

## Publications of the Group 2009-1997

### 2009

- [ONNO]-type Amine Bis(phenolate)-Based Vanadium Catalysts for Ethylene Homo- and Copolymerization.

C. Lorber.

*Pure Appl. Chem.*, **2009**, *81*, 1205-1215.

- Synthesis and structure of early transition metal NHC complexes.

C. Lorber, L. Vendier.

*Dalton Trans.* **2009**, 6972-6984.

- Reinvestigation of the Spin Crossover Phenomenon in the Ferrous Complex [Fe(HB(pz)<sub>3</sub>)<sub>2</sub>].

L. Salmon, G. Molnár, S. Cobo, P. Oulié, M. Etienne, T. Mahfoud, P. Demont, A. Eguchi, H. Watanabe, K. Tanakae, A. Bousseksou.

*New J. Chem.*, **2009**, *33*, 1283-1289.

- A High-Spin Fe(II) / Low-Spin Fe(III) Redox Couple Featuring the Hydrotris[(4-chloro-3,5-dimethylpyrazolyl)]borate Ligand: Synthesis, Spectroscopic and Crystallographic Characterization.

P. Hamon, A. Mari, J.-F. Meunier, L. Toupet, O. Cador, M. Etienne, J.-R. Hamon.

*Inorganica Chim. Acta*, **2009**, *362*, 4389-4395.

- Amine-Phenolate Ligands in Niobium Chemistry:  $\pi$ -Interactions Probed by an Ancillary Alkyne Ligand.

E. Despagne-Ayoub, S. Schigand, L. Vendier, M. Etienne.

*Organometallics*, **2009**, *28*, 2188-2194.

- C-C Coupling Constants,  $J_{CC}$ , are Reliable Probes for  $\alpha$ -C-C Agostic Structures

C. Boulho, T. Keys, Y. Coppel, L. Vendier, M. Etienne, A. Locati, F. Bessac, F. Maseras, D. A. Pantazis, J. E. McGrady.

*Organometallics*, **2009**, *28*, 940-943.

- Agostic Interactions in Sterically Hindered Early Transition Metal Alkyl Complexes.

M. Etienne, J. E. McGrady, F. Maseras.

*Coord. Chem. Rev.* **2009**, *253*, 635-646.

### 2008

- Reactivity of  $B(C_6F_5)_3$  with simple early-transition metal alkoxides: alkoxide-aryl exchange, THF ring-opening, or acetonitrile CC coupling.

C. Lorber, R. Choukroun, L. Vendier.

*Organometallics* **2008**, *27*, 5017-5024.

- A New Perfluorinated  $F_{21}$ -Tp Scorpionate Ligand: Enhanced Alkane Functionalization by Carbene Insertion with  $(F_{21}\text{-Tp})M$  Catalysts ( $M = Cu, Ag$ ).

E. Despagne-Ayoub, K. Jacob, L. Vendier, M. Etienne, E. Álvarez, A. Caballero, M. M. Díaz-Requejo, P. J. Pérez.

*Organometallics*, **2008**, *27*, 4779-4789.

- Routes to New N-Heterocyclic Carbene Titanium(IV) Imido Complexes.

C. Lorber and L. Vendier.

*Organometallics* **2008**, *27*, 2774-2783.

- On the Origin of  $\alpha$ - and  $\beta$ -Agostic Distortions in Early Transition Metal Alkyl Complexes.

D. A. Pantazis, J. E. McGrady, M. Besora, F. Maseras, M. Etienne.

*Organometallics*, **2008**, *27*, 1128-1134.

## 2007

- CC and CN Coupling of Nitriles mediated by  $B(C_6F_5)_3$  and  $Cp_2ZrPh_2$ .

R. Choukroun, C. Lorber, L. Vendier.

*Organometallics* **2007**, *26*, 3784-3790.

- The critical role of the uniform electron gas limit in DFT descriptions of an agostic niobium complex.

D. A. Pantazis, J. E. McGrady, F. Maseras, M. Etienne.

*J. Chem. Theor. Comput.* **2007**, *3*, 1329-1336.

- Reaction of  $V(C_6H_6)_2$  with the borane adducts of malononitrile [ $(C_6F_5)_3BNCCH_2CNB(C_6F_5)_3$ ] and water [ $H_2OB(C_6F_5)_3$ ].

R. Choukroun, C. Lorber, L. Vendier.

*Organometallics* **2007**, *26*, 3604-3606.

- The structure of fluorinated indazoles: the effect of the replacement of an H by a F atom on the supramolecular structure of NH-indazoles

J. Teichert, P. Oulié, K. Jacob, L. Vendier, M. Etienne, R. M. Claramunt, C. López, C. Pérez Medina, I. Alkorta, J. Elguero.

*New J. Chem.* **2007**, *31*, 936-946.

- Reaction of p-toluenesulfonylamide and  $M(\text{NMe}_2)_4$  ( $M = \text{Ti}, \text{V}$ ): generation of electron-deficient imido complexes of early transition metals.

C. Lorber, R. Choukroun, L. Vendier.

*Inorg. Chem.*, **2007**, *46*, 3190-3202.

- Catalytic evidence of the core/shell structure of bimetallic Pd/Rh colloids.

C. Bergounhou, C. Blandy, R. Choukroun, P. Lecante, C. Lorber, J.-L. Pellegatta.

*New J. Chem.* **2007**, *31*, 218-223.

- N-Heterocyclic carbenes in transition metal catalysis.

E. Despagnet-Ayoub, T. Ritter.

*Top. Organomet. Chem.* **2007**, *21*, 193-218.

## 2006

- Synthesis and structural characterisation of  $[\text{Tp}^{\text{Me}_2}\text{Nb}(\text{CH}_3)_2(\text{CH}_3\text{C}\equiv\text{CCH}_3)]$  and  $[\text{Tp}^{\text{Me}_2}\text{NbCl}(\text{CH}_3)(\text{CH}_3\text{C}\equiv\text{CCH}_3)]$ : is there an intrinsic  $\alpha$ -agostic interaction in alkyl complexes of the  $[\text{Tp}^{\text{Me}_2}\text{Nb}(\text{alkyne})]$  moiety?

E. Teuma, M. Etienne, B. Donnadieu, G. S. McGrady.

*New J. Chem.* **2006**, *30*, 409-415.

- Vanadocene-mediated ionization of water in the aqua-species  $[\text{H}_2\text{O}\cdot\text{B}(\text{C}_6\text{F}_5)_3]$ : structural characterization of the hydride and the hydroxide complexes  $[\text{Cp}_2\text{V}(\mu\text{-H})\text{B}(\text{C}_6\text{F}_5)_3]$   $[\text{Cp}_2\text{V}(\mu\text{-OH})\text{B}(\text{C}_6\text{F}_5)_3]$ .

R. Choukroun, C. Lorber, L. Vendier, C. Lepetit.

*Organometallics* **2006**, *25*, 1551-1553.

- Aromatic interactions in hydrotris(3-methylindazolyl)borate organoniobium complexes: control of an alkyne ligand orientation in the crystal.

P. Oulié, J. Teichert, L. Vendier, C. Dablemont, M. Etienne.

*New J. Chem.* **2006**, *30*, 679-682.

- Structure and bonding in a cyclobutyl tris(pyrazolyl)boratoniobium complex and the variation in agostic behaviour with ring size in the series  $\text{Tp}^{\text{Me}_2}\text{NbCl}(c\text{-C}_n\text{H}_{2n-1})(\text{MeC}\equiv\text{CMe})$ ,  $n = 3\text{-}6$ .

M. Besora, F. Maseras, J. E. McGrady, P. Oulié, D. H. Dinh, C. Duhayon, M. Etienne.

*Dalton Trans* **2006**, 2362-2367.

- A general and facile one-step synthesis of imido-titanium(IV) complexes: application to the synthesis of compounds containing functionalized or chiral imido ligands, and bimetallic diimido architectures.

C. Lorber, R. Choukroun, L. Vendier  
*Eur. J. Inorg. Chem.* **2006**, 4503-4518.

- CH bond activation by a transient  $\eta^2$ -cyclopropene niobium complex.

P. Oulié, C. Boulho, L. Vendier, Y. Coppel, M. Etienne.  
*J. Am. Chem. Soc.*, **2006**, *128*, 15962-15963.

- B(C<sub>6</sub>F<sub>5</sub>)<sub>3</sub> adducts of TCNE- and TCNQ-vanadium complexes as new building blocks for molecule-based magnets.

R. Choukroun, C. Lorber, D. de Caro, L. Vendier  
*Organometallics* **2006**, *25*, 4243-4246.

## 2005

- Metal complexes-based molecular materials as thin films on silicon substrates.

D. de Caro, M. Basso-Bert, H. Casellas, M. Elgaddari, J.-P. Savy, J.-F. Lamère, A. Bachelier, C. Faulmann, I. Malfant, M. Etienne, L. Valade.  
*C. R. Chimie* **2005**, *8*, 1156-1173.

- A new way to scorpionate niobium complexes: terminal alkyne, imido and oxo complexes, and the rearrangement of  $\alpha$ -agostic ethyl complexes.

P. Oulié, N. Bréfuel, L. Vendier, C. Duhayon, M. Etienne.  
*Organometallics* **2005**, *24*, 4306-4314.

- Ethylene homo- and co-polymerization activity of a series of [ONNO]-type amine bis(phenolate)-based vanadium(II-V) catalysts.

C. Lorber, F. Wolff, R. Choukroun, L. Vendier  
*Eur. J. Inorg. Chem.* **2005**, 2850-2859.

- Adventure in vanadocene [VCp<sub>2</sub>] chemistry.

R. Choukroun, C. Lorber  
*Eur. J. Inorg. Chem.* **2005**, 4683-4692.

## 2004

- Mono and dinuclear hydrotris(pyrazolyl)borato tantalum complexes.

M. Etienne, J.-C. Hierso, P. J. Daff, B. Donnadiou, F. Dahan.  
*Polyhedron* **2004**, *23*(2-3), 379-383.

- Elusive niobium alkyl cations related to ethylene polymerization.

H. M. Pritchard, M. Etienne, L. Vendier, G. S. McGrady.

*Organometallics* **2004**, *23*, 1203-1206.

- A one-pot method to prepare the carbene complex  $[\text{Tp}^{\text{Me}_2, \text{Cl}}\text{RhCl}_2(\text{CHNiPr}_2)]$  from  $[\text{Tp}^{\text{Me}_2, \text{Cl}}\text{Rh}(\text{CO})_2]$ ,  $\text{CHCl}_3$ , and  $\text{NH}i\text{Pr}_2$ .

E. Teuma, F. Malbosc, M. Etienne, J.-C. Daran, P. Kalck.

*J. Organomet. Chem.* **2004**, *689*, 1763-1765.

- Reactivity of  $\text{Cp}_2\text{Ti}(\text{CO})_2$  towards nitrile and water adducts of  $\text{B}(\text{C}_6\text{F}_5)_3$ : formation of  $[\text{Cp}_2\text{Ti}(\eta^2-$

$\text{F}_3\text{CC}_6\text{H}_4\text{CN}\dots\text{B}(\text{C}_6\text{F}_5)_3]$  and  $[\text{Cp}_2\text{Ti}][\text{HOB}(\text{C}_6\text{F}_5)_3]$  with a Ti...F interaction.

R. Choukroun, C. Lorber, L. Vendier.

*Eur. J. Inorg. Chem.* **2004**, 317-321.

- Zwitterionic ring-borylated vanadium(III) complexes from  $[\text{Cp}_2\text{VCO}]$  and  $\text{B}(\text{C}_6\text{F}_5)_3$ .

R. Choukroun, C. Lorber, L. Vendier.

*Organometallics* **2004**, *23*, 1434-1437.

- Paramagnetic chloro-, alkoxo-, or azido- vanadium(IV) complexes supported by a [ONNO]-type amine bis(phenolate) ligand.

F. Wolff, C. Lorber, R. Choukroun, B. Donnadieu.

*Eur. J. Inorg. Chem.* **2004**, 2861.

- Hydroamination of alkynes catalyzed by imido complexes of titanium and vanadium.

C. Lorber, R. Choukroun, L. Vendier.

*Organometallics* **2004**, *23*, 1845-1850.

- Kinetics and mechanism of the hydroformylation of styrene catalysed by the rhodium/TPP system (TPP = 1,2,5-triphenyl-1*H*-phosphole).

C. Bergounhou, D. Neibecker, R. Mathieu.

*J. Mol. Catal. A: Chem.* **2004**, *220*, 167-182.

- Mono- and homobimetallic vanadium complexes: borane adducts of vanada(IV)azirine complexes.

R. Choukroun, C. Lorber, L. Vendier, B. Donnadieu.

*Organometallics* **2004**, *23*, 5448-5492.

- Pd colloid-catalysed methoxycarbonylation of iodobenzene in ionic liquids.

W. Wojtkow, A.M. Trzeciak, R. Choukroun, J.L. Pellegatta  
*J. Mol. Catal. A. Chem.* **2004**, 224, 81-86.

### 2003

- An unprecedented  $\alpha$ -C–C agostic interaction in a cyclopropyl tris(pyrazolyl)boratoniobium complex.

J. Jaffart, M. Etienne, M. Reinhold, J. E. McGrady, F. Maseras  
*Chem. Commun.* **2003**, 876 - 877.

- Niobium and molybdenum-based molecular magnet grown as thin films by chemical vapor deposition.

E. Lamouroux, E. Alric, H. Casellas, L. Valade, D. de Caro, M. Etienne, D. Gatteschi  
*Electrochemical Society Proceeding* **2003**, 8, 1040-1046.

- C–H and C–C agostic interactions in cycloalkyl tris(pyrazolyl)boratoniobium complexes.

J. Jaffart, M. L. Cole, M. Etienne, M. Reinhold, J. E. McGrady, F. Maseras.  
*J. Chem. Soc., Dalton Trans.* **2003**, 4057-4064.

- Tandem carbonylation reactions: hydroaminomethylation of alkenes catalyzed by cationic  $[(H_2C(3,5-Me_2pz)_2)Rh(CO)L]^+$  complexes

E. Teuma, M. Loy, C. Serra-Le Berre, M. Etienne, J.-C. Daran, P. Kalck.  
*Organometallics* **2003**, 22, 5261-5267.

- Reactivity of  $B(C_6F_5)_3$  with oxo vanadium(V) complexes  $VO(L)_3$  ( $L = OCH_2CF_3, NEt_2$ ). Formation of the organometallic vanadium(V)  $[VO(\mu-OCH_2CF_3)(OCH_2CF_3)(C_6F_5)]_2$  and the Lewis acid adduct  $[(Et_2N)_3VO \cdot B(C_6F_5)_3]$

F. Wolff, R. Choukroun, C. Lorber, B. Donnadieu  
*Eur. J. Inorg. Chem.*, **2003**, 628-632.

- Synthesis and crystal structure of unprecedented phosphine adducts of  $d^1$ -aryl imido-vanadium(IV) complexes.

C. Lorber, R. Choukroun, B. Donnadieu  
*Inorg. Chem.*, **2003**, 42, 673-675.

- Reactivity of  $[Cp_2Ti(CO)_2]$  and  $B(C_6F_5)_3$  : formation of the acylborane complexes  $[Cp_2Ti(CO)(\eta^2-OCB(C_6F_5)_3)]$  and  $[Cp_2Ti(THF)(\eta^2-OCB(C_6F_5)_3)]$ .

R. Choukroun, C. Lorber, Lepetit, B. Donnadieu  
*Organometallics*, **2003**, 22, 1995-1997.

- C-H activation of trimethylsilyl-substituted cyclopentadienyl ligand in 'cation-like' complex  $[\text{Cp}^{\text{***}}_2\text{ZrMe}][\text{Me}(\text{B}(\text{C}_6\text{F}_5)_3)]$  ( $\text{Cp}^{\text{***}} = \eta^5\text{-C}_5\text{H}_2\text{-1,2,4-(SiMe}_3)_3$ ).

R. Choukroun, F. Wolff, C. Lorber, B. Donnadieu

*Organometallics*, **2003**, 22, 2245-2248.

- Pd colloids from an organometallic route: redox reaction between  $[\text{VCp}_2]$  and  $[\text{Pd}(\eta^3\text{-allyl})_2\text{Cl}]_2$ . Catalytic application to the hydrogenation of aromatic nitro compounds.

J.-L. Pellegatta, C. Blandy, R. Choukroun, C. Lorber, B. Chaudret, P. Lecante, E. Snoeck

*New J. Chem.*, **2003**, 27, 1528-1532.

- Vanadium(V) complexes of chelating dianionic [ONNO]-type amine bis(phenolate) ligand: synthesis, solid state and solution structure.

F. Wolff, C. Lorber, R. Choukroun, B. Donnadieu

*Inorg. Chem.* **2003**, 42, 7839-7845.

## 2002

- Stable formally zerovalent and diamagnetic monovalent niobium and tantalum complexes based on diazadiene ligands.

P. J. Daff, M. Etienne, B. Donnadieu, S. Z. Knottenbelt, J. E. McGrady

*J. Am. Chem. Soc.* **2002**, 124, 3818-3819.

- Kinetic study of fatty acids esterification in a continuous flow multistage reactor.

R. Guiraud, B. Lafage, P. Taxil, J. L. Pellegatta, C. Blandy

*Entropie*, **2002**, 8, 19-23.

- Catalytic investigation of rhodium nanoparticles in hydrogenation of benzene and phenylacetylene.

J. L. Pellegatta, C. Blandy, V. Collière, R. Choukroun, B. Chaudret, P. Cheng, K. Philipot

*J.Mol.Catal.*, **2002**, 178, 55-61.

- Cationic vanadium(IV) methyl complexes  $[\text{Cp}_2\text{VMe}(\text{CH}_3\text{CN})[\text{B}(\text{C}_6\text{H}_5)_4]$  and  $[\text{Cp}_2\text{VMe}(\text{THF})[\text{MeB}(\text{C}_6\text{F}_5)_3]]$ .

R. Choukroun, C. Lorber, B. Donnadieu

*Organometallics*, **2002**, 21, 1124-1126.

- Novel heterobimetallic complexes  $[\text{Cp}_2\text{V}((\mu\text{-}\eta^2\text{:}\eta^4)\text{-butadiyne})\text{MCp}_2$  (M = Ti, Zr).

J. S. Zhao, A.P. Gu, S.Y. He, R. Choukroun, L. Valade, P. Cassoux

*Acta Chimica Sinica*, **2002**, 60(4), 687-691.

- Synthesis and X-ray crystal structure of [VCl<sub>3</sub>((-)-sparteine)] and [FeCl<sub>2</sub>((-)-sparteine)].  
C. Lorber, R. Choukroun, J-P Costes, B. Donnadieu  
*C. R. Chimie*, **2002**, 5, 251-255.

- Synthesis, crystal structure, and polymerization activity of highly soluble ansa-titano- and zirconocene dichloride complexes [Me<sub>2</sub>Si(η<sup>5</sup>-C<sub>5</sub>H<sub>2</sub>(SiMe<sub>3</sub>)<sub>2</sub>)<sub>2</sub>MCl<sub>2</sub> (M = Ti, Zr)].  
B. Douziech, R. Choukroun, C. Lorber, B. Donnadieu  
*J. Organomet. Chem.*, **2002**, 649, 15-20.

- Reactivity of vanadocene with nitrile –C≡N bond activated by a tris(fluorophenyl)borane as Lewis acid : Formation of borane adducts of vanada(iV)azirine complexes. EPR Evidence for an intramolecular C-F•••V interaction.  
R. Choukroun, C. Lorber, B. Donnadieu  
*Chem. Eur. J.*, **2002**, 8, 2700-2704.

- Synthesis and structure of a series of new d<sup>1</sup>-aryl imido-vanadium(IV) complexes stabilized by N-donor ligands.  
C. Lorber, R. Choukroun, B. Donnadieu  
*Inorg. Chem*, **2002**, 16, 4217-4226.

## 2001

- Solid state and solution structures of a series of [HBPz<sub>3</sub><sup>Me<sub>2</sub></sup>)Rh(CO)(PR<sub>3</sub>)] and [HBPz<sub>3</sub><sup>Me<sub>2</sub>,4Cl</sup>)Rh(CO)(PR<sub>3</sub>)] complexes.  
F. Malbosc, V. Chauby, C. Serra-Le Berre, M. Etienne, J.-C. Daran, P. Kalck  
*Eur. J. Inorg. Chem.* **2001**, 2689-2697.

- Step-by-step uncoordination of the pyrazolyl rings of hydrotris(pyrazolyl)borate ligands in complexes of Rh<sup>I</sup> and Rh<sup>III</sup>.  
M. Paneque, S. Sirol, M. Trujillo, E. Carmona, E. Gutierrez-Puebla, M. A. Monges, C. Ruiz, F. Malbosc, C. Serra-Le Berre, P. Kalck, M. Etienne, J.-C. Daran  
*Chem. Eur. J.* **2001**, 7, 3868-3879.

- Equilibria between α- and β-agostic stabilized rotamers of secondary alkyl niobium complexes.  
J. Jaffart, M. Etienne, F. Maseras, J. E. McGrady, O. Eisenstein.  
*J. Am. Chem. Soc.* **2001**, 123, 6000-6013.

- Diastereoselective C–H bond activation of diisopropylamine at a hydridotris(pyrazolyl)borato rhodium fragment.  
E. Teuma, F. Malbosc, V. Pons, C. Serra-Le Berre, J. Jaud, M. Etienne, P. Kalck

*J. Chem. Soc., Dalton Trans.* **2001**, 2225-2227.

- H<sub>2</sub>-induced structural evolution in non-crystalline rhodium nanoparticles.

R. Choukroun, D. de Caro, B. Chaudret, P. Lecante, E. Snoeck  
*New J. Chem.*, **2001**, 25, 4, 525-527.

- Synthesis, characterization and ethylene polymerization activity of zirconium complexes containing non symmetric diamido ligands derived from 2-aminobenzylamine.

R. M. Gauvin, C. Lorber, R. Choukroun, B. Donnadiou, J. Kress  
*Eur. J. Inorg. Chem.*, **2001**, 2337-2346.

- Synthesis and structural characterization of two tungsten(VI) dioxo complexes with N,O- and N,S-coordinating ligands".

A. Thapper, O. Balmes, C. Lorber, P. H. Svensson, R. H. Holm, E. Nordlander  
*Inorganica Chim. Acta*, **2001**, 321, 162-166.

## 2000

- Alkyne[hydrotris(pyrazolyl)borato]tantalum complexes - An ethyl group is a better  $\alpha$ -agostic donor than a methyl group.

J.-C. Hierso, M. Etienne  
*Eur. J. Inorg. Chem.* **2000**, 839-842.

- Synthesis and structure of group 4 and 5 metal complexes with an ancillary sterically demanding diamido ligand.

C. Lorber, B. Donnadiou, R. Choukroun  
*Organometallics*, **2000**, 19, 1963-1966.

- Synthesis and characterization of [Cp<sub>2</sub>V( $\mu$ - $\eta^2$ : $\eta^4$ -butadiene)ZrCp'<sub>2</sub>] heterodimetallic complexes (Cp' = C<sub>5</sub>H<sub>4</sub>t-Bu, C<sub>5</sub>H<sub>4</sub>Me). Formation mechanism and theoretical (ELF) evidence for the existence of planar tetracoordinated carbon (ptC).

R. Choukroun, B. Donnadiou, J. S. Zhao, P. Cassoux, C. Lepetit, B. Silvi  
*Organometallics*, **2000**, 19, 1901-1911.

- Li[Cp<sub>2</sub>Zr(C $\equiv$ CPh)( $\eta^2$ :1,2-PhC<sub>2</sub>C $\equiv$ CPh)]: an anionic zirconium(II) intermediate for carbon-carbon coupling.

R. Choukroun, J. S. Zhao, C. Lorber, P. Cassoux, B. Donnadiou  
*J. Chem. Soc., Chem. Commun.*, **2000**, 1511-1512.

- Synthesis and X-ray characterization of a monomeric Cp-free d<sup>1</sup> imido-vanadium(IV) complex.

C. Lorber, B. Donnadieu, R. Choukroun  
*J. Chem. Soc., Dalton*, **2000**, 4497-4498.

- [Cp<sub>2</sub>V] migration along an octatetrayne chain : from the monometallic complex [Cp<sub>2</sub>V(3-4η-*t*BuC≡C-C<sub>2</sub>-C≡C-C≡C*t*Bu)] to the dimetallic complex [(Cp<sub>2</sub>V)<sub>2</sub>(1-2η:7-8η-*t*BuC<sub>2</sub>-C≡C-C≡C-C<sub>2</sub>*t*Bu)].

R. Choukroun, B. Donnadieu, C. Lorber, P-M Pelny, W. Baumann, U. Rosenthal  
*Chem. Eur. J.*, **2000**, *24*, 4505-4509.

- Selective and environmentally benign aerobic catalytic oxidation of alcohols by a molybdenum-copper system.

C. Y. Lorber, S. P. Smidt, J. A. Osborn  
*Eur. J. Inorg. Chem.*, **2000**, 655-658.

- Synthesis and reactivity studies of model complexes for molybdopterin-dependent enzymes.

A. Thapper, C. Lorber, J. Fryxelius, E. Nordlander  
*J. Inorg. Biochem.*, **2000**, *79*, 67-74.

- Isomerization of 2-ethyl-3-butyn-2-ol into prenal : mechanistic observations on tricomponent catalyst systems of the type Ti(OR)<sub>4</sub>/CuCl/R'CO<sub>2</sub>H. Crystal Structure of [CuCl(Me<sub>2</sub>C(OH)C≡CH)]<sub>4</sub>.

C. Lorber, M. T. Youinou, J. Kress, J. A. Osborn  
*Polyhedron*, **2000**, *19*, 1693-1698.

## 1999

- An unprecedented κ<sup>2</sup>-(*N*, *H*) bonding mode for a hydridotris(pyrazolyl)borato ligand.

F. Malbosc, P. Kalck, J.-C. Daran, M. Etienne  
*J. Chem. Soc., Dalton Trans.* **1999**, 271-272.

- Structure and reactivity of η<sup>2</sup>(3e)-nitrile and η<sup>2</sup>(3e)-alkyne complexes of niobium.

M. Etienne, C. Carfagna, P. Lorente, R. Mathieu, D. de Montauzon  
*Organometallics* **1999**, *18*, 3075-3086.

- The structure of 3,5-bis(trifluoromethyl)pyrazole in the gase-phase and in the solid-state.

I. Alkorta, J. Elguero, B. Donnadieu, M. Etienne, J. Jaffart, D. Schagen, H.-H. Limbach  
*New J. Chem.* **1999**, *23*, 1231-1237.

- Vanadacyclopropene phosphane Cp<sub>2</sub>V(η<sup>2</sup>-PhC=C)P(C=CPh)Ar.

R. Choukroun, Y. Miquel, B. Donnadieu, A. Igau, C. Blandy, J.-P. Majoral

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