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HR EXCELLENCE IN RESEARCH

NEW ANTIBACTERIAL AGENT

PATENT: MD 4842/2023.01.31

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APPLICATION FIELDS: Medicine – pharmacy – cosmetics.

AIM: Chemical synthesis, characterization of copper coordination compound and its antibacterial evaluation against *Streptococcus pneumoniae*.

SOLUTION: New copper coordination compound with thiocarbamide ligand has been obtained using the directed synthesis method.

Antibacterial acitivity of the claimed substance against *Streptococcus pneumoniae* (µg/mL)

Compound	MIC, µg/mL	MBC, µg/mL
Ampicillin (Prototype)	0.5	0.5
Structural analog	0.03	0.06
Claimed substance	0.0038	0.0076

MIC - minimum inhibitory concentration; MBC - minimum bactericide concentration

ADVANTAGES: The activity of the claimed compound against bacteria of the species *Streptococcus pneumoniae* exceeds by 66-132 times analogous characteristics of the Ampicillin and 7.9 times the characteristics of the structural analog. The discovered properties of this substance are of interest for medical practice in terms of expanding the arsenal of antibacterial remedies.

IMPLEMENTATION STAGE: At the laboratory level.

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