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Powder carbonization to synthesize novel carbon dots

derived from uric acid for the detection of Ag(I) and

glutathione

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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

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