

The synthesis of iron oxide for bioseparation and study on their response to external magnetic fields

최진실[†], 정미선, 윤소희, 송대영, 정효빈, 강은수
한밭대학교
(jinsil.choi@hanbat.ac.kr[†])

Point of care test (POCT) can successfully performed with efficient and fast separation of small amount of targets from various samples. The magnetic separation method in which targets are tagged and isolated with magnetic nanoparticles is widely utilized separation method because of their simple processes and high efficiency. The separation capability of magnetic nanoparticles can be optimized by controlling their magnetic properties in terms of size, shape, or components. In this research, we synthesized various sized magnetic nanoclusters, which strongly respond to external magnetic fields. Then, we examined the attraction of magnetically tagged targets by changing strength of external magnetic fields and degree of magnetic tagging.