

Sensitive and simple sonoluminescent detection of melamine via aggregation of Au nanoparticles

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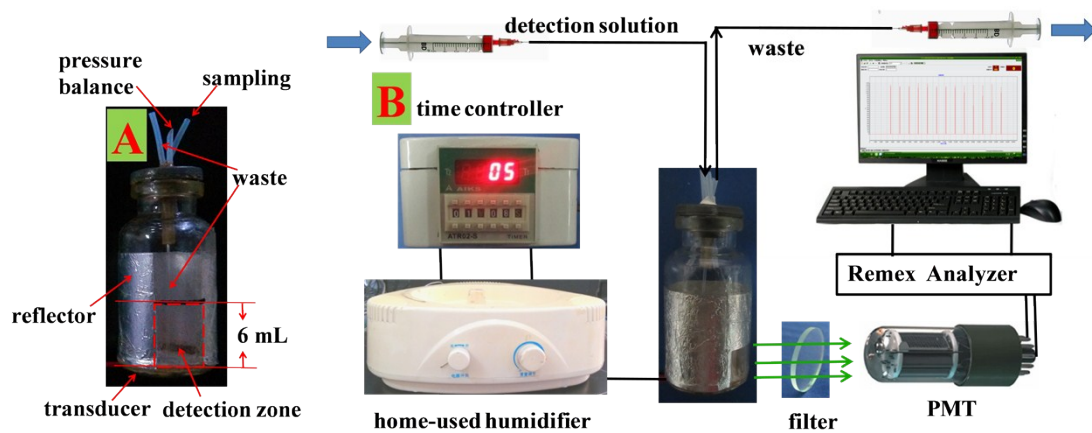


Fig. S1 The schematic diagrams of (A) the SL vial and (B) the SL system. The ceramic transducer was glued to glass vial with epoxy resin; SL vial, filter, and PMT are included in a darkbox.

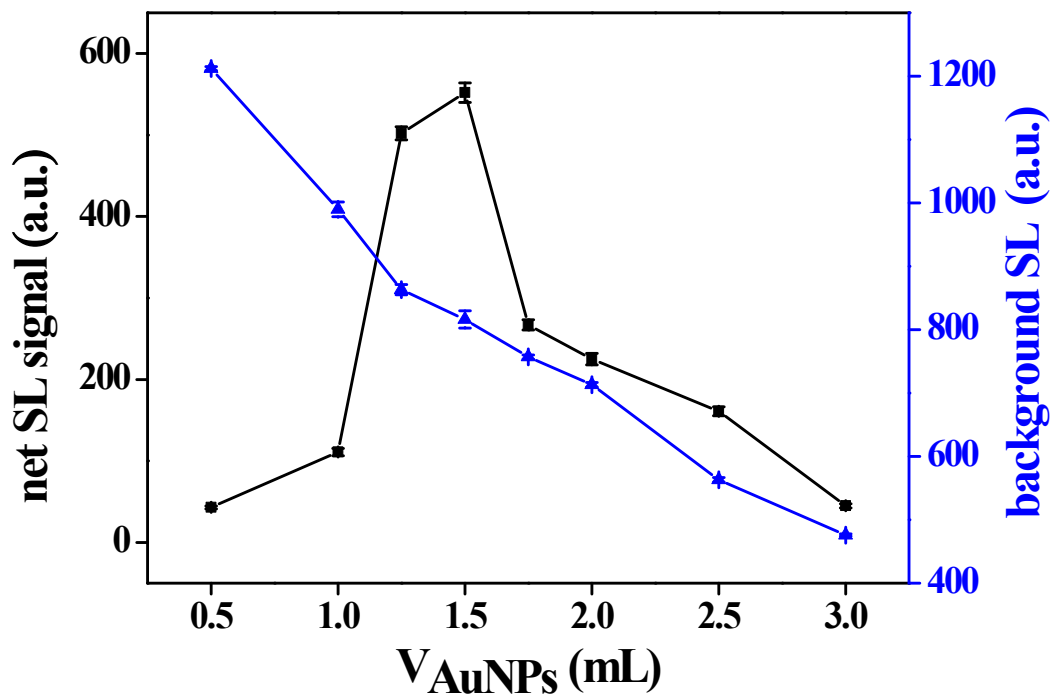


Fig. S2 The effect of AuNPs contents on SL response to 1.0 μ M melamine; interaction time, 5min; ultrasound irradiating duration, 0.1 s; irradiating interval, 8 s; volume of detection solution, 6 mL; PMT biased at -700V.

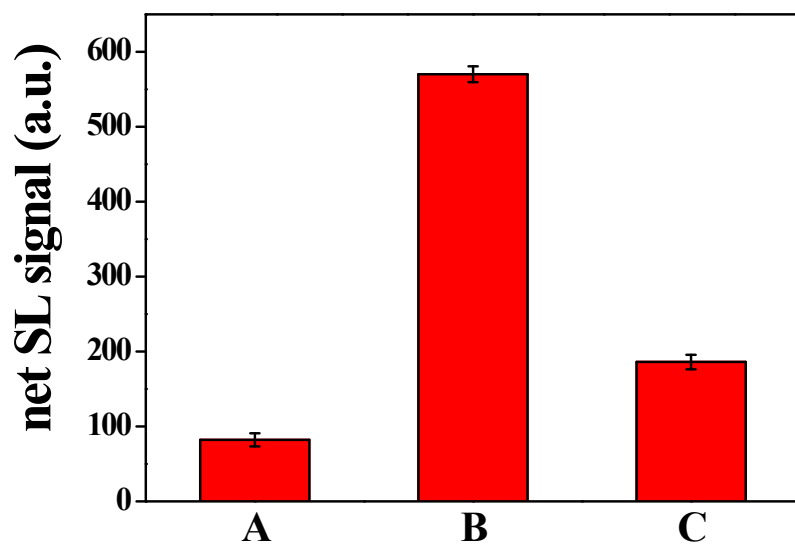


Fig. S3 The effects of mixing order on SL detection. A. AuNPs + water, then the addition of melamine; B. AuNPs + melamine, then the addition of water; C. water + melamine, then the addition of AuNPs. Melamine, 1.0 μM ; AuNPs, 1.5 mL; interaction time, 5 min; ultrasound irradiating duration, 0.1 s; interval, 8 s; detection solution volume, 6 mL; PMT biased at -700V.

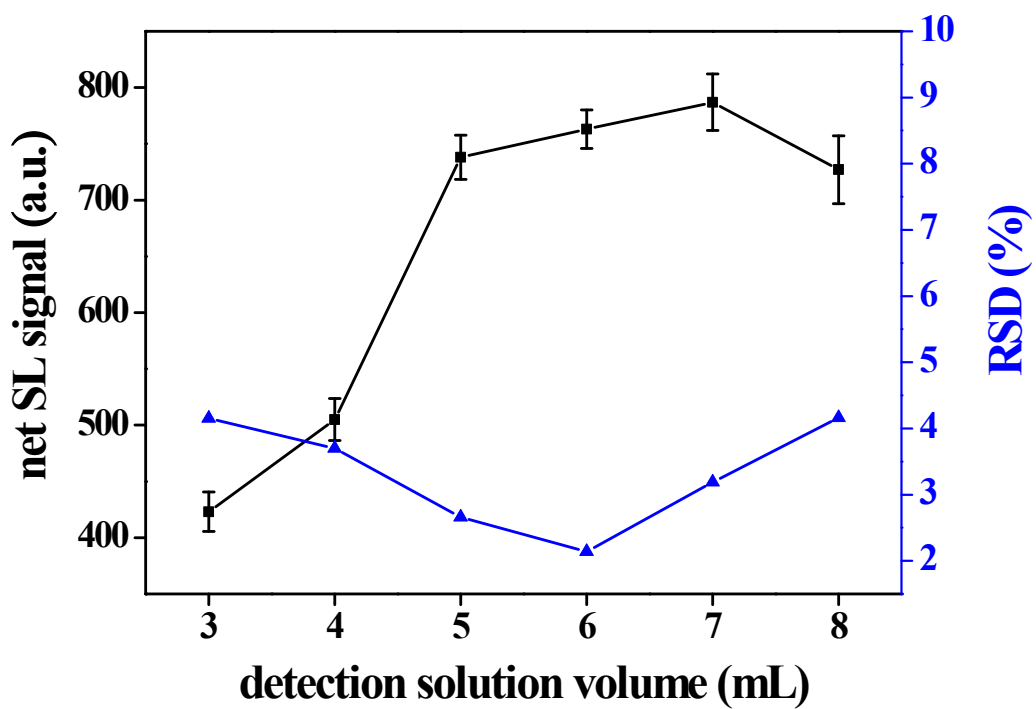


Fig. S4 The effect of detection solution volume on SL response to 1.0 μM melamine; interaction time, 5min; ultrasound irradiating duration, 0.1 s; irradiating interval, 8 s; PMT biased at -700V.