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Quantification of herbal drug hypoxoside from the roots of South African *Hypoxis hemerocallidea* using cost effective HPTLC-densitometry validated method**Kokoette Bassey and Andries Gous**

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Hypoxis (hypoxidaceae) consist of about 90 species reported worldwide, of which 76 occur in Africa. As many as 41 species are indigenous to countries belonging to the Southern African Development Community (SADC), including South Africa. Of all the hypoxis species, *H. hemerocallidea* has versatile application in traditional health care system of over 85% of South Africans and is regarded as one of the most ethno-medicinally important and most marketed species in South Africa. *H. hemerocallidea* corms water extract is widely used as traditional medicine for the treatment of benign hypertrophy, urinary tract infections, boosting the immune system of people living with HIV-AIDS among others. However, the use of other part of hypoxis plant as medicine is vital for conservation purposes. The roots attached on the corm of *H. hemerocallidea* corm contain hypoxoside, but the roots are usually ripped off during the preparation of hypoxoside containing traditional medicines and other herbal products. A developed and validated affordable but reliable High Performance Thin Layer Chromatography (HPTLC) densitometry for the rapid and repeatable visualization and quantitative determination of hypoxoside from roots of *H. hemerocallidea* was determined. The hypoxoside was visualized at R_f of 0.30 in CHCl₃:MeOH:H₂O (v/v/v) using the method with a good linearity of 0.9565 over a calibration range 0.20-1.80 ng band⁻¹. The LOD and LOQ was 5.08 and 16.76 mg band⁻¹, respectively while the percentage recovery and the method repeatability (%RSD) was 84.10 and 4.98 were within limits regarded as acceptable for the analysis of plants and other botanicals. The roots contain 382.18 ng/band of hypoxoside.

Biography

Kokoette Bassey has completed his PhD from Tshwane University of Technology and is currently a Senior Lecturer at Sefako Makgatho Health Sciences University. He has published 3 papers in reputed journals and has reviewed twice for the *South African Journal of Ethnopharmacology*.

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