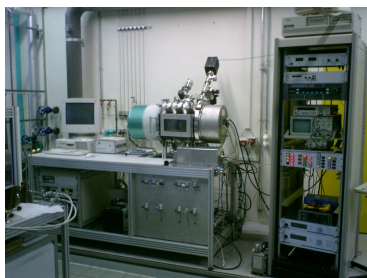
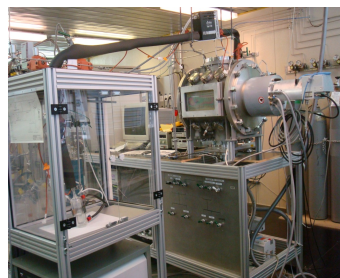


Actual CTI Project : Enhancing Properties of Photocatalytically Active Titania Layers

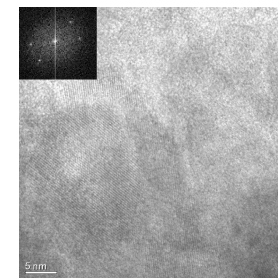


PVD: Reactive dc-sputtering at reduced pressure



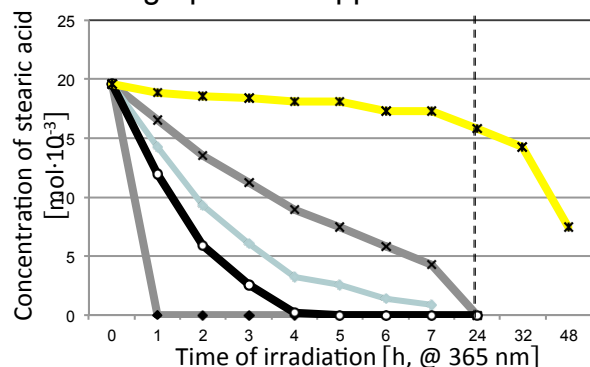
PE-MOCVD: Evaporation of precursor in plasma reactor

Photocatalytically active titania layers have been produced by PVD magnetron sputtering and PE-MOCVD processes at room temperature and reduced pressure



HRTEM: Titania <110>

Mineralisation of Stearic Acid: Fingerprints disappear...

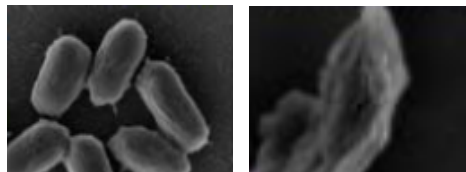


Project partners of hepia:
Bodenschatz AG, Ionitec SA

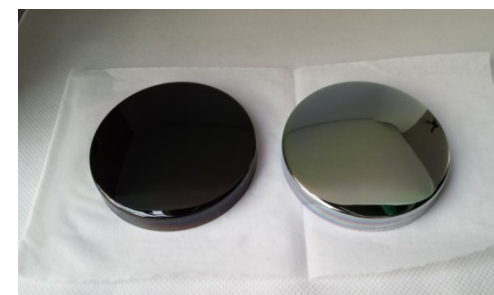
The nano hardness and scratch resistance of titania layers have to be improved without losing the photo-induced benefits.

In addition, the undesired interference colours have to be reduced.

Germ-inhibiting Surfaces:



Bacteria without/with damaged hard shell



Black PVD TiO₂ layer on chromated sample Transparent PE-MOCVD TiO₂ layer on chromated sample