



UNIVERSITA' DI MESSINA
FACOLTA' DI SCIENZE

Dipartimento di Chimica Inorganica, Analitica
e Struttura Molecolare



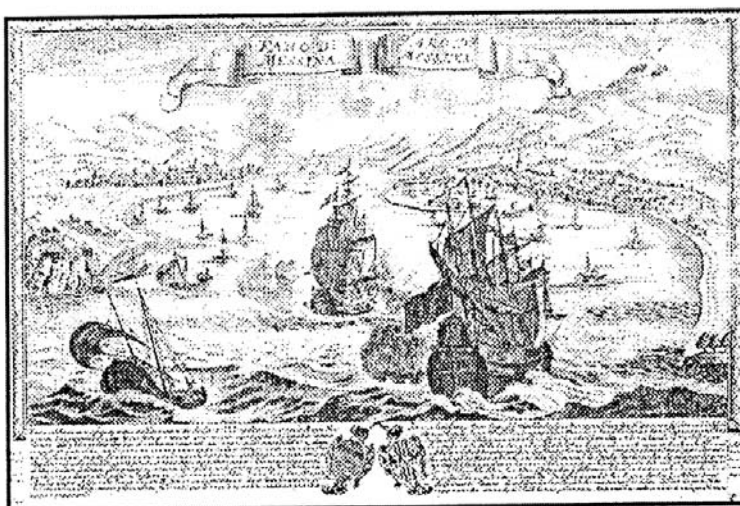
Società Chimica Italiana
visione di Chimica Inorganica



Atti Accademia Peloritana dei Pericolanti
Classe I di Scienze Fisiche
Matematiche e Naturali

WORKSHOP ON PLATINUM CHEMISTRY

ABSTRACTS



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**CYCLOMETALLATED PLATINUM(II)
AND PLATINUM(IV) COMPOUNDS
WITH IMINIC LIGANDS**

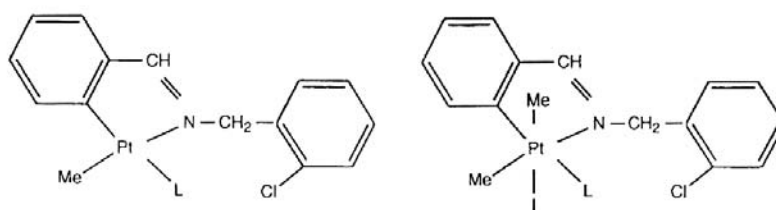
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The chemistry of cyclometallated complexes has attracted much attention due to their utility in organic synthesis and catalysis. Moreover, interesting photochemical, photophysical and electrochemical properties have been reported recently for cyclometallated platinum compounds.

We wish to report the synthesis, characterization and reactivity of platinum cyclometallated compounds containing iminic ligands. The reaction of $[\text{Pt}_2\text{Me}_4(\text{SMe}_2)_2]$ with $\text{C}_6\text{H}_5\text{CH}=\text{NCH}_2\text{C}_6\text{H}_4\text{Cl}$ yields compound Ia by intramolecular C – H bond activation followed by reductive elimination of methane.

Compound Ia reacts with PPh_3 to yield cyclometallated compound Ib, which has been characterized crystallographically. However, the reaction with bidentate ligand 1,2-bis(diphenylphosphino)ethane produces a $[\text{C}^-]$ unidentate system with cleavage of the metallocycle.

Upon oxidative addition of CH_3I , compounds Ia and Ib produce, respectively, cyclometallated platinum(IV) compounds IIa and IIb.



Ia $\text{L}=\text{SMe}_2$

Ib $\text{L}=\text{PPh}_3$

IIa $\text{L}=\text{SMe}_2$

IIb $\text{L}=\text{PPh}_3$

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