Synthesis and Production of Non-Toxic White Pigments

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Titania nanoparticles are currently used as a base for most white pigments however those particles are facing regulations in health-sensitive industries and are lacking of biocompatible alternatives. Yang et al. have developed a patented, cellulose white pigment for use in cosmetics, food and pharma formulations [1]. The synthesis of this cellulose white pigment at laboratory scale is straightforward. However, developing an industrial process for the production of such pigments based on the laboratory procedure is challenging. Indeed, working with biomass and isolating microparticles are not easy to scale-up. These challenges and their solutions are highlighted in this poster.

[1] H. Yang, G. Jacucci, L. Schertel, S. Vignolini, *ACS Nano* **2022**, *16*, 7373