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## Abstract

Mitochondria, the power generators in cell, are a primary organelle of oxygen consumption and a main source of reactive oxygen/nitrogen species (ROS/RNS). Peroxynitrite ( $\text{ONOO}^-$ ), known as a kind of RNS, has been considered to be a significant factor in many cell-related biological processes, and there is great desire to develop fluorescent probes that can sensitively and selectively detect peroxynitrite in living cells. Herein, we developed a fluorescent carbon-dots (C-dots) based mitochondria-targetable nanoprobe with high sensitivity and selectivity for peroxynitrite sensing in living cells. The C-dots with its surface rich in amino groups was synthesized using *o*-phenylenediamine as carbon precursor, and it could be covalently conjugated

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