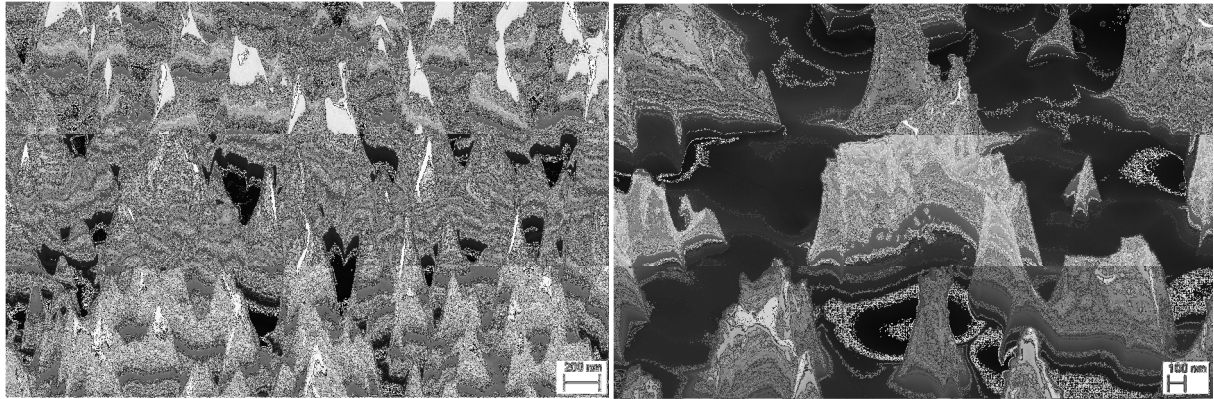


Development and characterization of a maskless method for surface nanostructuring



The “landscape of nanostructures” can be controlled by processing parameters.

Background: Surface nanostructuring is a rapidly emerging tool for changing fundamental properties of materials like their hydrophobicity and optical properties. Techniques such as electron beam lithography, and x ray lithography provide means for high resolution nanoprocessing but the excessive equipment cost and low processing speeds highlight the need for alternatives. Maskless methods exhibit obvious advantages, namely higher throughput and reduced cost.

Objectives: a maskless method for nanostructuring needs to be developed and characterized in terms of resulting nanostructures (density, homogeneity, aspect ratio). The fabrication (reactive ion etching) and characterization (SEM, AFM, mechanical profilometry, EDX) will be conducted in DTU-Danchip facilities.

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