

Express-Method for the Study of Electrolyte Anion Profiles in the Bulk of Dense Anodic Alumina Films

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Abstract: The procedure proposed is the express method for the study of anion distribution profiles in the anodic aluminum oxide film. The method consists in measuring the variation of the steady-state electrode potential during the oxide etching. It allows the influence of the initial aluminum composition, the electrolyte composition, anodization regimes, etc. on the characteristics of dense anodic alumina films to be studied. The method developed can be used to study a chemical evolution in anodic alumina formed to correlate with modelling and simulations across materials science disciplines.

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