

Training School

Energy Saving Through the Use of Nanoparticles

M.Sc. “Inorganic Chemistry and Its Applications in Industry”

Department of Chemistry, School of Sciences

National and Kapodistrian University of Athens (NKUA)

29-30 September 2026

Day 1: Renewable Energy, Environment, Safety and Future Opportunities

09:00 – 09:30 Registration

09:30 – 10:00 Welcome

Prof. Nikolaos Thomaidis, Vice President of the Administration Council of National and Kapodistrian University of Athens, NKUA

10:00 – 11:00 Basics of Nanoparticles

Prof. Eleni Efthimiadou, NKUA

11:00 – 11:15 Coffee Break

11:15 – 12:15 Magnetic Materials in Energy, **Dr. George Belesiotis**, Chemical Engineering, NTUA

12:15 – 13:00 From Molecules to Nanomaterials: Strategies for Sustainable Hydrogen Production,

Dr Athanasios Zarkadoulas, Postdoctoral Researcher, NKUA

13:00 – 14:00 Lunch Break

14:00 – 15:00 Nanoparticles for a low-energy future: Smart materials and energy saving technology

Assoc. Prof. Sherif Ashraf Fahmy, Philips University of Marburg

15:00 – 16:00 The collective making of emerging technologies: insights from the digital industry

Ass. Professor Paris Chrysos, NKUA

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Day 2: Nanoparticles, Thermal Energy Saving and Energy-Efficient Buildings

09:00 – 09:30 Welcome Coffee

09:30 – 10:15 Heat Transfer and Thermal Conductivity

*Dr **Elias Papanikolaou**, Researcher A, NCSR D*

10:15 – 11:15 The multifunctional role of nanomaterials in cement-based materials

*Assoc. Prof. **Zoi Metaxa**, Democritus University of Thrace*

11:15 – 11:30 Coffee Break

11:30 – 12:30 Smart usage of marine expanded polystyrene for Energy-Efficient Buildings

*Prof. **Nikos Alexopoulos**, Professor of Mechanics of Materials
Department of Financial Engineering and Management, School of
Engineering, University of the Aegean*

12:20 – 13:30 Smart Nanomaterials for sustainable Energy: From electrochemical interfaces to Energy storage

*Ass. Prof. **Ioannis Kartsonakis**, Aristotle University of Thessaloniki*

13:30 – 14:30 Lunch Break

14:30 – 15:00 Health and Safety Regulations for nanomaterials

*Ass. Prof. **Rana Youness**, German International University*

15:00 – 15:15 Coffee Break

15:15 – 16:00 Entrepreneurship and Exploitation Opportunities

*Dr **Yannis Dimitrakopoulos**, Archimedes Unit, NKUA*

16:00 – 16:45 Closing Discussion and Networking

16:45 – 17:00 Certificate Ceremony

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