**Synthesis of poly(styrene-divinylbenzene) by nano-TiO2 and the application for pipette-tip solid-phase extraction of flavonoid in *Epipremnum aureum* rhizome**

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**Supporting Information**

FTIR spectroscopy was also employed to examine the modification process and recognition of any changes on the PS-DVB after bonded nano-TiO2, PEI, and PANI. (Figure S1).The broad bands at 3000–3600 cm-1 and 1800–1600 cm-1 correspond to the N–H and C6H6 stretching vibrations of modified PS-DVB, respectively. The absorption bands at 1641 cm-1 and 1181 cm-1 were assigned to the C=C and C–N stretching vibration in the benzoid ring, respectively. The absorption bands at 500-700 cm-1 correspond to the ν (Ti-O).[[1]](#footnote-1)



 Figure S1. FT-IR spectra of PS-DVB (A), P1 (B), P2 (C) and P3 (D) at 400 cm-1 to 4000 cm-1.

Table S1Different technologies used for the extraction of myricetin and quercetin from various samples.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Target | Extraction types | sample | Linear rage | RSD (%) | Recovery (%) | Reference |
| myricetin | SPE | Safflower and the flowers of A. manihot | 1.36-400.12μg/mL | 2.02 and 0.72 | 79.82–83.91 and 81.50–84.32 | [17] |
| Hard cap espresso extraction | Onion, chili and leek | 1-50mg/L | <25 | 78 | [21] |
| MIP-SPE | Ampelopsis grossedentata | / | / | 92.7 | [18] |
| UAE | Hot peppers | 0.5-40μg/mL | <3.94 | 90.6-110.54 | [20] |
| PT-SPE | Epipremnum aureum | 0.04–200.00μg/mL | 2.11 | 97.52 | This work |
| quercetin | HPLC | Italian Wines | 0.3–12 mg/mL | 5 | 87 | [22] |
| Hard cap espresso extraction | Onion, chili and leek | 1-50mg/L | <25 | 80 | [21] |
| MSPD | Herba | 1–500μg/ mL | 4.9 | 102.3 | [23] |
| MIP-SPE | Hydrolyzed nettle extract | / | / | 87 | [19] |
| PT-SPE | Epipremnum aureum | 0.04–200.00μg/mL | 2.64 | 93.16 | This work |

 (SPE: solid-phase extraction; MIP-SPE: molecularly imprinted solid-phase extraction; UAE: ultrasound-assisted extraction; HPLC: High performance Liquid Chromatography; MSPD: molecularly imprinted-matrix solid phase dispersion; PT-SPE: Pipette-tip solid-phase extraction)

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