

MSCA-ITN-2014-ETN

MEDEA

“Molecular Electron Dynamics investigated by Intense Fields and Attosecond Pulses”

MEDEA is a Marie Skłodowska-Curie Innovative Training Networks (ITN-ETN) funded in the framework of the HORIZON 2020 program. The main objective of the MEDEA proposal is to create a platform where Early Stage Researchers will receive an inter-disciplinary and inter-sectoral comprehensive research training in one of the major field of Photonics that will be contributed by leading universities and research centers, and by key-player companies in the development and commercialization of state-of-the-art ultrafast laser sources and detection systems.

Well-designed activities will be offered by the network to enhance the Early Stage Researchers' career perspectives in both the academic and private sector, with a particular attention to high-quality training in research, innovation, management and entrepreneurship as well as communication skills.

Through their research activities Early Stage Researchers will contribute to the advance of attosecond and intense femtosecond extreme ultraviolet spectroscopy combining in-depth investigation of fundamental electronic processes in simple systems with experiments in complex molecules with potential impact in chemistry, surface science, and biology.

MEDEA features ten academic institutions, two large-scale facilities, six industrial companies, and two outreach partners, from seven European countries.

Eligibility criteria

Applicants shall, at the time of recruitment by the host organisation, be in the first four years (full-time equivalent research experience) of their research careers and not yet have been awarded a doctoral degree.

Applicants can be of any nationality. They are required to undertake transnational mobility (i.e. move from one country to another) when taking up their appointment. At the time of recruitment by the host beneficiary, researchers must not have resided or carried out their main activity (work, studies, etc.) in the country of their host beneficiary for more than 12 months in the 3 years immediately prior to the reference date.

Applications from female candidates are strongly encouraged.

Fellowship

The gross amount salary will be composed by a monthly living allowance: (€3,110 / month adjusted through the application of a correction coefficient for the cost of living of the hosting country) and a mobility allowance (€600 / month). Depending on the researcher's family situation at the recruitment date also a family allowance (€500 / month) could be paid.

2 Early Stage Researchers positions (36 months duration)

- ✓ Politecnico di Milano, Italy

“Nonlinear XUV excitation of dimers and clusters”

The project will be focused on the investigation of ultrafast electronic and nuclear dynamics occurring in molecules and clusters exposed to intense extreme ultraviolet pulses. The experiments will be performed in collaboration with experimental group of the Low Density Matter end station operating at the seeded Free-Electron Laser FERMI at Elettra in Trieste. These experiments will be complemented by investigations in molecules using the attosecond light sources available at the Physics Department at Politecnico in Milano. The experimental work will be performed in close collaboration with the University of Freiburg (Germany) and with the laser company Amplitude Technologies (France), where extended secondments during the appointment are foreseen.

For information:

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