



NANOSTRUCTURED SURFACES FOR VARIABLE APPLICATIONS

Usage of most of materials is limited due their surface properties despite of their excellent properties. Therefore we develop methods to improve the surface properties of materials and then extent their other applications. We employ the physical or chemical approaches or their combination to change the surface chemistry and charge. It can lead to the subsequent better adhesion of (i) new chemical compounds, (ii) metal nanostructures, (iii) cells; or inhibition of growth (iv) bacteria or (v) algae. These materials can be employed in many fields of common life, industry, medicine, etc.

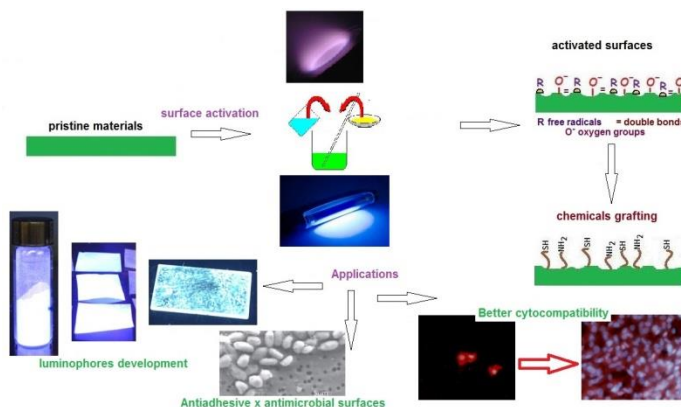


Figure 1: surface modification of materials and usage

Potential adopters of technology

These materials of “newly developed” surface properties can be applied in many fields of common life, industry, medicine, optics, electronics, etc. They can be used for development of new luminophores, materials for tissue engineering field, for materials with antimicrobial effect, etc.

Advantages of technology

Currently the plasma treatment is used, but it requires the plasma equipment. We try to develop new approaches, cheaper and much available. Our methodology is fast, easy and low on instrument equipment.

Market and context of technology

- Our technology provides the successful activation and modification of material surfaces.

Preconditions in adopting enterprises

- Partial change of technology approaches. Not expensive investment. Usage of chemical compounds during approach.