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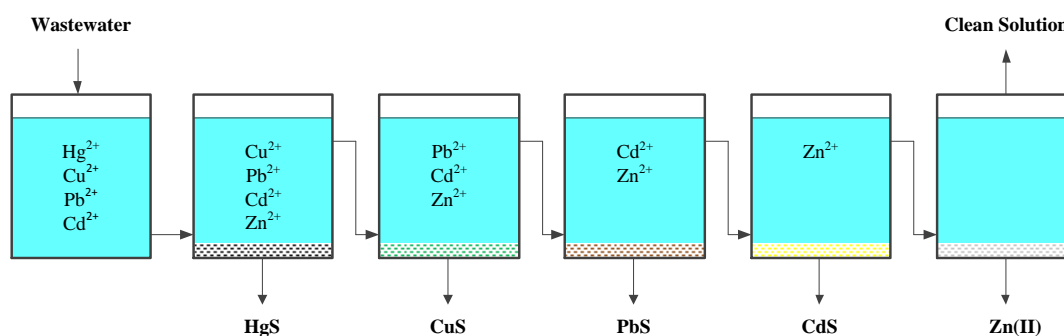
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## A Novel Method for the Sequential Removal and Separation of Multiple Heavy Metals from Wastewater

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### GRAPHICAL ABSTRACT



### Highlights

1. A novel method was developed for the removal and separation of heavy metals.
2. ZnS Sorbent showed extraordinary performance for multiple heavy metals removal.
3. The heavy metal ions were removed based on the ion exchange reactions.
4.  $K_{sp}$  of heavy metal sulfides is the determining factor for the metal adsorption selectivity.

### ABSTRACT

A novel method was developed and applied for the treatment of simulated wastewater containing multiple heavy metals. A sorbent of ZnS nanocrystals (NCs)

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