

Fluorescent vesicles based on aggregation induced emission compoundc

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The invention of AIE dyes has made many processes related with life and material science visible, yet it still remains significant challenge to make fluorescent nano carriers for drug delivery using AIE dyes. This is because their propeller-shape topology prevents the AIE dyes self-assemble as well as conventional amphiphiles into bilayer structure. To accomplish this problem, we employed the universal electrostatic interaction to fill in the voids between the propellers. This immediately enhanced the hydrophobic interaction between the propellers, which finally facilely led to vesicles without heavy organic modification of the AIE dyes. Using the obtained fluorescent vesicles we are able to fabricate self-imaging drug carriers, enzyme responsive fluorescent theronostics, and models for cancer cells.

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