

## Publications

### Selected publications

Biotransformation of Cadinane Sesquiterpenes by *Beauveria bassiana* ATCC 7159. G.O. Buchanan, L.A.D. Williams and P.B. Reese, *Phytochemistry*, 2000, 54, 39-45.

Assignment of <sup>1</sup>H and <sup>13</sup>C Spectra and Investigation of Hindered Side Chain Rotation in Lupeol Derivatives. D. Burns, W.F. Reynolds, G. Buchanan, P.B. Reese and R.G. Enriquez, *Magn. Reson. Chem.*, 2000, 38, 488-493.

New Skeletal Sesquiterpenoids, Caprariolides A - D, from *Capraria biflora* and their insecticidal activity. D.O. Collins, W.A. Gallimore, W.F. Reynolds, L.A.D. Williams and P.B. Reese, *J. Nat. Prod.*, 2000, 63, 1515-1518.

Remote Functionalization Reactions in Steroids. P.B. Reese, *Steroids*, 2001, 66, 481-497.

Biotransformation of Squamulosone by *Curvularia lunata* ATCC 12017. D.O. Collins, G.O. Buchanan, W.F. Reynolds and P.B. Reese, *Phytochemistry*, 2001, 57, 377-383.

Microbial Transformation of Cadina-4,10(15)-dien-3-one, Aromadendr-1(10)-en-9-one and Methyl Ursolate by *Mucor plumbeus* ATCC 4740. D.O. Collins, P.L.D. Ruddock, J. Chiverton de Grasse, W.F. Reynolds and P.B. Reese, *Phytochemistry*, 2002, 59, 479-488.

New Cembranes from *Cleome spinosa*. D.O. Collins, W.F. Reynolds and P.B. Reese, *J. Nat. Prod.*, 2004, 67, 179-183.

The reactions of palladium(II), thallium(III) and lead(IV) trifluoroacetates with 3 $\beta$ -acetoxyandrost-5-en-17-one; crystal structure of the first trifluoroacetate bridged 5,6,7-p-allyl steroid palladium dimer. P.L.D. Ruddock, D.J. Williams and P.B. Reese, *Steroids*, 2004, 69, 193-199.

Investigation of the importance of the C-2 and C-13 oxygen functions in the transformation of stemodin analogues by *Rhizopus oryzae* ATCC 11145. G.D.A. Martin, W.F. Reynolds and P.B. Reese, *Phytochemistry*, 2004, 65, 2211-2217.

Stemodane and stemarane diterpenoid hydroxylation by *Mucor plumbeus* and *Whetzelinia sclerotiorum*. A.R.M. Chen, P.L.D. Ruddock, A.S. Lamm, W.F. Reynolds and P.B. Reese, *Phytochemistry*, 2005, 66, 1898-1902.

Bioconversion of *Stemodia maritima* diterpenes and derivatives by *Cunninghamella echinulata* var. *elegans* and *Phanerochaete chrysosporium*. A.S. Lamm, W.F. Reynolds and P.B. Reese, *Phytochemistry*, 2006, 67, 1088-1093.

Steroid hydroxylation by *Whetzelinia sclerotiorum*, *Phanerochaete chrysosporium* and *Mucor plumbeus*. A.S. Lamm, A.R.M. Chen, W.F. Reynolds and P.B. Reese, *Steroids*, 2007, 72, 713-722.

A predictive cytochrome P450 monooxygenase functional model for generic hydroxylation by *Rhizopus oryzae* ATCC 11145. G.D.A. Martin, M.C. Durrant and P.B. Reese, *Journal of Theoretical & Computational Chemistry*, 2008, 7, 421-433.

Fungal hydroxylation of (-)-Santonin and its analogues. A.S. Lamm, A.R.M. Chen, W.F. Reynolds and P.B. Reese, *J. Mol. Catal. B: Enzym.*, 2009, 59, 292–296.

Phytochemical Analysis of *Salvia coccinea* from Jamaican Populations. G.D.A. Martin, W.F. Reynolds and P.B. Reese, *Natural Product Communications*, 2009, 4, 789–790.

Novel stemodin-derived analogues with lipid peroxidation, cyclooxygenase enzymes and human tumour cell proliferation inhibitory activities. F.A. Russell, V. Mulabagal, D.R. Thompson, M.A. Singh-Wilmot, W.F. Reynolds, M.G. Nair, V. Langer and P.B. Reese, *Phytochemistry*, 2011, 72, 2361–2368.

Entrapment of mycelial fragments in calcium alginate: A general technique for the use of immobilized filamentous fungi in biocatalysis. P.C. Peart, A.R.M. Chen, W.F. Reynolds and P.B. Reese, *Steroids*, 2012, 77, 85–90.

The potential of *Cyathus africanus* for transformation of terpene substrates. K.P. McCook, A.R.M. Chen, W.F. Reynolds and P.B. Reese, *Phytochemistry*, 2012, 82, 61–66.

1. <http://www.sciencedirect.com/science/article/pii/S0039128X07000943>

#### **Steroids**

Volume 72, Issues 9–10, September 2007, Pages 713–722

Steroid hydroxylation by *Whetzelinia sclerotiorum*, *Phanerochaete chrysosporium* and *Mucor plumbeus*

DEDICATION: Dedicated to Professor Sir John Cornforth, University of Sussex, as he celebrates his 90th birthday.

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<http://dx.doi.org/10.1016/j.steroids.2007.05.008>, How to Cite or Link Using DOI  
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2. <http://www.sciencedirect.com/science/article/pii/S0031942205002979>

#### **Phytochemistry**

Volume 66, Issue 16, August 2005, Pages 1898–1902

Stemodane and stemarane diterpenoid hydroxylation by *Mucor plumbeus* and *Whetzelinia sclerotiorum*

Dedicated to the memory of Professor Herbert L. Holland (Brock University) for his contribution to Bio-organic Chemistry for over 30 years.

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<http://dx.doi.org/10.1016/j.phytochem.2005.06.015>, How to Cite or Link Using DOI  
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3. <http://pubs.acs.org/doi/abs/10.1021/jf050008y>

#### **Biological Activity and Chemical Composition of the Essential Oil from Jamaican *Hyptis verticillata* Jacq.**

AbstractFull Text HTMLHi-Res PDF[42 KB]Supporting Info ->FiguresCiting Articles

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*J. Agric. Food Chem.*, 2005, 53 (12), pp 4774–4777

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### **Abstract**

The chemical composition of the essential oil obtained by hydrodistillation from the aerial parts of *Hyptis verticillata* Jacq. was elucidated by a combination of GC and GC-MS analyses. The oil was dominated by the sesquiterpenoids cadina-4,10(15)-dien-3-one (15.1%) (1) and aromadendr-1(10)-en-9-one (squamulosone) (30.7%) (2). The oil exhibited chemosterilant activities against the cattle tick, *Boophilus microplus* Canest., and toxic action against adult *Cylas formicarius elegantulus* Summer, the most destructive pest of sweet potato (*Ipomoea* species).

Keywords: *Hyptis verticillata*; Labiatae; essential oil; sesquiterpene; *Boophilus microplus*; *Cylas formicarius elegantulus*; GC-MS; GC

4. <http://www.sciencedirect.com/science/article/pii/S0031942204000238>

### **Phytochemistry**

Volume 65, Issue 6, March 2004, Pages 701–710

Investigation of the importance of the C-2 oxygen function in the transformation of stemodin analogues by *Rhizopus oryzae* ATCC 11145

Dedicated to the memory of Professor Herbert L. Holland (Brock University) for his contribution to Bio-organic Chemistry over more than 30 years.

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<http://dx.doi.org/10.1016/j.phytochem.2004.01.011>, How to Cite or Link Using DOI

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5. <http://pubs.acs.org/doi/abs/10.1021/np0303299>

### **New Cembranes from *Cleome spinosa***

AbstractFull Text HTMLHi-Res PDF[60 KB]PDF w/ Links[102 KB]FiguresCiting Articles

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J. Nat. Prod., 2004, 67 (2), pp 179–183

DOI: 10.1021/np0303299

Publication Date (Web): December 3, 2003

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### **Abstract**

Examination of the aerial portions of *Cleome spinosa* yielded five new cembranes, named cleospinols A (1), B (3), C (4), and D (5), and the 3'-hydroxy-iso-pentan-10-oate ester of cleospinol A (2). The cleospinols were determined to be derivatives of 10,13-dihydroxy-4,12-dimethyl-1-(1-methylethenyl)-11(E)-cyclotetradecene on the basis of spectroscopic data interpretation.

6. <http://www.sciencedirect.com/science/article/pii/S003194220600207X>

### **Phytochemistry**

Volume 67, Issue 11, June 2006, Pages 1088–1093

Bioconversion of *Stemodia maritima* diterpenes and derivatives by *Cunninghamella echinulata* var. *elegans* and *Phanerochaete chrysosporium*

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7. <http://www.sciencedirect.com/science/article/pii/S003194220500083X>

### **Phytochemistry**

Volume 66, Issue 8, April 2005, Pages 901–909

Stemodane skeletal rearrangement: chemistry and microbial transformation

Dedicated to the memory of Professor Herbert L. Holland (Brock University) for his contribution to Bio-organic Chemistry for over 30 years

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<http://dx.doi.org/10.1016/j.phytochem.2005.02.019>, How to Cite or Link Using DOI  
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8. <http://www.sciencedirect.com/science/article/pii/S0031942201004873>

**Phytochemistry**

Volume 59, Issue 5, March 2002, Pages 489–492

Biotransformation of cadina-4,10(15)-dien-3-one and 3 $\alpha$ -hydroxycadina-4,10(15)-diene by *Curvularia lunata* ATCC 12017

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[http://dx.doi.org/10.1016/S0031-9422\(01\)00487-3](http://dx.doi.org/10.1016/S0031-9422(01)00487-3), How to Cite or Link Using DOI

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9. <http://www.sciencedirect.com/science/article/pii/S0031942204002328>

**Phytochemistry**

Volume 65, Issue 15, August 2004, Pages 2211–2217

Investigation of the importance of the C-2 and C-13 oxygen functions in the transformation of stemodin analogues by *Rhizopus oryzae* ATCC 11145

Dedicated to the memory of Professor Herbert L. Holland (Brock University) for his contribution to Bio-organic Chemistry for over 30 years

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<http://dx.doi.org/10.1016/j.phytochem.2004.05.016>, How to Cite or Link Using DOI

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10. <http://www.sciencedirect.com/science/article/pii/S0039128X04000108>

**Steroids**

Volume 69, Issue 3, March 2004, Pages 193–199

The reactions of palladium(II), thallium(III) and lead(IV) trifluoroacetates with 3 $\beta$ -acetoxyandrost-5-en-17-one: crystal structure of the first trifluoroacetate bridged 5,6,7- $\pi$ -allyl steroid palladium dimer

Dedicated to the memory of Professor Herbert L. Holland (Brock University) for his contribution to Bio-organic Chemistry over more than 30 years

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<http://dx.doi.org/10.1016/j.steroids.2004.01.001>, How to Cite or Link Using DOI

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