

Selective Adsorption of Cr (VI) onto amine-modified Passion Fruit Peel Biosorbent

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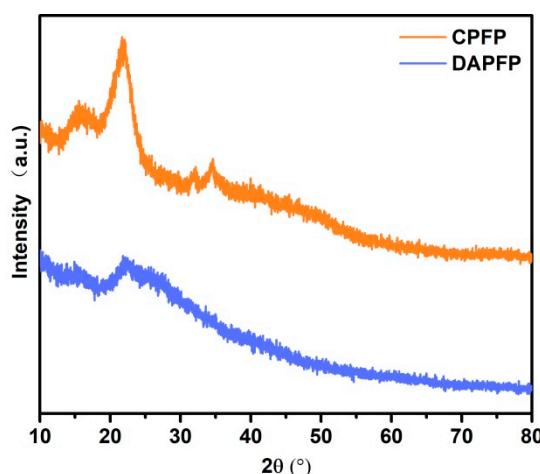


Figure S1. The XRD pattern of CPFP and DAPFP.

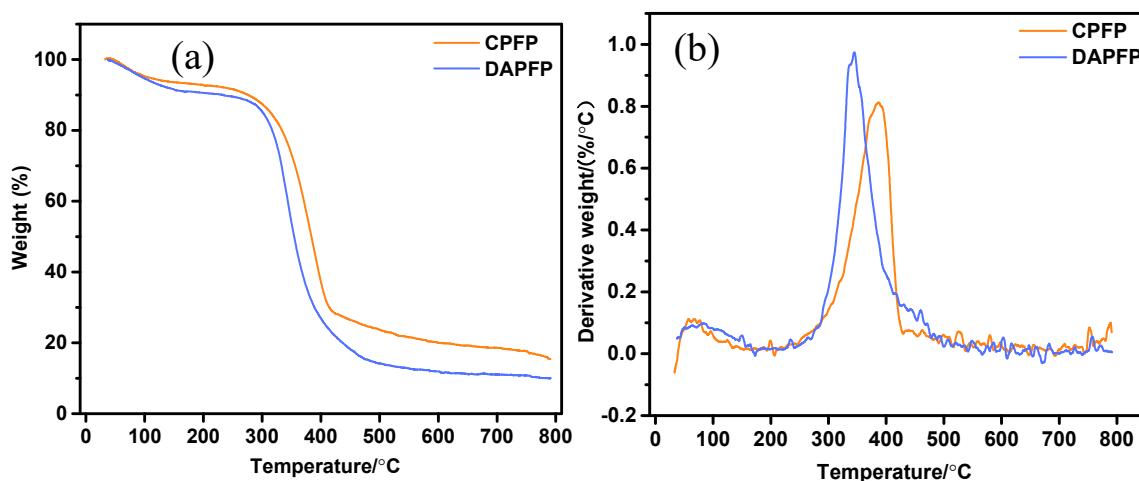


Figure S2. The TGA (a) and DTG (b) curve of DAPFP and CPFP.

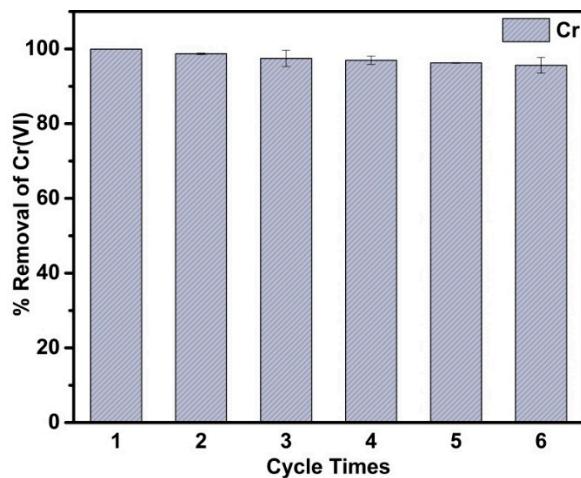


Figure S3. Regeneration performance of DAPFP toward Cr(VI) in five successive cycles of desorption-adsorption.

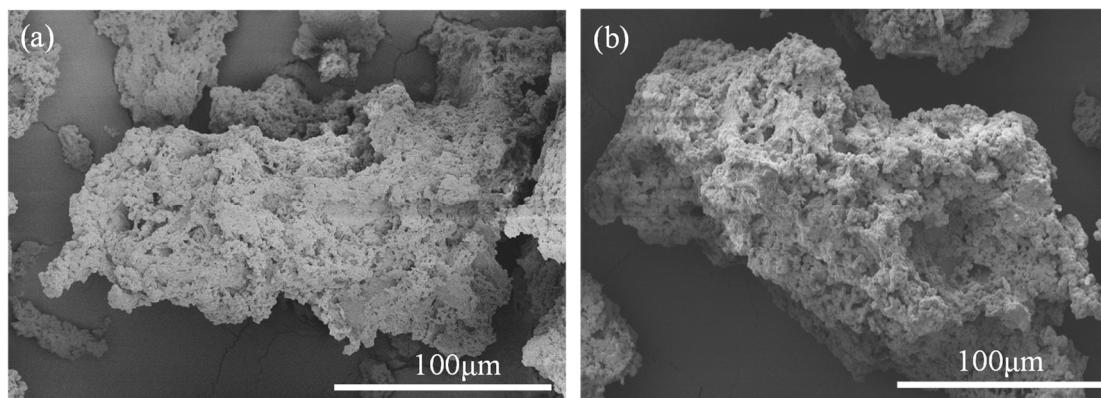


Figure S4. DAPFP before (a) and after (b) adsorption of Cr(VI).

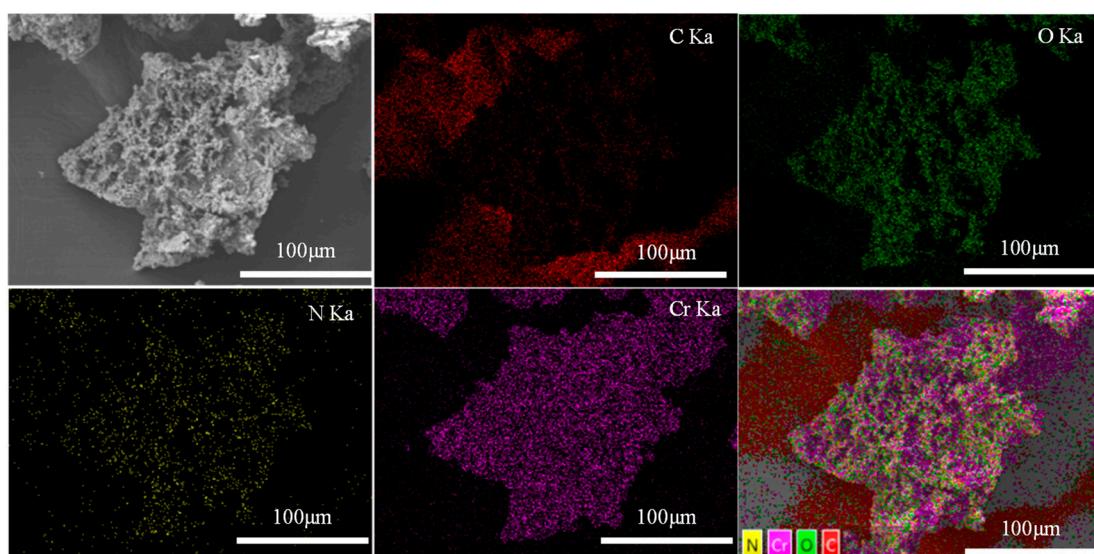


Figure S5. SEM images and elemental dot maps of surface modified DAPFP adsorbed Cr(VI).

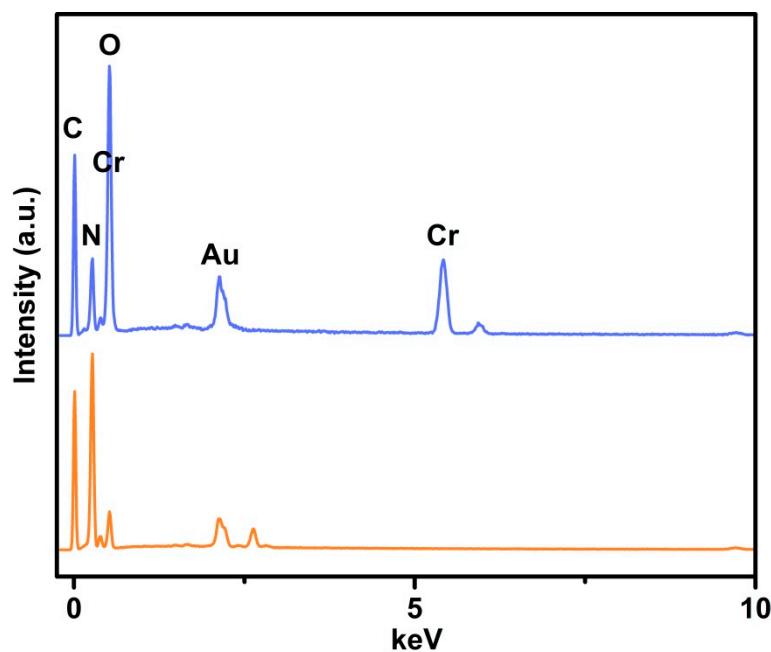


Figure S6. The mapping and EDS pattern of DAPFP adsorbed Cr(VI).

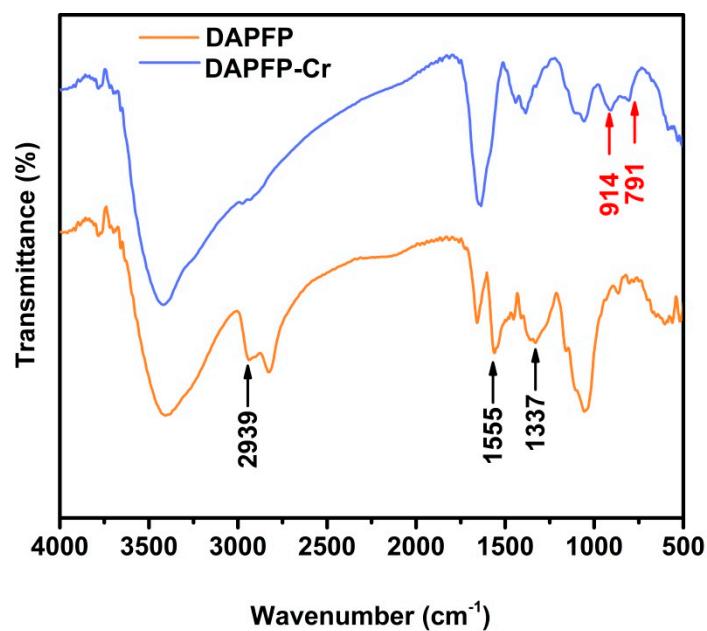


Figure S7. FT-IR spectra of DAPFP adsorbed Cr(VI).

Table S1. Comparison of the maximum adsorption of Cr(VI) ions on various adsorbents.

adsorbents	adsorption capacity (mg g ⁻¹)	ref.
Amine-functionalized magnetic corn stalk	231.1	[1]
Amine-functionalized MSC composite	171.5	[2]
Cellulose nanocrystal—polyethyleneimine	358.42	[3]
Poly(acryloyl hydrazide)-grafted cellulose nanocrystal	457.6	[4]
Amino-functionalized graphene oxide nanosheets	1185	[5]
Activated carbon spheres	230.15	[6]
N-doped porous carbon	540.54	[7]
Lignin-based composite	898.2	[8]
EGTA modified magnetic microsphere	25.25	[9]
Amine-rich polyamidoamine (PAMAM) gel	202.15	[10]
Multiple amine groups Peach Gum	135.52	[11]
Polypyrrole/calcium rectorite composite	714.29	[12]
DAPFP	675.65	This work

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