Fabrication of silicalite-1 hollow sphere as delivery

김명훈*, 김동명[1], 홍원기[1], 이언엽[1], 공수성[1]
연세대학교; [1]한국콜마(주) 피부과학연구소
(hunin315@daum.net*)

Fabrication of hollow spheres with well defined nanoscaled pores on the shell may open up possibilities for various new application fields, such as controlled release capsules, artificial cells, chemical sensors, shape-selective adsorbents and catalysts. The electrostatic attraction between a negatively charged nanozeolite and an oppositely charged polymer is an effective driving force for the self-assembly of zeolite-polymer multilayers on colloidal templates. A new procedure for fabricating hollow zeolite spheres involving polystyrene (PS) latex templated electrostatic LbL self-assembly of nanozeolite/polymer multilayers followed by removal of the template and the polymer is reported in this work.