



Showcasing research from Professor Shao's laboratory,  
School of Environmental and Biological Engineering,  
Nanjing University of Science and Technology, Nanjing  
210094, P. R. China.

Regulating the preparation of antibacterial poly(amidoxime)  
for efficient uranium extraction from seawater

Polyacrylonitrile (PAN) contain around  $-C\equiv N$  groups,  
and is one of hot materials in uranium extraction. However,  
intermolecular polymerization seriously hindered its  
application. In this work, a nano-scale antibacterial adsorbent  
was developed by inhibiting PAN agglutination with  $K_2FeO_4$ ,  
and it presents excellent anti-biofouling property and  
adsorption capability for  $U(VI)$  in uranium extraction from  
seawater.

As featured in:



See Xue Zhang and Dadong Shao,  
*RSC Appl. Polym.*, 2023, 1, 46.