

**CURRICULUM VITAE**

**OF**

**JOHAN ANDRIES VENTER**

## 1. PERSONAL DETAILS

Name	Johan Andries Venter
Place of birth	Bloemfontein
Work address	Chemistry Department, UFS, Bloemfontein
E-mail address	venterja@ufs.ac.za
Contact numbers	082 965 9752 (051) 401 3336 (work)
Present position	Senior lecturer, Chemistry Department (Inorganic), UFS

## 2. QUALIFICATIONS

### 2.1 School education

1968-1974	Onze Rust Primary school (Bloemfontein) Dux pupil in 1974 (Standard 5/Grade 7)
1975-1979	Sand du Plessis Secondary School (Bloemfontein) Completed Matric with an A-average as well as with distinctions in Physics & Chemistry (Higher Grade) and Mathematics (Higher Grade)

### 2.2 Tertiary education

B.Sc.	1983	UOFS	Geology and Chemistry
B.Sc (Hons)	1984	UOFS	Chemistry
M.Sc.(cum laude)	1986	UOFS	Inorganic Chemistry with the title:  "Oksidatiewe addisiereaksies en strukturele aspekte van karboniel-N-nitrosofenielhidroksielaminotrifeniefosfienrodium(I)"
Ph.D.	2007	UFS	Inorganic Chemistry with the title:  "Structural and kinetic study of rhodium complexes of N-aryl-N-nitrosohydroxylamines and related complexes"

### 3. WORK EXPERIENCE

<u>Employer</u>	<u>Capacity</u>	<u>Period</u>
UFS	Assistant Professional Officer	1/01/1986 to 31/10/1991
UFS	Professional Officer	1/11/1991 to 31/12/1996
UFS	Senior Professional Officer	1/01/1997 to 31/12/1997
UFS	Lecturer	1/01/1998 to 31/12/2012
UFS	Senior Lecturer	From 1/01/2013

### 4. MEMBERSHIP OF ACADEMIC ORGANISATIONS / PROFESSIONAL REGISTRATION

S.A. Council for Natural Science Professions (SACNASP)  
S.A. Chemical Institute (SACI)

### 5. AREAS OF SPECIALISATION

Platinumgroup chemistry, organometallic complexes, synthesis, oxidative addition, reaction kinetics, X-ray crystallography.

### 6. PUBLICATIONS , CONFERENCE PAPERS, TECHNICAL REPORTS

#### 6.1 Articles in accredited journals

39 publications. For a list of publications, see **Appendix 1**.

#### 6.2 Conference/symposium contributions

National: 25 presentations

International: 41 presentations

The paper at the 33rd Convention of SACI in Cape Town (1996) was selected as the best of the conference. For a list of conference papers, see **Appendix 2**.

## 7. TEACHING

### 7.1 Undergraduate teaching

For the last several years, I have been teaching theoretical and practical modules in Inorganic Chemistry to first-, second-, and third-year students. I was involved in, or responsible for, the curriculum development of various modules. This includes, amongst others, the development of projects for use in practical teaching, the drawing-up of handbooks and the learning materials. I was also responsible for the synchronisation of activities at the QwaQwa campus.

### 7.2 Postgraduate teaching

I am involved in the presentation of various honours modules (theoretical and practical) and am also responsible for the development of the relevant study materials.

Acted as supervisor or co-supervisor for **thirteen** M.Sc and **four** Ph.D. students:

- a) Co-supervisor for Michael Kidane Tesfu – obtained M.Sc. in 2005.
- b) Supervisor for Fanuel Gebremichael Fessha – obtained M.Sc. with distinction in 2006.
- c) Supervisor for Fessahaye Tekeste Kahsai – obtained M.Sc. in April 2009.
- d) Co-supervisor for Michael Pierre Coetzee – obtained M.Sc. in April 2009.
- e) Co-supervisor for Trevor Trymore Chiweshe – obtained M.Sc. with distinction in 2009. (Received prize for best M.Sc. thesis in Chemistry, 2009)
- f) Co-supervisor for Thomas Arnoldus (Tommie) Theron – obtained M.Sc. with distinction in 2010. (Received prize for best M.Sc. thesis in Chemistry, 2010)
- g) Co-promotor for Philippus Daniel Riekert (Ricky) Kotze – obtained Ph.D. in September 2011.
- h) Co-supervisor for Kina van der Merwe – obtained M.Sc. in September 2011.
- i) Co-supervisor for Carla Pretorius – obtained M.Sc. with distinction in June 2012.
- j) Co-promotor for Trevor Trymore Chiweshe – obtained Ph.D. in June 2014.
- k) Co-supervisor for Dika Daniel Nhlapo – obtained M.Sc. in June 2016
- l) Co-supervisor for Sibongile Mamusa Xaba – obtained M.Sc. with distinction in April 2015
- m) Supervisor for Thato Nteboheng Taoana – obtained M.Sc. in June 2017
- n) Co-supervisor for Hlengiwe Thandekile Mnculwane – obtained M.Sc. in June 2016
- n) Promotor for Mohammed Abdelaziz Elkhidir Elmakki – started Ph.D. in 2014.
- o) Promotor for Alebel Nibret Belay – started Ph.D. in 2014.
- p) Co-supervisor for Amanda Qinisile Vilakazi – obtained M.Sc. in June 2017

### 7.3 Postdoctoral fellowships

Acted as host for **two** postdoctoral fellows:

Dr Stefan Warsink (graduating from the University of Amsterdam) from May 2011 till January 2013 and

Dr Ruben Drost (graduating from the University of Amsterdam) from January 2015 till July 2016.

## 8. ACADEMIC CONTRIBUTIONS AND INVOLVEMENT

From 1997, I have been responsible for the appointment and administration of student-assistants involved in undergraduate practicals in the Chemistry department on both the Main and the QwaQwa campuses.

I am the Chemistry department's representative on the timetable committee.

From 2002, I have been responsible for drawing-up the test timetable for the Faculty.

Since 2008, I have served as the internal moderator of the die CHEM 100 modules.

I was part of the management of the department for two terms, from 2001 tot 2004, as an elected member of the management of the Chemistry department. .

As member of the two organising committees, I was responsible for the abstract selection and programme book for the INORG2009 as well as the CATSA2010 national conferences.

Since July 2012, appointed as programme director of the Physical and Chemical Sciences in the Faculty of Natural and Agricultural Sciences, currently serving a second term.

Serve on the appeal committee of the Faculty of Natural and Agricultural Sciences.

## 9. COMMUNITY SERVICE

From 1998, I have been a regular guest speaker at career evenings for Afrikaans secondary schools in Bloemfontein.

Since 2008, I have been a judge for projects at the annual Expo for young scientists presented by Free State University.

From 1986, I have been the driving force behind the development and expansion of the well-known Chemagic Show. Over the past several years, numerous schools (over the whole spectrum) have been visited and I have presented open days at UFS and the SASOL Techno-X (attracting 25000-30000 learners), the purpose of which has been to market both the Chemistry Department and the Faculty as well as to give scientific exposure, especially to learners from the community who do not have access to laboratory equipment. There has also been an attempt to develop a scientific awareness, particularly in junior- to middle-level learners, which, in the long term, ought to yield positive results both in terms of school performance (resulting from great enthusiasm after the 'shows') as well as regarding the choice of natural science as a career which might not otherwise have been considered. The positive response from learners of all ages (from junior primary to undergraduate), parents and teachers as well as the requests reflected in the visits indicate the relevance and drawing power of the Chemagic Show.

## 10. SPECIAL HONOURS AND AWARDS

1980-1983	Study bursary from Mintek for undergraduate studies.
1984	FRD Merit bursary for Honours studies.
1984	Sentrachem merit bursary for Honours studies (awarded to the best third-year student in chemistry at UFS.
1985	FRD Merit bursary for M.Sc studies.
Nov 1993	Merit bonus from the Faculty of Natural Sciences, UFS.
Sept 1994	Merit bonus from the Faculty of Natural Sciences, UFS.
Jan 1996	Congress presentation at the 33rd Convention of the SACI in Cape Town chosen as the best of the congress.
Nov 2002	Merit bonus from the Faculty of Natural Sciences, UFS.
Nov 2003	Merit bonus from the Faculty of Natural Sciences, UFS.
Nov 2004	Merit bonus from the Faculty of Natural Sciences, UFS.
Jul 2012	Receive R10 000 funding from the Faculty to attend an international conference
Nov 2016	Merit bonus from the Faculty of Natural and Agricultural Sciences, UFS.
Nov 2017	Merit bonus from the Faculty of Natural and Agricultural Sciences, UFS.

## 11. HOBBIES, SPORT, AND INTERESTS

Hobbies and interests: Photography, reading, listening to music, a DIY enthusiast

Sport: Road running - I have successfully completed the Comrades Marathon 10 times.

## 12. REFEREES

1. Prof. A. Roodt, Department of Chemistry, UFS, Head of Inorganic Chemistry. [roodta@ufs.ac.za](mailto:roodta@ufs.ac.za) , Tel: 051-4019212
2. Prof. W. Purcell, Head of the Department of Chemistry, UFS, Head of Analytical Chemistry. [purcellw@ufs.ac.za](mailto:purcellw@ufs.ac.za), Tel: 051-4012200
3. Prof. J.J. Pienaar, Dean of Natural Science, North-West University (Potchefstroom campus), Professor in Chemistry. [Kobus.Pienaar@nwu.ac.za](mailto:Kobus.Pienaar@nwu.ac.za), Tel: 018 2992301
4. Prof. S.S. Basson, Emeritus Professor, former head of the Department of Chemistry and Inorganic Chemistry, UFS, Cell: 0722895937.

## Publications

39 articles in accredited journals.

1. Basson, S.S.; Leipoldt, J.G., Roodt, A.; Venter, J.A., Van der Walt, T.J., The oxidative addition of iodomethane to acetylacetonatocarbonylphosphinerhodium(I) complexes, *Inorg. Chim. Acta*, **119**, 35 (1986).
2. Basson, S.S.; Leipoldt, J.G.; Roodt, A., Venter, J.A., Crystal structure of carbonyl(N-hydroxy-N-nitrosobenzenaminato-O,O')-triphenylphosphinerhodium(I), *Inorg. Chim. Acta*, **118**, L45 (1986).
3. Basson, S.S.; Leipoldt, J.G.; Roodt, A., Venter, J.A., Mechanism for the oxidative addition of iodomethane to carbonyl(N-hydroxy-N-nitrosobenzenaminato-O,O')-triarylphosphinerhodium(I) complexes and crystal structure of [Rh(cupf)(CO)(CH<sub>3</sub>)(I)(PPh<sub>3</sub>)], *Inorg. Chim. Acta*, **128**, 31 (1987).
4. Basson, S.S.; Leipoldt, J.G., Venter, J.A., Structure of pentacoordinated *b*-carbonyl-*cd*-(N-hydroxy-N-nitrosobenzenaminato-O,O')-*ae*-bis(triphenylphosphine) rhodium(I), *Acta Cryst.*, **C46**, 1324 (1990).
5. Venter, J.A.; Leipoldt, J.G., Van Eldik, R., Solvent, temperature and pressure dependence of the oxidative addition of iodomethane to complexes of the type RhI(β-diketonate)(CO)(PPh<sub>3</sub>), *Inorg. Chem.*, **30**, 2207 (1991).
6. Basson, S.S.; Leipoldt, J.G.; Purcell, W., Venter, J.A., Structure of carbonyl(N-hydroxy-N-nitrosobenzenaminato-O,O')(4-methyl-2,6,7-trioxa-1-phosphabicyclo[2.2.2]octane) rhodium(I), *Acta Cryst.*, **C48**, 171 (1992).
7. Coetzee, M.P., Purcell, W., Visser, H.G., Venter, J.A., (Acetylacetonato-κ<sup>2</sup>O,O')-carbonyl[2-(diphenylphosphino)pyridine-κP]rhodium(I), *Acta Cryst.*, **E63**, m3165 (2007).
8. Venter, J.A., Purcell, W., Visser, H.G., Di-μ-iodido-bis[acetyl(4-methyl-2,6,7-trioxa-1-phosphabicyclo[2.2.2]octane)(N-nitroso-N-oxidoaniline-κ<sup>2</sup>O,O')]rhodium(III)], *Acta Crystallographica*, **E65**, m1528-m1529 (2009).
9. Venter, J.A., Purcell, W., Visser, H.G., Muller, T.J., Carbonyl(N-nitroso-N-oxido-1-naphthylamine-κ<sup>2</sup>O,O')(triphenylphosphine-κP)rhodium(I) acetone solvate, *Acta Crystallographica*, **E65**, m1578 (2009).
10. Van der Merwe, K.A., Visser, H.G., Venter, J.A., Diammonium diaquabis(methylenediphosphonato-κ<sup>2</sup>O,O')cobaltate(II), *Acta Crystallographica*, **E65**, m1394 (2009).

11. Muller, A.J., Conradie, J., Purcell, W., Basson, S.S., Venter, J.A., Characterization and Oxidative Addition Reactions of Different Rhodium and Iridium Triazolato Complexes, *South African Journal of Chemistry*, **63**, 11-19 (2010).
12. Van der Merwe, K.A., Visser, H.G., Venter, J.A., Pyridinium diaquabis(methylenediphosphonato- $\kappa^2O, O'$ )chromate(III) tetrahydrate, *Acta Crystallographica*, **E66**, m1011-m1012 (2010).
13. Visser, H.G., Venter, J.A., Van der Merwe, K.A., Dipotassium diaquabis(methylenediphosphonato- $\kappa^2O, O'$ )cobaltate(II), *Acta Crystallographica*, **E66**, m159 (2010).
14. Kotze, P.D.R., Roodt, A., Venter, J.A., Otto, S., (*N*-Benzoyl-*N'*-phenylthiourea- $\kappa S$ )-chlorido( $\eta^4$ -1,5-cyclooctadiene)-rhodium(I), *Acta Crystallographica*, **E66**, m1028-1029 (2010).
15. Grobbelaar, E., Conradie, J., Venter, J.A., Purcell, W., Chiweshe, T.T., A kinetic investigation of the oxidative addition reactions of the dimeric  $Bu_4N[Ir_2(\mu\text{-Dcbp})(CO)_2(PCy_3)_2]$  complex with iodomethane, *Journal of Organometallic Chemistry* **696**, 1990-2002 (2011).
16. Van der Merwe, K., Visser, H.G., Venter, J.A., Disodium diaquabis(methylenediphosphonato- $\kappa^2O, O'$ )cobaltate(II) dehydrate, *Acta Crystallographica*, **E67**, m1468-m1469 (2011).
17. Van der Merwe, K., Visser, H.G., Venter, J.A., Dicaesium diaquabis(methylenediphosphonato- $\kappa^2O, O'$ )cobaltate(II), *Acta Crystallographica*, **E67**, m1354-m1354 (2011).
18. Theron, T.A., Nete, M., Venter, J.A., Purcell, W., Nel, J.T., Dissolution and quantification of tantalum-containing compounds: Comparison with niobium, *South African Journal of Chemistry* **64**, 173-178 (2011).
19. Pretorius, C., Venter, J.A., Roodt, A., Trans-Bis(1,3-diphenylpropane-1,3-dionato)methanol)oxidovanadium(IV) methanol disolvate, *Acta Crystallographica*, **E68**, m1442-m1443 (2012).
20. Chiweshe, T.T., Purcell, W., Venter, J.A., Quantification of rhodium in a series of inorganic and organometallic compounds using cobalt as internal standard, *South African Journal of Chemistry* **66**: 7-16 (2012).
21. Warsink, S., Fessha, F.G., Purcell, W., Venter, J.A., Synthesis and characterization of rhodium(I) 2-methylcupferrate complexes and their kinetic behaviour in iodomethane oxidative addition, *Journal of Organometallic Chemistry* **726**: 14-20 (2013).
22. Purcell, W., Conradie, J., Chiweshe, T.T., Venter, J.A., Visser, H.G., Coetzee, M.P., Characterization of acetylacetonato carbonyl diphenyl-2-pyridylphosphine rhodium(I): Comparison with other carbonyl complexes, *Journal of Molecular Structure* **1038**: 220-229 (2013).
23. Purcell, W., Conradie, J., Chiweshe, T.T., Venter, J.A., Twigge, L., Coetzee, M.P., Characterization and oxidative addition reactions of rhodium(I) carbonyl cupferrate



diphenyl-2-pyridylphosphine complexes, *Journal of Organometallic Chemistry* **745-746**: 439-453 (2013).

24. Warsink, S., Roodt, A., Venter, J.A., Kotze, P.D.R., Otto, S., Crystal structure of (N-benzoyl-N'-(2,4,6-trimethylphenyl)thiourea- $\kappa$ S)chlorido( $\eta^4$ -cycloocta-1,5-diene)rhodium(I),  $C_{52}H_{30}ClN_2ORhS$ , *Zeitschrift für Kristallographie - New Crystal Structures* **228**: 335-336 (2013).
25. Warsink, S., Roodt, A., Venter, J.A., Kotze, P.D.R., Otto, S., Crystal structure of bis(triphenylphosphine)(carbonyl)(N-benzoyl-N'-(2-methyl-4-hydroxyphenyl)thioureato- $\kappa$ S, $\kappa$ N)rhodium(I),  $C_{52}H_{43}N_2O_3P_2RhS$ , *Zeitschrift für Kristallographie - New Crystal Structures* **228**: 428-430 (2013).
26. Pretorius, C., Venter, J.A., Roodt, A., Crystal structure of 2,2,6,6-tetramethyldihydropyran-4-onium bis(N-nitroso-N-phenylhydroxylaminato- $\kappa^2O,O'$ )dioxido vanadium(V),  $C_{21}H_{27}N_4O_8V$ , *Zeitschrift für Kristallographie - New Crystal Structures* **229**: 437-439 (2014).
27. Warsink, S., Venter, J.A., Roodt, A., NHC-amide donor ligands in rhodium complexes: Syntheses and characterisation, *Journal of Organometallic Chemistry* **775**: 195-201 (2015).
28. Muller, K.A., Venter, J.A., Visser, H.G., Crystal structure of potassium diaqua dihydroxy(methylenediphosphonato- $\kappa^2O,O'$ )cobaltate(III),  $CH_{10}CoKO_{10}P_2$ , *Zeitschrift für Kristallographie - New Crystal Structures* **230**: 349-351 (2015).
29. Chiweshe, T.T., Purcell, W., Venter, J.A., ICP-OES monitoring of the instability of  $[OsCl_6]^{2-}$  and evaluation of  $[OsO_2(CN)_4]^{2-}$  as alternative standard for osmium quantification, *Bulletin of the Chemical Society of Japan* **88(8)**: 1054-1063 (2015).
30. Chiweshe, T.T., Purcell, W., Venter, J.A., Evaluation of Different Internal Standards for Precious Metals Quantification, *Bull. Chem. Soc. Ethiopia* **30**: 55-70 (2016).
31. Chiweshe, T.T., Purcell, W., Venter, J.A., Evaluation of PGM liberation and chromium isolation in a solid UG2 chromitite concentrate at moderate temperatures using ICP-OES, *The Journal of the Minerals, Metals & Materials Society* **68(6)**: 1691-1700 (2016).
32. Purcell, W., Conradie, J., Venter, J.A., Kumar, S., Characterisation and mechanistic study of the oxidative addition reactions of  $[Ir(cod)(sasac)]$ , *Journal of Organometallic Chemistry* **801**: 80-86 (2016).
33. Drost, R.M., Koen, R., Roodt, A and Venter, J.A., Crystal structure of monocarbonyl(N-nitroso-N-oxido-phenylamine- $\kappa^2O,O'$ )(triphenylarsine- $\kappa$ As)rhodium(I),  $C_{25}H_{20}AsN_2O_3Rh$ , *Zeitschrift für Kristallographie - New Crystal Structures* **231(2)**: 493-495 (2016).
34. Belay, A.N., Koen, R., Venter, J.A. and Drost, R.M., Crystal structure of tris(N-nitroso-N-phenylhydroxylaminato- $\kappa^2O,O'$ )oxidoniobium(V),  $C_{18}H_{15}N_6O_7Nb$ , *Zeitschrift für Kristallographie - New Crystal Structures* **231(2)**: 513-515 (2016).

35. Elmakki, M.A., Koen, R., Drost, R.M. and Venter, J.A., (2-oxopyridinolato *N*-oxide- $\kappa^2\text{O},\text{O}'$ )dicarbonylrhodium(I),  $\text{C}_7\text{H}_4\text{NO}_4\text{Rh}$ , *Zeitschrift für Kristallographie - New Crystal Structures* **231(3)**: 703-705 (2016).
36. Elmakki, M.A., Koen, R., Alexander, O.T., Drost, R.M., Venter, G.J.S. and Venter, J.A., Carbonyl(2-oxidopyridinolato-*N*-oxide- $\kappa^2\text{O},\text{O}'$ )(triphenylphosphine)rhodium(I),  $\text{C}_{24}\text{H}_{19}\text{NO}_3\text{PRh}$ , *Zeitschrift für Kristallographie - New Crystal Structures* **231(3)**: 781-783 (2016)
37. Purcell, W., Conradie, J., Venter, J.A., Kumar, S., Characterisation and oxidative addition reactions for different iridium cod complexes, *Journal of Coordination Chemistry* **70:1**: 10-24 (2017).
38. Belay, A.N., Venter, J.A., Roodt, A., The crystal structure of Triphenylphosphineoxide-2,5-dichloro-3,6-dihydroxycyclohexa-2,5-diene-1,4-dione(2/1),  $\text{C}_{42}\text{H}_{32}\text{Cl}_2\text{O}_6\text{P}_2$ , *Zeitschrift für Kristallographie - New Crystal Structures* **232(2)**: 163-164 (2017).
39. Elmakki, M.A., Alexander, O.T., Venter, G.J.S. and Venter, J.A., The crystal structure of carbonyl(2-oxopyridin-1(2H)-olato- $\kappa^2\text{O},\text{O}'$ )(diphenylcyclohexylphosphine- $\kappa\text{P}$ )rhodium(I),  $\text{C}_{24}\text{H}_{25}\text{NO}_3\text{PRh}$ , *Zeitschrift für Kristallographie - New Crystal Structures* **232**, 831-833 (2017).

## Conference/Congress presentations

### At national level: 25 presentations

### At international level: 41 presentations

1. Botha, L.J., Basson, S.S., Venter, J.A., Leipoldt, J.G., *Kinetics and mechanism of the oxidative addition of iodomethane to  $\beta$ -diketonato-carbonyltriarylphosphinerhodium(I) complexes*, Third International Conference on the Chemistry of the Platinum Group Metals, University of Sheffield, 1987.
2. Basson, S.S., Leipoldt, J.G., Van Eldik, R., Venter, J.A., *Reaction kinetics and mechanism of the oxidative addition of iodomethane to rhodium(I) complexes*, Fourth International Conference on the Chemistry of the Platinum Group Metals, University of Cambridge, 1990.
3. Roodt, A., Steyn, G.J.J., Damoense, L., Venter, J.A., Basson, S.S., Purcell, W., *[Rh(LL)(CO)(PPh<sub>3</sub>)] Complexes as models for catalytic processes: X-ray vs <sup>31</sup>P/<sup>13</sup>C NMR vs iodomethane oxidative addition reactivity correlations*, 17th Congress of the International Union of Crystallography, Seattle, Washington, USA, 1996.
4. Roodt, A., Steyn, G.J.J., Damoense, L., Venter, J.A., Basson, S.S., Purcell, W., *Reactivity of [Rh(LL)(CO)(PPh<sub>3</sub>)] complexes: Correlation of X-ray structural, <sup>31</sup>P/<sup>13</sup>C NMR and Kinetic Data*, 31<sup>st</sup> International Conference on Coordination Chemistry, University of British Columbia, Vancouver, Canada, 1996.
5. Otto, S., Roodt, A., Basson, S.S., Purcell, W., Venter, J.A., *Mechanistic study on iodomethane oxidative addition to rhodium(I) complexes*, Inorganic Mechanisms Discussion Group - UK Symposium, University of York, 1996.
6. Damoense, L.J., Roodt, A., Purcell, W., Basson, S.S., Venter, J.A., Steyn, G.J.J., *[Rh(BID)(CO)(PPh<sub>3</sub>)] complexes as models in homogeneous catalytic processes (Poster)*, First Conference of the Indo-Pacific Catalysis Association, Cape Town, 1998.
7. Venter, J.A., Basson, S.S., Roodt, A., *Structural and kinetic contributions in the mechanistic elucidation of the oxidative addition of cupferrate and neocupferrate complexes of rhodium(I) (Poster)*, 37<sup>th</sup> International Conference on Coordination Chemistry (ICCC 37), Cape Town, 13-18 August 2006.
8. Venter, J.A., Basson, S.S., Roodt, A., *Mechanistic elucidation of the oxidative addition of rhodium(I) complexes of N-aryl-N-nitrosohydroxylamines (Poster)*, 15<sup>th</sup> International Symposium on Homogeneous Catalysis (ISHC 15), Sun City, 20-24 August 2006.
9. Venter, J.A., Basson, S.S., Purcell, W., *Evaluation of ligand and solvent effects on a potential catalyst using a rhodium cupferrate system as model (Oral)*, RheManTec International Symposium, Bloemfontein, 19-24 November 2007.

10. Venter, J.A., Basson, S.S., Roodt, A., *Unraveling the effect of phosphine ligands and solvents on the oxidative addition of rhodium(I) cupferrate complexes* (Poster), 23<sup>rd</sup> International Conference on Organometallic Chemistry (ICOMC 23), Rennes, France, 13-18 July 2008.
11. Pretorius, C., Roodt, A., Venter, J.A. *Vanadium(III) and Vanadium(IV) Complexes with O, O'- Bidentate Ligands* (Poster), 39<sup>th</sup> International Conference on Coordination Chemistry, Adelaide, South Australia, 25-30 July 2010.
12. Venter, J.A., Purcell, W., *Modelling of the separation of steric and electronic effects of phosphine ligands in rhodium complexes of N-aryl-N-nitrosohydroxylamines* (Oral), 24<sup>th</sup> International Conference on Organometallic Chemistry (ICOMC), Taipei, Taiwan, 18-23 July 2010.
13. Venter, J.A., Purcell, W., *Solvent catalysis in the migratory CO insertion of [Rh(cupf)(CO)(CH<sub>3</sub>)(I)(PX<sub>3</sub>)]* (Poster), 19<sup>th</sup> EuCheMS International Conference on Organometallic Chemistry, Toulouse, France, 3-7 July 2011.
14. Venter, J.A., *The role of solvent in the CO-insertion of rhodium complexes of the N-aryl-N-nitrosohydroxylamines* (Oral), 25<sup>th</sup> International Conference on Organometallic Chemistry (ICOMC), Lisbon, Portugal, 2-7 September 2012.
15. Venter, J.A., Purcell, W., *The nature of solvent involvement in the CO-insertion of the rhodium cupferrates* (Poster), 40<sup>th</sup> International Conference on Coordination Chemistry (ICCC), Valencia, Spain, 9-13 September 2012.
16. Pretorius, C., Venter, J.A., Roodt, A., *A crystallographic and kinetic study of O, O'- bidentate vanadium complexes* (Poster), 40<sup>th</sup> International Conference on Coordination Chemistry (ICCC), Valencia, Spain, 9-13 September 2012.
17. Pretorius, C., Venter, J.A., Roodt, A., *Synthesis of Novel Vanadium Compounds Containing O,O<sup>-</sup> and N,O<sup>-</sup> donor Functionalities in the Development of Catalysts and Biologically Active Compounds.* (Poster). 4<sup>th</sup> International Conference on Nanoscience and Nanotechnology, Bloemfontein, South Africa, 1-4 April 2012.
18. Venter, J.A., *Towards a ligand knowledge base: An attempt to predict ligand effects.* (Oral), RheManTec 2 International Symposium, Saas Grund, Switzerland, 24 February-1 March 2013.
19. Van der Merwe, K.A., Roodt, A., Steyl, G., Visser, H.G., Venter, J.A., *Structural investigation of bidentate phosphonate ligands coordinated to middle/late transition metal centres.* (Oral), RheManTec 2 International Symposium, Saas Grund, Switzerland, 24 February-1 March 2013.
20. Venter, J.A., Purcell, W., Warsink, S., *Adjacent phosphines used to probe bidentate cupferrate ligands.* (Poster), 20<sup>th</sup> EuCheMS International Conference on Organometallic Chemistry, St. Andrews, Scotland, 30 June - 4 July 2013.
21. Purcell, W., Venter, J.A., Conradie, J., Chiweshe, T.T., *Oxidative addition of CH<sub>3</sub>I to [Rh(cupf)(CO)(DPP)]: Kinetics and DFT calculations.* (Poster), 20<sup>th</sup> EuCheMS International Conference on Organometallic Chemistry, St. Andrews, Scotland, 30 June - 4 July 2013.

22. Venter, J.A., Purcell, W., Warsink, S., *Unintended use of Tolman's phosphine data to define bidentate ligands*. (Oral), 41<sup>th</sup> International Conference on Coordination Chemistry (ICCC), Singapore, 21 - 25 July 2014.
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