國立臺灣大學技術行銷表

臺大案號:11A-100916

產學合作中心聯絡人：駱瑋蓁　　電話： 02-33669948　　e-mail： weichenlou@ntu.edu.tw

產品/技術名稱	用於牙齒美白之中孔洞奈米催化劑
發明人/單位	李伯訓 / 口腔生物科學研究所
產品/技術說明	目前牙齒美白大多利用過氧化氫或其前驅物,配合 LED 或雷射以增加過氧化氫的分解，然而光和熱有可能會造成牙齒產生吸收現象，若沒有使用光和熱，漂白效率不佳，因此本產品的明主要取代光和熱，利用中孔洞奈米粒子接上過渡金屬離子，不僅可以增加美白效果，還可以確保牙齒的健康。
應用範圍	美白牙齒 (診間用)
產品/技術優勢	1.利用本產品不僅可以增進過氧化氫的分解，並且不會造成牙齒的吸收。 2.目前市場上沒有一種安全增進牙齒美白的產品。
產品/技術 智財權保護方式	專利申請中

Marketing Abstract of NTU's Invention Disclosure

NTU's docket no: 11A-100916

CIAC contact：Lou Wei-Chen Tel：02-33669948 e-mail：weichenlou@ntu.edu.tw

Title	Mesoporous silica nanocatalysts for enhanced light-free tooth bleaching
Inventor (s)	Bor-Shiunn Lee / Graduate Institute of Oral Biology
Brief Description	So far, no nanomaterial has been synthesized and utilized as acatalyst for tooth bleaching, an H20 2-associated redox reaction. In current practice laser, LED light, or heat is needed to accelerate the reaction of tooth bleaching; however, these treatments have the potential to cause severe consequences (e.g. cervical root resorption in tooth bleaching). Without the use of light or heat, the efficiency of tooth bleaching has been limited and unsatisfactory. We provide a new methodology for the design of metal-amino acid complex immobilized nanoporous materials with an effective catalytic ability along a reliable chemical route.
Fields of Application	This product is designed for use in tooth bleaching.
Advantages	1. Cervical root resorption may be an adverse consequence. This product not only can increase the bleaching efficiency but also without causing adverse effect. 2. As no catalyst for tooth bleaching has been developed yet, this product has great potential to be used in tooth bleaching.
IP Right(s)	Patent pending