

6th INTERNATIONAL Symposium on Materials, Electrochemistry & Environment

October 24 - 26, 2024 | Lebanon

Cimee-science.org



C I M E E

INTERNATIONAL SYMPOSIUM ON MATERIALS, ELECTROCHEMISTRY & ENVIRONMENT

Dear colleagues, distinguished guests, ladies and gentlemen.

You are Welcome in the Closing Ceremony,

Great honor to spend the past three days with friends and colleagues from different countries. With your participation, the symposium successfully finished all its sessions. On behalf of organizing committee, I would like to extend our highest respect and most sincere gratitude to the joint efforts of all the participating, scholars professionals and guests, and our most cordial congratulations to the success of this International Symposium CIMEE24

These three days distributed on 14 sessions (opening Keynote session, 2 plenaries sessions, 6 keynote sessions and 5 oral sessions) have privileged occasion for fruitful scientific exchanges, discussions and networking between scientists working in the field of Materials chemistry, Electrochemistry and environmental analytical chemistry.

However, the greatest threat to global security is climate change and the main negative impact on climate change is the emission of greenhouse gases which is directly or indirectly due to the burning of non-renewable resources., but this climate instability, which affects many aspects of life on Earth, is no longer seen primarily as an environmental problem but is generating an economic problem. Climate change has consequences that go to the heart of global security.

Security issues associated with climate change include impacts on food, water and energy supplies, increased competition for natural resources, loss of livelihoods, and climate-related disasters and economic disruptions (the economic costs of climate change). In fact, in recent years, the world has witnessed an increase in the threat and impacts of climate-related or environmental hazards. As a result, armed conflicts have increased in more than one region of the planet.

This is not about national security, but about collective security in an increasingly fragile and interconnected world. The most tragic thing is that once again, those who are the most vulnerable and the least equipped to deal with this situation are the first victims.

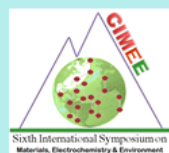
Given that a quarter of global greenhouse gas emissions are caused by agricultural and livestock practices that also use 75% of water resources, sustainability occupies the first place among the solutions to this climate crisis. Given this relationship between environmental sustainability and climate change.

The question: How can agricultural sustainability contribute to combating the climate crisis?

In fact, sustainable agriculture meets today's needs without compromising natural resources for future generations. It is opposed to productivist agriculture that weakens the environment with the use of chemical fertilizers, herbicide treatments, fungicides, insecticides, pesticides. Sustainable agriculture is therefore based on the concept of sustainable development and relies on a circular system in which the resources taken have time to regenerate.

On the other hand, sustainable agriculture helps to preserve water resources. Indeed, agriculture consumes nearly 70% of drinking water worldwide. Drought periods will tend to intensify in the coming years and will coexist with periods of heavy

rain. Possible and rapid solutions are available for farmers to react: water storage and use of treated wastewater and artificial irrigation technology. Sustainable development and agriculture therefore go hand in hand to form a sustainable operation. In this way, the change in agricultural model will effectively respond to the climate emergency. The best strategy to reduce the carbon footprint of crops is based on the transition to sustainable agriculture. This includes opting for conservation agriculture, improving energy efficiency, using sustainable fertilizers or reducing land use. Therefore, according to this strategy, agriculture can become a carbon sink by using new technologies and innovative techniques. The closing statement of the conference included an urgent call for more work to address the deteriorating environmental situation in a group of Middle Eastern countries, adopting innovative scientific methods that rely on the principle of circular economy and green economy. The participants in the conference activities issued a statement that included a number of scientific recommendations that would contribute to organizing investment in scientific projects to develop the agricultural sector and contribute to reducing emissions and calling for more solidarity and joint work among all researchers. To encouraging experts and researchers and enhancing academic work to conduct applied research that contributes to preserving the environment and agriculture while relying on the green economy in addition to the sustainable use of natural resources, treating pollution as well as the preserving ecosystems, with emphasis on international cooperation between universities in Middle east, Europe and North Africa. All this can efficiency contribute to providing appropriate solutions at the environmental and agricultural levels, especially in countries suffering from wars and conflicts.



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Theme: Environmental Sustainability through Green Chemistry and renewable Energy

Closing Session

Conclusions and Perspectives

The implementation of the strategic partnership has approved by the members of the CIMEE group to follow and offer a clear roadmap for the development of our relationship in the future: Select the most pressing research topic for the Mediterranean region grouping the 3 continents: Asia, Europe and North Africa. Encourage the publication of special session, conference papers, chapter book, webinars, Workshop/Training Course etc. Boost the cooperation by supporting the master program and PhD students on mediterranean universities.

Here are some proposals regarding new technologies and sustainable strategies to achieve carbon neutrality as a solution to climate change and the well-being of our planet.

- 1. Conservation of Resources and Waste Elimination:** Circular Economy as Sustainable Solution. Increasing resource extraction poses considerable risks to the environment and human health, e.g. resource depletion, pollution of air, water and soil, climate change and loss of biodiversity.
- 2. Advanced Materials and Nanotechnology for Environmental Applications, Energy and agricultural sectors.** Explore the recent discovery and synthesis of graphene materials and the applications in various fields such as energy and environment.
- 3. Eco-friendly materials as a potential solution for plastic pollution.** Plastic pollution is a pressing issue that affects the environment on a large scale. It's a complex problem that requires collective efforts to tackle.
- 4. Electrochemical Sensors** (Sensors for Atmospheric and Environmental Pollution), Sensors for Environmental Monitoring and Pollution Control
- 5. Waste-to-Energy technology as potential role in mitigating the effects of climate change.** Waste energy recovery can effectively contribute to the reduction of greenhouse gases and limits the use of fossil fuels.
- 6. Carbon Capture and sequestration technologies.** Recent advances in material synthesis and surface chemistry using new generations of CO₂ sorbent.
- 7. Decarbonization and role of the Technology.** Exploring the role of new technologies in decarbonizing global energy systems

I would like to thank the organizers and all the participants! Thank you for your attention!

El Moll Ahmad, Lebanon

Conference Chair