

## **Curriculum vitae**

DI Dr. Wolfgang Kandioller

Email: [wolfgang.kandioller@univie.ac.at](mailto:wolfgang.kandioller@univie.ac.at)

Date and Place of Birth: 21.06.1977, Mistelbach

Nationality: Austria

### **Education**

|              |  |
|--------------|--|
| 2012 to date | Senior Scientist at the University of Vienna   |
| 2009 – 2012  | PostDoc/Univ.-Ass. at the University of Vienna   |
| 2004 – 2009  | PhD thesis at the University of Vienna entitled “Maltol-derived ruthenium(II)-cymene complexes with tumor inhibiting properties: The impact of ligand-metal bond stability on the anticancer activity” |
| 1996 - 2003  | Study of Technical Chemistry, Vienna University of Technology<br>Diploma thesis (Institute of Organic Chemistry and Technology: „Microbial Baeyer-Villiger Oxidation of Bridged Bicyclic Ketones”      |
| 1991 – 1995  | High school (BORG Mistelbach)  |
| 1987 – 1991  | Hauptschule Poysdorf   |
| 1983 – 1987  | Elementary school (Volksschule Herrnbaumgarten)  |

### **Awards**

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| 10.2009 | AOC Best Publication Award for the publication “Modifying the structure of dinuclear ruthenium complexes with antitumor activity” |
| 09.2011 | GÖCH Poster Award at the minisymposium „Medicinal Chemistry“ 14. Österreichische Chemietage, Linz, Austria                        |
| 06.2013 | Best Poster Award at the International symposium: „Modern trends in organometallic chemistry and catalysis“, Moscow, Russia       |

### **Bibliography**

Publications: 25, Citations 432, h-index 12

Reviews: 1

Conference contributions (oral, poster): ca. 25

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Marko D. Mihovilovic, Florian Rudroff, Wolfgang Kandioller, Birgit Grötzl, Peter Stanetty, Helmut Spreitzer, *Synlett*, **2003**, 13, 1973.
2. "Facile Synthesis and Ring-Opening Cross Metathesis of Carbo- and Heterocyclic Bicyclo(3.2.1)oct-6-en-3-ones Using Gaseous Olefinic Reaction Partners"  
Marko D. Mihovilovic, Birgit Grötzl, Wolfgang Kandioller, Radka Snaydrova, Adel Muskotal, Dario A. Bianchi, Peter Stanetty, *Advanced Synthesis and Catalysis*, **2006**, 348, 463.
3. "Recombinant Whole-Cell Mediated Baeyer-Villiger Oxidation of Perhydropyran-Type Ketones"  
Marko D. Mihovilovic, Birgit Grötzl, Wolfgang Kandioller, Adel Muskotal, Radka Snajdova, Florian Rudriff, Helmut Spreitzer, *Chemistry & Biodiversity*, **2008**, 5, 490.
4. „The Hydration of Chloroacetonitriles Catalyzed by Mono- and Dinuclear Ru(II) and Os(II) Arene Complexes“  
Shaheen M. Ashraf, Wolfgang Kandioller, Maria-Grazia Mendoza Ferri, Alexey A. Nazarov, Christian G. Hartinger, Bernhard K. Keppler, *Chemistry & Biodiversity*, **2008**, 5, 2060.
5. "Modifying the structure of dinuclear ruthenium complexes with antitumor activity"  
Maria G. Mendoza-Ferri, Christian G. Hartinger, Alexey A. Nazarov, Wolfgang Kandioller, Kay Severin, Bernhard K. Keppler, *Applied Organometallic Chemistry*, **2008**, 22, 326.
6. "Tuning the anticancer activity of maltol-derived ruthenium complexes by derivatization of the 3-hydroxy-4-pyrone moiety"  
Wolfgang Kandioller, Christian G. Hartinger, Alexey A. Nazarov, Johanna Kasser, Roland John, Michael A. Jakupec, Vladimir B. Arion, Paul J. Dyson, Bernhard K. Keppler, *Journal of Organometallic Chemistry*, **2009**, 694, 922.
7. "From pyrone to thiopyrone ligands – rendering maltol-derived Ru(II)-arene complexes anticancer active in vitro"

Wolfgang Kandioller, Christian G. Hartinger, Alexey A. Nazarov, Maxim L. Kuznetsov, Roland John, Caroline Bartel, Michael A. Jakupec, Vladimir B. Arion and Bernhard K. Keppler, *Organometallics* **2009**, 28(15), 4249.

8. "Maltol-derived ruthenium-cymene complexes with tumor inhibiting properties: The impact of ligand-metal bond stability on the anticancer activity"

Wolfgang Kandioller, Christian G. Hartinger, Alexey A. Nazarov, Caroline Bartel, Matthias Skocic, Michael A. Jakupec, Vladimir B. Arion and Bernhard K. Keppler, *Chemistry – A European Journal*, **2009**, 15, 12283.

9. "Mannich products of kojic acid and N-heterocycles, and their Ru(II)-arene complexes: synthesis, characterization and stability"

Johanna Kasser, Wolfgang Kandioller, Christian G. Hartinger, Alexey A. Nazarov, Vladimir B. Arion and Bernhard K. Keppler, *Journal of Organometallic Chemistry* **2010**, 695, 875.

10. "Osmium(II) vs. Ruthenium(II) Carbohydrate-based Anticancer Arene Compounds: Similarities and Differences"

Muhammad Hanif, Alexey A. Nazarov, Christian G. Hartinger, Wolfgang Kandioller, Michael A. Jakupec, Vladimir Arion, Paul J Dyson, Bernhard K. Keppler, *Dalton Transactions* **2010**, 39, 7345.

11. "Is the Reactivity of M(II)-Arene Complexes of 3-Hydroxy-2(1H)-pyridones to Biomolecules the Anticancer Activity Determining Parameter?"

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12. "Influence of the arene ligand and the leaving group on the anticancer activity of (thio)maltol ruthenium(II)-( $\eta^6$ -arene) complexes"

Muhammad Hanif, Patricia Schaaf, Wolfgang Kandioller, Michaela Hejl, Michael A. Jakupec, Alexander Roller, Bernhard K. Keppler, Christian G. Hartinger, *Australian Journal of Chemistry* **2010**, 63, 1521.

13. "From hydrolytically labile to hydrolytically stable Ru(II)-arene anticancer complexes with carbohydrate-derived co-ligands"

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14. *“Pyrone derivatives and metals: From natural products to metal-based drugs”*

Wolfgang Kandioller, Andrea Kurzwernhart, Muhammad Hanif, Samuel M. Meier, Helena Henke, Bernhard K. Keppler, Christian G. Hartinger, *Journal of Organometallic Chemistry* **2011**, 696, 999.

15. *“Physicochemical Studies and Anticancer Potency of Ruthenium  $\eta^6$ -p-Cymene Complexes Containing Antibacterial Quinolones”*

Jakob Kljun, Anna K. Bytzek, Wolfgang Kandioller, Caroline Bartel, Michael A. Jakupec, Christian G. Hartinger, Bernhard K. Keppler, Iztok Turel, *Organometallics* **2011**, 30, 2506.

16. *“Biomolecule Binding vs. Anticancer Activity: Reactions of Ru(arene)[(thio)pyr(id)one] Compounds with Amino Acids and Proteins”*

Samuel M. Meier, Muhammad Hanif, Wolfgang Kandioller, Bernhard K. Keppler, Christian G. Hartinger, *Journal of Inorganic Biochemistry* **2012**, 108, 91.

17. *“Targeting the DNA-topoisomerase complex in a double-strike approach with a topoisomerase inhibiting moiety and covalent DNA binder”*

Andrea Kurzwernhart, Wolfgang Kandioller, Caroline Bartel, Simone Bächler, Robert Trondl, Gerhard Mühlgassner, Michael A. Jakupec, Vladimir B. Arion, Doris Marko, Bernhard K. Keppler, Christian G. Hartinger, *Chemical Communications* **2012**, 48, 4839.

18. *“Organometallic Ru and Os compounds of 2- and 4-Pyridones as potential Anticancer Drugs”*

Helena Henke, Wolfgang Kandioller, Muhammad Hanif, Bernhard K. Keppler, Christian G. Hartinger, *Chemistry and Biodiversity* **2012**, 9, 1718.

19. *“Synthesis and Biological Evaluation of the Thionated Antibacterial Agent Nalidixic Acid and Its Organoruthenium(II) Complex”*

Rosana Hudej, Jakob Kljun, Wolfgang; Kandioller, Urska Repnik, Boris Turk, Christian G. Hartinger, Bernhard K. Keppler, Damijan Miklavcic, Iztok Turel, *Organometallics* **2012**, 31, 5867.

20. "Structure-Activity Relationships of Targeted Ru(II)( $\eta^6$ -p-Cymene) Anticancer Complexes with Flavonol-Derived Ligands  
Andrea Kurzwernhart, Wolfgang Kandioller, Simone Baechler, Caroline Bartel, Sanela Martić, Magdalena Buczkowska, Gerhard Muehlgassner, Michael A Jakupec, Heinz-Bernhard Kraatz, Patrick J. Bednarski, Vladimir B. Arion, Doris Marko, Bernhard K. Keppler, Christian G. Hartinger, *Journal of Medicinal Chemistry* **2012**, 55, 10512.
21. "Organometallic anticancer complexes of lapachol: metal centre-dependent formation of reactive oxygen species and correlation with cytotoxicity"  
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22. "Identification of the Structural Determinants for Anticancer Activity of a Ruthenium Arene Peptide Conjugate"  
Samuel M. Meier, Maria Novak, Wolfgang Kandioller, Michael A. Jakupec, Vladimir B. Arion, Nils Metzler-Nolte, Bernhard K. Keppler, Christian G. Hartinger, *Chemistry – A European Journal* **2013**, 19, 9297.
23. "3-Hydroxyflavones vs. 3-hydroxyquinolinones: structure-activity relationships and stability studies on Ru(II)(arene) anticancer complexes with biologically active ligands"  
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24. "Rhodium(Cp\*) Compounds with Flavone-derived Ligand Systems: Synthesis and Characterization"  
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25. "Solution equilibria of anticancer ruthenium(II)-( $\eta^6$ -p-cymene)-hydroxy(thio)pyr(id)one complexes: Impact of sulfur vs. oxygen donor systems on the speciation and bioactivity"  
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26. "Antitumor pentamethylcyclopentadienyl rhodium complexes of maltol and allomaltol: Synthesis, solution speciation and bioactivity"  
Orsola Dömötör, Sabine Aicher, Maria S. Novak, Alexander Roller, Michael A. Jakupec, Wolfgang Kandioller, Christian G. Hartinger, Bernhard K. Keppler, Eva E. Enyedy, *Journal of Inorganic Biochemistry*. **2014**, 134, 57.