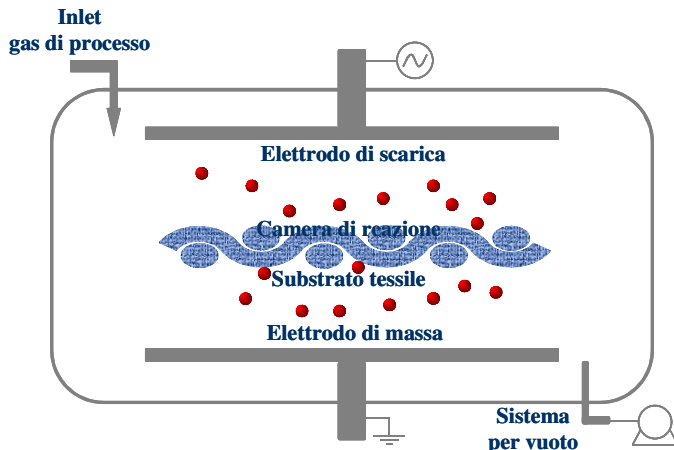


Trattamenti al Plasma

Il plasma o quarto stato della materia è un gas ionizzato costituito da elettroni, ioni positivi, atomi e molecole. Esistono differenti tipologie di plasma: glow discharge, dielectric barrier discharge and corona discharge.

Le specie generate dal plasma per effetto del campo elettrico bombardano la superficie del substrato e interagiscono con quest'ultimo.



Il plasma è in grado di favorire 4 differenti processi reattivi:

Ablazione fisica



Ablazione chimica



Reticolazione

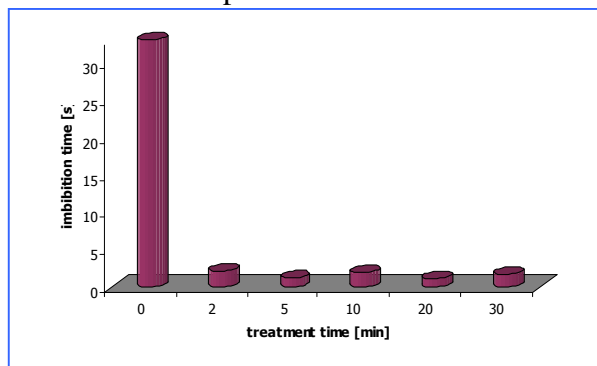


Attivazione superficiale



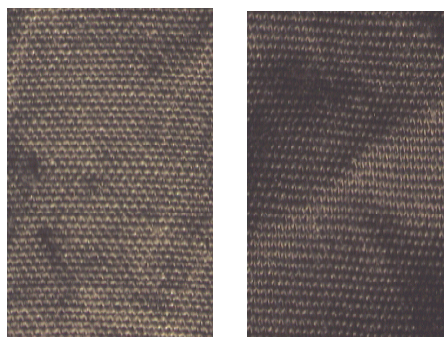
Ablazione fisica

Rimozione dell'epicuticola della lana



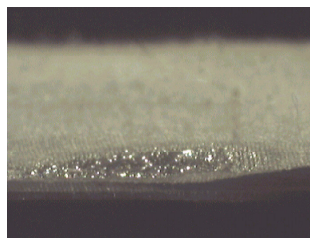
Ablazione chimica

Aumento dell'affinità tintoriale



Attivazione superficiale

Funzionalizzazione superficiale mediante innesto di monomeri

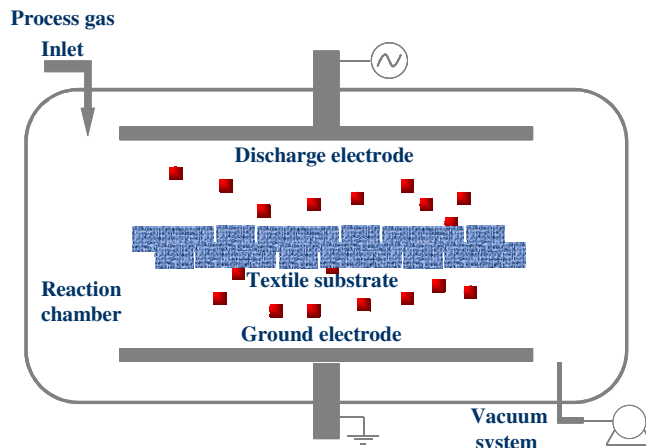


Conferimento della proprietà di oleorepellenza ad un tessuto di puro cotone mediante innesto di monomero fluorurato

Plasma treatment

Plasma or fourth state of the matter is a ionized gas constituted from electrons, positive ions, atoms and molecules. Different kinds of plasma exist: glow discharge, dielectric barrier discharge and crown discharge.

The species generated by the plasma (for the effect of the electric field) bombs the surface of the substrate and interacts with this last one.



Plasma is able to promote 4 different kinds of reative processes:

Physical ablation



Chemical ablation



Cross-linking

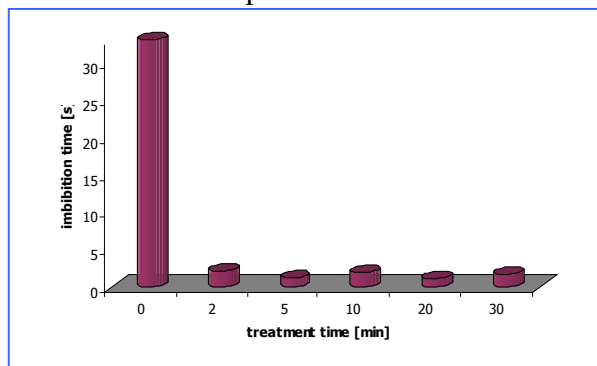


Surface activation



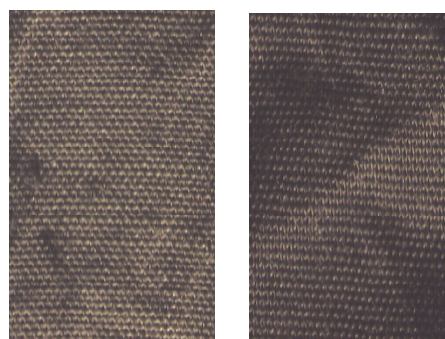
Physical ablation

Removal of wool epicuticula



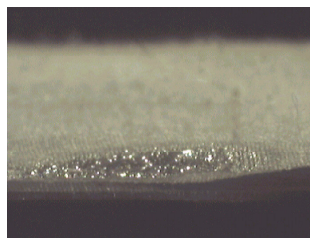
Chemical ablation

Improvement of dyeing affinity



Surface activation

Functionalization of surface by means of monomers grafting



Confering oil-repellency property to a pure cotton fabric by means of a fluoromonomer grafting.