

RUXANDRA FLORINA GHEORGHE

E-mail: ruxandra.gheorghe@g.unibuc.ro

Data nașterii: 9 noiembrie 1976

Poziția didactică: Lector universitar doctor

Domenii de competență: Chimie coordinativă, Chimie metalosupramoleculară, Magnetism molecular, Sisteme moleculare polimetalice multifuncționale, Sisteme moleculare polimetalice fotoluminescente

Cursuri predate: Complecși polinucleari și materiale moleculare (nivel master)

Lucrări publicate

1. Supramolecular heteropolymetallic assemblies constructed from binuclear complexes and hexacyanometallate anions. Synthesis, crystal structures and magnetic properties of $[\text{Cu}_2(\text{fsc}33)(\text{H}_2\text{O})_2]_3[\text{Fe}(\text{CN})_6]_2 \cdot 8\text{H}_2\text{O}$
G. Grasa, F. Tuna, **R. Gheorghe**, D.B. Leznoff, S.J. Rettig, M. Andruh, *New J. Chem.* **2000**, *24*, 615-618.
2. Heterobinuclear complexes as building-blocks in designing extended structures
R. Gheorghe, M. Andruh, A. Müller, M. Schmidtman, *Inorg. Chem.* **2002**, *41*, 5314 - 5316.
3. A rational synthetic route leading to 3d – 3d' – 4f heterospin systems: self-assembly processes involving heterobinuclear 3d – 4f complexes and hexacyanometallates
R. Gheorghe, M. Andruh, J.-P. Costes, B. Donnadieu, *Chem. Commun.* **2003**, 2778 – 2779.
4. New binuclear model compounds for the study of the 4f-4f exchange interaction
R. Gheorghe, V. Kravtsov, Y.A. Simonov, J.-P. Costes, Y. Journaux, M. Andruh, *Inorg. Chim. Acta* **2004**, *357*, 1613 – 1618.
5. Thiourea derivatives and their complexes with Ni(II), Co(III) and Pt (II). Crystal structure of 3-benzoyl-1butyl-1-methyl-thiourea and 2-Benzyl-6-diethylamino-4-phenyl-2H-[1,3,5] thiadiazine-2-carboxylic acid methyl ester. Antifungal activity.
R. del Campo, J.J. Criado, **R. Gheorghe**, F. González, M.R. Hermosa, J.L. Manzano, E. Monte, E. Rodríguez-Fernández, F. Sanz, *J. Inorg. Biochem.* **2004**, *98* (8), 1307-1314.
6. Oligonuclear 3d-4f Complexes as Tectons in Designing Supramolecular Solid-State Architectures. Impact of the Nature of Linkers on the Structural Diversity
R. Gheorghe, P. Cucos, M. Andruh, J.-P. Costes, B. Donnadieu, S. Shova, *Chem. Eur. J.* **2006**, *12*, 187-203.
7. An original 1D Cu-Co heterometallic compound: Synthesis, Structure and Magnetic properties
J.-P. Costes, **R. Gheorghe**, M. Andruh, S. Shova, J.-M. Clemente Juan, *New J. Chem.* **2006**, *30*, 572 - 576.
8. A new 1-D hydrogen bond polymer constructed from a trinuclear 3d-4f tecton and 4,4'-bipyridine- N,N'-dioxide
R. Gheorghe, J.-P. Costes, B. Donnadieu, M. Andruh, *Rev. Roum. Chim.* **2006**, *51*, 489-493.

9. Making 3d-4f hexanuclear clusters from heterotrinnuclear cationic building blocks
R. Gheorghe, M. Andruh, J.-P. Costes, B. Donnadieu, M. Schmidtman, A. Müller, *Inorg. Chim. Acta* **2007**, *360*, 4044-4050.
10. Unexpected replacement of Gd(III) by Hg(II) from an oxygen binding set leading to a heterometallic Cu(II)-Hg(II) 1-D coordination polymer
R. Gheorghe, J.-P. Costes, B. Donnadieu, M. Andruh, *Rev. Roum. Chim.* **2007**, *52*, 753-758.
11. Enantiomerically pure quaternary ammonium salts with a chiral alkyl chain N(CH₃)(n-C₃H₇)₂(sec-C₄H₉)I: Synthesis and physical studies
R. Gheorghe, L.-M. Chamoreau, N.S. Ovanesyan, S.M. Aldoshin, J. Kapitan, L. Hecht, L. D. Barron, C. Train, M. Gruselle, *Chirality* **2008**, *20*, 1085-1091.
12. Strong magneto-chiral dichroism in enantiopure chiral ferromagnets
C. Train, **R. Gheorghe**, V. Krstic, L.-M. Chamoreau, N.S. Ovanesyan, G.L.J.A. Rikken, M. Gruselle, M. Verdaguer, *Nature Materials* **2008**, *7*, 729-734.
13. Di- or Trinuclear 3d-4f Schiff Base Complexes: The role of Anions.
J.P. Costes, B. Donnadieu, **R. Gheorghe**, G. Novitchi, J.P. Tuchagues, L. Vendier, *Eur. J. Inorg. Chem.* **2008**, *33*, 5235-5244.
14. EPR investigation of the spin-spin interactions in a Cu(II)-Gd(III)-Fe(III) heterospin system.
A. Sukhanov, R. Galeev, L. Mingalieva, V. Voronkova, **R. Gheorghe**, M. Andruh, *Appl. Magn. Res.* **2008**, acceptat spre publicare.

Capitole de carte

1. Oxalate-based optically active multifunctional magnets
C. Train, K. Boubekeur, M. Gruselle, M. Verdaguer, **R. Gheorghe**, N. Ovanesyan
European White Book on Molecular Magnetism (NMP3-CT-2005-515767) – FP6, MAGMANet NoE, **2006**, 106-107.
2. Three Are Better Than One: Gathering Three Different Metals in the Same Molecule: a Straightforward Route to 3d-3d'-4f Heterometal Systems
R. Gheorghe, A. M. Mădălan, M. Andruh
Experiments in Green and Sustainable Chemistry, editori H.W. Roesky și D. Kennepohl, Wiley-VCH, *in press*.