

Gold Nanoparticles Synthesis by Electrochemically Active Biofilm: A New Approach

Mohammad Mansoob Khan, Shafeer Kalathil, Thi Hiep Han,

이진태, 조무환*

영남대학교

(mhcho@ynu.ac.kr*)

Electrochemically active biofilm (EAB) is known in the nanoparticles synthesis[1]. EAB is providing electrons and protons by consuming carbon source. Produced electron may be used for reduction purposes. In this study, we adopted this method to synthesize gold nanoparticles [AuNPs] in aqueous solution containing HAuCl_4 as precursor and sodium acetate as an electron donor. As-synthesized AuNPs were characterized by UV-Vis, XRD and TEM. These AuNPs are applied to dye degradation and chemical detection.

Reference:

[1] Kalathil S, Lee J, Cho MH, Green Chemistry, 2011, **13**, 1482-1485