

MOLDOVA STATE UNIVERSITY
Scientific Research Laboratory
Advanced Materials for Biopharmaceuticals and Technics

STATE UNIVERSITY OF MEDICINE AND PHARMACY
"NICOLAE TESTEMITANU"

60 Alexei Mateevici str., MD 2009, Chisinau, Republic of Moldova
Tel.: +373 69127593
E-mail: guleaaurelian@gmail.com



HR EXCELLENCE IN RESEARCH

NEW SYNTHETIC INHIBITORS OF SUPEROXIDE ANION RADICALS

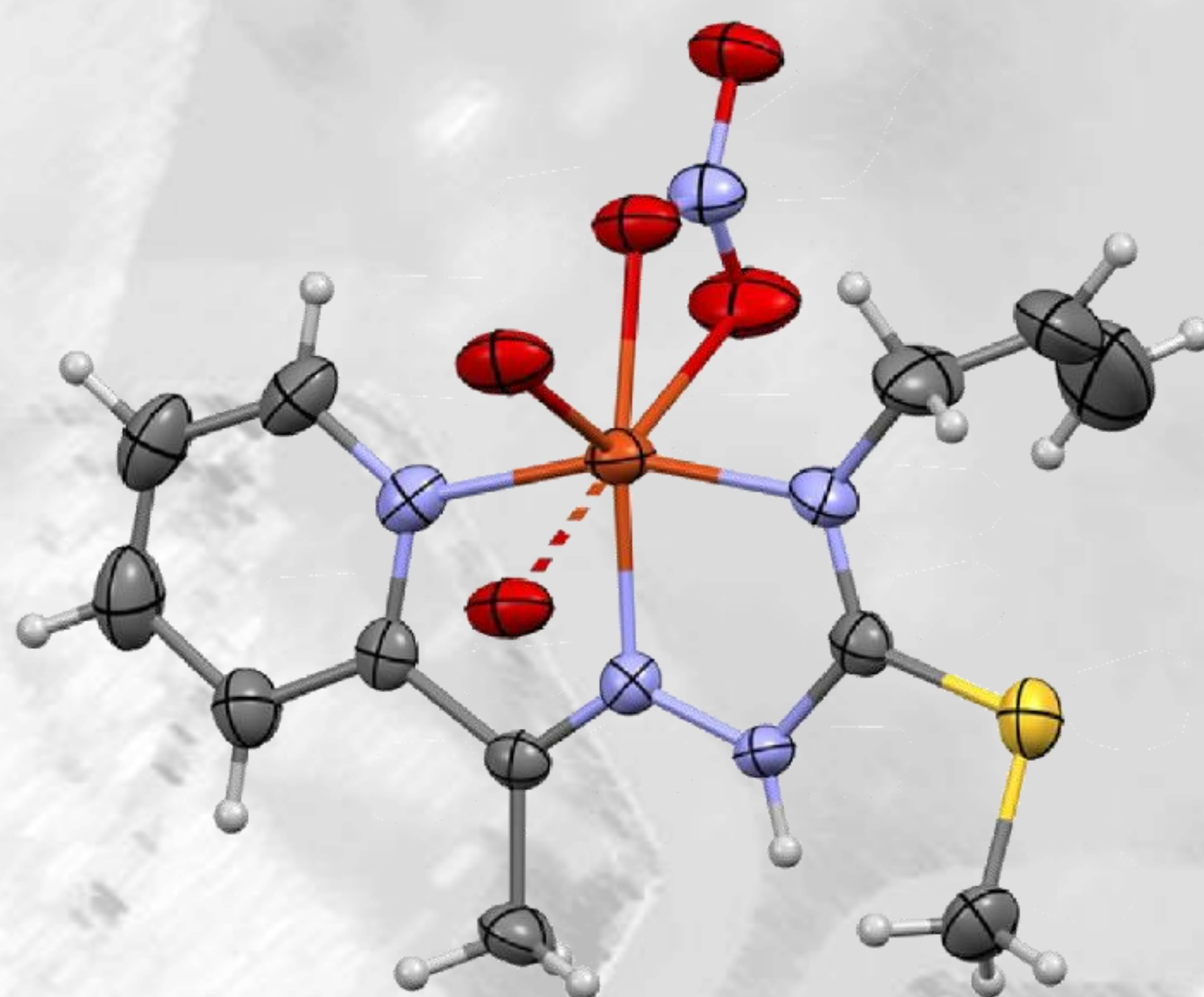
PATENT: MD 4749/2021.03.31; MD 4698/2020.05.31

AUTHORS: Aurelian GULEA, Valentin GUDUMAC, Dorin ISTRATI,
Irina USATAIA, Vasilii GRAUR, Victor ȚAPCOV, Inna ȘVEȚ,
Valeriana PANTEA, Lilia ANDRONACHE

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
Patent #4698	0,54
Patent #4749	0,12-0,55

ADVANTAGES: The described compounds inhibit superoxide anion radicals. These agents exceed 515-112 times the analogous characteristics of quercetin that is used in medical practice, and 8-1.8 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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