation 04 <i>Virtual</i>	From Ferroic Order to Spin Polarization: New Paradigms for Next-Generation Energy Conversion Simrjit Singh <i>VŠB – Technical University of Ostrava, CATRIN, Czech Republic</i>
12:05 – 12:30 PM Oral Presentation 05 <i>Virtual</i>	Molecular Engineering of a Tailored Additive for Morphology Control and Performance Enhancement in Mixed Pb-Sn Perovskite Solar Cells Venanzio Raglione <i>National Research Council of Italy, Italy</i>
12:30 – 12:55 PM Oral Presentation 06 <i>Virtual</i>	Nature-Inspired Innovation in the Age of Artificial Intelligence: Sustainability, Responsibility, and a Renewed Humanitas Séverine A.E. Boyer <i>CNRS – MINES Paris PSL, France</i>
12:55 – 01:20 PM Oral Presentation 07 <i>Virtual</i>	Multiplexed Fluorescent Polymeric Microstructures Sequentially Encoded via Two-Photon Click Tetrazole-based Chemistry Jean-Pierre Malva <i>Institut de Science des Matériaux de Mulhouse (CNRS 7361), France</i>
01:20 – 01:45PM Oral Presentation 08 <i>Virtual</i>	Scalable Electrospinning Synthesis of CuO and Fe₂O₃ Electrodes for Photoelectrolysis Claudia D’Urso <i>CNR-ITAE, Italy</i>
01:45 – 02:10 PM Oral Presentation 09 <i>Virtual</i>	On the Decarbonization of Steel Plants Nejat Rahmanian <i>University of Bradford, United Kingdom</i>
02:10 – 02:35 PM Oral Presentation 10 <i>Virtual</i>	Extended Influence of Near-Surface Effects: A Unique Property of Electrochemical Systems Viktor G. Mairanovsky <i>Sci-Society WIGB Berlin, Germany</i>
02:35 – 03:05 PM	Lunch Break
03:05 – 03:30 PM Oral Presentation 11 <i>Virtual</i>	Influence of BaTiO₃ and SrTiO₃ on the Electroactive Characteristics of Dehydrohalogenated PVDF Nanocomposites Jolly Subhash Badra <i>Qatar University, Qatar</i>
03:30 – 03:55 PM Oral Presentation 12 <i>Virtual</i>	Modeling and Simulation of the Biofuel Production Process from Ethanol in a Packed Bed Reactor, and the Application of Controllers for Its Operation Iliana Carrera Flores <i>Escuela Politécnica Nacional, Quito, Ecuador</i>
03:55 – 04:20 PM Oral Presentation 13 <i>Virtual</i>	Photothermic Energy Harvesting in Reduced Graphene Oxide Nanosheets Intercalated with Vanadium Nitride as a Pseudocapacitive Electrode Srivathsava Surabhi <i>Universidad de Concepción (UdeC), Chile</i>

04:20 – 04:45 PM Oral Presentation 14 Virtual	Chiral Photoluminescence Signatures of Carbon Structures: Nanotubes, Quantum Dots, and Conjugated Polymers Dmitri Kilin <i>North Dakota State University, Fargo, ND, USA</i>
04:45 – 05:10 PM Oral Presentation 15 Virtual	Fabrication and Characterization of a Microreactor Made of Pd-loaded Carbonized Tracheid Thin Plates Kenta Kakiuchi <i>University of Colorado Boulder, CO, USA</i>
05:10 – 05:35 PM Oral Presentation 16 Virtual	MXene for Thermal Management Saketh Merugu <i>The University of Toledo, Toledo, OH, USA</i>
05:35 – 05:55 PM	COFFEE BREAK
KEYNOTE PRESENTATION	
05:55 – 06:30 PM Keynote Talk 03 Virtual	Bandgap and Junction Engineering of GaAsSb Nanowires on Graphene for High Performance Near-Infrared Photodetectors Shanthi Iyer <i>North Carolina A&T State University, Greensboro, NC, USA</i>
	BIOGRAPHY Prof. Shanthi Iyer is a Professor at the Joint School of Nanoscience and Nanoengineering, North Carolina A&T State University. Her research focuses on III–V semiconductor materials, semiconductor nanowires, heterostructures, molecular beam epitaxy, graphene-integrated nanostructures, photodetectors, and optoelectronic devices. Her work includes the development of GaAs/GaAsSb nanowire heterostructures and integration of semiconductor nanowires with graphene for advanced device applications. Her research has received support from major U.S. agencies, including the National Science Foundation and U.S. Army. She has an extensive record of research publications, patents, and contributions to semiconductor nanotechnology and advanced functional materials.
06:30 – 06:55 PM Oral Presentation 17 Virtual	Dual Emissive Carbon Dots for Sensing Applications Xiangcheng Sun <i>Rochester Institute of Technology, Rochester, NY, USA</i>
06:55 – 07:20 PM Oral Presentation 18 Virtual	Magnetically Separable Nickel Ferrite/Graphene Oxide Nanocomposite for Removing Cr(III) Ions from Water Umapada Pal <i>Instituto de Física, Universidad Autónoma de Puebla (BUAP), Mexico</i>
07:20 – 07:45 PM Oral Presentation 19 Virtual	Heterojunction-based Strategies for CO₂ Photoreduction Edith Luévano-Hipólito <i>CIMAV, Mexico</i>
07:45 – 08:10 PM Oral Presentation 20 Virtual	Colloidal Au and Ag Nanoparticles from Sargassum Extract and Their Biocarbon Composites: Catalytic Performance Study Mou Pal <i>Instituto de Física, Universidad Autónoma de Puebla (BUAP), Mexico</i>
08:10 – 08:35 PM Oral Presentation 21 Virtual	Willow Chip Amendments and Cover Crop Selection Interactively Regulate Subsoil Nitrate Leaching in Potato Rotations: A Six-Year Lysimeter Study Yefang Jiang <i>Agriculture and Agri-Food Canada, Canada</i>

08:35 – 09:00 PM Oral Presentation 22 <i>Virtual</i>	Charge-transfer Plasmonics and Nanophotonics in Graphene Heterostructures Zhe Fei <i>Iowa State University, Ames, IA, USA</i>
09:35 – 10:00 PM Oral Presentation 23 <i>Virtual</i>	Title To Be Announced Daniel Blair <i>St. Jude Children's Research Hospital, Memphis, TN, USA</i>
10:00 – 10:25 PM Oral Presentation 24 <i>Virtual</i>	Title To Be Announced Su Mon Thit <i>Singapore University of Technology and Design (SUTD), Singapore</i>

END OF DAY 3





CALL FOR PARTICIPATION

Limited Presentation Slots Available

Only a few presentation slots remain — submit your abstract and confirm your slot to present at C-Horizon 2026.

SUBMIT YOUR ABSTRACT → www.carbonscitech.com

C-HORIZON 2026 • PARIS, FRANCE • OCTOBER 26–28, 2026

Thank you for joining C-Horizon 2026

2nd Edition of Carbon Science and Technology | October 26–28, 2026

Millennium Hotel Paris Charles de Gaulle, 2 Allée du Verger, 95700 Roissy-en-France, Paris, France

ORGANIZED BY

COIN Symposia LLC

5900 Balcones Dr Suite 100, Austin, TX 78731, United States

Emails: secretary@carbonscitech.com | carbon-horizon@coin-connect.net

Phone: +1 512 270 2990 | www.carbonscitech.com



C-HORIZON 2027 • GERMANY

SEE YOU NEXT YEAR

We will see you at the next edition of C-Horizon 2027 in Germany!

Stay in touch for dates and venue updates at www.carbonscitech.com