



A process for the preparation of self-cleaning washing resistant cotton textiles

Description

The invention provides a process for the preparation of air-permeable cotton textiles with washing-resistant self-cleaning, super hydrophobic and oleophobic properties. The latter were achieved by the preparation of suitable micro and nano roughness and crosslinking of hydrophobic and oleophobic organically modified silane precursors that even after repeated washings of cotton fabric ensure high contact angles of water and hexadecane as well as sliding angle of a water drop lower than 10°.

Advantages / Novelty

- High water- and oil-repellence of cotton textiles even after repeated washings.
- Provided self-cleaning with sliding angle of a water droplet > 10°.
- Great air-permeability

Applications

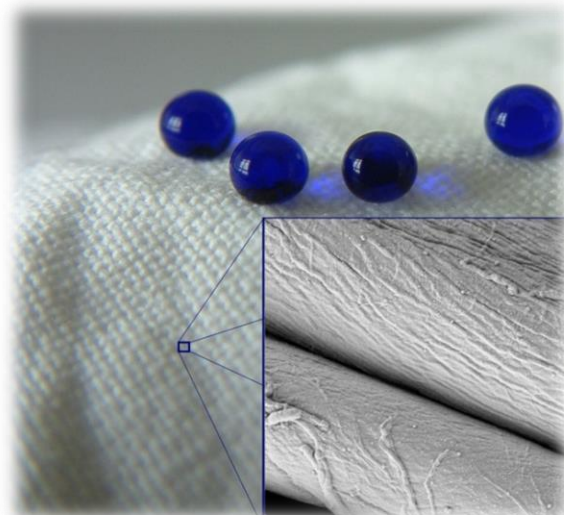
The technology is suitable for textiles intended for the manufacture of protective working clothes as well as clothing for sports and leisure, as technology allows the preservation of air permeability, superhydrophobic and oleophobic properties and aesthetic appearance

Current stage of development

Prototype.

Intellectual property

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Research team

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Collaboration type

R&R cooperation, grant the patent license.

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