Collagen fiber-based adsorbent materials for the separation of cesium and strontium

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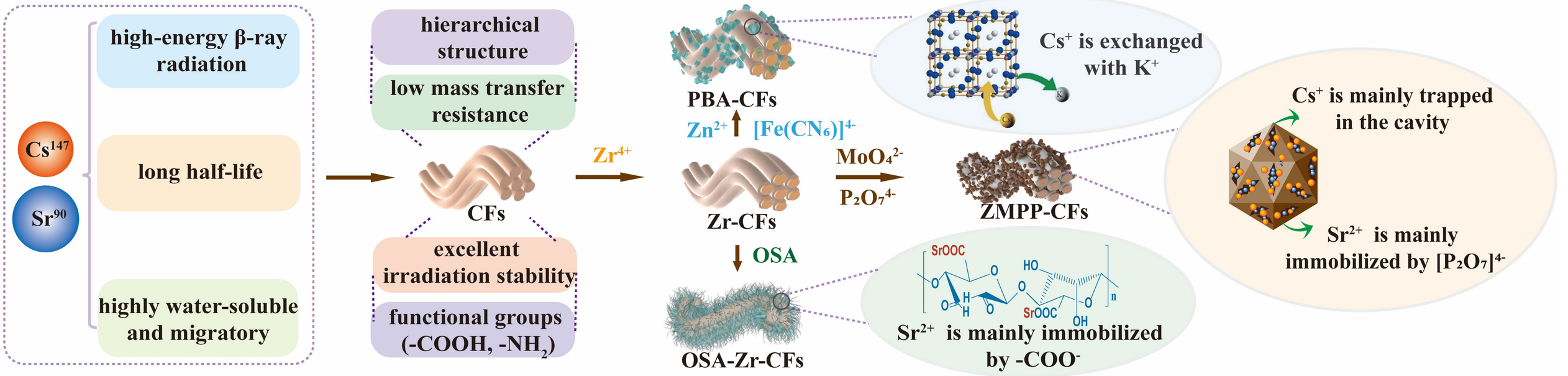
Introduction



Results

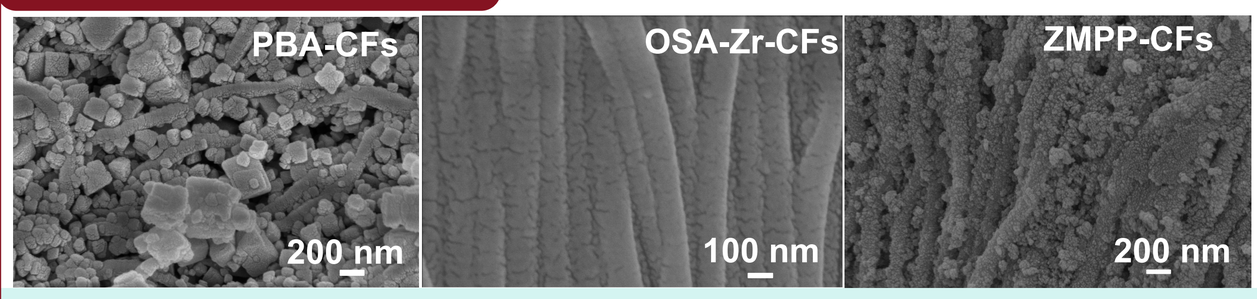


Fig.1 Morphology of PBA-CFs, OSA-Zr-CFs, and ZMPP-CFs

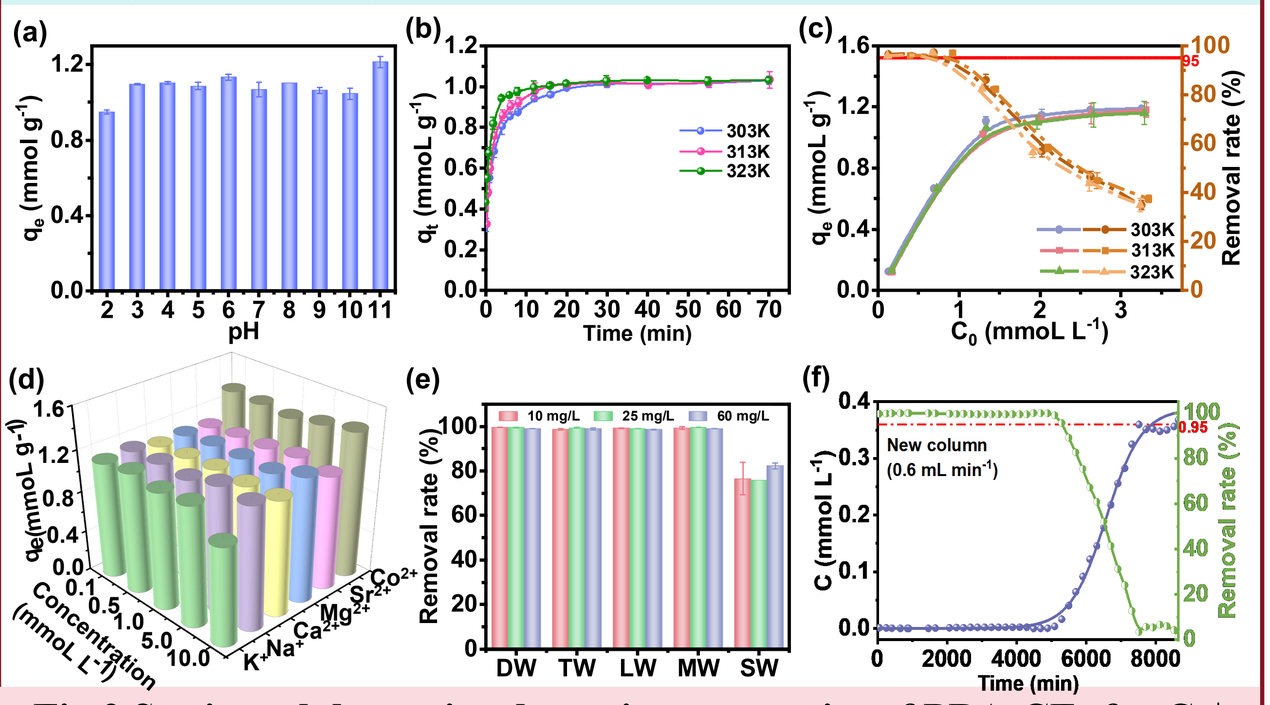


Fig.2 Static and dynamic adsorption properties of PBA-CFs for Cs^+

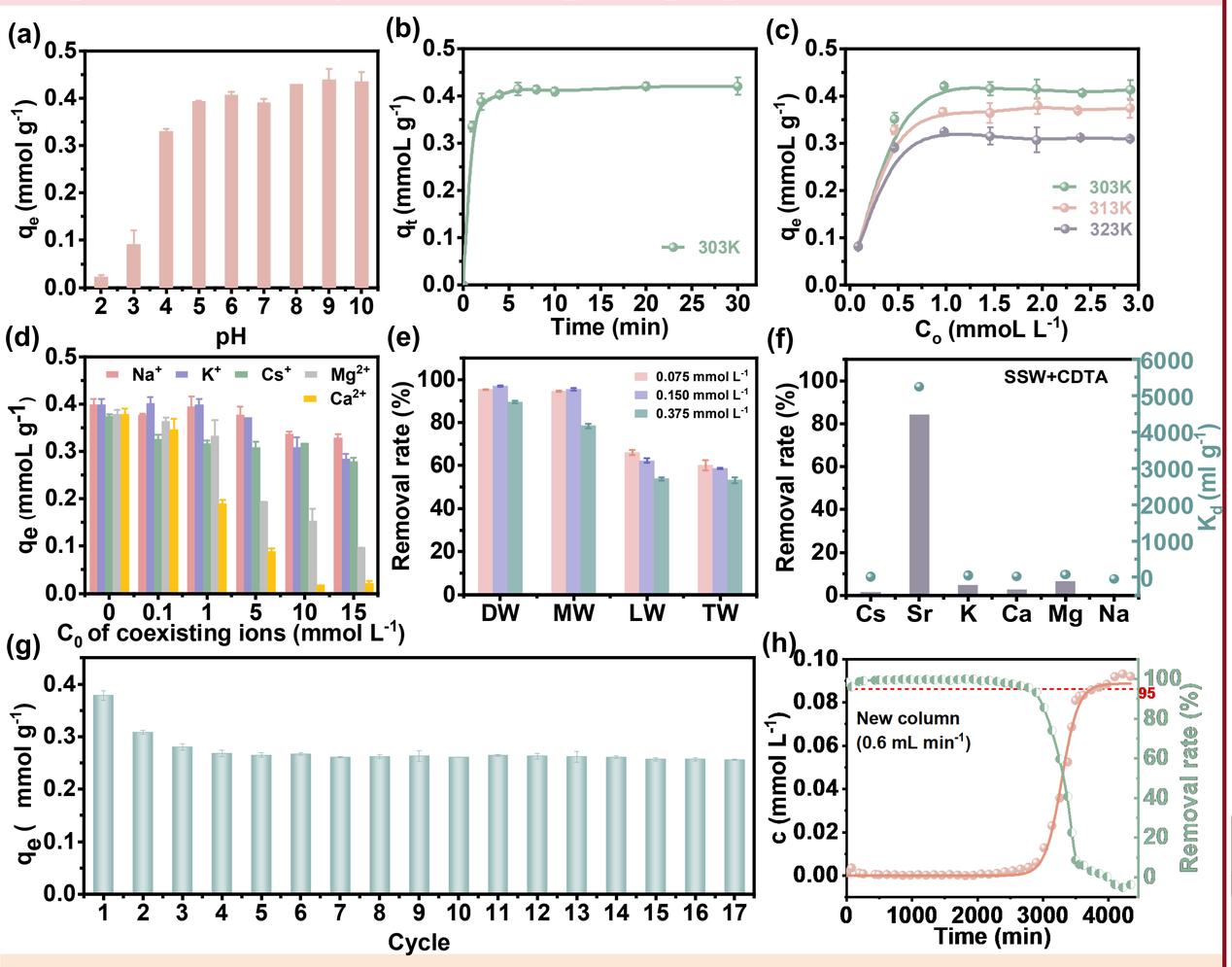


Fig.3 Static and dynamic adsorption properties of OSA-Zr-CFs for Sr^{2+}

Results

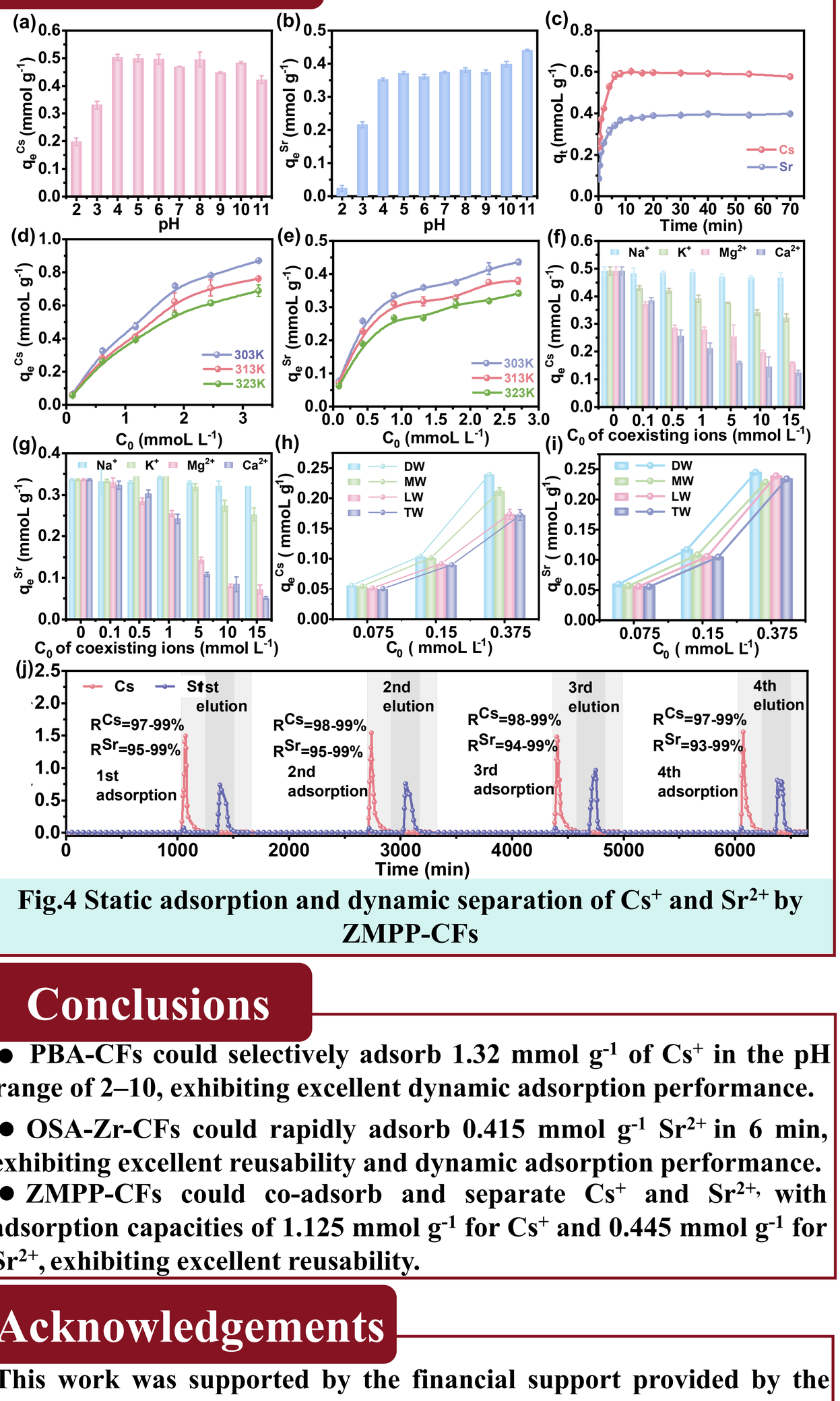


Fig.4 Static adsorption and dynamic separation of Cs^+ and Sr^{2+} by ZMPP-CFs

Conclusions

- **PBA-CFs could selectively adsorb 1.32 mmol g^{-1} of Cs^+ in the pH range of 2–10, exhibiting excellent dynamic adsorption performance.**
- **OSA-Zr-CFs could rapidly adsorb 0.415 mmol g^{-1} Sr^{2+} in 6 min, exhibiting excellent reusability and dynamic adsorption performance.**
- **ZMPP-CFs could co-adsorb and separate Cs^+ and Sr^{2+}, with adsorption capacities of 1.125 mmol g^{-1} for Cs^+ and 0.445 mmol g^{-1} for Sr^{2+}, exhibiting excellent reusability.**

Acknowledgements

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