



POLITECNICO
MILANO 1863



Piano Nazionale di Ripresa e Resilienza

Open position - Technologist @ Polifab - NFFA-DI infrastructure

“Combined molecular beam epitaxy and angular resolved photoemission spectroscopy (MBE+ARPES) for the state-of-art growth of chalcogenides and in-situ investigation of the band-structure of quantum materials”

Position: 2 years (renewable) – 2000 € net monthly salary

Starting: autumn 2023

Location: Polifab, the micro and nanofabrication facility of Politecnico di Milano (www.polifab.polimi.it)

Research infrastructure: NFFA-DI (Nano Foundries and Fine Analysis Digital Infrastructure) - <https://nffa-di.it> research infrastructure, the Italian branch of the ESFRI infrastructure NFFA – <https://www.nffa.eu>

NFFA-DI is the NFFA upgrade proposal for a Full-Spectrum Research Infrastructure for nanoscience and nanotechnology, capable of enhancing Italian research competitiveness on the fundamental interactions of multi-atomic matter. The aim is two-fold: (1) to explore the origin of material properties at all relevant dimensional and temporal scales; (2) to describe, understand and design material solutions for innovation.

Polifab will potentiate its capabilities in the synthesis and fine analysis of advanced materials thanks to the installation of new experimental stations for wafer-scale heterostructure deposition on (MBE, ALD, PLD) and advanced characterization (ARPES, RF broadband spectroscopy, Time-Resolved MOKE microscopy).

Objective:

Exploiting the potential of a state-of-art **MBE+ARPES** cluster tool
for the investigation of **advanced quantum materials**

Activity: the technologist will work on a new state-of-the-art cluster tool, combining molecular beam epitaxy and angular resolved photoemission spectroscopy (MBE+ARPES) techniques, for the state-of-art growth of chalcogenides and in-situ investigation of the band-structure of quantum materials. After contributing to the commissioning of the cluster tool, the technologist, in collaboration with the staff, will design and carry out novel in-house experiments, in collaboration with other laboratories of NFFA-DI (e.g., the APE beamline at the Elettra Synchrotron in Trieste).

For further information, please contact:

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