



# COMPOUND 2,5,11,14-TETRAAZATRICYCLO- [13,3,1,16,10]- ICOSA-1(19),6,8,10(20)15,17-HEXAEN-3,4,12,13- TETRAONTETRAOXIME DI-N,N-DIMETHYLFORMAMIDE WITH ANTIBACTERIAL AND ANTIFUNGICAL ACTIVITY



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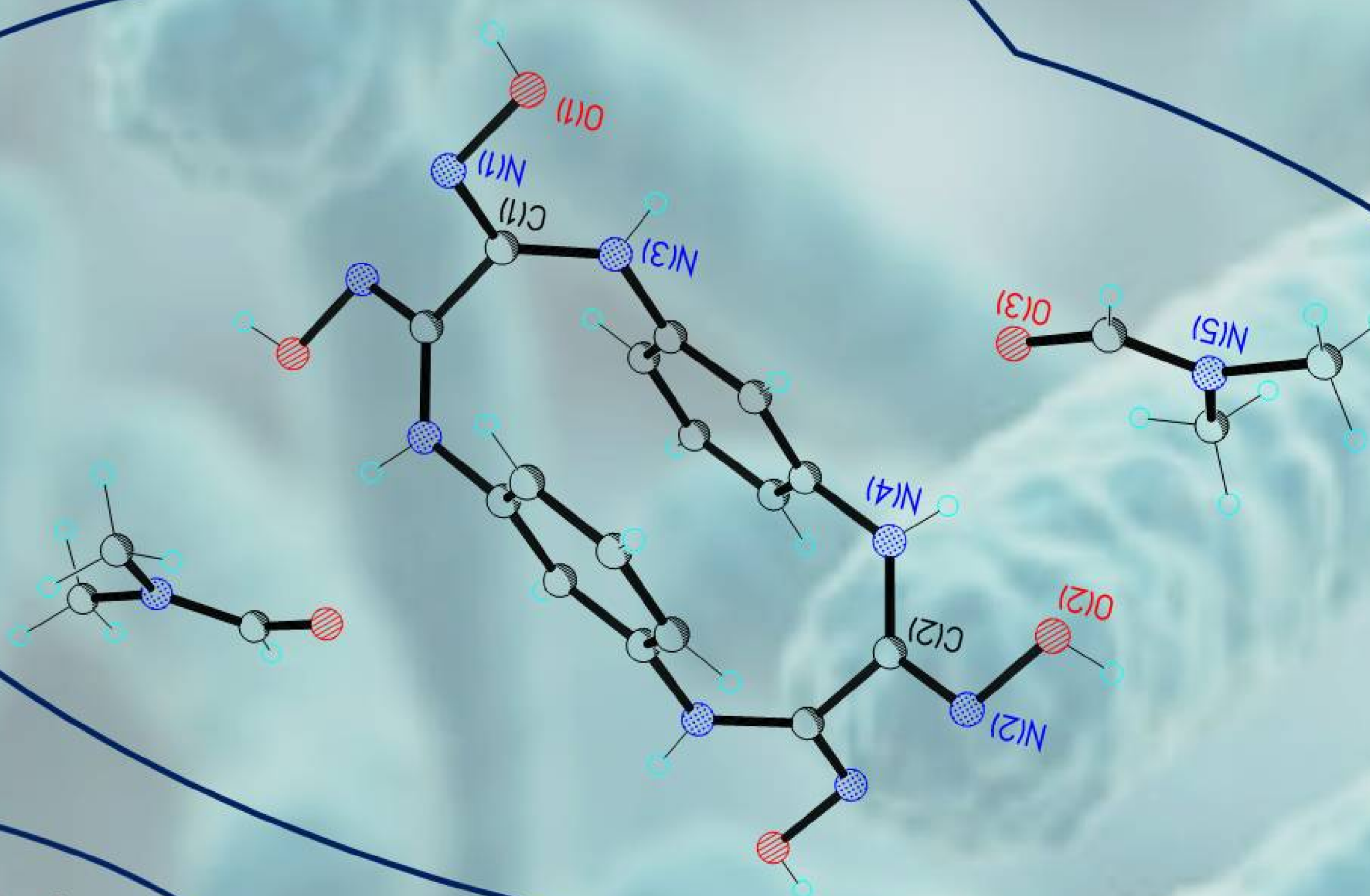
## PURPOSE

The invention relates to chemistry, in particular to tetraoxime 2,5,11,14-tetraazatricyclo- [13,3,1,16,10]- icoso-1(19),6,8,10(20)15,17-hexaen-3,4,12,13-tetraontetraoxime di-*N,N*-dimethylformamide (TO<sub>x</sub>C·2dmf) as a polydentate coordination agent for the purpose of new coordinating compounds obtaining with original and supramolecular structure, as well as to microbiology, intended for use as an antibacterial and antifungal remedy.

## SOLUTION

It was synthesized a new coordination agent, obtained from the condensation of 1,3-phenylenediamine with dichloroglyoxime in a molar ratio of 1:1. This coordination agent has been studied as an antibacterial and antifungal remedy. Non-pathogenic strains of *Bacillus subtilis* CNMN BB-01, *Pseudomonas fluorescens* CNMN-PFB-01 and phytopathogenic strains of *Xanthomonas campestris*, *Erwinia amylovora*, *Erwinia carotovora* were selected as test bacteria for the evaluation of antibacterial activity and as a test-fungus strains were selected: *Candida utilis* and *Saccharomyces cerevisiae*.

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The data obtained from the study demonstrate the increase up to 2...4 times of the antibacterial and up to 4 times of the antifungal activity of the invention in comparison with the nearest prior art

## ADVANTAGES

The antibacterial and antifungal studied properties are higher than the nearest solution, at the same time the compound is used as a well crystallized and stable compound.

## STAGE

Laboratory tests

### Acknowledgement

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