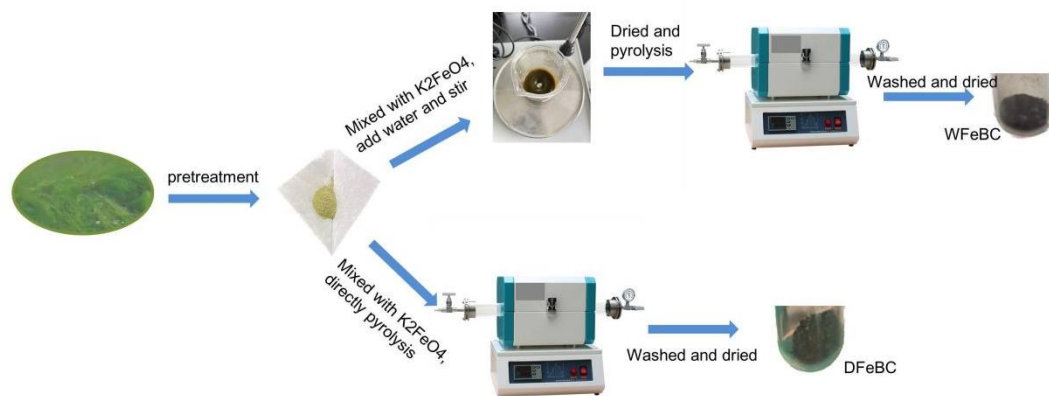


**Table S1.** The advantages and disadvantages of the main technologies for Cr(VI) removal.

		Advantages	Disadvantages
1	membrane separation	Higher removal efficiency, no pollution loads and sometimes lower energy consumption	Highly depend on materials, membrane pore size and composition
2	Ion exchange	High efficiency, low cost, less sludge volume and high selectivity	Highly depend on resin structure and solution environment
3	Chemical precipitation	Simple, effective	Secondary pollution
4	Electrocoagulation	Simple, productive, ease of operation	Poor systematic reactor design and sacrifice of electrodes
5	Electrodialysis	Low energy consumption	Highly cost of electrodes
6	Adsorption	High efficiency, simple operation and ease of regeneration	Depend on the solution environment



**Figure S1.** The preparation process of materials.