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## Preparation of Polydimethylsiloxane based bioactive hybrid materials

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CICECO, Universidade de Aveiro, Dep. Eng Cerâmica e Vidro The preparation of Polydimethylsiloxane based hybrid materials by sol-gel techniques has been widely described in previous works. Calcium nitrate is the most common source of calcium used on these preparations, however to remove the toxic nitrate by-products is necessary a thermal treatment with temperatures above 400°C, which leads to the degradation of the polymeric components of the hybrids. In this study we proposed the preparation by solgel techniques of bioactive hybrid materials using calcium acetate has an alternative calcium source. Samples with different concentrations of titanium and zirconium alkoxides and calcium acetate were obtained and characterized by SEM, EDS and FT-IR spectroscopy. Bioactivity was evaluated by in vitro tests, with the immersion of the samples in SBF (Kokubo's Simulate Body Fluid) at different times and ICP analyses were performed.