# Supporting Information

## Ratiometric fluorescence detection of moxifloxacin based on fluorescence resonance energy transfer from carbon quantum dots to moxifloxacin

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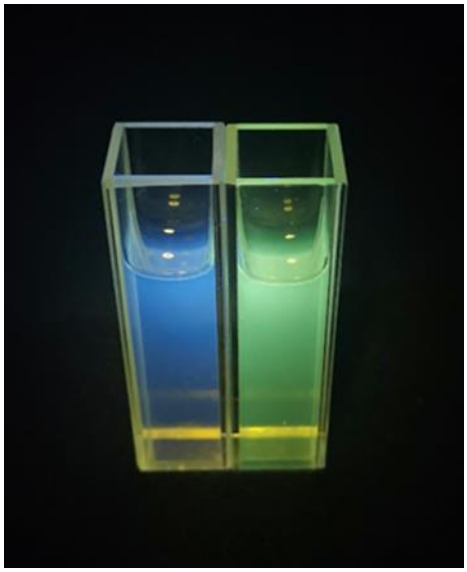

**Figure S1 Fluorescence of CQDs (left) and MOX/CQDs (right) under 365 nm UV lamp irradiation**

Figure S2 shows the HRTEM image of CQDs. As can be seen synthesized CQDs have a good spherical structure with a size distribution between 2.0 and 5.5 nm.

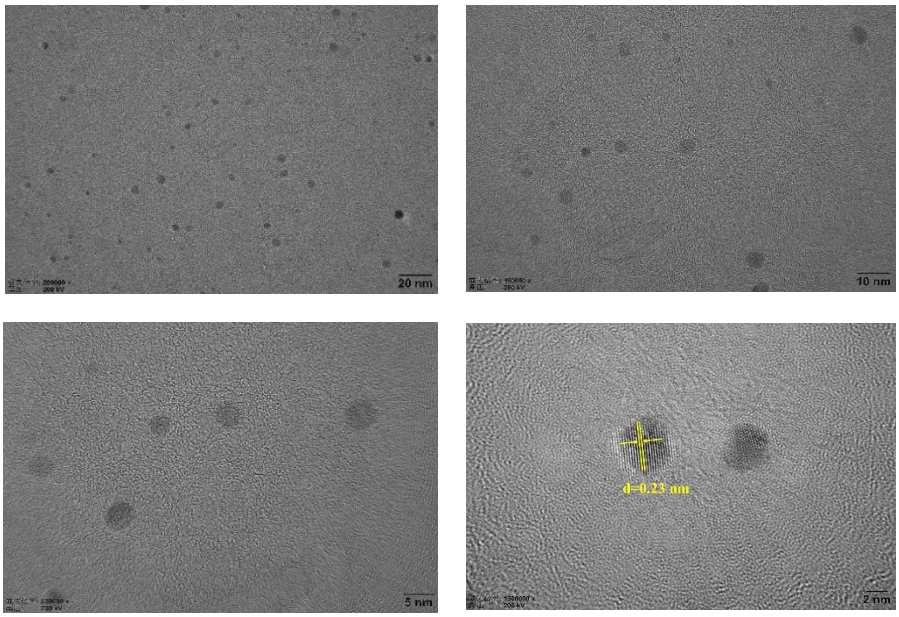


**Figure S2 The HRTEM image of CQDs**

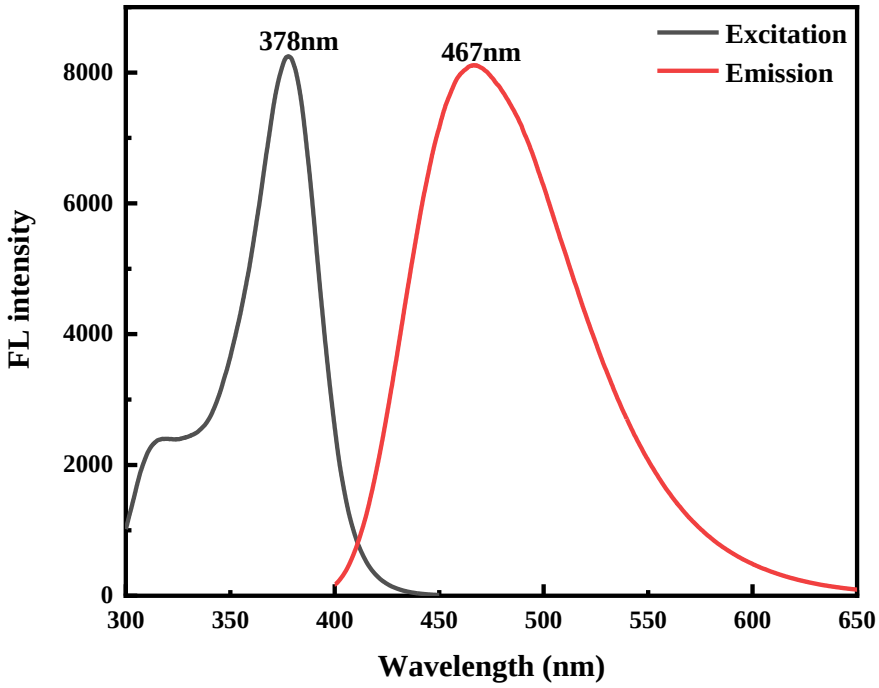


**Figure S3 Fluorescence spectrum of MOX**

In order to explore the effect of pH on the fluorescence intensity of CQDs (Figure S4) and CQDs/MOX $F_{497}/F_{435}$ (Figure S5), a series of buffer solvents with pH (2.46~12.50) were accurately configured through a pH meter. The results showed that the fluorescence intensity of CQDs increased slightly in the range of pH 4.43 to 8.25, CQDs/MOX $F_{497/435}$ is almost unchanged in the pH range of 4.43 to 11.44.

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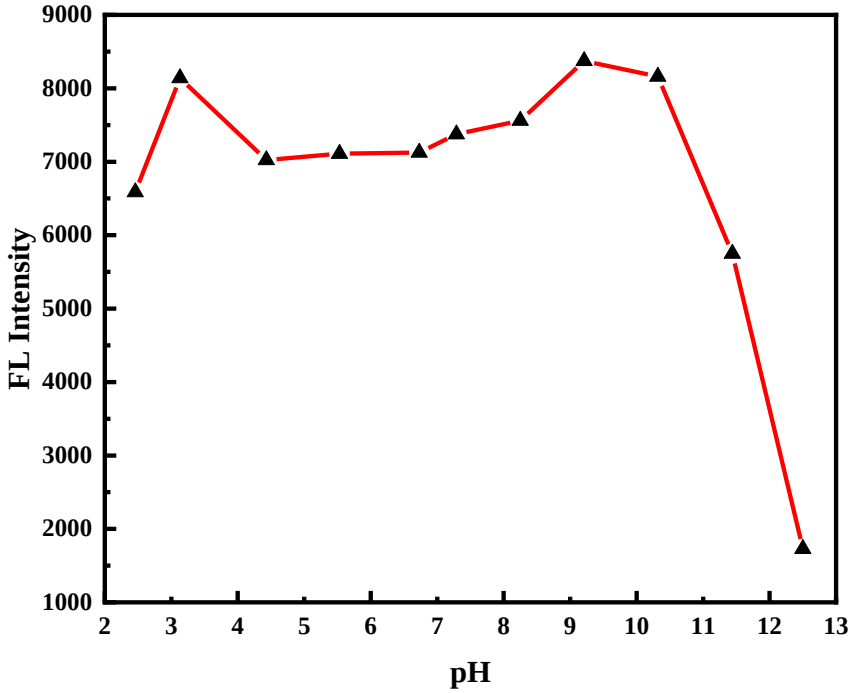


**Figure S4 Effect of solution pH on fluorescence intensity of CQDs**

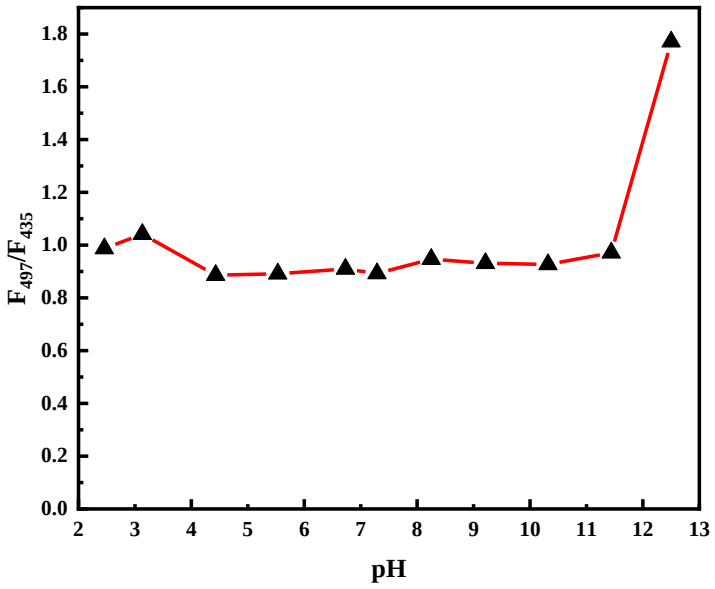


**Figure S5 Effect of solution pH on CQDs/MOX $F_{497}/F_{435}$**

Figure S6 shows CQDs fluorescence intensity changes with storage time, The fluorescence intensity of CQDs decreases slightly as time increases; Figure S7 shows the relationship between CQDs/MOX $F_{497}/F_{435}$ and reaction time, with the extension of the reaction time, it remains basically unchanged after 5 minutes.

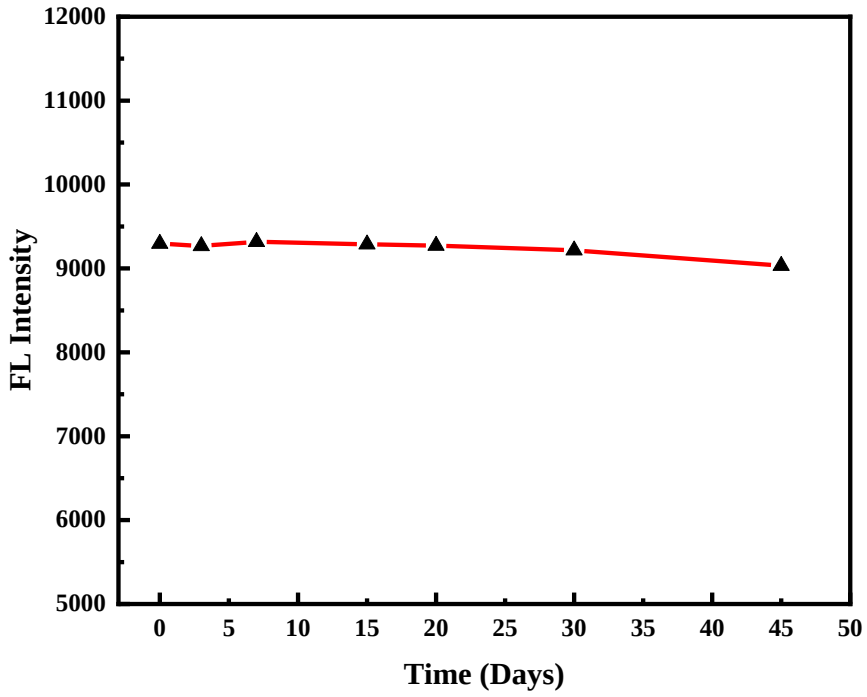


**Figure S6 CQDs fluorescence intensity changes with storage time**

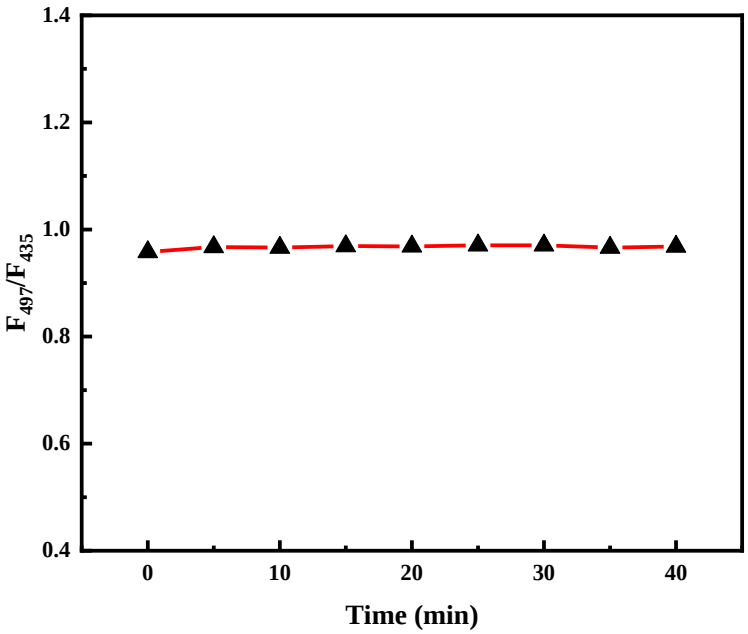


**Figure S7 Relationship between CQDs/MOX $F_{497}/F_{435}$ and reaction time**