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October 9, 2026, 13h00, Amphi Ricordeau

Dr. Mina Namvari will present a talk : From Flakes to Functions: Design-Driven MXene Platforms for Energy and Bio-Interfaces

From Flakes to Functions: Design-Driven MXene Platforms for Energy and Bio-Interfaces

Sabanci University Nanotechnology Research and Application Centre (SUNUM), Tuzla, Istanbul, Türkiye

Dr. Mina Namvari is a principal investigator at SUNUM, leading a group that focuses on developing multifunctional graphene- and MXene-based nanocomposites for tissue engineering and energy storage. She is the PI of the GRAPH-OCD 223N171 project funded by FLAGERA JTC2023 and co-PI of 223M269 TUBITAK 1001, 223M347 COST Action CA22123, CETP-2023-00278, and Hop-On VanillaFlow 101214927. She also hosts an MSCA postdoc fellow via the NanoBio4Can co-fund platform. She is an associated member at Graphene Flagship and on Early Career Researcher Editorial Boeard of Graphene and 2D Materials (Springer Nature).

Abstract

Two-dimensional MXenes have rapidly evolved from laboratory curiosities to versatile platforms for multifunctional devices, yet translating their exceptional intrinsic properties into robust technologies remains a central challenge. In this talk, I will present a design-driven approach to MXene-based materials, spanning synthesis, scalable assembly, and integration into functional architectures for energy storage, tissue engineering, cancer therapy and anti-icing/deicing applications.
By connecting fundamental design rules with application-specific constraints, this talk aims to provide a coherent framework for engineering MXene-based systems that can bridge the gap between laboratory prototypes and practical devices.