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Title: Preparation of new class composite adsorbent for enhanced palladium(II) detection and recovery

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1 **Preparation of new class composite adsorbent for enhanced palladium(II)**  
2 **detection and recovery**

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18 **Research highlights:**

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20 ➤ Novel ligand based composite adsorbent was developed for enhanced Pd(II) capturing.  
21 ➤ Influenced by pH, initial concentration, shaking time, diverse ions were evaluated.  
22 ➤ Ultra-trace Pd(II) was detected and recovered with specific color formation.  
23 ➤ The adsorbent was reused in many cycles without damage to cage cavities.

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