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HR EXCELLENCE IN RESEARCH

## NEW SYNTHETIC INHIBITORS OF SUPEROXIDE ANION RADICALS

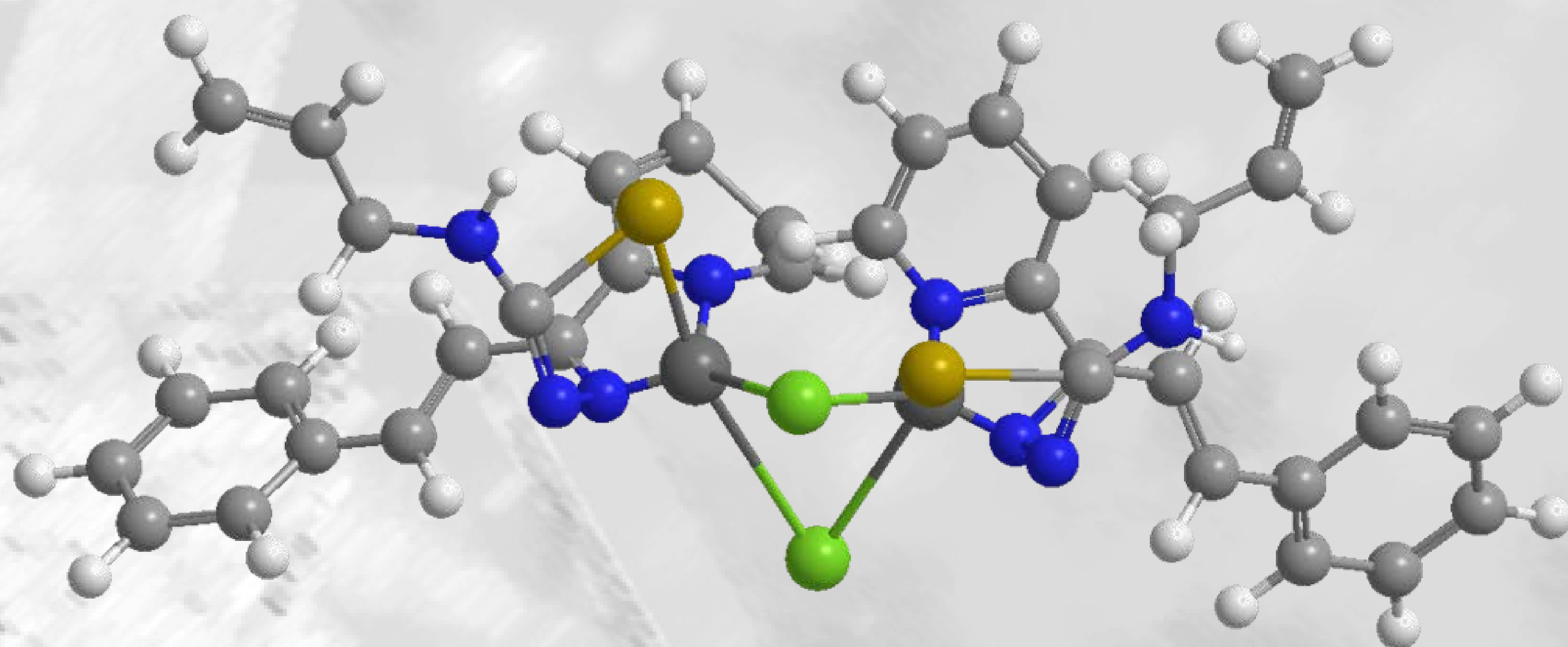
**PATENT:** MD 4755/2021.12.31

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**APPLICATION FIELDS:** Medicine – pharmacy – cosmetics.

**AIM:** Chemical synthesis, characterization of new synthetic inhibitors of superoxide anion radicals that may find application in medicine.

**SOLUTION:** New copper coordination compounds with thiocarbamide ligands have been obtained using the directed synthesis method.



The  $IC_{50}$  values towards superoxide anion radicals

Compound	$IC_{50}$ , $\mu\text{mol/L}$
Quercetin	61,86
Prototype	0,99
Claimed substances	0,20-0,37

**ADVANTAGES:** The described compounds inhibit superoxide anion radicals. These agents exceed 167-309 times the analogous characteristics of quercetin that is used in medical practice, and 2.7-5.0 times analogous characteristics of prototype. The discovered properties of these substances are of interest for medical practice for enhancement of the arsenal of superoxide anion radical inhibitors.

**IMPLEMENTATION STAGE:** At the laboratory level.

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