

## ABSTRACT

The nanotechnology becomes the subject of attention due to its vast applications and advantages in various scientific regimes. This nanotechnology has been the cornerstone of investment in different areas of science, such as technological strategy for the development of cosmetics formulations. *Based on nanotechnology, the sunscreens are used to provide protection against unfavourable effects of UV radiations coming from the sun.* The zinc oxide (ZnO) and titanium dioxide (TiO<sub>2</sub>) nanoparticles are known by performing the filtration function and provide shielding against sunscreen. As TiO<sub>2</sub> is effective in the range of UVB and ZnO in UVA, and also, the combination of both nanoparticles persuades a broad-band UV protection. Similarly, ZnO nanoparticles do perform the task to increase the immobilization of glucose oxidase (GOx) which exclusively enhances the activity of enzyme. This immobilized GOx effectively increases the efficiency of sunscreen. In contrast, the characterization of ZnO and TiO<sub>2</sub> nanoparticles was done by UV-visible spectrophotometer *and scanning electron microscope*. The characterization of vanishing cream and sunscreen was also done by the same techniques. We have been observed the sunscreen efficacy by its sun protection factor (SPF) which is appreciated at 20. The result of present work shows that the validity of sunscreen was estimated good for about 28 days.