## عنوان مقاله:

Alumina nanodots whit a two-step oxidation process

## محل انتشار:

اولین کنگره بین المللی شیمی و نانو شیمی از پژوهش تا فناوری (سال: 1397)

تعداد صفحات اصل مقاله: 5

## نویسنده:

Vahid Ghafouri - *Research Institute of Applied Sciences, Academic Center of Education, Culture and Research (ACECR), Shahid Beheshti University*,

## خلاصه مقاله:

Al2O 3 nanoparticles and nanodots synthesized on glass substrates using a resistive evaporation and afterward the films were heat treated in a two-step oxidation process. After pre-annealing in vacuum, the second oxidation step was carried out in the tube furnace, in which oxygen gas was introduced into the chamber and the films were annealed in oxygen atmosphere at a relatively low temperature. FESEM images of sample indicate that the substrate is uniformly covered with Al2O3 nanodots perfectly spherical with of 60-175 nm diameters. EDS analysis of materials in this nanodots which confirm that only Al and O exist into the sample.

## کلمات کلیدی:

Alumina nanodots, resistive evaporation, oxidation, tube furnace