

MIDA—MICRODEVICES FOR ACTIVE PHOTONICS

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Other Partners *Dipartimento di Fisica - Università di Genova
Istituto Italiano di Tecnologia*

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Project objectives

Modern technologies need to extend the concept of a purely electronic device to other functions able to interact differently with the surrounding environment. Of particular interest are multifunctional materials with optical, magnetic, piezoelectric and other properties. In particular, photonic properties play a fundamental role in the flow and processing of data.

The MIDA (MicroDevices for Active Photonics) project aims to realize innovative active photonic components; it involves the CNR-SPIN Institute, the Italian Institute of Technology and the Physics Department of the University of Genoa. The project aim is the realization and validation of a solid state optoelectronic system whose optical and plasmonic response can be controlled by an external applied voltage. This system marks a progress compared to the state of the art, where such devices make use of liquid crystal or ionic liquid systems, which are difficult to integrate with microelectronic devices

