

Opening of 13 PhD positions within the broader field of physics, chemistry and material science.

elena-eu.org → vacancies

Thirteen (13) Early Stage Researcher PhD position are open at European universities, research institutes and companies within the H2020 Marie Skłodowska-Curie European Training Network project ELENA – Low energy ELEctron driven chemistry for the advancement of emerging Nano-fabrication methods

Description

The ELENA project is part of the Marie Skłodowska-Curie Innovative Training Network ELENA in which young researchers investigate the chemistry and physics involved in two emerging techniques for creating nanostructures: “writing” using electron beams, and lithography with light of very short wavelengths (“extreme ultraviolet”).

ELENA participants are 8 academic institutions, 3 research institutes and 2 companies along with 8 partner organisations. Fifteen young researchers will be working in the network, pursuing their PhD, and will be provided intersectoral, interdisciplinary and international training. Two secondments at partner laboratories are part of the training as well as technical and personnel training schools aiming at broad knowledge in the field and strong carrier development.

Requirements

- Degree: Master’s Degree or equivalent
- Degree field: physics, material science, chemistry or related fields
- Language: ENGLISH (proficiency and certification as required by individual institutions).

The positions that are available:

- Velocity Map Imaging (VMI) to explore two electron induced pathways, Dissociative Electron Attachment (DEA) and Dipolar Dissociation (DD); Open University (OU), United Kingdom
- Novel FEBID precursors – structural and compositional analysis of nanostructures; TSCAN, Czech Republic
- New material chemistry exploration for Extreme Ultraviolet Lithography; IMEC, Belgium
- Focused electron beam induced deposition of nanostructures with low vapour pressure precursor compounds; EMPA, Switzerland
- Controlled Electron Beam Induced Nanopatterning; TU Delft, Netherlands
- Fabrication of 2D carbon nanomembranes (CNM) by electron and EUV induced modification and cross-linking of surface bound molecular layers; Bielefeld University, Germany
- PhD Research Fellowship in Synthesis of Gold Compounds as Precursors for Nanofabricated Materials; University of Oslo (UiO), Norway
- Controlled fabrication of nanostructures via focused electron beam induced processing in UHV; Friedrich-Alexander-University Erlangen-Nürnberg (FAU), Germany
- Electron-induced chemistry of FEBID precursors and EUVL resist materials; University of Bremen, Germany
- Computer simulations of surface nanostructure formation; University of Iceland, Iceland
- Low energy electron induced dissociation of model compounds for extreme ultra violet resist materials; University of Iceland, Iceland
- Low energy electron induced dissociation of potential focused electron beam induced deposition (FEBID) precursor molecules.; University of Iceland, Iceland:

Additional requirements:

- Applicants shall, at the time of recruitment by the host organization, **be in the first four years (full-time equivalent research experience) of their research careers** and not yet have been awarded a doctoral degree. Full-Time Equivalent Research Experience is measured from the date when a researcher obtained the degree that would formally entitle him/her to embark on a doctorate.

- **Mobility Rule:** at the time of recruitment by the host organization, researchers must not have resided or carried out their main activity (work, studies, etc.) in the country of their host organization for more than 12 months in the three years immediately before the recruitment date. Compulsory national service and/or short stays such as holidays are not taken into account.

Website for additional job details and submission of applications.

Details on individual positions may be found at elena-eu.org. Submission of applications is from the same web site.