

PIADM Editor note

Pioneering advances in materials: the new way to boost future technologies

In rapidly evolving decade, advanced materials driven by the practical application of science play a highly effective role in improving human life style. These materials are pivotal, serving a wide range of both classical and quantum applications in a world that is swiftly advancing toward the era of ultra-sensitive measurements.

Amidst this rapid scientific progress, failing to board this technological train would be a significant disadvantage. With its rich scientific and cultural heritage, boasting luminaries such as Khajeh Nasir al-Din Tusi, Khayyam, Hafez, and Saadi our beloved Iran stands as a distinctive pioneer in this field as well.

Rapid scientific advancement regarding lifestyle transformation has integrated advanced materials with additive manufacturing technologies, steering researchers toward novel and emerging studies in this field.

Materials such as two-dimensional ones, polymers, metallic and all dielectric structures and semiconductors are emerging on areas including bionic artificial vision, advanced prosthetics, artificial skin, neuromorphic systems, all optical sensors and quantum biology. The evolving landscape of advanced materials, combined with artificial intelligence, the Internet of Things, machine learning, blockchain, virtual and augmented reality, is driving transformations in daily life through the emergence of wearable technologies, autonomous vehicles, 3D printing, robotics, and medical technologies.

Following this fast growing and interdisciplinary field, we are inviting scientists from materials, chemists, physicists, engineers as well as health and life scientists and bringing you the latest results and trends in advanced materials related research.

Hoping for a better world based on advanced materials.

S. M. Hamidi;
Laser and Plasma Research Institute;
Shahid Beheshti University, Tehran, Iran.