



Prof. Dr. Tebello Nyokong

Professor



Our research is multidisciplinary since it combines aspects of biology (bacterial, viral and fungal inactivation), chemistry (synthesis of the functional nanomaterials, for various applications) and physics (nonlinear optics). We develop nanocomposites containing porphyrin-type complexes and nanomaterials for applications in medicine (treatment of cancer and as antimicrobial agents), safety (as optical limiting as materials for the protection of the eye and other optical devices against sudden high intensity light), renewable energy (in dye sensitized solar cells and environmental control (for degradation of pollutants). We use electrospun nanofibers with embedded porphyrin-type complexes and their nanoparticle conjugates, as a solid support that can be readily recovered after use in pollution control.

Selected from the last three years 2021-2023

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