

1. Fig.S1.

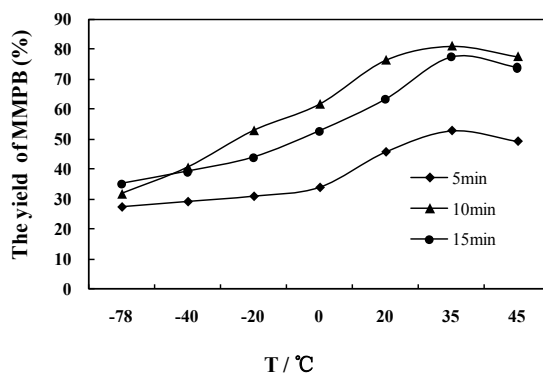


Fig.S1. Effect of reaction temperature on the yield of MMPB

2. Fig.S2.

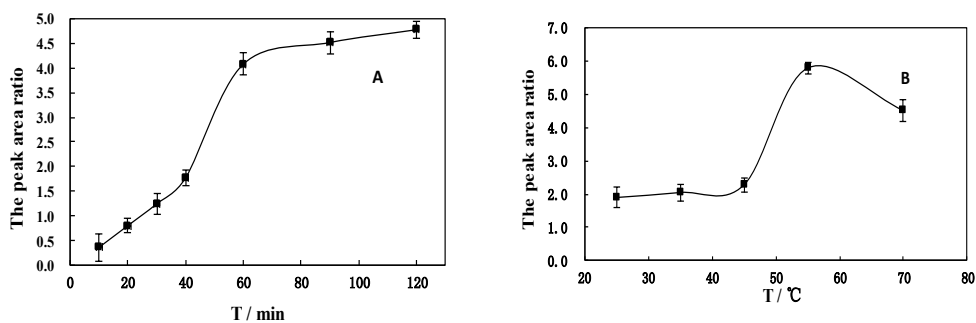


Fig.S2. Peak area ratio of the target compound, MMPB-OCH<sub>3</sub> and 4-PB-OCH<sub>3</sub>. The reaction adopts 14% BF<sub>3</sub>-methanol as the derivatization reagent, as influenced by: (A) Reaction time. (B) Reaction temperatures (ranging from 25 to 70°C).

3. Results about intraday and interday precisions

Precision (intraday/interday) was expressed as the percentage relative standard deviation (RSD), and was then evaluated using concentrations of 30 µg L<sup>-1</sup>, 100 µg L<sup>-1</sup> of MCs. The solutions were spiked in lake water samples, we repeated the analysis 4 times on different days (n=4)

Table S1 Results of precision

Concentration (µg L <sup>-1</sup> )	Measured	Intraday RSD (%)	Interday RSD (%)
30	23.8	4.3	6.7
100	80.2	6.5	8.7