عنوان مقاله:

the Effect of Oxalic Acid Concentration and Stripping Time on Nanopore Ordering in Anodic Alumina

محل انتشار:

دومین کنگره بین المللی علوم و فناوری نانو (سال: 1387)

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خلاصه مقاله:

New areas of applications have emerged in different fields since Masuda and Fukuda reported the possibility of producing self-organized, densely packed, hexagonal alumina pore growth by two-step anodizing process in 1995 [1]. Therefore, most recent researches are focused on obtaining highly ordered porous anodic alumina (PAA) with a cellular structure [2]. In order to achieve such a desirable PAA, it is needed to optimize certain parameters such as concentration of electrolyte for anodizing process and duration of oxide layer stripping in the middle of two steps of anodization process [3, 4].This paper studies the influence of oxalic acid concentration as well as the optimum conditions of the oxide layer stripping step in order to obtain PAA as regularly structured as possible. The ordered PAAs were studied by scanning electron microscopy (SEM). The pore arrangement which appears in the SEM images, was analyzed through Linear-Angular Fast Fourier Transform (LA-FFT) technique [5].

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا: