

Abstract Submitted
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Photochemical Properties of Titania Nanotube Arrays¹ RAGEN MCADOO, MOHAMED ABD ELMOULA, LATIKA MENON, Northeastern University, MENON TEAM — Titania nanotubes have been fabricated by means of electrochemical anodization of titanium foils in an electrolyte. The nanotube dimensions (diameter, wall thickness and length) can be controlled in our fabrication approach by varying the electrolyte used and by adjusting the anodization voltage. Gold nanoparticles have been attached on the nanotube surface by means of a modified deposition-precipitation method. By adjusting the time of deposition and concentration of the solution, a high deposition density of the gold particles with good control over the size of the gold nanoparticles has been obtained. Results on the photochemical properties of such nanotube arrays, both blank and the Au-deposited titania nanotubes under simulated solar radiation will be reported.

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