

AUSTRALIAN JOURNAL OF CHEMISTRY

AN INTERNATIONAL JOURNAL FOR CHEMICAL SCIENCE

Volume 69 Number 5 2016

CONTENTS

RESEARCH FRONT: Professor Brice Bosnich In Memoriam

Guest Editors: George Koutsantonis and James Crowley

Foreword

Professor Brice Bosnich, FRS (1936–2015)

J. D. Crowley, W. G. Jackson, S. B. Wild 485

Full Papers

Antimicrobial Properties of Mono- and Di-*fac*-rhenium Tricarbonyl 2-Pyridyl-1,2,3-triazole Complexes

S. V. Kumar, W. K. C. Lo, H. J. L. Brooks, L. R. Hanton, J. D. Crowley 489

Investigation of Functional Group Effects on Palladium Catalysed Asymmetric P–H Addition

X.-R. Li, R. J. Chew, Y. Li, P.-H. Leung 499

Charge Localisation in Heavy Alkali Metal Ion Complexes of 4,4'-Biphenyldicarboxylate

J. Harrowfield, P. Thuéry 505

X-Ray Structures and Dynamic Solution Behaviours of Five-Coordinate Nickel(II) Complexes Containing Di- and Tertiary Arsenic Ligands

D. A. McMorran, M. G. Fitzpatrick, R. G. Cunningham, A. J. Downard, W. T. Robinson, L. R. Hanton 512

Self-Assembly of Square-Planar Halide Complexes of Trimethylphosphine-Stabilized Diphenyl-Arsenium, -Stibonium, and -Bismuthonium Hexafluorophosphates

J. W. Wielandt, S. Petrie, N. L. Kilah, A. C. Willis, R. D. Dewhurst, F. Belaj, A. Orthaber, R. Stranger, S. B. Wild 524

Unique Occurrence of Cationic and Anionic Bis-1,2-diaminocyclohexane Copper(II) Units in a Double Complex Salt

N. Kelly, M. Wenzel, T. Doert, K. Gloe, J. J. Weigand, L. F. Lindoy, K. Gloe 533

Thienyl Difluoroboron β -Diketonates in Solution and Polylactide Media

M. Kolpaczynska, C. A. DeRosa, W. A. Morris, C. L. Fraser 537

Deprotonation of Large Calixarenes – Cation Binding and Conformations

J. M. Harrowfield, G. A. Koutsantonis, M. I. Ogden, A. N. Sobolev, A. H. White 546

Iminoacyl Alkyl Complexes of Zirconium Supported by a Ferrocene-Linked Diphosphinoamide Ligand Scaffold

N. R. Halcovitch, M. D. Fryzuk 555

A Fortuitous, Mild Catalytic Carbon–Carbon Bond Hydrogenolysis by a Phosphine-Free Catalyst

L. Rasu, B. Rennie, M. Miskolzie, S. H. Bergens 561

CCC-NHC Pincer Zr Diamido Complexes: Synthesis, Characterisation, and Catalytic Activity in Hydroamination/Cyclisation of Unactivated Amino-Alkenes, -Alkynes, and Allenes

H. U. Valle, G. Akurathi, J. Cho, W. D. Clark, A. Chakraborty, T. K. Hollis 565

Experimental and Computational Studies of the Mechanisms of Hydroamination/Cyclisation of Unactivated α,ω -Amino-alkenes with CCC-NHC Pincer Zr Complexes

W. D. Clark, K. N. Leigh, C. E. Webster, T. K. Hollis 573

Corrigendum

Quantum-chemical *Ab Initio* Calculations on the Donor–Acceptor Complex Pyridine–Borabenzene ($C_5H_5N-BC_5H_5$)

M. Mbarki, M. Oettinghaus, G. Raabe 583

[*Aust. J. Chem.*, 67(2), 266–276.]