

專利/技術名稱	可三維列印之光固化樹脂及其製備方法 3D PRINTABLE AND PHOTOCURABLE COMPOSITE AND PRODUCING METHOD THEREOF		
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專利國別	中華民國	專利證號	I695864
可利用範圍	本發明提供一種無需添加有機溶劑且製程中無需額外去水步驟之光固化樹脂，且其中包含有高度均勻性且不易沈澱之矽酸鈣陶瓷材料。		
摘要	<p>一種可三維列印之光固化樹脂，其包含：一光固化樹脂材料 50-99 wt%；以及一酸化矽酸鈣 1-50 wt%，該酸化矽酸鈣分散於該光固化樹脂材料中，且該酸化矽酸鈣之 pH 值趨近於該光固化樹脂材料或趨近於中性；本發明經由酸化處理後之矽酸鈣，可提升其在光固化樹脂材料中之分散度，並改善沈澱問題，增加此材料應用於三維列印之可列印性，進一步地以此矽酸鈣為基材的光固化樹脂材料混合製劑利用三維列印所製得之支架，可有效提升骨再生之效益並改善矽酸鈣酸鹼值以提高生物可利用性。</p> <p>Present invention is related to a 3D printable and photocurable composite having a photocurable resin 50-99wt% and an acidized calcium silicate 1-50 wt%. The acidized calcium silicate is uniformly dispersed in the photocurable resin and its pH value is closed to the photocurable resin or neutral. The acidized calcium silicate of the present invention can increase the dispersibility of the composite and solve the problem of precipitate occurred during 3D printing. Scaffolds made by the present invention have great bone regeneration ability and bioavailability.</p>		