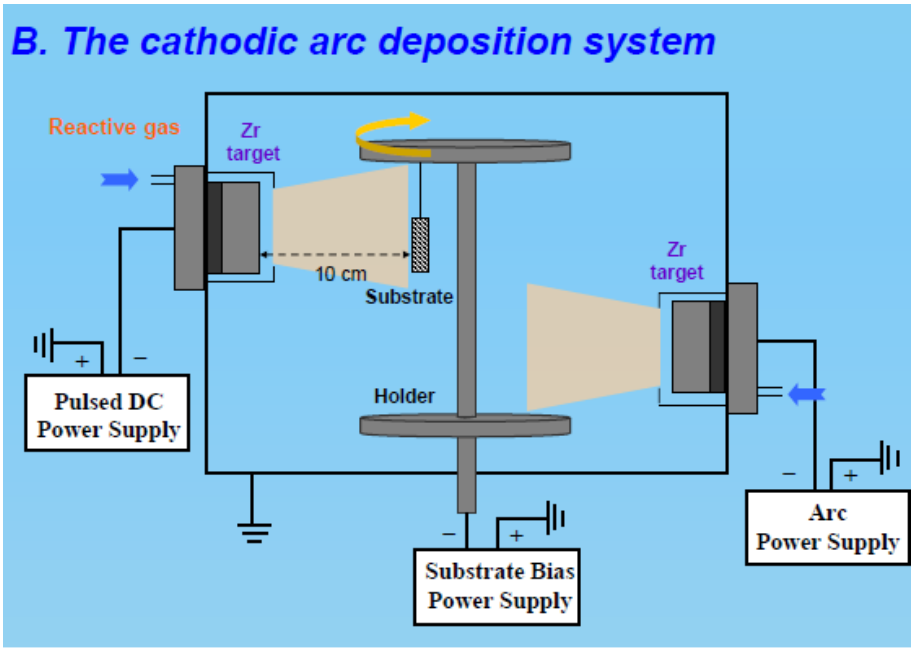
Biocompatibility and Antimicrobial Performance of ZrCN Coatings

指導教授:Yin-Yu Chang

技術內容

The chemical composition was evaluated by wavelength-dispersive x-ray spectroscopy (WDS). To verify the susceptibility of implant surface to bacterial adhesion, Actinobacillus actinomycetemcomitans (A. actinomycetemcomitans), one of the major pathogen frequently found in the dental implant -associated infections, was chosen for in vitro anti-bacterial analyses. In addition, the biocompatibility of human gingival fibroblast (HGF) cells on coatings was also evaluated by a cell proliferation assay . The results suggested that the ZrCN/a-C coatings with carbon content higher than 12.7 at.% can improve antibacterial performance with excellent HGF cell compatibility as well. The results suggested that the ZrCN films can improve antibacterial performance with compatible soft-tissue biological response.

技術圖片



聯絡窗口：國立虎尾科技大學 智財技轉組 王偉儒
聯絡電話：05-6315561
網址：http://nfu-test.eipm.com.tw/index.asp