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Resonant diffraction gratings made by focused ion beam irradiation of InGaAs/GaAs single quantum wells

Abstract:
In this talk I will present a method of resonant diffractive optical elements fabrication by InGaAs/GaAs quantum well irradiation with a focused He+ ion beam. Extremely low ion doses are used so that only inhomogeneous broadening of the QW excitonic resonance is addressed with sub-wavelength lateral resolution. Potential of this method is demonstrated by fabrication of the resonant diffraction grating.

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