

## ABSTRACT

### Acknowledgements

Firstly I would like to thank my supervisor Dr. A. Maxwell, the staff and post graduate students of the Chemistry Department for their assistance in the isolation of flavonoids and other constituents from *Lippia micromera*. I would also like to thank Dr. L. Hall, Dr. R. Fingal, Ms. A. Campbell and Ms. C. Lewis.

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This thesis describes the isolation of flavonoids and other constituents from *Lippia micromera*. The compounds isolated were identified using modern spectroscopic techniques.

Investigation of *Lippia micromera* stems and leaves yielded 8 flavonoid compounds as discussed in chapter 3. The aglycones isolated for the first time from plants of this genus were acacetin and eriodictyol. Quercetin, hispidulin and jaceosidin were also isolated. Three acacetin glycosides were isolated for the first time from this genus namely, acacetin 7-*O*- $\beta$ -glucoside, acacetin 7-*O*- $\beta$ -neohesperidoside and acacetin 7-*O*-rutinoside. Carvacrol was isolated as well as the extremely potent antioxidant compound 3,3',4,4'-tetrahydroxy-5,5'-diisopropyl-2,2'-dimethylbiphenyl

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