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**The thiosemicarbazone ligand
bis(4-*N*-ethyl-thiosemicarbazone)-1,4-
diacetylbenzene as building block for
supramolecular species**

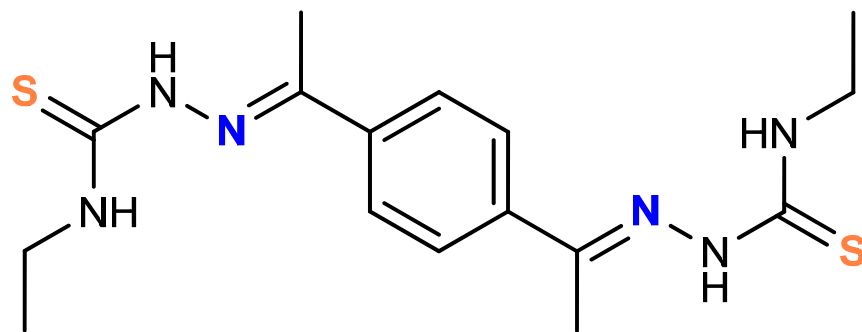
**Miguel Martínez-Calvo, Vanesa Suárez, María J. Romero, Ana M. González-
Noya, Rosa Pedrido, Manuel R. Bermejo**



*Department of Inorganic Chemistry
University of Santiago de Compostela
Spain*

The interest of this ligand molecule...

The chemistry of thiosemicarbazones has been receiving considerable attention because of their broad therapeutic activity (antibacterial, antimicrobial, anti-fungal and antiHIV) as well as their versatility as ligands.



Thiosemicarbazone ligand H₂pDABEt

Our aim...

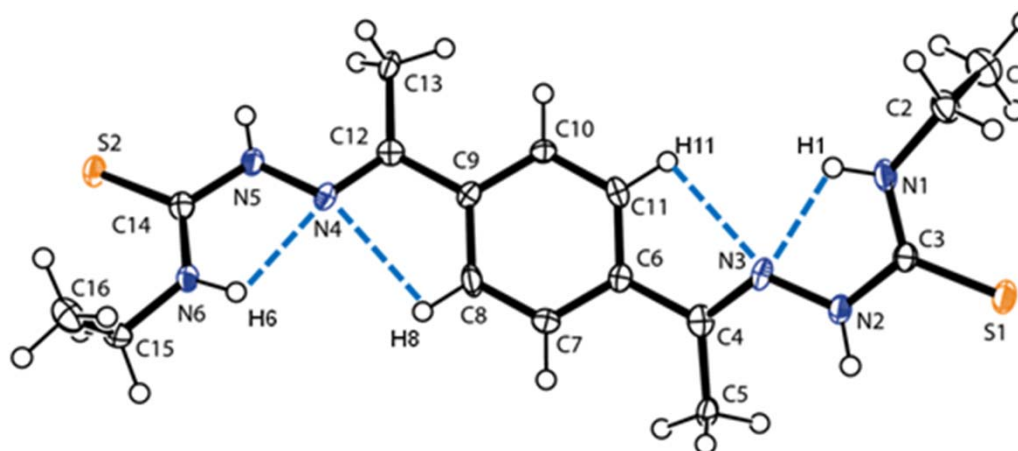
Checking if the trans arrangement of the thiosemicarbazone arms modifies the structure of the ligand and its coordinative behaviour towards different metal ions.

Our strategy...

Designing and Synthesis

Characterization (EA, MS ES, IR, ^1H NMR, X-ray diffraction)

Our results...



-the two thiosemicarbazone arms adopt an *anti*-arrangement and an *E* conformation in relation to the two imine bonds

-this *E* conformation is mainly determined by the existence of both intra- and intermolecular hydrogen bonds

-considering the optimal conformation taken by the free ligand, supramolecular metal assemblies of the type $[\text{M}_2\text{L}_2]$ are expected