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Title: An Ultra Low-Cost Smartphone Device for In-situ Monitoring of Acute Organophosphorus Poisoning for Agricultural Workers

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An Ultra Low-Cost Smartphone Device for In-situ Monitoring of Acute Organophosphorus Poisoning for Agricultural Workers

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Highlights

- A smartphone based optical spectrum detection device with novel lens-less design.
- High accuracy and high sensitivity for IL-6 biomarker detection and spiked organophosphorus poisoning sample diagnosis.
- Assessment of the device for organophosphorus poisoning with blood samples from agricultural workers. The results showed good agreement with that of conventional laboratory equipment.

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