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# **Gold nanoparticles dissolution based colorimetric method for highly detection of organophosphate pesticides**

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## **Highlights**

- An AuNPs based colorimetric method is developed for organophosphorus pesticide analysis.
- The detection mechanism is based on dissolution of AuNPs and AChE hydrolysis reaction.
- The colorimetric method has high sensitivity and good stability.
- The colorimetric method could be applied in aqueous solutions with high salinity.

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