



Synthesis and characteristic of selected metallocupramolecular complexes based on functionalized silsesquioxanes

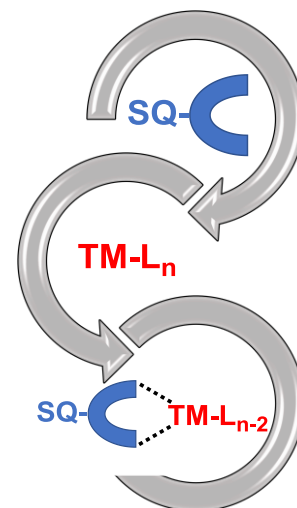
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Silsesquioxanes' derivatives (SQs) are commonly known for their inorganic-organic nanosized structure and specific features, i.a. thermal stability, oxidation resistance and non-toxicity. They may be obtained via a condensation reaction from alkoxysilanes and further modified in catalytic reactions.[1] Due to their hybrid nature, they found applications in many branches of chemistry from materials to medicine.[1] Additionally, their complexing properties, especially when possessing organic moieties with heteroatoms to play a ligand role, have been also confirmed.[2,3,4]

Based on our group's experience, both in the synthesis of various SQs derivatives and also in organometallic chemistry, we have elaborated a synthetic pathway to obtain functionalized silsesquioxanes with groups containing S,O,N-donating atoms within their structures that may act as potential ligands for metal ions coordination.

In this communication, selected examples of functionalized cubic and double-decker types of SQs possessing modified triazole- and salen- moieties will be presented. They are verified in terms of construction of metallocupramolecular complexes with respective ions, e.g. Pd, Pt, Rh or Zn.[5,6].



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References

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