

LIST OF PEER-REVIEWED PUBLICATIONS

A: Primary Literature-

These are research papers, which may be in the form of full papers (completed research topic with full descriptions and arguments) or communications/ short papers (an isolated topic with a full, but limited description).

1. **Electron Impact Mass Spectrometry of Diethyl 2-Oxosubstituted Alkylphosphonates- a Remarkably Regiospecific α -Cleavage.** T.A. Modro* and M.J. Mphahlele; *Organic Mass Spectrometry*, 1992, **27**, 47 - 49.
2. **Phosphonic Systems. 7. Reactions of 2,3-Epoxyphosphonates with Nucleophiles: Preparation of 2,3-Disubstituted Alkylphosphonic Esters and Related Systems.** A.M.M.M. Phillips, M.J. Mphahlele, A.M. Modro, T.A. Modro* and A. Zwierzak; *Phosphorus, Sulphur and Silicon*, 1992, **71**, 165 - 174.
3. **Fragmentation Pathways in the Electron Impact Mass Spectra of 2-Aryl-1,2,3,4-tetrahydro-4-quinolones.** P.T. Kaye* and M.J. Mphahlele; *S. Afr. J. Chem.*, 1994, **47**, 21 - 25.
4. **Mass Spectrometric Analysis of 2-Phenyl-1,2,3,4-tetrahydro-1,4-benzodiazepin-5-ones and their Tetrazolo[1,5-d] Derivatives.** P.T. Kaye* and M.J. Mphahlele; *J. Chem. Res.*, 1994, (S) 62 - 63; (M) 0367 - 0382.
5. **Regioselective A-Ring Chlorination of Benzodiazepine Analogues Using *tert*-Butyl Hypochlorite.** P.T. Kaye* and M.J. Mphahlele; *Synth. Commun.*, 1994, **24**, 1971 - 1978 (DOI: 10.1080/00397919408010204).
6. **Benzodiazepine Analogues. Part 8. Trimethylsilyl Azide Mediated Schmidt Rearrangement of Thioflavanone and Thiochromanone Precursors.** P.T. Kaye* and M.J. Mphahlele; *Synth. Commun.*, 1995, **25**, 1495 - 1509 (DOI: 10.1080/00397919508011761).
7. **Benzodiazepine Analogues. Part 9. Kinetics and Mechanism of the Azidotrimethylsilane Mediated Schmidt Reaction of Flavanones.** P.T. Kaye,* M.J. Mphahlele and M.E. Brown; *J. Chem. Soc. Perkin Trans. 2*, 1995, 835 - 838 (DOI: 10.1039/P29950000835).
8. **Benzodiazepine Analogues. Part 10. Conformational Analysis of Benzoxazepinone, Benzodiazepinone and Benzothiazepinone Derivatives.** R. B. English, P.T. Kaye,* M.J. Mphahlele and R.D. Whittal; *J. Chem. Res.*, 1995, (S) 388 - 389; (M) 2319 - 2336.
9. **Reaction of Phosphonate-Stabilized Carbanions with Cyclic Enones Bearing a β -Leaving Group.** M.J. Mphahlele and T.A. Modro,* *J. Org. Chem.*, 1995, **60**, 8236 - 8240 (DOI: 10.1021/jo00130a024).
10. **Reactions of Phosphorus-Stabilized Carbanions with Cyclic Enones. Aromatization of the Substitution and Addition Products.** M.J. Mphahlele,* A. Pienaar and T.A. Modro; *J. Chem. Soc. Perkin Trans. 2*, 1996, 1455 - 1460.

11. **Reaction of Carbanions Generated from Allylic Phosphonates with β -Substituted Cyclic Enones.** M.J. Mphahlele* and T.A. Modro;* *J. Chem. Soc. Perkin Trans. 1*, 1996, 2261 - 2264.
12. **Lithiation of Diethyl trichloromethylphosphonate and the Transformations of the α -Lithiated Derivative.** W. Perlikowska, A.M. Modro, T.A. Modro* and M.J. Mphahlele; *J. Chem. Soc. Perkin Trans. 2*, 1996, 2611 - 2613.
13. **Reactions of Ring and Side Chain Substituted 3-Phosphonomethylcyclohexenones with Azidosilane Reagents.** M.J. Mphahlele;* *Phosphorus, Sulfur and Silicon*, 1996, **118**, 145 -154 (DOI: 10.1080/10426509608038808).
14. **Benzodiazepine Analogues. Part 12. An Investigation of Substituent and Ring-Atom Effects on Receptor Binding Affinities.** S. Daya,* P.T. Kaye and M.J. Mphahlele; *Med. Sci. Res.*, 1996, **24**, 137 - 141.
15. **Benzodiazepine Analogues. Part 14. Synthesis of 2-Phenyl-1,4-benzoxazepin-5(4H)-one.** P.T. Kaye* and M.J. Mphahlele; *Synth. Commun.*, 1996, **26**, 3677 - 3684 (DOI: 10.1080/00397919608003784).
16. **One-Pot Stereoselective Synthesis of (Z) Diethyl α -Chlorovinylphosphonates.** W. Perlikowska, M.J. Mphahlele and T.A. Modro;* *J. Chem. Soc. Perkin Trans. 2*, 1997, 967 - 970.
17. **Benzodiazepine Analogues. Part 17. Conformational Analysis of Tetrazolo[1,5-d]-1,4-benzoheterazepine Derivatives.** R.B. English, P.T. Kaye* and M.J. Mphahlele; *S. Afr. J. Chem.*, 1997, **50**, 55 - 58.
18. **Neber Rearrangement of O-Mesyloxime Derivatives of the Ring and Side Chain Substituted 3-Phosphonomethylcyclohexenones.** M.J. Mphahlele* and T.A. Modro; *Phosphorus, Sulfur and Silicon*, 1997, **127**, 131 - 142 (DOI: 10.1080/10426509708040503).
19. **Beckmann Rearrangement of Oximes Derived from the Ring and Side Chain Substituted 3-Phosphonomethylcyclohexenones.** M.J. Mphahlele* and T.A. Modro; *J. Chem. Res. (S)*, 1998, 198 - 199 (DOI: 10.1039/A707940K).
20. **Reaction of Carbanions Generated from Arylmethylphosphonates with Cyclic Enones. Regio- and Stereoselectivity of Addition.** A.M. Modro, T.A. Modro,* M.J. Mphahlele, W. Perlikowska, A. Pienaar, M. Sales and P.H. van Rooyen; *Canadian J. Chem.*, 1998, **76**, 1344 - 1352.
21. **Benzodiazepine Analogues. Part 18. ^{13}C NMR Analysis of the Schmidt Rearrangement Products from Flavanone Precursors.** M.J. Mphahlele* and P.T. Kaye; *Magn. Reson. Chem.*, 1998, **36**, 69 - 72.
22. **Iodine-Methanol-Promoted Aromatization of 2-Aryl-1,2,3,4-tetrahydro-4-quinolones to 2-Aryl-4-methoxyquinolines.** M.J. Mphahlele,* S.M. Hlatshwayo, F.K. Mogamisi, M. Tsanwani and R. M. Mampa; *J. Chem. Res. (S)*, 1999, 706 - 707 (DOI: 10.1039/A906306D).
23. **Synthesis and Spectroscopic Studies of 2-Aryl-1-methanesulfonyl-1,2,3,4-tetrahydro-4-quinolones.** M.J. Mphahlele* and M.R.C Mabusela; *S. Afr. J. Chem.*, 1999, **52**, 157 - 160.
24. **Azidotrimethylsilane-Mediated Schmidt Rearrangement of 2-Aryl-1-methylsulfonyl-1,2,3,4-tetrahydro-4-quinolones- Non-regioselectivity of Carbon Migration.** M.J. Mphahlele;* *J. Chem. Soc. Perkin Trans. 1*, 1999, 3477 - 3482.

25. **Synthesis and Spectroscopic Studies of Novel Benzodiazepine Analogues Derived from 2-Phenyl- and 3-Phenyl-1,4-benzoxazepin-5(4H)-one.** M.J. Mphahlele,* M.R.C. Mabusela and P.T. Kaye; *S. Afr. J. Chem.*, 2000, **53**, 9 - 13.
26. **Benzodiazepine Analogues. Part 19. ¹H NMR and ¹³C NMR Spectroscopic Studies of 2-Phenyl-1,4- and 2-Phenyl-1,5-benzoheterazepinethiones.** M.J. Mphahlele* and P.T. Kaye; *Magn. Reson. Chem.*, 2000, **38**, 207 - 209.
27. **A New Synthesis of Racemic Rosaprostol.** M. Mikolajczyk,* M. Mikina, A. Jankowiak and M.J. Mphahlele; *Synthesis*, 2000, 1075 - 1077 (DOI: 10.1055/s-2000-6316).
28. **Unprecedented Outcome of Base-Promoted Neber Rearrangement of O-Mesyloxime Derivatives of 2-Aryl-1,2,3,4-tetrahydro-1-methylsulfonyl-4-quinolone- Synthesis of 4-Amino-2-arylquinolines.** M.J. Mphahlele,* O. Gheevargheese and N.F.H. Makhubela; *Phosphorus, Sulfur and Silicon*, 2000, **166**, 303 - 314 (DOI: 10.1080/10426500008076551).
29. **Regio- and Stereoselective α -Halogenation of 2-Aryl-1-methylsulfonyl-2,3-dihydroquinolin-4(1H)-ones.** M.J. Mphahlele,* S.M. Hlatshwayo, S.M. Ndlovu and M.A. Fernandes; *S. Afr. J. Chem.*, 2001, **54**, 60 - 68, <<http://journals.sabinet.co.za/sajchem/>>.
30. **Synthesis and Spectroscopic Studies of Oximes Derived from 2-Aryl-1,2,3,4-tetrahydro-1,4-benzoheterazepin-5(4H)-one Analogues.** M.J. Mphahlele* and R.M. Mampa; *Phosphorus, Sulfur and Silicon*, 2001, **176**, 227 - 235.
31. **Synthesis and Crystal Structure of 3-Aryl-1-(2'-hydroxyphenyl)-3-hydroxy-1-propanones Derived from Claisen-Schmidt Condensation of 2-Hydroxyacetophenone with Benzaldehyde Derivatives.** M.J. Mphahlele* and M.A. Fernandes; *S. Afr. J. Chem.*, 2002, **55**, 97 - 110, <<http://journals.sabinet.co.za/sajchem/>>.
32. **Dimethyl Sulfoxide-Promoted Dehydrosulfonylation of 2-Aryl-3-bromo-1-methylsulfonyl-2,3-dihydroquinolin-4(1H)-ones.** M.J. Mphahlele,* *J. Chem. Res. (S)*, 2002, 196 - 198.
33. **Solution Phase, Solid State and Computational Structural Studies of the 2-Aryl-3-bromoquinolin-4(1H)-one Derivatives.** M.J. Mphahlele,* M.A. Fernandes, A.M. El-Nahas, H. Ottosson, S.M. Ndlovu, H.M. Sithole, B.S. Dladla and D. De Waal; *J. Chem. Soc. Perkin Trans. 2*; 2002, 2159 - 2164.
34. **Tautomeric 2-Arylquinolin-4(1H)-one Derivatives- Spectroscopic, X-Ray and Quantum Chemical Structural Property Studies.** M.J. Mphahlele* and A.M. El-Nahas,* *J. Mol. Struct.*, 2004, **688**, 129 - 136 (DOI: 10.1016/j.molstruc.2003.10.003).
35. **Spectroscopic and Quantum Chemical Studies on the Structure of 2-Arylquinoline-4(1H)-thione Derivatives.** M.J. Mphahlele,* A.M. El-Nahas* and T.M. El-Gogary; *J. Mol. Struct.*, 2004, **690**, 151 - 157 (DOI: 10.1016/j.molstruc.2003.11.033).
36. **Conformational Studies of 2-Phenyl- and 3-Phenyl-1,4-benzoxazepin-5(4H)-one Derivatives.** A.M. El-Nahas* and M.J. Mphahlele,* *J. Mol. Struct. (Theochem.)*, 2004, **688**, 157 - 162 (DOI: 10.1016/j.theochem.2003.10.024).
37. **Iodo- and Bromo-enolcyclization of 2-(2-Propenyl)cyclohexanediones and 2-(2-Propenyl)cyclohexenone Derivatives Using Iodine in Methanol and Pyridinium hydrobromide perbromide in Dichloromethane.** M.J. Mphahlele* and T.B. Moekwa; *Org. Biomol. Chem.*, 2005, **3**, 2469 - 2475 (DOI: 10.1039/B505491E).

38. **Synthesis and Further Studies of Chemical Transformation of the 2-Aryl-3-halogenoquinolin-4(1H)-one Derivatives.** M.J. Mphahlele,* M.S. Nwamadi and P. Mabeta; *J. Heterocycl. Chem.*, 2006, **43**, 255 - 260 (DOI: 10.1002/jhet.5570430203).
39. **Synthesis and Chemical Transformation of Fused Tetrazoles Derived from 2-Bromomethyl- and 2-Iodomethyl-3,5,6,7-tetrahydrobenzofuran-4(2H)-ones.** M.J. Mphahlele* and T.B. Moekwa; *J. Heterocycl. Chem.*, 2006, **43**, 905 - 911 (DOI: 10.1002/jhet.5570430414).
40. **Synthesis and Chemical Transformation of 2-Iodomethyl-1-(phenylmethyl)-1,5,6,7-tetrahydroindol-4-ones.** M.J. Mphahlele* and T.M. El-Gogary;* *J. Chem. Res.*, 2008, 227 - 231 (DOI: 10.3184/030823408X314013).
41. **2-Aryl-4-chloro-3-iodoquinolines as Substrates for the Synthesis of 2,3-Diaryl-4-methoxyquinolines via Palladium-catalyzed Suzuki-Miyaura Cross-coupling with Phenylboronic acid.** M.J. Mphahlele* and V. Mtshemla; *J. Chem. Res.* 2008, 437 - 440 (DOI: 10.3184/030823408X339773).
42. **Synthesis of Primary 4-Amino-2-aryl-3-halogenoquinoline Derivatives via Staudinger Reaction of 2-Aryl-4-azido-3-(bromo/iodo)quinolines with Triphenyl phosphine.** M.J. Mphahlele* and V. Mtshemla; *J. Heterocycl. Chem.*, 2008, **45**, 1343 - 1350 (DOI: 10.1002/jhet.5570450515).
43. **Evaluation of the Anti-angiogenic Effects of 2-Aryl-3-bromoquinolin-4(1H)-ones and their NCH₃-4-oxo derivative.** P. Mabeta,* R. Auer and M.J. Mphahlele; *Biol. Pharm. Bull.*, 2009, **32**, 937 - 940 (DOI: 10.1248/bpb.32.937).
44. **Synthesis of 1H-pyrrolo[3,2-c]quinoline Derivatives via Palladium-catalyzed Heteroannulation of 2-Aryl-3-iodo-4-(phenylamino)quinolines and 4-(N,N-allylphenylamino)-2-aryl-3-iodoquinolines.** M.J. Mphahlele,* L.G. Lesenyeho and H.R. Makelane; *Tetrahedron*, 2010, **66**, 6040 - 6046 (DOI: 10.1016/j.tet.2010.06.018).
45. **Regioselective Alkynylation of 2-Aryl-4-chloro-3-iodoquinolines and Subsequent Arylation or Amination of the 2-Aryl-3-(alkynyl)-4-chloroquinolines.** M.J. Mphahlele;* *Tetrahedron*, 2010, **66**, 8261 - 8266 (DOI: 10.1016/j.tet.2010.08.043).
46. **One-pot Synthesis of 2,3,4-Triarylquinolines via Suzuki-Miyaura Cross-coupling of 2-Aryl-4-chloro-3-iodoquinolines with Arylboronic Acids.** M.J. Mphahlele* and M.M. Mphahlele; *Molecules*, 2010, **15**, 7423 - 7437 (DOI: 10.3390/molecules15107423).
47. **One-pot Palladium-catalyzed C-I and C-H Bond Activation and Subsequent Suzuki-Miyaura Cross-coupling of 2-Aryl-3-iodo-4-(phenylamino)quinolines with Arylboronic acids.** M.J. Mphahlele* and M.M. Mphahlele, *Tetrahedron*, 2011, **67**, 4689 - 4695 (DOI: 10.1016/j.tet.2011.04.040).
48. **Suzuki-Miyaura Cross-coupling of 2-Aryl-6,8-dibromo-1,2,3,4-tetrahydroquinolin-4-ones and Subsequent Dehydrogenation and Oxidative Aromatization of the Resulting 2,6,8-Triaryl-1,2,3,4-tetrahydroquinolones.** M.J. Mphahlele* and F.A. Oyeyiola, *Tetrahedron*, 2011, **67**, 6819 - 6825 (DOI: 10.1016/j.tet.2011.06.085).
49. **Direct One-Pot Synthesis of Primary 4-Amino-2,3-diarylquinolines via Suzuki-Miyaura Cross-coupling of 2-Aryl-4-azido-3-iodoquinolines with Arylboronic acids.** M.J. Mphahlele* and M.M. Mphahlele, *Molecules* 2011, **16**, 8958-8972 (DOI:10.3390/molecules16118958).

50. **6,8-Dibromo-4-chloroquinoline-3-carbaldehyde as a Synthon in the Development of Novel 1,6,8-Triaryl-1*H*-pyrazolo[4,3-*c*]quinolines.** M.M. Maluleka and M.J. Mphahlele, *Tetrahedron* submitted (28 August 2012).
51. **2,6,8-Triaryl-3-iodoquinolin-4(1*H*)-ones as substrates for the synthesis of 2,3,6,8-tetraarylquinolin-4(1*H*)-ones and the 2-substituted 4,6,8-triaryl-1*H*-furo[3,2-*c*]quinolines.** M.J. Mphahlele and F.A. Oyeyiola, *Tetrahedron Lett.* submitted.
52. **Synthesis and photophysical properties of the 4,6,8-triarylquinoline-3-carbaldehyde derivatives.** M.J. Mphahlele and F.A. Oyeyiola in preparation .
53. **Sonogashira Cross-coupling and Subsequent Heteroannulation of the 2-Aryl-6,8-dibromo-2,3-dihydroquinolin-4(1*H*)-ones.** T.A. Khoza, M.M. Maluleka and M.J. Mphahlele, in preparation.
54. **Controlled Site-selective Palladium-catalyzed Cross-coupling Reactions of the 2-Aryl-6,8-dibromo-3-iodoquinolin-4(1*H*)-ones- Synthesis of Polysubstituted 6*H*-Pyrrolo[3,2-*ij*]quinolin-6-ones.** M.M. Maluleka, T.A. Khoza and M.J. Mphahlele* in preparation.