First symposium on chemistry of the Mittelbau at the Faculty of Chemistry, University of Vienna

Recent advances in the development of novel organometallic anticancer agents

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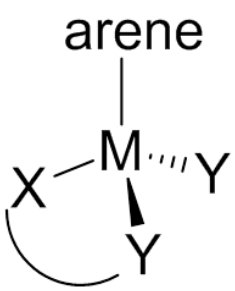
Ruthenium-based complexes are promising alternatives for the clinically applied platinum-based chemotherapeutics [1]. One approach is the attachment of bioactive molecules to organometallic moieties, leading to compounds with potential multi-targeted character which are able to interact with different biological targets [2,3]. With the aim to develop novel anticancer metallodrugs with potential multi-targeted properties and novel mode of actions, various bioactive scaffolds were coordinated to organometallic fragments. Recent results regarding the impact of the attached ligands on the stability, binding affinity towards biomolecules, cytotoxicity in human cancer cell lines and mode of action studies will be presented.



- bioactive ligands
- impact of donor atoms
- leaving group variation
- behavior under physiological conditions
- cytotoxicity in human cancer cells
- mode of action studies

References:

[1] S. M. Meier-Menches, C. Gerner, W. Berger, C. G. Hartinger, B. K. Keppler, *Chem. Soc. Rev.* **47**(2018), 909.

[2] K. J. Kilpin, P. J. Dyson, *Chem. Sci.* **4**(2013), 1410.

[3] R. G. Kenny, C. J. Marmion *Chem. Rev.* **119**(2019), 1058.