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Application of covalent organic framework as the adsorbent for solid-phase extraction of trace levels of pesticide residues prior to high-performance liquid chromatography-ultraviolet detection

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Highlights

- DAAQ-TFP was prepared as adsorbent for extraction of BUs.
- DAAQ-TFP has excellent extraction performance and adsorption capacity.
- SPE-HPLC-UV was developed for the determination of BUs with low LODs.

ABSTRACT

A covalent organic framework (named as DAAQ-TFP) was prepared via a fast, environmentally-friendly, and easy-to-perform grinding method with 2,6-diaminoanthraquinone (DAAQ) and 1,3,5-triformylphloroglucinol (TFP) as building blocks. The DAAQ-TFP possesses large surface area, high porosity, good thermochemical stability, abundant O atoms and N-H groups, which render it great potential as sorbent for some compounds. It was employed as adsorbent to extract benzoylurea

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