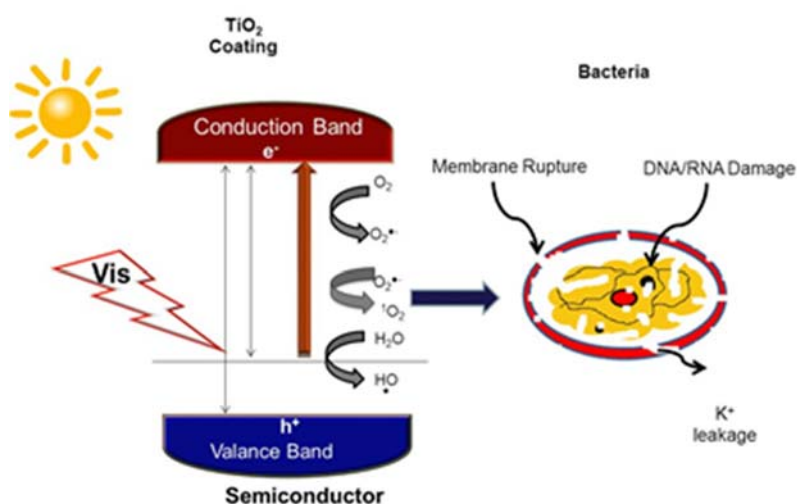


Keynote Address: New Insights into Nanomaterials for Photocatalytic Applications

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Nanomaterials-based semiconductors, which could exhibit photocatalytic activities under natural light (typically >400 nm) are preferred for commercial applications. As part of a project to develop an effective surface coating, our investigations were focused on the development of novel materials for anti-microbial applications. Photocatalysts, which are thermally stable up to the sintering temperature of the substrates (e.g., bathroom tiles) are most desirable for building materials applications. Thermal stability of the Anatase phase of TiO₂ at elevated temperatures is one of the requirements for making such coatings on an industrial scale. The preparation of novel photo-catalytic materials by modifying the band-gap using various dopants such as F, S, N and C will be discussed.



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