## **Accepted Manuscript**

Noninvasive detection of bladder cancer using mid-infrared spectra classification

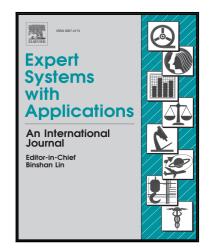
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#### ACCEPTED MANUSCRIPT

### Highlights

- New system is used to acquire mid-infrared spectra from urine samples
- New PLSDA-based classifiers are designed for automatic bladder cancer detection
- $\bullet$  The best classifier allows for automatic detection of bladder cancer with an accuracy of 82.35%
- A minimally invasive medical device with a high potential for screening and follow-up is envisioned

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