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Chemical and elemental analysis of the edible fruit of five *Carpobrotus* species from South Africa: Assessment of nutritional value and potential metal toxicity**Neal K Broomhead**

University of KwaZulu-Natal, Republic of South Africa

The nutritional value of the edible fruits of five *Carpobrotus* species was determined for the first time. The fruits were low in lipids, high in moisture and may contribute adequately towards the Recommended Dietary Allowance (RDA) for proteins, carbohydrates and essential elements. Concentrations of essential elements were generally in decreasing order of Ca > Mg > Fe > Mn > Zn, Cu > Cr > Se ~ Ni ~ Co. *C. dimidiatus* and *C. acinaciformis* were rich in Cr contributing between 82 - 143% and 62 - 109%, respectively towards its RDA whilst *C. delicious* was rich in Mn contributing between 122 - 156% towards its RDA. The fruits did not exhibit metal toxicity except for *C. dimidiatus* which had Cd and Pb concentrations exceeding maximum permissible limits. The results show the fruits of *Carpobrotus* species to be nutritionally rich hence; they may contribute positively to the diet of all who consume them.

Biography

Neal K. Broomhead was awarded his MSc. Degree in Analytical Chemistry from Birkbeck College, University of London at the age 33. He is currently undertaking his PhD studies in Chemistry at the University of KwaZulu-Natal School of Chemistry and Physics, South Africa as a member of the Natural Products Research Group. To date he has published 1 paper in a reputed journal.

broomheadnk@gmail.com

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