

Amino Acid Based Hydrogels with Dual Responsiveness for Oral Drug Delivery

Shiqi Wang, Xiaoxue Liu, Rongjun Chen

Department of Chemical Engineering, Imperial College London – shiqi.wang@imperial.ac.uk

Abstract

Oral delivery is considered as the most convenient and common means of drug administration. However, the harsh gastrointestinal environments such as highly acidic stomach environment and enzymatic disruption in small intestine become natural barriers for drug payloads. Herein, we propose a novel amino acid based hydrogel with dual-responsiveness to overcome such problems. With high loading efficiency, rapid but complete triggered-release and good biocompatibility, these hydrogels could be promising candidates for oral drug delivery.

