

Accepted Manuscript

Title: Gold Nanostar-Enhanced Chemiluminescence Probe for Highly Sensitive Detection of Cu(II) Ions

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PII: S0925-4005(17)32134-2
DOI: <https://doi.org/10.1016/j.snb.2017.11.013>
Reference: SNB 23507

To appear in: *Sensors and Actuators B*

Received date: 26-7-2017
Revised date: 17-10-2017
Accepted date: 2-11-2017



Please cite this article as: Mohammad Amjadi, Zahra Abolghasemi-Fakhri, Gold Nanostar-Enhanced Chemiluminescence Probe for Highly Sensitive Detection of Cu(II) Ions, *Sensors and Actuators B: Chemical* <https://doi.org/10.1016/j.snb.2017.11.013>

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Gold Nanostar-Enhanced Chemiluminescence Probe for Highly Sensitive Detection of Cu(II) Ions

Ions

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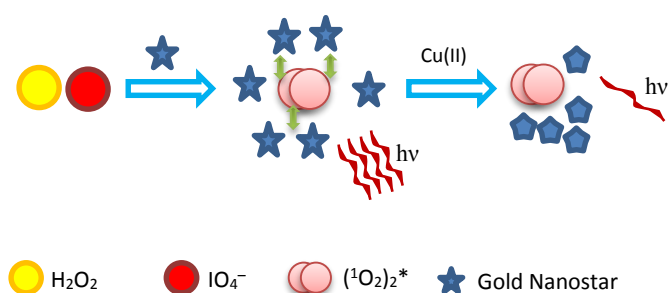
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Graphical abstract



Gold nanostars have a plasmon-assisted enhancing effect on H_2O_2 - IO_4^- chemiluminescence reaction, and Cu(II) can be detected using this system.

Highlights

- Gold nanostars were used for the first time in the chemiluminescence field.
- Gold nanostars remarkably enhance chemiluminescence of H_2O_2 - IO_4^- reaction.
- Larger nanostars with more and sharper branches exert stronger enhancing effect.
- Gold nanostar-enhanced CL system was applied for sensitive detection of Cu(II) ion.

Abstract

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