

# Utilizing Light-Triggered Plasmon-Driven Catalysis Reactions as a Template for Molecular Delivery and Release

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**Supporting Information**

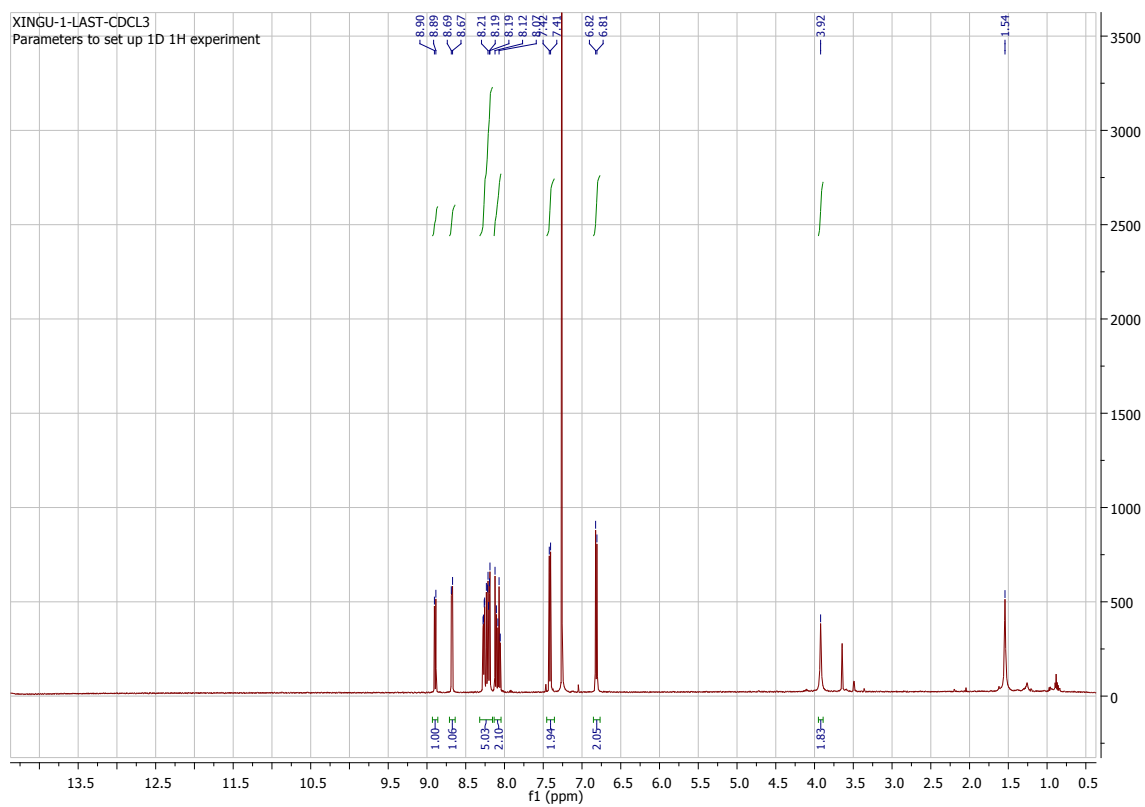


Figure S1. The  $^1\text{H}$  NMR spectrum of the synthesized MPPC.

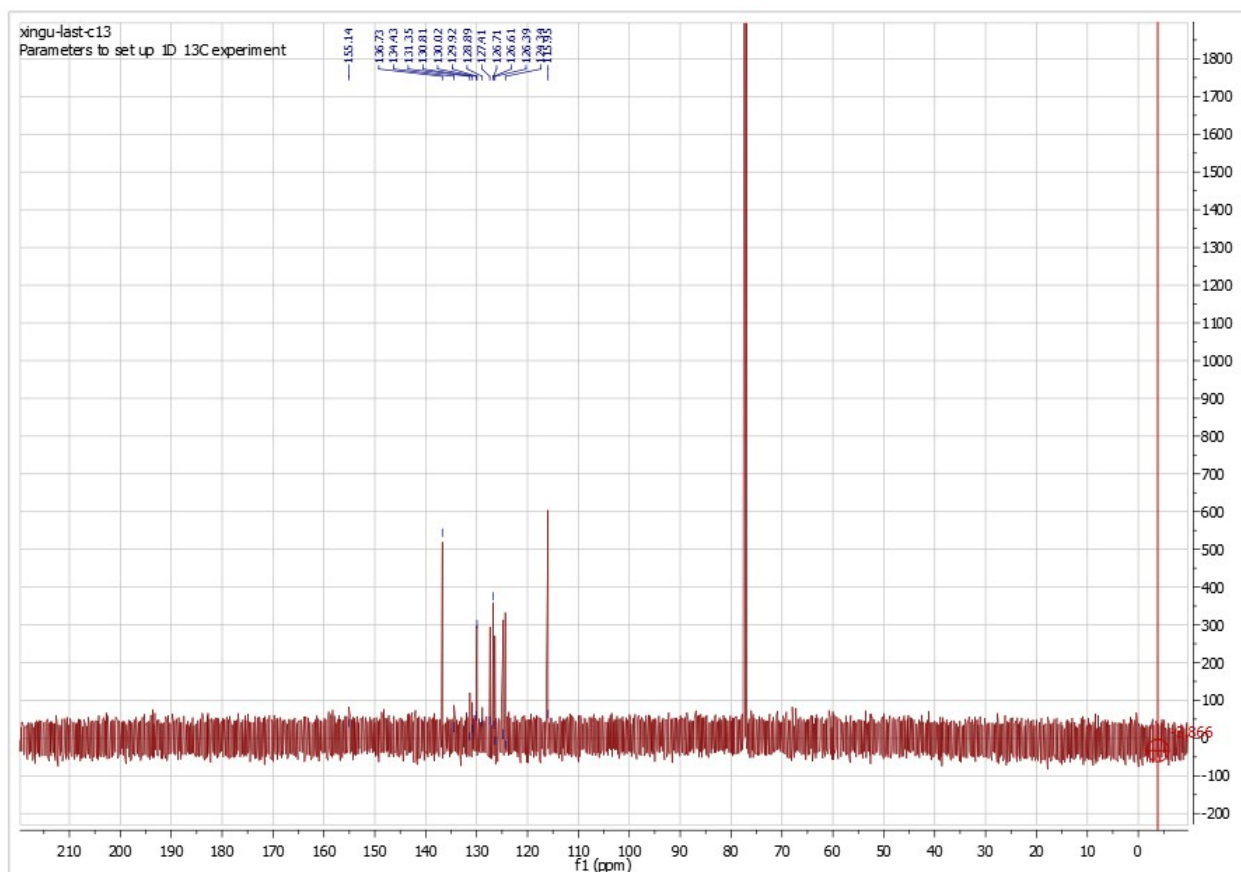


Figure S2. The  $^{13}\text{C}$  NMR spectrum of the synthesized MPPC.

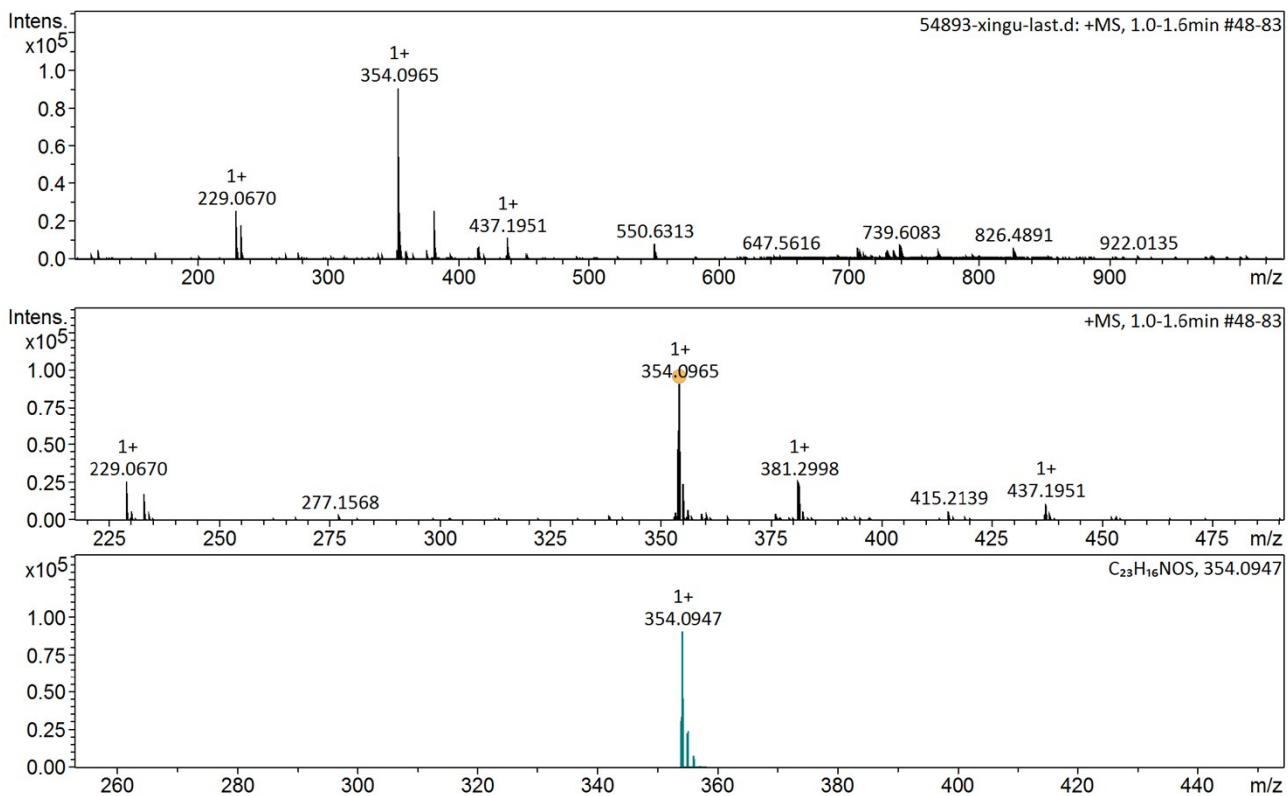


Figure S3. The mass spectrum of the synthesized MPPC. Found 354.0964  $[M+H]^+$ , calculated for 354.0947  $[C_{23}H_{16}NOS]^+$ .

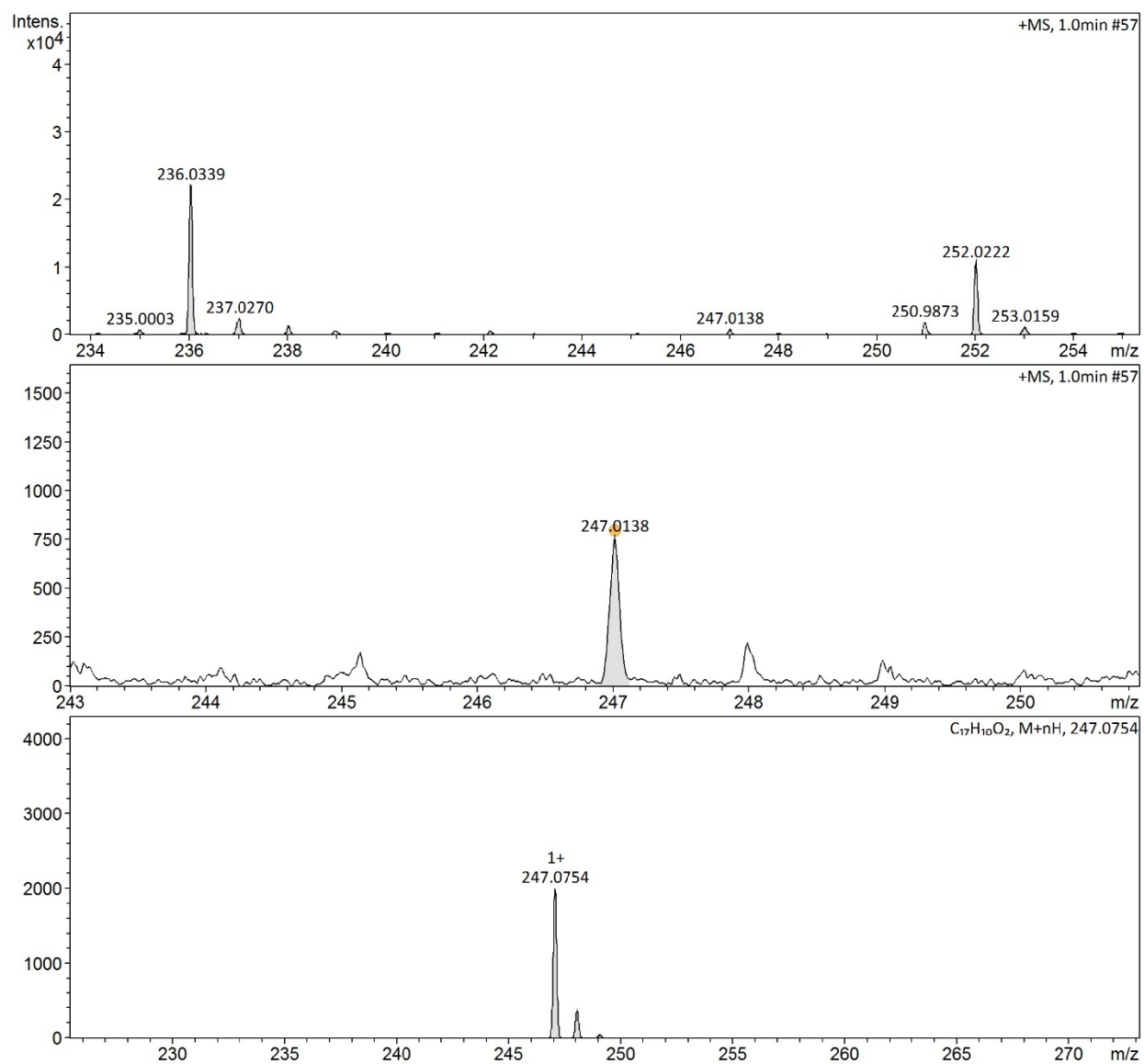


Figure S4. The mass spectrum from supernatant of the sample irradiated with 785 nm laser for 180 min.  
Found at 247.0138 [M+H]<sup>+</sup> calculated for 247.0754 [PyAH]<sup>+</sup>.

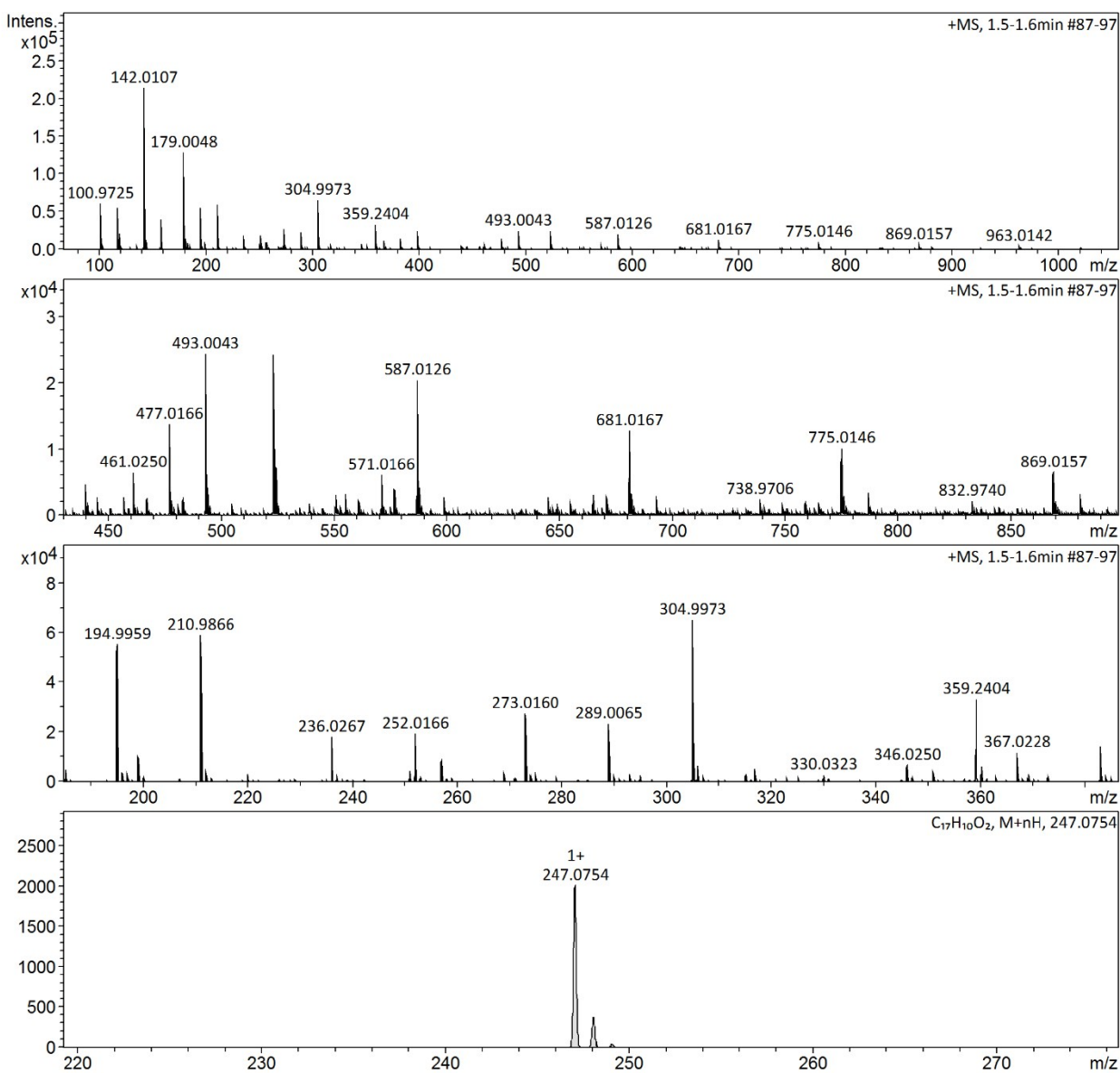


Figure S5. The mass spectrum from supernatant of the sample without laser irradiation. Didn't find any peak corresponds to the calculated peak at 247.0754.

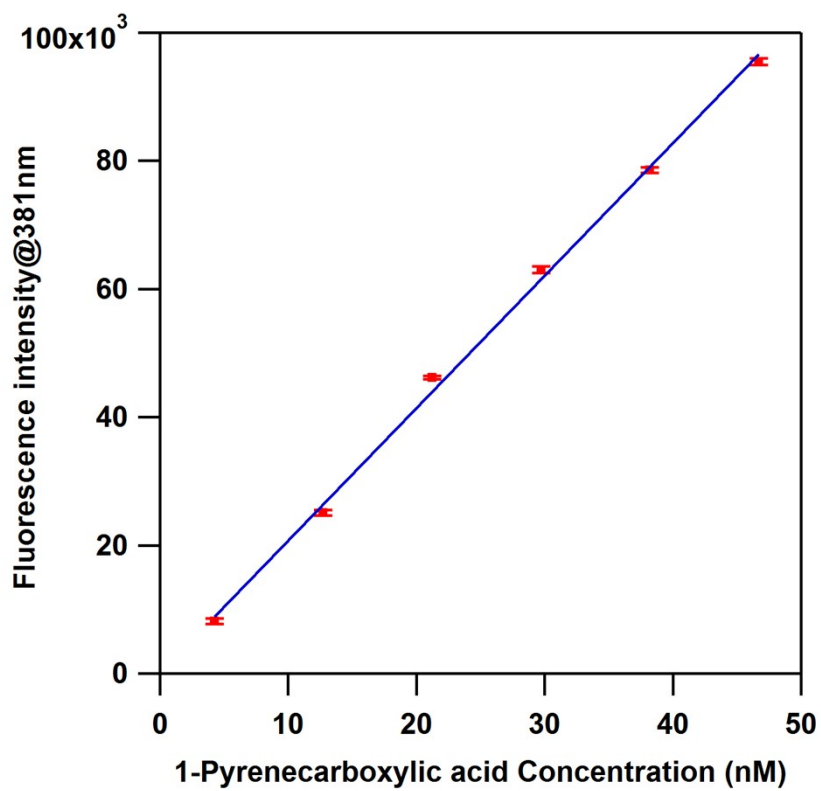


Figure S6. Calibration curve of the PyA fluorescence intensity @ 381 nm under 342 nm excitation versus the concentration.

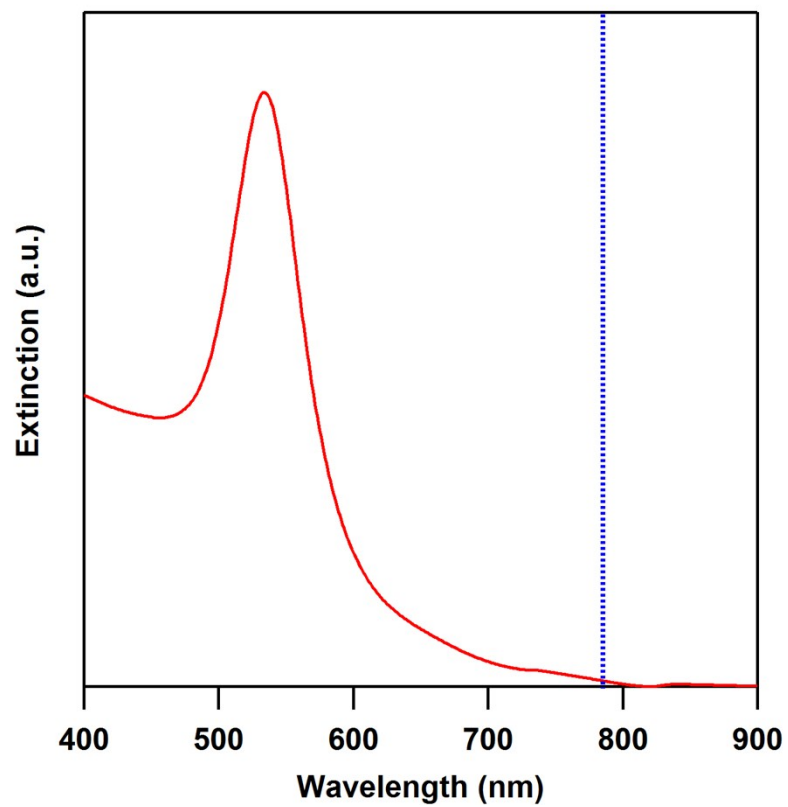


Figure S7. The extinction spectrum of the 60 nm AuNPs used in this paper. Blue dashed line indicates the position of the laser wavelength.