

VIOREL CÎRCU

e-mail: viorel_carcu@yahoo.com, viorel_circu@yahoo.com

Data nasterii: 04.09.1970

Pozitia didactica: Lector doctor

Domenii de cercetare: Cristale lichide. Metalomezogeni / Chimie coordinativa (compusi ai rodiului, RMN multinuclear, compusi organometalici).

6 proiecte de cercetare în calitate de director, în acest domeniu:

1. Liquid crystalline materials based on platinum(II) and gold(III) complexes – NATO Reintegration Grant – 2005 – 2007.
2. Metallomesogeni cu faza biaxiala nematica pe baza de compusi ai Pd(II) si Au(III) – 2005 – 2006, CNCSIS.
3. Materiale cu proprietati de cristale lichide pe baza de compusi ai aurului(III), paladiului(II) si platinei(II) – 2006 - 2008 / MEdC, CEEX.
4. Materiale policatenare cu proprietati de cristale lichide pe baza de compusi ortometalati ai Pd(II), CNCSIS – 2007 - 2008.
5. Materiale luminescente cu proprietati de cristale lichide pe baza de compusi organoplatinati(II), 2007 – 2010 / MEdC – PNII.
6. Materiale luminescente pe baza de complecsi cu proprietati de cristale lichide si clusteri metalici, 2009 – 2010, Proiect bilateral Romania – Franta.

Cursuri predate actual:

1. Cristale lichide. Metalomezogeni (An I Master)
2. Microelemente (An III – Chimia Mediului)

Lista de lucrari:

1. Sinteza si Caracterizarea Combinatiilor Complexe ale Cu(II), Ni(II), Pt(II), Pd(II), Cd(II) si Hg(II) cu N-benzoil-N'-2,3-dimetilfeniltiouree' - D. Negoiu, V. Cîrcu, T. Rosu, N. Badicu, *Rev. Chim.(Bucharest)*, **1999**, 50, 88.
2. Sinteza, caracterizarea si comportamentul termic al combinatiilor complexe ale Co(II) si Ni(II) cu 2,2'-diamino-4,4'-ditiazolul si derivatul diacetilat al acestuia, D. Negoiu, V. Cîrcu, A. Nicolae, S. Serban, O. Maior, *Rev.Chim.(Bucharest)*, **1999**, 50, 513.
3. Synthesis, Characterization of Complexes of N-Benzoyl-N'-2-nitro-4-methoxy phenylthiourea with Cu, Ni, Pt, Pd, Cd and Hg, V. Cîrcu, M. Negoiu, T. Rosu, S. Serban, *J.Thermal Anal. and Calorimetry*, **2000**, 61, 935 .

4. EPR Characterization of a Series of Cu(II) Complexes with 2,2'-Diamino-4,4'-bithiazole and 2,2'-Bisacetamido-4,4'-bithiazole, V. Cîrcu, M. Negoiu, T. Rosu, L. Stoicescu, R. Georgescu, *Synth. React. Inorg.-Met. Org. Chem.*, **2000**, *30*, 1653.
5. The Coordinating Behaviour of *N,N'*-Bis(1-ethoxycarbonyl)ethanedithioamide towards Pd(II), Pt(II) and Cu(II), L. Stoicescu, M. Negoiu, V. Cîrcu, R. Georgescu, A. Saidel, *Synth. React. Inorg.-Met. Org. Chem.*, **2001**, *31*, 599.
6. Tris(triphenylphosphine)rhodium Cyano and Triphenylcyanoborate Complexes. Structures and a DFT study, M. A. Fernandes, V. Cîrcu, R. Weber, T. Varnali, L. Carlton, *J. Chem. Crystallogr.*, **2002**, *32*, 573.
7. Reactivity of a Rhodium(I) Complex Towards Oxygen Enhanced by a Cyano Ligand. Structure of [Rh(CN)(O₂)(PPh₃)₂(XNC)] (XNC = xylyl isocyanide), V. Cîrcu, M. Fernandes, L. Carlton, *Polyhedron*, **2002**, *21*, 1775.
8. Reaction of bis(phosphine)hydrotris(3,5-dimethylpyrazolyl)borate rhodium(I) complexes with phenylacetylene, p-nitrobenzaldehyde and triphenyltin hydride. Structures of [Rh(Tp*)(PPh₃)₂], [Rh(Tp*)(H)(C₂Ph){P(C₆H₄F)₃}], [Rh(Tp*)(H)(CO-C₆H₄-NO₂)(PPh₃)] and [Rh(Tp*)(H)(SnPh₃)(PPh₃)] - V. Cîrcu, M.A. Fernandes, L. Carlton, *Inorg. Chem.*, **2002**, *41*, 3859.
9. Reactions of [Rh(Tp*)(PPh₃)₂] (Tp* = hydrotris(3,5-dimethylpyrazolyl)borate) involving fragmentation or loss of Tp*. Structures of [Rh(H)(Cl)₂(PPh₃)(pz*)], [Rh₂(μ-SC₆F₅)₂(SC₆F₅)(H)(PPh₃)(pz*)] and [Rh₂(μ-Hg)(Cl)₄(PPh₃)₄] - V. Cîrcu, M.A. Fernandes, L. Carlton, *Polyhedron*, **2003**, *22*, 3293.
10. Possible Rod-Disc Transition in *Ortho*-metallated Imine Complexes of Palladium(II). Crystal and Molecular Structure of Three Palladium Complexes - L. Omnès, V. Cîrcu, P. T. Hutchins, S. J. Coles, M. B. Hursthouse and D. W. Bruce, *Liq. Cryst.* **2005**, *32*, 1437.
11. Orthometallated Palladium(II) Imine Complexes as Candidate Materials for the Biaxial Nematic Phase. Crystal and Molecular Structure of Three Palladium Imine Complexes - V. Cîrcu, T. J. K. Gibbs, L. Omnès, P. N. Horton, M. B. Hursthouse and D. W. Bruce, *J. Mater. Chem.*, **2006**, *16*, 4316.
12. Combinatii complexe cu derivati de tip N-benzoiltiuree ale Pt(II) si Pd(II), A. Deleanu, M. Ilis, T. Rosu, V. Cîrcu, *Rev. Chimie (Bucharest)*, **2006**, *57*, 1216.
13. Mixed-ligand complexes. Ternary copper(II) complexes with aminoacids, T. Rosu, M. Negoiu, V. Cîrcu, *Rev. Roum. Chim.*, **2006**, *51*, 391.
14. Mesomorphism of ortho-metallated imine complexes of the β-diketonatoplatinum(II) fragment. Crystal and molecular structure of three platinum imine complexes – V. Cîrcu, P.N. Horton, M.B. Hursthouse, D.W. Bruce, *Liq. Cryst.*, **2007**, *34*, 1463.
15. Sinteza si caracterizarea combinatiilor complexe ale Cu(II) cu tiosemicarbazone din seria 8-R-triciclo/7.3.1.0²⁻⁷/tridecan-2-ol-13-onei, T. Rosu, V. Cîrcu, S. Pasculescu, A. Nicolae, *Rev. Chimie (Bucharest)*, **2007**, *58*, 74.

- 16.** Synthesis, characterization and thermal behaviour of *ortho*-metallated Pd(II) complexes containing *N*-benzoylthiourea derivatives, A.C. Tenchiu, M. Ilis, F. Dumitrascu, A.C. Whitwood, V. Cîrcu, *Polyhedron*, **2008**, 27(18), 3537.
- 17.** Spectral studies on Pt(II) and Pd(II) complexes with *N*-benzoyl – *N'*- arylthiourea derivatives, *Rev. Chimie (Bucharest)*, **2008**, 59(8), 934.
- 18.** New liquid crystalline materials based on *ortho*-metallated palladium(II) and platinum(II) complexes with S,O-donor co-ligands, V. Cîrcu, M. Ilis, F. Dumitrascu, *J. Optoelectron. Adv. Mater.*, **2008**, 10(12), 3454.
- 19.** Selective functionalisation of Re₆ cluster anionic units: from hexa-hydroxo [Re₆Q₈(OH)₆]⁴⁻ (Q = S, Se) to neutral trans-[Re₆Q₈L₄L'₂] hybrid building blocks, F. Dorson, Y. Molard, S. Cordier, B. Fabre, O. Efremova, D. Rondeau, Y. Mironov, V. Cîrcu, N. Naumov, C. Perrin, *Dalton Trans.*, **2009**, 1297 – 1299.
- 20.** Mesomorphic behaviour and TSDC measurements of *ortho*-metallated palladium(II) and platinum(II) complexes with S,O-donor co-ligands, V. Cîrcu, D. Mănăilă-Maximean, C. Roșu, M. Iliș, F. Dumitrașcu, *Liq. Cryst.*, **2009**, 36(2), 123.