

*Manipulation of quantum states of light in lithium niobate and silicon.*

Abstract :

Lithium niobate is a material which is widely used to perform fast routing of information in telecommunication networks. It is also an interesting framework for quantum information. Silicon photonics is an emerging technology which enables to process light at telecom wavelength using much more compact architectures. We demonstrate manipulation of single photon and two-photon states at telecom wavelength in those two materials, and discuss the two technologies in the frame of integrated quantum photonics.