Printing technology for the efficient production of three-dimensional multifunctional surfaces

Initiative: Herstellung funktionaler Oberflächen (beendet)

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The goal of this research project is to develop a novel three-dimensional (3D) fabrication process that enables controlling the surface properties independently from the bulk material. Therefore a surface layer comprising tailored functional components has to be deposited separately from the bulk material. The planned process is based on laser printing: This method provides well controlled material deposition for generation of micro-patterns using toner materials. The addition of functional building blocks into the toner material will provide different precursors that enable to generate multifunctional materials in an integrated process. Laser printing has mainly been applied for two-dimensional (2D) colour-printing so far and will be designed for 3D-processing in the course of the project.

Projektbeteiligte

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