

BADEA ELENA MIHAELA

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Data nașterii: 09.11.1964

Poziția didactică: Conferentiar universitar doctor

Domenii de competență

Domeniul predominant de cercetare este „Chimie coordinativă - combinații complexe cu potențială activitate biologică (strategii de sinteză, caracterizare fizico-chimică și biologică, obținere de materiale cu proprietati speciale).

Contributiile originale și rezultatele importante obținute în urma cercetărilor efectuate până se încadrează în următoarele direcții:

- studiul comportării termice a unor combinații complexe și stabilirea parametrilor cinetici neizotermi;
- obținere și caracterizarea unor combinații complexe cu liganzi polimerizabili sau policondensabili;
- metode neconvenționale pentru obținerea de nanomateriale din clasa oxizilor și sulfurilor simple și mixte;
- obținerea și caracterizarea unor noi combinații complexe ale metalelor tranziționale prin reacții de condensare template;
- sinteza de combinații complexe cu activitate biologică *in vitro* și stabilirea calitativă a activității biologice;
- obținerea și caracterizarea unor noi combinații complexe cu derivați heterociclici.

Cursuri predate: Materiale oxidice la secția de master Cataliză

Bioanorganica la anul III BTH.

Lucrări științifice publicate

1. **Mihaela Badea**, Rodica Olar, Dana Marinescu, Gina Vasile
„Thermal behavior of some new triazole derivative complexes”
J. Therm. Anal. Calor., **92** (2008) 209-214.
2. **Mihaela Badea**, Rodica Olar, Dana Marinescu, Gina Vasile
„Thermal stability of new complexes bearing both acrylate and aliphatic amine as ligands”
J. Therm. Anal. Calor., **92** (2008) 205-208.
3. Rodica Olar, **Mihaela Badea**, Oana Carp, Dana Marinescu, Veronica Lazar, Carmen Balotescu and Anca Dumbrava
„Synthesis, characterisation and thermal behaviour of some thiosulfato- and sulfato copper (II) complexes. Antibacterial activity”
Therm. Anal. Calor., **92** (2008) 245-251.
4. Rodica Olar, **Mihaela Badea**, Maria Nicoleta Grecu, Dana Marinescu, Veronica Lazar, Carmen Balotescu

- „Thermal behavior, spectroscopic and biological characterization of copper (II) complexes with N,N-dimethylbiguanide”
J. Therm. Anal. Calor., **92** (2008) 239-243.
5. Rodica Olar, **Mihaela Badea**, Veronica Lazar, Carmen Balotescu, Elena Cristurean, Dana Marinescu
„Thermal behaviour of some N,N-dimethylbiguanide derivatives displaying antimicrobial activity”
J. Therm. Anal. Calor., **88** (2007) 323-327.
6. **Mihaela Badea**, Rodica Olar, Dana Marinescu, E. Segal, A. Rotaru
„Thermal stability of some new complexes bearing ligands with polymerizable groups”
J. Therm. Anal. Calor., **88** (2007) 317-321
7. Rodica Olar, **Mihaela Badea**, Elena Cristurean, Carmen Parnau, Dana Marinescu
„Thermal behaviour of new N,N-dimethylbiguanide complexes having selective and effective antibacterial activity”
J. Therm. Anal. Calor., **84**(1)(2006) 53-58.
8. **Mihaela Badea**, Rodica Olar, Dana Marinescu, Gina Vasile
„Thermal behavior of some new complexes bearing ligands with polymerisable groups”
J. Therm. Anal. Calor., **85** (2006) 285-288
9. Carmen Parnau, Rodica Olar, **Mihaela Badea**, Angela Kriza
„Thermal behavior of some new isatin complexes”
J. Therm. Anal. Calor., **86** (2006) 217-221
10. Ana Emandi, **Mihaela Badea**, Rodica Olar
„The effect of Er(III) on the thermal behavior of azo (-N=N-) and azomethynic (-CH=N-) chromophores”
J. Therm. Anal. Calor., **84** (2006) 601-605.
11. Rodica Olar, **Mihaela Badea**, Elena Cristurean, Veronica Lazar, Ramona Cernat, Carmen Balotescu
„Thermal behavior spectroscopic and biological characterization of cobalt(II), zinc(II), palladium(II) and platinum(II) complexes with N,N-dimethylbiguanide”
J. Therm. Anal. Calor., **80** (2005) 451-455.
12. Rodica Olar, **Mihaela Badea**, Dana Marinescu, Monica Iorgulescu, Stefania Stoleriu
„Synthesis, thermal behavior and spectroscopic characterization of nickel(II) complexes with ligands resulted in condensation of N,N-dimethylbiguanide and pentane-2,4-dione”
J. Therm. Anal. Calor., **80** (2005) 363-367.
13. **Mihaela Badea**, Rodica Olar, Dana Marinescu, Gina Vasile
„Thermal behaviour of some new acrylate complexes as a criterion in their selection for further co-polymerization reaction”

- J. Therm. Anal. Calor.*, **80** (2005) 683-685.
14. **Mihaela Badea**, Rodica Olar, Dana Marinescu, Gina Vasile, Stefania Stoleriu
„Thermal stability of some new complex compounds with allylacetoacetate as ligand”
J. Therm. Anal. Calor., **80** (2005) 679-682.
15. **Mihaela Badea**, Rodica Olar, Ana Emandi, Dana Marinescu, Gina Vasile
„Thermal behaviour of some new chromium complexes with potential biological importance”
J. Therm. Anal. Calor., **81** (2005) 273-276.
16. Rodica Olar, **Mihaela Badea**, Nicolae Stanica, Elena Cristurean, Dana Marinescu
„Synthesis, characterisation and thermal behaviour of some complexes with ligands having 1,3,4-thiadiazole moieties”
J. Therm. Anal. Calor., **82** (2005) 417-422.
17. Rodica Olar, **Mihaela Badea**, Codruta Paraschivescu, Dana Marinescu, I. Baci
„Complexes with amides. Part. 3. Synthesis, spectroscopic and thermal characterisation of a Cu(II) complex with 2-iodoanilide-3-chlorobenzo[b]thiophene-2-carboxylic acid”
Anal. Univ. Buc., (serie noua), **I-II** (2005) 135-140.
18. **Mihaela Badea**, Rodica Olar, Elena Cristurean, Dana Marinescu, Ana Emandi, Mirela Calinescu, Eugen Segal
„Thermal stability of some azo-derivatives and their complexes. 2. New azo-derivative pigments and their Cu(II) complexes”
J. Therm. Anal. Calor., **77** (3) (2004) 815-824.
19. Rodica Olar, **Mihaela Badea**, L. Diamandescu, Elena Cristurean, Dana Marinescu, Doina Mihăilă-Tărăbășanu, N. Stănică, Maria Brezeanu
„Soft chemical synthesis and characterisation of some substituted ferrites”
J. Alloys Comp., **363** (2004) 257-262.
20. **Mihaela Badea**, Rodica Olar, Dana Marinescu, Ana Emandi, Veronica Pop and Gina Vasile
„Complexes with acrylate ion as ligand. I. Polynuclear chromium (III) complexes”
Nonlinear Optics, Quantum Optics, **32** (1-3) (2004) 127-134.
21. **Mihaela Badea**, Rodica Olar, Dana Marinescu, Elena Cristurean, Lucia Ivan, Ana Emandi
„Complexes with triazole derivatives. II. Mononuclear complexes of Co(II) with 1-[methylamino-N-(o-tolyl)]-1-H-benzotriazole”
Anal. Univ. Buc., (serie noua), **I-II** (2004) 139-146.
22. Elena Cristurean, Carmen Parnau, **Mihaela Badea**, Rodica Olar
„Controlled synthesis. II. Reaction of Sn(IV) and Zr(IV) with isatin-3-tiosemicarbazone and N-metil-isatin-3-tiosemicarbazone”
Anal. Univ. Buc., (serie noua), **I-II** (2004) 155-160.

23. Ana Emandi, Mirela Calinescu, **Mihaela Badea**, Rodica Olar
„Synthesis and characterisation of some new metal complexes of 3-nitrozo-4-hydroxy-coumarin and antranilic acid”
Anal. Univ. Buc., (serie noua), **I-II** (2004) 161-166.
24. Ana Emandi, Anca Nicolae, **Mihaela Badea**, Rodica Olar
„Synthesis and characterisation of some new complexes of Ni(II), Cu(II), Zn(II), Cd(II) and Hg(II) with mixed ligands (nitrogen, oxygen) donor groups”
Anal. Univ. Buc., (serie noua), **I-II** (2004) 167-172.
25. Rodica Olar, **Mihaela Badea**, Nicolae Stanica, Elena Cristurean, Dana Marinescu, Ana Emandi
„Synthesis, spectroscopic and magnetic characterisation of some nickel (II) complexes with 2-amino-1,3,4-thiadiazole-5-thiol”
Anal. Univ. Buc., (serie noua), **I-II** (2004) 185-190.
26. **Mihaela Badea**, Ana Emandi, Dana Marinescu, Elena Cristurean, Rodica Olar, Ana Brăileanu, P. Budrugaec, Eugel Segal
„Thermal stability of some azo-derivatives and their complexes. 1. 1-(2-benzthiazolyl)-3methyl-4-azo-pyrazil-5-one derivatives and their Cu(II) complexes ”
J. Therm. Anal. Calor., **72** (2003) 525-531.
27. Elena Cristurean, Dana Marinescu, Rodica Olar, **Mihaela Badea**, N. Stănică, Ana Emandi, Maria Brezeanu
„Magnetic and morphologic characterisation of some substituted ferrites synthesised by a non-conventional method”
Organic Nanophotonics (2003) 163-168.
28. **Mihaela Badea**, Rodica Olar, Dana Marinescu, Cristurean Elena, Maria Brezeanu
„Polynuclear complexes of chromium (III) and M(II) (M: Mn, Co, Ni, Zn) with thiourea”
Rev. Roum. Chim., **48** (12) (2003) 927.
29. Elena Cristurean, Dana Marinescu, Rodica Olar, **Mihaela Badea**, Viviana Radulescu, Carmencita Ciomaga
„Template condensation reactions. XI. Fe(II) and Ni(II) complexes resulting in the system barbituric acid – ethylenediamine”
Anal. Univ. Buc., (serie noua), **I-II** (2003) 97-101.
30. Dana Marinescu, Anca Nicolae, Elena Cristurean, Aurelia Meghea, **Mihaela Badea**, Rodica Olar, Carmencita Ciomaga, Andreea Cudrici
„Complexes with Schiff bases. II. Complex compounds of Mn(II), Fe(II), Ni(II), and Cu(II) with N,N'-bis(3-formyl-5, 6-dihydroxy-benziliden) ethylenediamine”
Anal. Univ. Buc., (serie noua), **I-II** (2003) 103-108.

31. Dana Marinescu, Anca Nicolae, Cristurean Elena, **Mihaela Badea**, Rodica Olar, Carmencita Ciomaga, Andreea Cudrici
„Complexes with Schiff bases. I. Complex compounds of Mn(II), Fe(II), Cu(II), and Zn(II) with N,N'-bis(3-formyl-5-methoxy-6-hydroxy-benziliden) ethylenediamine”
Anal. Univ. Buc., (serie nouă), **II** (2002) 49-56.
32. Maria Brezeanu, Elena Cristurean, Dana Marinescu, Rodica Olar, **Mihaela Badea**
„Lanthanum and copper heteropolynuclear compounds with oxalate”
Anal. Univ. Buc., (serie nouă), **II** (2002) 21-26.
33. Dana Marinescu, Elena Cristurean, Rodica Olar, **Mihaela Badea**
„Template condensation reactions. X. Cr(III) and Co(III) complexes with a macrocyclic ligand resulting in the condensation of barbituric acid and ethylenediamine”
Anal. Univ. Buc., (serie nouă), **II** (2002) 45-48.
34. Dana Marinescu, Anca Nicolae, **Mihaela Badea**, Rodica Olar, Emilia Elena Iorgulescu, Carmencita Ciomaga
„Complexes with dioxygen as ligand. III. Cobalt complexes with the Schiff derived from 1-formyl-2-naftol and ethylenediamine”
Anal. Univ. Buc., (serie nouă), **II** (2002) 56-62.
35. Rodica Olar, Dana Marinescu, Elena Cristurean, **Mihaela Badea**, Lucia Ivan, Anca Dumbrava
„Template condensation reactions. XI. Ba(II), Ni(II), Co(II) and Cu(II) complexes with the Schiff base derived from 2,2'-methylene-bis-cyclohexanone and diethylenetriamine”
Ovidius Univ. Ann. Chem., **13** (2002) 5-9.
36. **Mihaela Badea**, Rodica Olar, Dana Marinescu, Elena Cristurean, Lucia Ivan, Anca Dumbrava
„Complexes with triazole derivatives. I. Mononuclear complexes of Ni(II) and Cu(II) with 1-(methylamino-N-(o-tolyl))-1H-benzotriazole”
Ovidius Univ. Ann. Chem., **13** (2002) 10-13.
37. Dana Marinescu, Elena Cristurean, **Mihaela Badea**, Rodica Olar, George Loloiu
„Complex compounds with heterocyclic ligands. IV Complex compounds of Co(II) and Ni(II) with methyl-isatin”
Anal. Univ. Buc., (serie nouă), **X** (2001) 3-8.
38. Elena Cristurean, Dana Marinescu, Rodica Olar, **Mihaela Badea**, Aurelia Meghea, N. Stanică și Lăcrămioara Sârbu
„Template condensation reactions. VIII. Cr(III), Ni(II) and Cu(II) complexes resulting in the system 5,5'-diethylbarbituric acid - ethylenediamine”
Anal. Univ. Buc., (serie nouă), **I** (2001) 179-184.
39. Dana Marinescu, Elena Cristurean, **Mihaela Badea**, Rodica Olar și I. Baciu

- „Template condensation reactions. IX. Complex compounds of Cu(II) and Ni(II) resulting in the condensation reaction of ethylenediamine and progesterone”
Anal. Univ. Buc., (serie nouă), **I** (2001) 203-208.
40. **Mihaela Badea**, Rodica Olar, Elena Cristurean, Dana Marinescu, Maria Brezeanu, C. Calina-Soradi and E. Segal
„Thermal stability and non-isothermal decomposition kinetics. Heteropolynuclear compounds of Cu(II)”
J. Therm. Anal. Calor., **59** (2000) 977-984.
41. Rodica Olar, Elena Cristurean, Dana Marinescu, **Mihaela Badea** și Lucia Ivan
„Template condensation reactions VII. Ni(II) and Cu(II) complexes resulting in the system bisoxo-2,2'-biscyclohexylmethane - ethylenediamine”
Bul. I. P. B. **62** (2) (2000) 61-68.
42. **Mihaela Badea**, Rodica Olar, Elena Cristurean, Dana Marinescu, Maria Brezeanu, Marina Bălășoiu și E. Segal
„Thermal stability of some coordination polynuclear coordination compounds in systems Ln(III) - Co(II) - oxalate”
J. Therm. Anal. Calor., **57** (1999) 103-111.
43. Maria Brezeanu, **Mihaela Badea**, Georges Morgant, Bernard Viossat, Sylvie Bouttier, Jacky Fourniat, Dana Marinescu, Dung Nguyen Huy
„Synthesis and Crystal Structure of diaqua(1,10-phenantroline-N,N')(thiosulfato-O,S) manganese (II). Biological properties”
Metal-Based Drugs, **5** (5) (1998) 305.
44. Maria Brezeanu, Dana Marinescu, **Mihaela Badea**, Carmencita Ciomaga, N. Stănică și D. Ștefănescu
„Polinuclear complexes compounds containing Cr(III) and Zn(II)”
Rev. Roum. Chim. **42** (10) (1997) 955-960.
45. Maria Brezeanu, Dana Marinescu, **Mihaela Badea**, Nicolae Stănică, Marc Antoniu Ilieș și Claudiu Supuran
„1,3,4-Thiadiazole derivatives. Part 8. Dinuclear complexes of Cu(II), Mn(II), Co(II), Ni(II) and Zn(II) with a Schiff base derived from 5-amino-1,3,4-thiadiazole-2-sulphonamide”
Rev. Roum. Chim., **42** (9) (1997) 727-732.
46. Dana Marinescu, **Mihaela Badea**, Rodica Olar și Anca Nicolae
„Complex compounds of V(III, IV) with ligands derived from vanillin”
Anal. Univ. Buc., Anul **V** (serie nouă) (1996) 3-8.
47. **Mihaela Badea**, Rodica Olar, Maria Brezeanu, Dana Marinescu și E. Segal
„Thermal stability and non-isothermal kinetic study of three coordination compounds of Cu(II)”

- Thermochim. Acta*, **229** (1996) 1-8.
48. Elena Cristurean, Dana Marinescu, Lucia Ivan, Rodica Olar, **Mihaela Badea** și Anca Dumbravă
„Template condensation reactions involving ethylenediamine and carbonyl derivatives. III. Complexes of Fe(II) and Co(II) resulting in the system bisoxo-2,2'-biscyclohexylmethane and ethylenediamine”
Anal. Univ. „Ovidius” Constanța, Seria Inginerie, **VII**, (1996) 1-6.
49. Elena Cristurean, Dana Marinescu, Rodica Olar, **Mihaela Badea** și Anca Dumbravă
„Template condensation reactions involving ethylenediamine and carbonyl derivatives. IV. Complexes of Cr(III) and Co(III) resulting in the system barbituric acid - ethylenediamine”
Anal. Univ. „Ovidius” Constanța, Seria Inginerie, **VII**, (1996) 6-12.
50. Dana Marinescu, Elena Cristurean, **Mihaela Badea**, Rodica Olar, Ion Baciuc și Anca Dumbravă
„Complex compounds with heterocyclic ligands. II. Ni(II) and Cu(II) complexes with 2,3-dihydroxyquinoxaline”
Anal. Univ. „Ovidius” Constanța, Seria Inginerie, **VII** (1996) 12-17.
51. Dana Marinescu, Elena Cristurean, **Mihaela Badea**, Rodica Olar, George Loloiu și Anca Dumbravă
„Complex compounds with heterocyclic ligands. III. Complex compounds of Zn(II) and Cd(II) with isatin derivatives”
Anal. Univ. „Ovidius” Constanța, Seria Inginerie, **VII** (1996) 17-23.
52. Dana Marinescu, **Mihaela Badea**, Rodica Olar și Anca Nicolae
„Template condensation reaction involving ethylenediamine and carbonyl derivatives. I. Complex compounds of Cr(III), Ni(II) and Cu(II) resulting in the system 5-formyl-vanillin □ ethylenediamine”
Bul. I. P. B. - Seria Chimie, **56-57**(1-4) (1994-1995) 3-10.
53. Dana Marinescu, Elena Cristurean, **Mihaela Badea**, Rodica Olar și Anca Dumbravă
„Zn(II) complexes with disubstituted 1,3,4-thiadiazole”
Anal. Univ. „Ovidius” Constanța, Seria Inginerie, **V** (1994) 17-23.
54. Dana Marinescu, Elena Cristurean, **Mihaela Badea**, Rodica Olar și Anca Dumbravă
„Complexes of Fe(II), Ni(II) and Cu(I) with 2-amino-5-mercapto-1,3,4-thiadiazole”
Anal. Univ. „Ovidius” Constanța, Seria Inginerie, **V** (1994) 9-16.
55. Dana Marinescu, Gh. Loloiu, **Mihaela Badea**, Rodica Olar și Anca Dumbravă
„Complex compounds of Cr(III) with an isatin derivative”
Anal. Univ. „Ovidius” Constanța, Seria Inginerie, **V** (1994) 3-8.
56. Dana Marinescu, Elena Cristurean, Rodica Olar, **Mihaela Badea** și Anca Nicolae

- „Template condensation reactions involving ethylenediamine and carbonyl derivatives. II. Complexes of Ni(II), Pd(II) and Pt(II) resulting in the system 5-formyl-vanillin - ethylenediamine”
Bul. I. P. B., **56-57**(1-4) (1994-1995) 11-18.
57. Maria Brezeanu, Ariana Antoniu, Elena Cristurean, C. Drăghici, M. Andruh și **Mihaela Badea**
 „Complex compounds precursors of manganese-zinc ferites (V). Hydrazine as precipitating agent”
Anal. Univ. Buc., Anul III (serie nouă) (1993) 13.
58. **Mihaela Badea**, Dana Marinescu și E. Segal
 „Thermal stability and non-isothermal kinetic study of the decomposition of two coordination compounds of Pd(II) and Pt(II) with ligands derived from thiobenzamide and ethylenediamine”
Thermochim. Acta, **188** (1991) 299.
59. Lucia Ivan, Dana Marinescu, Angela Kriza și **Mihaela Badea**
 „Template condensation reactions involving thioamides. I. Cr(III), Fe(II) and Cu(I) complexes resulting in the systems thioamides □ ethylenediamine”
Bul. I. P. B. - Seria Chimie **52** (3-4) (1990) 47.
60. **Mihaela Badea**, E. Segal și Dana Marinescu
 „Thermal stability and non-isothermal kinetic study of two coordination compounds of Co(II) with ligands derived from thioamides and ethylenediamine”
Thermochim. Acta, **149** (1989) 251.
61. **Mihaela Badea**, Dana Marinescu și E. Segal
 „Thermal stability and non-isothermal kinetic study of some coordination compounds of Ni(II) and Co(II)”
Thermochim. Acta, **149** (1989) 189.

Cărți de specialitate și două caiete de laborator:

1. Basic principles of coordination chemistry, **Mihaela Badea**, Ed. Univ. Buc., 2003 (ISBN 973-575-718-4)
2. Sistemul periodic de buzunar, Viviana Gaitanovici, **Elena Mihaela Badea**, Rodica Olar, Ed. Carminis Pitesti, 2001, (ISBN 973-8074-63-0)
3. Chimia metalelor. Lucrari practice de laborator, Elena Cristurean, Dana Marinescu, Ariana Antoniu, Rodica Olar, **Mihaela Badea**, Ed. Univ. Buc., 1998 (ISBN 973-575-277-8) (reeditare 2000)
4. Bazele Chimiei coordinative, Dana Marinescu, Rodica Olar, **Mihaela Badea**, Ed. Univ. Buc., 1995 (ISBN 973-575-054-6)