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Ju Qin, LiMei Zhang, Rui Yang

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Powder carbonization to synthesize novel carbon dots derived from uric acid for the detection of Ag(I) and glutathione

Ju Qin, LiMei Zhang, Rui Yang*

[1] Key Laboratory on Luminescence and Real-Time Analysis, Ministry of Education, School of Chemistry and Chemical Engineering, Southwest University, Chongqing 400715, China.

* Corresponding author:

Tel.: + 86 23 68252360.

E-mail: ruiyang@swu.edu.cn

Abstract: This article first reported that a simple synthesis of carbon dots (UCDs) by pyrolysis of uric acid was proposed. The excitation wavelength was 350 nm and the emission wavelength was 402 nm for the synthesized UCDs. And the corresponding fluorescence quantum yield was 52.06%. The obtained UCDs could be served as a fluorescence probe to recognize Ag^{+} and glutathione (GSH), respectively. The fluorescence of UCDs was quenched after the addition of Ag^{+}. The obtained UCDs had a linear relationship with Ag^{+} in the detection range of 0.1 μM to 2.0 μM, and the