

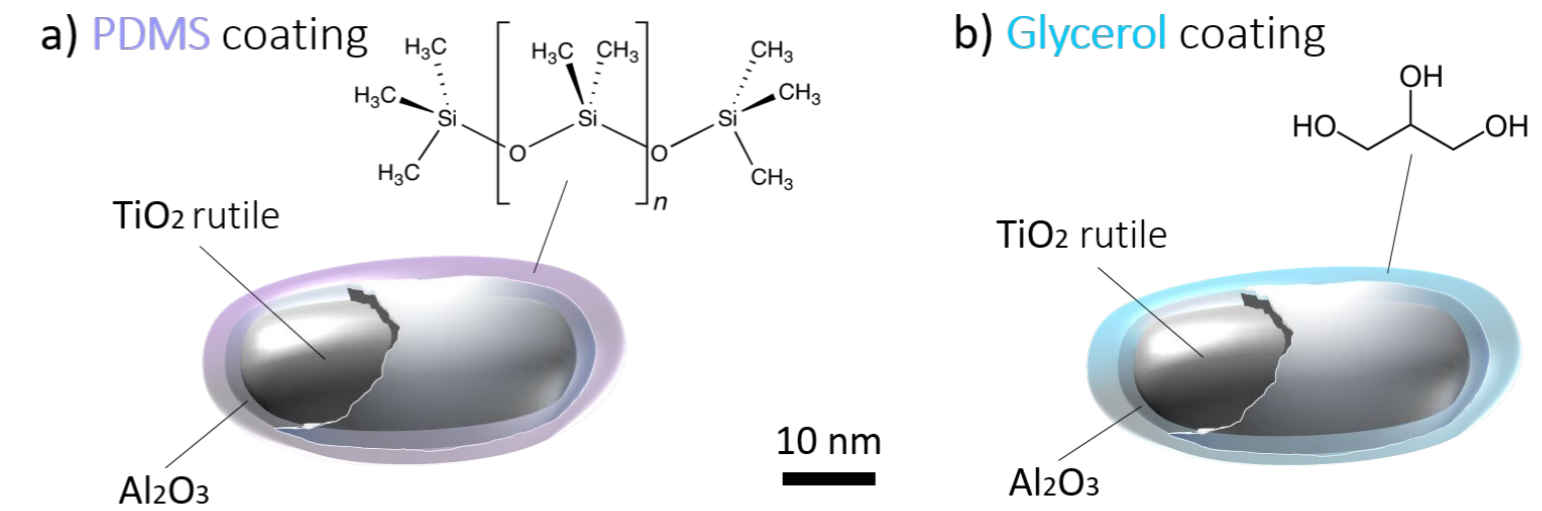
Advanced characterisation of coated TiO₂ (rutile) nanoparticles

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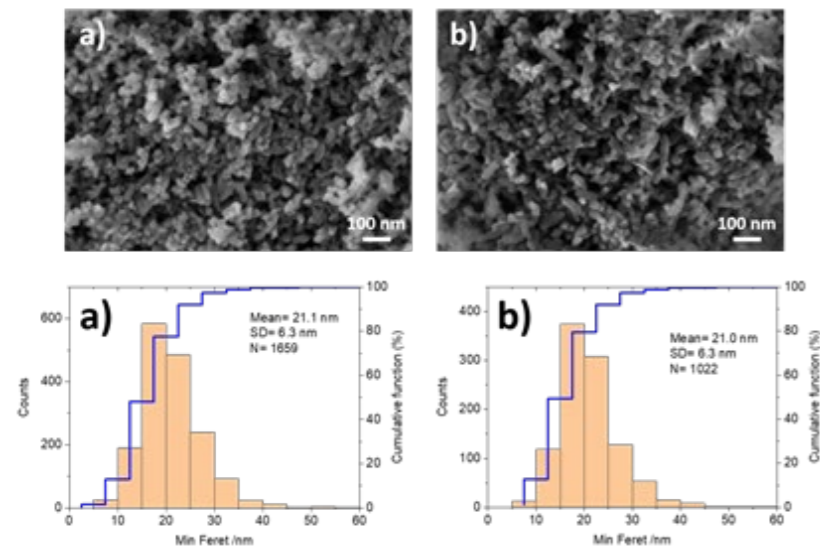
What are they? TiO₂ (rutile) nanoparticles (hydrophobic/hydrophilic), coated with:
a) PDMS, b) glycerol

What do they do? Possess special properties: absorb UV, decontaminate photocatalytically, e.g. act as antifogging coatings and self-cleaning windows when hydrophilic.

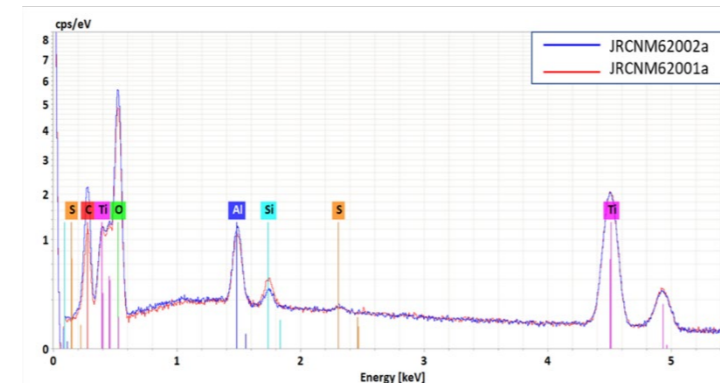
Where do we see them? Generally in many common consumer products like paints, plastics, cements, windows, tiles, food, sunscreen, pharmaceuticals.



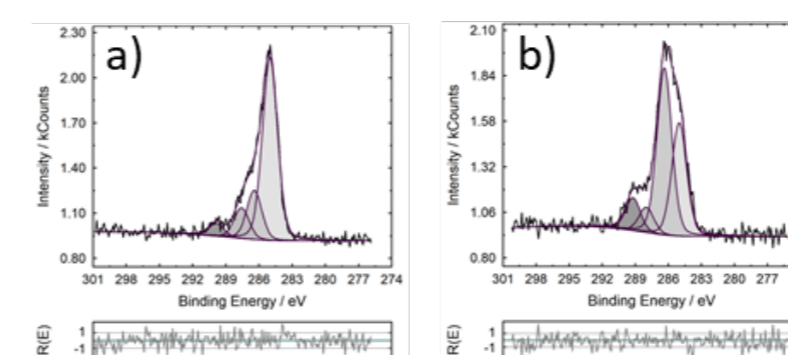
Particle Size Distribution by SEM



Bulk elemental composition by EDS



Surface Chemistry by XPS



Surface Chemistry by ToF-SIMS

