

Microbial adhesion to surface of pmma particle for *Pseudomonas putida* NCIB 9816-4

황길수, 안익성*
연세대학교
(iahn@yonsei.ac.kr*)

The cause of initial microbial adhesion to pmma particle was investigated in this study. Three possible causes of microbial adhesion are secretion of EPS, microbial surface appendages and surface property changes like cell hydrophobicity and zeta potential.

Three types of pmma, naphthalene and *P. putida* NCIB 9816-4 were used as a copying soil, a model contaminant and a microorganism capable of degrading naphthalene. Three types of pmma are normal pmma, NH₂-modified pmma and COOH-modified pmma. The mutant NCIB 9816-4, which did not grow in the naphthalene solution in a few days, was used as a control strain.

Surface properties like hydrophobicity and zeta potentials of pmma were measured. Secretion of EPS, cell surface appendages, cell surface hydrophobicity and zeta potential were measured. With this, effect of microbial adhesion to pmma particle surface was investigated.