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# Application of polydopamine in tumor targeted drug delivery system and its drug release behavior

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## Abstract

Inspired by the bionics of marine mussels, polydopamine (PDA), a new polymer with unique physicochemical properties was discovered. Due to its simple preparation, good biocompatibility, unique drug-loading methods, PDA has attracted tremendous attentions in field of drug delivery and imaging, and the combination of chemotherapy and other therapies or diagnostic methods, such as photothermotherapy (PTT), photoacoustic imaging (PAI), magnetic resonance imaging (MRI), etc. As an excellent drug carrier in tumor targeted drug delivery system, the drug release behavior of drug-loaded PDA-based nanoparticles is also an important factor to be considered in the establishment of drug delivery systems. Therefore, the purpose of this review is to provide a comprehensive overview of the various applications of PDA in tumor targeted drug delivery systems and to gain insight into the release

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