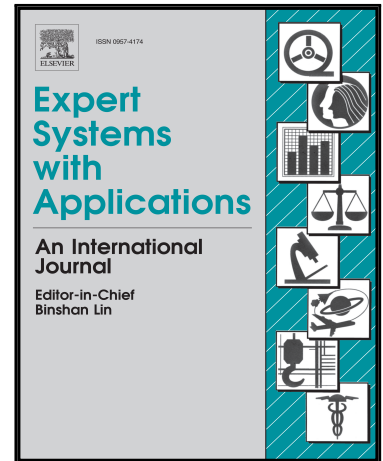


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Combining elemental analysis of toenails and machine learning techniques as a non-invasive diagnostic tool for the robust classification of type-2 diabetes

Jake A. Carter , Christina S. Long , Beth P. Smith ,
Thomas L. Smith , George L. Donati

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Highlights

- A toenail-based non-invasive method for diagnosing type-2 diabetes was developed.
- Al, Cs, Ni, V, Zn in toenails were significantly different for diabetes patients.
- Toenail concentrations of 22 elements were used for machine learning modeling.
- A random forest model correctly classified 7 out of 9 samples, with AUC = 0.90.

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