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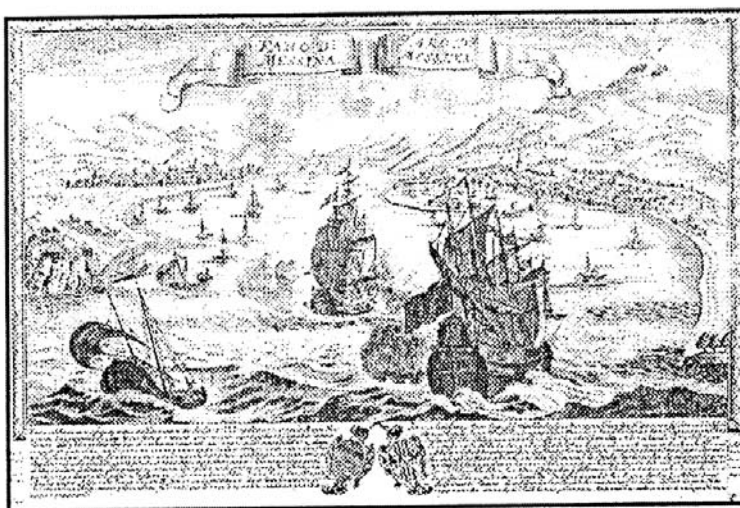
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WORKSHOP ON PLATINUM CHEMISTRY

ABSTRACTS



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**AMINO ACIDS AND PEPTIDES Pt(II) COMPLEXES:
STRUCTURE AND PROPERTY**

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Amino acids and peptides complexes of transition metal ions have been object of several studies during the last years and their preparation and properties have been recently reviewed.[1]

Much of the interest in this field arises since these complexes can be useful intermediates in peptide synthesis.

Platinum has been successful used protecting amino group of α -amino acids in peptide synthesis.[2] A series of reactions at the carboxylic group of N-coordinated α -amino acids has been carried out to give Platinum(II) complexes with peptide esters, α amino acids amides and anhydrides as ligands. These reactions have never been applied to highly hindered residues, such as the α -aminoisobutyric acid (α -methyl alanine or α , α' dimethyl glycine, Aib), that shows reduced reactivity and thus low reaction yields.

With the aim of investigating the effect of electron-withdrawing properties of the Pt(II) in increasing the reactivity of N-coordinated amino acid in the peptide bond formation, we have undertaken a systematic study on the reactivity of Pt(II) N-coordinated α -amino acids[3].

The condensation reactions of Pt(II)-amino acids complexes with sterically hindered residues, have been studied, and a detailed solid state X-ray analysis has also been carried out.

In Platinum(II)-peptide complexes we have observed marked effect on the conformation of the amino acidic N-coordinated residue.

REFERENCES

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- [3] A. Lombardi, O. Maglio, E. Benedetti, B. Di Blasio, M. Saviano, F. Nastri, C. Pedone and V. Pavone, *Inorg. Chim. Acta*, 196, (1992), 241.

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