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Improved antifouling performance of ultrafiltration membrane via preparing novel zwitterionic polyimide

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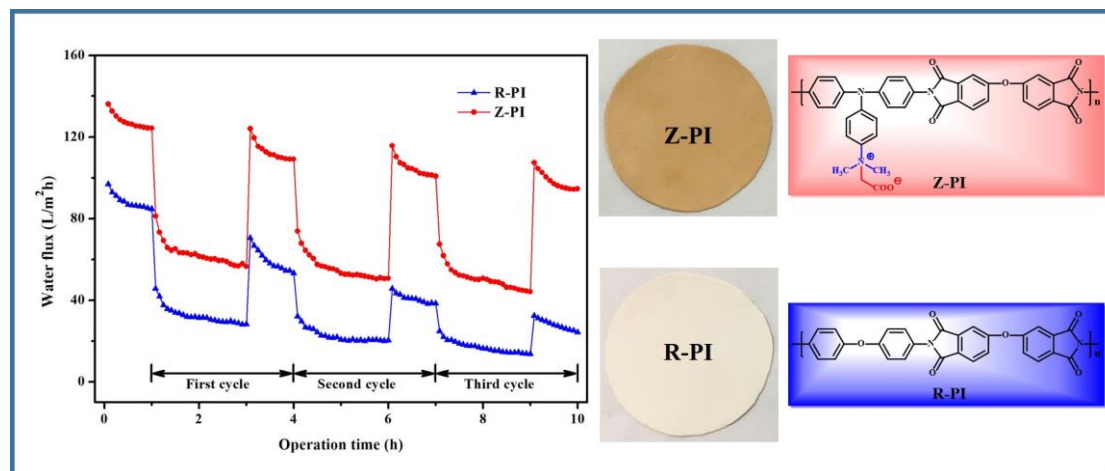
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GRAPHICAL ABSTRACT



Highlights

- Zwitterionic polyimide (Z-PI) was successfully prepared by solution polycondensation and quaternary amination reaction.
- Z-PI membrane exhibited enhanced hydrophilicity and water permeability.
- Z-PI membrane showed improved antifouling property and long-term residence stability.
- This approach is facile and scalable for the large-scale preparation of antifouling ultrafiltration membranes.

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