

1. Record Nr.	UNINA9910346952003321
Autore	Vüllers Felix
Titolo	Bioinspired Superhydrophobic Nano- and Microstructured Surfaces for Drag Reduction and Optoelectronics
Pubbl/distr/stampa	KIT Scientific Publishing, 2018
ISBN	1000084178
Descrizione fisica	1 electronic resource (VII, 155 p. p.)
Collana	Schriften des Instituts für Mikrostrukturtechnik am Karlsruher Institut für Technologie / Hrsg.: Institut für Mikrostrukturtechnik
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	Inspired by superhydrophobic leaves of water plants, a flexible superhydrophobic self-cleaning, transparent thin polymeric nanofur film was fabricated through highly scalable hot embossing and hot pulling techniques. Nanofur can retain an air film underwater, whose stability against external stimuli such as high pressure and movement through fluids is investigated. Additionally, the optical properties of nanofur are investigated and exploited to enhance the efficiency of optoelectronic devices.