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HYDROGEN: a mean to decarbonize the global economy

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UNIVERSITATEA DIN PITEȘTI

2022, 6th of July

HYDROGEN: a mean to decarbonize the global economy

11⁴⁰-12⁰⁰: “Single-step synthesis of nitrogen-doped graphene and application as electrocatalyst for fuel cells”
Dr. Adriana Marinoiu, ICSI Rm. Vâlcea, Romania

Dr. Adriana Marinoiu, first degree scientific researcher (CS I) works for the implementation of national development strategies in the field of hydrogen and in the field of PEM type fuel cells, in accordance with European directives. **Adriana Marinoiu**, 45 years old, made her debut at the OLTCHIM Research Center as a chemical engineer; she has postgraduate studies in industrial and ecological catalysis for hydrogenation processes ("Gh. Asachi" Technical University of Iasi), and a bachelor's degree in public administration ("A.I. Cuza" University of Iasi). After more than a decade of professional experience in the industrial chemical sector, she transferred in 2012 to the **Institute of Cryogenics and Isotopic Separations ICSI-Rm Vâlcea**, where she currently leads the group "New Materials for H₂ Energy" of the ICSI ENERGY department. Her field of research is directly related to energy systems, the field of hydrogen and fuel cells (FC), focusing on: electrocatalysts of noble and non-noble metals; carbon nanomaterials for electrodes; analysis of catalytic interfaces. Her research contributions include the development of new synthetic methods for graphene materials decorated with noble metal nanoparticles; electrode manufacturing procedures for fuel cells; catalyst deposition methods; methods of manufacturing membrane-electrode assemblies (MEA); physical and chemical characterization methods for FC electrodes; and methods of preparation for new catalytic systems for the retention of carbon monoxide from hydrogen gas. Her research activity in recent years has been mainly dedicated to PEM FC and related catalysts.



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11⁴⁰-12⁰⁰: “R&D efforts to develop suitable nuclear-powered water-splitting technologies for carbon-free sustainable H₂ production”
Dr. Cătălin Ducu, RATEN, Romania

Dr. Cătălin Ducu is an associate professor at the Faculty of Mechanics and Technology, University of Pitesti and Director of the Regional Center for Research and Development for Materials, Products and Innovative Processes for the Automotive Industry at the University of Pitesti. He graduated from the Faculty of Physics of the University of Bucharest in 1993, specializing in Solid Body Physics. Through the didactic and research activity carried out uninterruptedly in the 30 years since graduating from the faculty, during which time he published over 100 scientific papers (of which 65 in ISI listed journals) and participated as director in the realization of 35 research projects, Catalin Ducu won the recognition of the national scientific community in the field of Materials Science.

Between November 2020 and June 2022, he held the position of General Director of the Autonomous Authority for Nuclear Energy Technologies - RATEN.



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11⁴⁰-12⁰⁰: “Energy management strategies for fuel cell vehicles”
Professor Nicu Bizon, University of Pitești, Romania

Nicu Bizon (Senior Member, IEEE) was born in Arges county, Romania, 1961. He received the 5 years B.S. degree in electronic engineering from the University “Polytechnic” of Bucharest, Romania, in 1986, and the Ph.D. degree in Automatic Systems and Control from the same university, in 1996. From 1996 to 1999, he was in hardware design with the Dacia Renault SA, Romania. Since 2000, he is professor with the University of Pitești, Romania. He received two awards from Romanian Academy (in 2013 and 2016) and he is doctor honoris causa of the Petroleum-Gas University of Ploiești (2018). He is editor and author of 8 books published in Springer and the author of 165 scientific papers published in WoS (1,546 citations and h-index = 26), respectively, 249 scientific papers published in Scopus (2,337 citations and h-index = 30). His current research interests include power electronic converters, fuel cell and electric vehicles, renewable energy, energy storage system, microgrids, and control and optimization of these systems.

