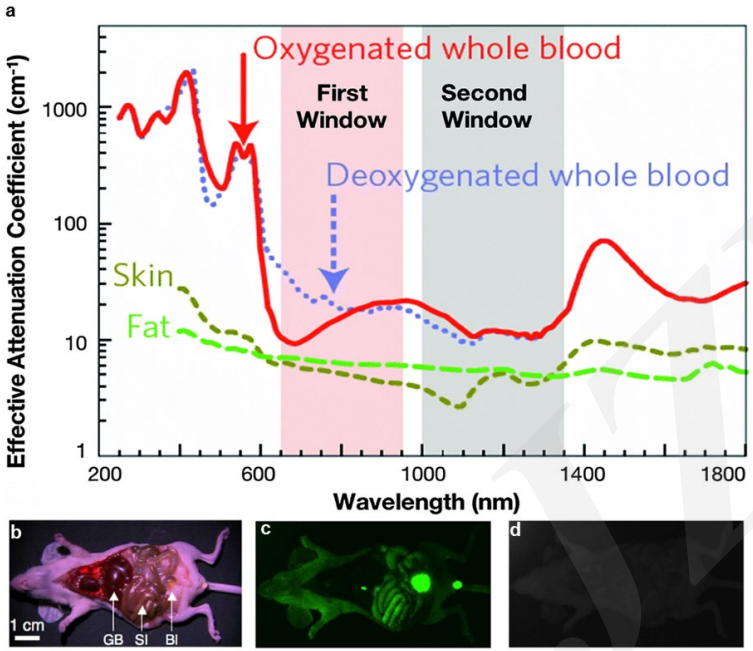
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Applications of smartphone-based near-infrared (NIR) imaging, measurement, and spectroscopy technologies to point-of-care (POC) diagnostics

Key words: **POC diagnostics; NIR fluorescent imaging; Aggregation-induced emission; Smartphone-based imaging; Fluorescent probes**

Research Summary

In this review, the development of smartphone-based NIR fluorescent imaging technology is described, and the quality and potential of POC applications discussed.



- **Development of the techniques of NIR fluorescent imaging**
- **Smartphones as an imaging tool for POC: from white light to fluorescence**
- **Techniques for further promotion of smartphone-based measurement and spectroscopy**
- **Promising fields of application towards POC and issues to be resolved**

Discussion & Conclusion

A series knowledge of NIR fluorescent imaging technology are tabulated as below:

Table 1 | Typical elements of devices available for NIR fluorescent imaging.

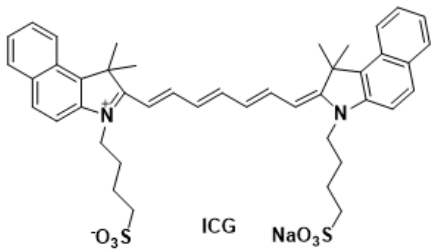
Table 2 | Typical smartphone devices used for fluorescent (VIS & NIR) imaging.

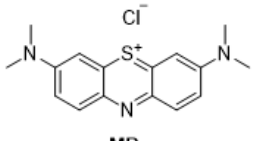
Table 3 | Probes used in previous studies for NIR fluorescent imaging of bacteria or viruses.

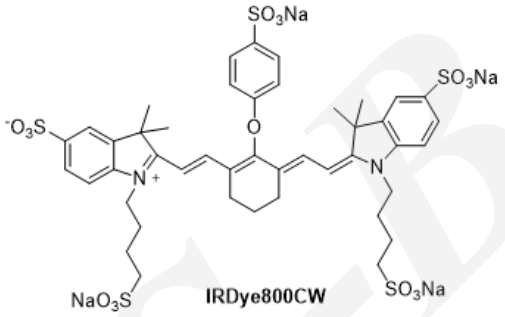
Table 4 | Related techniques promoting smartphone-based NIR fluorescent imaging.

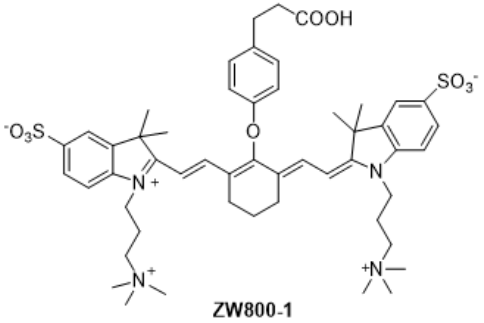
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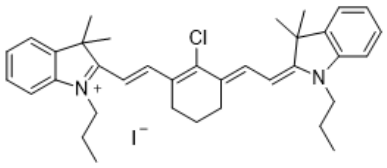
Discussion & Conclusion

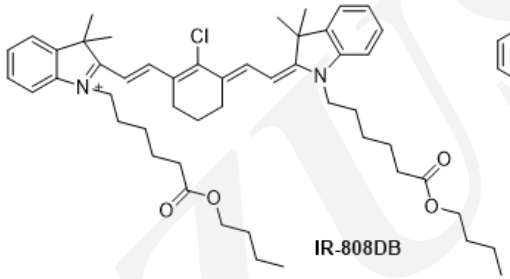


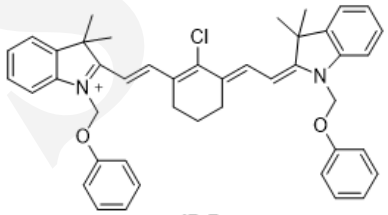


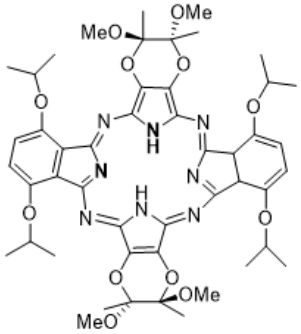


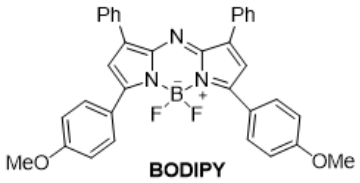


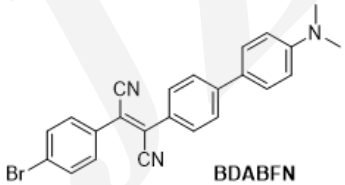


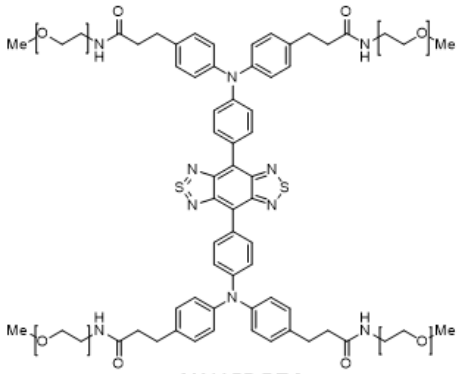


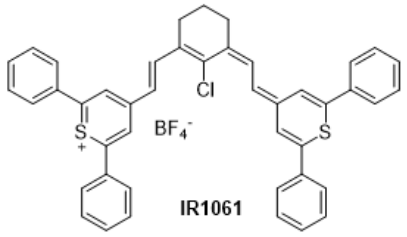












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