

AUSTRALIAN JOURNAL OF  
**CHEMISTRY**  
AN INTERNATIONAL JOURNAL FOR CHEMICAL SCIENCE

Volume 68      Number 10      2015

**CONTENTS**

**Full Papers**

- New, Homochiral Synthons Obtained through Simple Manipulations of Enzymatically Derived 3-Halo-*cis*-1,2-dihydrocatechols  
*L. V. White, P. Lan, B. D. Schwartz, A. C. Willis, M. G. Banwell*    **1467**
- Crystal Structure Studies towards the Synthesis and Applications of N-heterocyclic Carbene–Metal Complexes Derived from [2.2]Paracyclopheane  
*W. Duan, Y. Ma, Y. Huo, Q. Yao*    **1472**
- A Carbon Nanodots-Based Fluorescent Turn-On Probe for Iodide  
*Q. Wang, Y. Wu*    **1479**
- Synthesis and Properties of Novel Borondipyrromethene (BODIPY)-Tethered Triphenylamine Conjugates  
*Y. Wang, J. Liao, B. Wang, H. Chen, H. Zhao, M. Peng, S. Fan*    **1485**
- Synthesis, Characterization, and Nanocatalysis Application of Core–Shell Superparamagnetic Nanoparticles of Fe<sub>3</sub>O<sub>4</sub>@Pd  
*A. L. Cappelletti, P. M. Uberman, S. E. Martin, M. E. Saleta, H. E. Troiani, R. D. Sánchez, R. E. Carbonio, M. C. Strumia*    **1492**
- Solvent-Dependent Non-Linear Optical Properties of 5,5'-Disubstituted-2,2'-bipyridine Complexes of Ruthenium(II): A Quantum Chemical Perspective  
*M. R. S. A. Janjua, S. Jamil, A. Mahmood, A. Zafar, M. Haroon, H. N. Bhatti*    **1502**
- Tailoring of Morphology and Optical Properties of Bishydrazone-Capped ZnSe Nanorods  
*S. S. Florence, M. Umadevi, D. L. Arockiasamy, R. John*    **1508**
- Tetracarboxyl-Functionalized Ionic Liquid: Synthesis and Catalytic Properties  
*M. Feng, G. Zhao, H. Gao, S. Zhang*    **1513**
- Kinetic Method Analysis of the Effect of *cis*- and *trans*-Hydroxylation on the Proton Affinity of Proline  
*V. Kanchi, J.-W. Shin*    **1518**
- Synthesis of Co<sub>1</sub>Cu<sub>2</sub>(BHTC)<sub>2</sub> and Its Application in Adsorption Desulfurization  
*Q. Li, F. Li*    **1524**
- Two Efficient One-Pot Approaches for Regioselective Synthesis of New 3-Arylpyridazino[4,3-*c*]quinolin-5(6*H*)-ones  
*M. Rimaz*    **1529**
- Diglycidyl Esters Cross-Linked with Low Molecular Weight Polyethyleneimine for Magnetofection  
*H. Yu, S. Li, L. Feng, Y. Liu, X. Qi, W. Wei, J. Li, W. Dong*    **1535**
- Nematicidal Activities of Diamides with Diphenylacetylene Scaffold Against *Meloidogyne Incognita*  
*J. Li, Z. Zhang, X. Xu, X. Shao, Z. Li*    **1543**
- Assembly and Properties of Four New Metal–Organic Complexes Based on 1,4-Naphthalenedicarboxylate: Effect of Four Bis-pyridyl-bis-amide Ligands with Diverse Spacers in the Structures  
*H.-Y. Lin, X.-Z. Zhao, L. Zeng, Q.-L. Wang, X.-L. Wang, G.-C. Liu*    **1550**
- Synthesis of Eu-Doped Bi<sub>2</sub>O<sub>3</sub>/CeO<sub>2</sub> Composite with Enhanced Photocatalytic Activity by a Facile Sol–Gel–Calcination Route  
*F. Zhang, G. Xiao, W. Lu, T. Wang, L. Xuan, J. Yu*    **1562**
- Facile Synthesis of Hierarchical CuO Microspheres and their Gas Sensing Properties for NO<sub>x</sub> at Room Temperature  
*W. Song, H. Wu, J. Wang, Y. Lin, J. Song, Y. Xie, L. Li, K. Shi*    **1569**
- Combination of Pyridinium and Isoquinolinium Ylides with Phenylisocyanate and Isothiocyanates: Synthesis, Characterisation, and X-Ray Crystal Structures of Mesoionic Monosubstituted 3-Oxo-Propanamides or Thioamides  
*M. Seifi, S. Y. Ebrahimipour, J. Simpson, M. Dusek, V. Eigner, H. Sheibani*    **1577**
- Syntheses of Cytosporones A, C, J, K, and N, Metabolites from Medicinal Fungi  
*A. M. Beekman, R. A. Barrow*    **1583**
- Synthesis and Properties of Amphiphatic Poly(D,L-lactide-*co*-glycolide)-polyethylene glycol-poly(D,L-lactide-*co*-glycolide) Triblock Copolymers  
*W. Zhen, Y. Zhu, W. Wang, Z. Hou*    **1593**
- A Simple, One-Pot Synthesis of *Trans*-Substituted Spiro [5,5] undecane-1,5,9-triones with Aromatic Aldehydes and Meldrum's Acid as the Starting Materials  
*J. Ou-Yang, Y. Zhao, H. Jiang, L. Meng, X. Li, X. Jia*    **1599**
- Indole-3-carbinol and 1,3,4-Oxadiazole Hybrids: Synthesis and Study of Anti-Proliferative and Anti-Microbial Activity  
*N. Gokhale, N. Panathur, U. Dalimba, M. Kumsi*    **1603**
- Thermoregulated Aqueous Biphasic Catalysis of Sonogashira Reactions  
*X. Zhao, X. Liu, M. Lu*    **1614**