Top down nanofabrication requires precise and therefore very expensive tools, as well as an environment that is free from vibrations and electromagnetic disturbances. Temperature and humidity have to be controlled and dust has to be avoided as even small particles of dust can destroy several hundreds of nanostructures.

This kind of nanofabrication has evolved from the pursuit of Moore's law, the ever increasing miniaturization of digital electronics in integrated circuits. But the technology offers a plentitude of other applications. By nanostructuring surfaces we can alter the properties of these surfaces and influence their wetting and optical responses to a level that has not been possible only a few decades ago.

What if we could structure large surface areas made of common materials e.g. polymers in a very cost efficient way with custom designed, top down nanostructures, to provide them with properties reaching from structural color creation to anti fogging?

We are looking forward to celebrate Rafael and meet all of you.

Best Regards

Jörg Hübner, Director, DTU Nanolab
Rafael Taboryski

From quantum transport in 2D to nanostructured polymer surfaces

A fascination of micro- and nano-fabrication allowed professor Rafael Taboryski to study very diverse topics in science. In this inaugural lecture as professor, Rafael Taboryski will share highlights from his past and current research, and outline his future research directions.

Topics such as diffusive and ballistic quantum transport in 2D conductors, magnetoresistance, semiconductor-superconductor contacts, ion-channel recordings in biological cells, microfluidics, detection of neurotransmitters, surface wetting and optical properties of nanostructured polymer surfaces, will be covered.

The lecture will take place on: Ørsted Plads, building 341, Auditorium 21 2800 Kgs. Lyngby.