



Quantum Optical Nanowriter QON-2000



Quantum Optical Nanowriter QON-2000, developed by Storex Technologies, is a laser maskless lithography system, based by recent results obtained in Quantum Optical Lithography.

This equipment is able to realize prototypes at nanoscale with high productivity and low cost for research organizations (universities, institutes and companies) involved in nanotechnology activities.

Key Features

Resolution: 1 nm

Speed: 1000 $\mu\text{m/s}$

Writing area: 100 μm \times 100 μm

Software for automatic calibration, writing process and monitoring

Wide choice of 2D materials substrate, including graphene

System dimensions: (L \times W \times H) 100 \times 50 \times 30 cm

Mass: 32 Kg

Applications of Quantum Optical Nanowriter QON-2000

Rapid Prototyping of Nanostructures

Complex nanostructures such as substrates, resists, materials with small feature sizes are frequently required.

Quantum Optical Nanowriter QON-2000 is unique for prototyping in research and development due to its resolution and writing speed.

Mask-less technologies are very successful in decreasing complexity, production time and costs.

Small scale production

Rapid prototyping can be employed to help companies to save time and money.

Quantum Optical Nanowriter QON-2000 uses a serial patterning technique and is ideal to produce devices with 1-10 nm patterns.

The time of prototyping could be reduced from days to minutes.

In industry, Quantum Optical Nanowriter could be a low-cost tool replacing Electron Beam Lithography for a large range of dimensions: 1000 nm – 5nm.

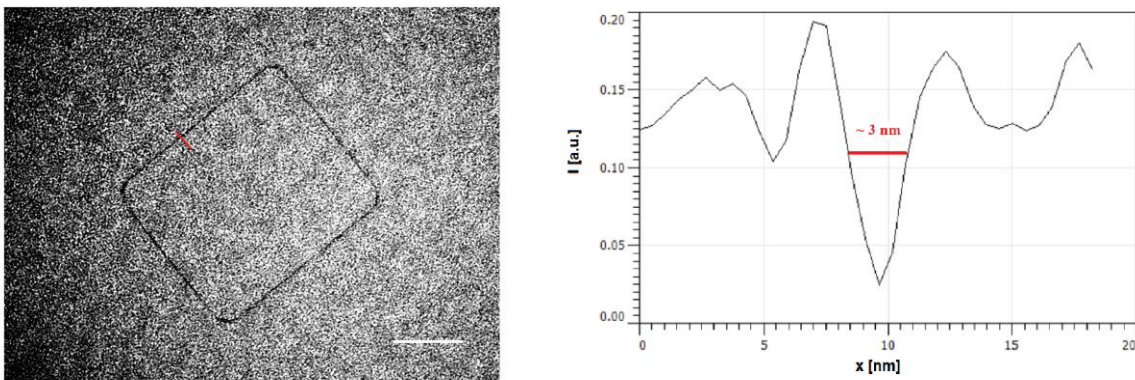


Fig. 1 TEM image of a rectangle written on Si₃N₄ TEM grids covered by resist (scale bar, 100 nm) and the profile cross-section along the red line [1].

[1] E. Pavel, G. Prodan, V. Marinescu and R. Trusca, "Recent advances in 3- to 10-nm quantum optical lithography", J. Micro/Nanolith. MEMS MOEMS 18(2), 020501(2019).