

## MIHAIL LUCIAN BÎRSĂ

### *Lista publicațiilor*

#### **A. Teza de doctorat**

*Cercetări asupra sintezei și reactivității unor săruri de 1,3-ditioliu*, Universitatea “Al.I. Cuza” Iași, 26 Mai 2000; Conducător științific: Prof. dr. Candiano Leonte

#### **B. Cărți / contribuții la cărți**

1. **Birsa, M. L.**, *Introducere în Chimia Organică*, Centrul IDD Universitatea “Al.I. Cuza” din Iași – IAȘI, 2000, 124 pp.
2. Bîcu, E.; **Birsa, M. L.**; Belei, D.; Sarbu, D., *Chimie Organică – Exerciții și Probleme*, Pim, Iași, 2003, 246 pp.
3. Braverman, S.; Cherkinsky, M.; **Birsa, M. L.**, *X=C=X, X=O, S, Se, Te, N, P. CO<sub>2</sub>, COS, CS<sub>2</sub>, Isocyanates, Isothiocyanates, Carbodiimides, Se, Te, P Analogs in Science of Synthesis, Houben-Weyl Methods of Molecular Transformations*, Georg Thieme Verlag, Stuttgart, Vol. 18.2; 2005, pp 55-310.
4. **Birsa, M. L.**, *Carbanions and Electrophilic Aliphatic Substitution in Organic Reaction Mechanisms 2003*, Knipe, A. C., Ed., John Wiley & Sons, Chichester, 2007, pp 293-331.
5. **Birsa, M. L.**, *Elimination Reactions in Organic Reaction Mechanisms 2004*, Knipe, A. C., Ed., John Wiley & Sons, Chichester, 2008, pp. 331-342.
6. **Birsa, M. L.**, *Carbanions and Electrophilic Aliphatic Substitution in Organic Reaction Mechanisms 2005*, Knipe, A. C. Ed., John Wiley & Sons, Chichester, 2008, pp. 249-276.

7. **Birsa, M. L.**, *Elimination Reactions in Organic Reaction Mechanisms 2005*, Knipe, A. C. Ed., John Wiley & Sons, Chichester, 2008, pp. 277-285.
8. **Birsa, M. L.**, *Carbanions and Electrophilic Aliphatic Substitution in Organic Reaction Mechanisms 2006*, Knipe, A. C. Ed., John Wiley & Sons, Chichester, 2010, 277-306.
9. **Birsa, M. L.**, *Elimination Reactions in Organic Reaction Mechanisms 2006*, Knipe, A. C. Ed., John Wiley & Sons, Chichester, 2010, 307-316.
10. **Birsa, M. L.**, *Carbanions and Electrophilic Aliphatic Substitution in Organic Reaction Mechanisms 2007*, Knipe, A. C. Ed., John Wiley and Sons, Chichester, 2011, 239-264.
11. **Birsa, M. L.**, *Elimination Reactions in Organic Reaction Mechanisms 2007*, Knipe, A. C. Ed., John Wiley & Sons, Chichester, 2011, 265-274.
12. **Birsa, M. L.**, *Elimination Reactions in Organic Reaction Mechanisms 2008*, Knipe, A. C. Ed., John Wiley & Sons, Chichester, 2011, 253-266.
13. **Birsa, M. L.**, *Carbanions and Electrophilic Aliphatic Substitution in Organic Reaction Mechanisms 2008*, Knipe, A. C. Ed., John Wiley and Sons, Chichester, 2011, 225-252.
14. **Birsa, M. L.**, *Carbanions and Electrophilic Aliphatic Substitution in Organic Reaction Mechanisms 2009*, Knipe, A. C. Ed., John Wiley and Sons, Chichester, 2011, 309-332.
15. **Birsa, M. L.**, *Elimination Reactions in Organic Reaction Mechanisms 2009*, Knipe, A. C. Ed., John Wiley & Sons, Chichester, 2011, 333-344.
16. **Birsa, M. L.**, *Carbanions and Electrophilic Aliphatic Substitution in Organic Reaction Mechanisms 2010*, Knipe, A. C. Ed., John Wiley and Sons, Chichester, 2012, in press.
17. **Birsa, M. L.**, *Elimination Reactions in Organic Reaction Mechanisms 2010*, Knipe, A. C. Ed., John Wiley & Sons, Chichester, 2012, in press.

### ***C. Articole în reviste de specialitate***

1. Seliger, H.; Happ, E.; Cascaval, A.; **Birsa, M. L.**, "Alkyl-2-hydroxyaryl ketones. XXX.", *An. St. Univ. "Al.I. Cuza" Iasi*, (1997) **V**, 111-122.
2. Seliger, H.; Happ, E.; Cascaval, A.; **Birsa, M. L.**; Novitschi, G., "Synthesis of some aminated thiazoles", *An. St. Univ. "Al.I. Cuza" Iasi*, (1997) **V**, 123-128.
3. Seliger, H.; Cascaval, A.; **Birsa, M. L.**, "A facile one-step synthesis of some new bis-Mannich-Werner bases of polysubstituted chroman-4-ones", *An. St. Univ. "Al.I. Cuza" Iasi*, (1997) **V**, 129-134.
4. **Birsa, M. L.**, "Dithiolium derivatives. I.", *An. St. Univ. "Al.I. Cuza" Iasi*, (1998) **VI**, 57-64.
5. **Birsa, M. L.**, "Dithiolium derivatives. II.", *An. Stiint. Univ. "Al.I. Cuza" Iasi*, (1999) **VII**, 341-347.
6. **Birsa, M. L.**, "Dithiolium derivatives. III.", *An. Stiint. Univ. "Al.I. Cuza" Iasi*, (1999) **VII**, 349-354.
7. Seliger, H.; Happ, E.; Cascaval, A.; **Birsa, M. L.**; Nicolaescu, T.; Poinescu, I.; Cojocariu, C., "Synthesis and characterization of new photostabilizers from 2,4-dihydroxybenzophenone", *Eur. Polym. J.*, (1999) **35**, 827- 833.
8. **Birsa, M. L.**, "Dithiolium derivatives. IV.", *An. Stiint. Univ. "Al.I. Cuza" Iasi*, (2000) **VIII**, 71-74.
9. **Birsa, M. L.**, "Synthesis of some new 4-(2'-hydroxyaryl)-5-methyl-2- (N,N-dialkylamino)-thiazoles", *An. Stiint. Univ. "Al.I. Cuza" Iasi*, (2000) **VIII**, 325-328.
10. **Birsa, M. L.**, "Dithiolium derivatives. V.", *An. Stiint. Univ. "Al.I. Cuza" Iasi*, (2000) **VIII**, 329-334.
11. **Birsa, M. L.**; Tiron, R.; Ignat, L., "Dithiolium derivatives. VI.", *An. Stiint. Univ. "Al.I. Cuza" Iasi*, (2000) **VIII**, 335-340.

12. **Birsa, M. L.**, "A new approach to preparation of 1,3-dithiolium salts", *Synth. Commun.*, (2001) **31**, 1271-1275.
13. Braverman, S.; Cherkinsky, M.; **Birsa, M. L.**; Tichman, S.; Goldberg, I., "Synthesis and structure of novel sulfur bridged cyclic di- and tetraalkynes", *Tetrahedron Lett.*, (2001) **42**, 7485-7488.
14. **Birsa, M. L.**, "Synthesis of some new substituted flavanones and related 4-chromanones by a novel synthetic method", *Synth. Commun.*, (2002) **32**, 115-118.
15. Braverman, S.; Cherkinsky, M.; **Birsa, M. L.**; Zafrani, Y., "Base catalyzed reactivity of sulfur and selenium bridged cyclic alkynes", *Eur. J. Org. Chem.*, (2002), 3198-3207.
16. **Birsa, M. L.**; Cherkinsky, M.; Braverman, S., "Thermal rearrangements of bisallenyl thiosulfonates", *Tetrahedron Lett.*, (2002) **43**, 9615-9619.
17. **Birsa, M. L.**; Ganju, D., "Synthesis and UV/Vis spectroscopic properties of new [2-(*N,N*-dialkylamino)-1,3-dithiolium-4-yl]phenolates", *J. Phys. Org. Chem.*, (2003) **16**, 1-6.
18. **Birsa, M. L.**, "Reaction of 4-(2'-hydroxyaryl)-1,3-dithiolium salts with sodium sulfide. A selective synthesis of 2'-hydroxyacetophenones", *Synth. Commun.*, (2003) **33**, 3071-3076.
19. **Birsa, M. L.**, "Synthesis of some 4-(2'-hydroxyaryl)-5-ethyl-2-(*N, N*-dialkylamino)-1,3-dithiolium salts", *Sulfur Lett.*, (2003) **26**, 155-162.
20. Levi, M. D.; Gofer, Y.; Cherkinsky, M.; **Birsa, M. L.**; Aurbach, D.; Berlin, A., "Electroanalytical features of non-uniformly doped conducting poly-3-(3,4,5-trifluorophenyl)thiophene films", *Phys. Chem. Chem. Phys.* (2003) **5**, 2886-2893.
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22. **Birsa, M. L.**, Hopf, H., "Pseudo-Geminal [2.2]-Paracyclophane As Spacer For Bisallenyl Sulfoxides And Sulfones", *Phosphorus, Sulfur, and Silicon, and the Related Elements* (2005) **180**, 1453-1454.

23. **Birsa, M. L.**, Jones, P. G., and Hopf, H., “Transannular Hydride Migration in *Pseudo-Geminally* Substituted[2.2]Paracyclophanes: A Vinylogous Pinacol Rearrangement”, *Eur. J. Org. Chem.* (2005), 3263-3270.
24. **Birsa, M. L.**, Jones, P. G., Braverman, S. and Hopf, H., “*Pseudo-Geminally* Substituted [2.2]Paracyclophanes as Spacer for Bisallenyl Sulfoxides and Sulfones”, *Synlett* (2005), 640-642.
25. Tietze, L. F., **Birsa, M. L.**, Cascaval, A., *Anal. Stiint. Univ. Al.I. Cuza Iasi*, (2005) **13**, 91-98.
26. **Birsa, M. L.**, Hopf, H., “Synthesis of  $\alpha,\beta$ -Unsaturated Pseudogeminal [2.2]Paracyclophane Bisketones”, *Synlett* (2007), 2753-2756.
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28. Ciobanu, A.S., Goanta, M., Birsa, A., Asaftei, I.V., and **Birsa, M. L.**, “Synthesis of Mesoionic 4-Methyl-2-(1,3-dithiol-2-ylium-4-yl)phenolates”, *Anal. Stiint. Univ. Al.I. Cuza Iasi*, (2008) **16**, 61-75.
29. Bacu, E., Vornicu, N., Belei, D., **Birsa, M. L.**, „Cercetari privind activitatea antifungica a unor saruri de *N*-fenacil-2-carbaldoxim-piridiniu” *Conservarea si Restaurarea Patrimoniului Cultural*, (2008) **VIII**, 6-14.
30. Bacu, E., Vornicu, N., Belei, D., **Birsa, M. L.**, „Activitatea antibacteriana a trei saruri de *N*-fenacil- $Y_{(p)}$ -2-carbaldoxim-piridiniu”, *Conservarea si Restaurarea Patrimoniului Cultural*, (2008) **VIII**, 92-99.
31. Asaftei, I. V., Bîlbă, N., **Bîrsă, M. L.**, Luchian, C., „Sorption Properties of MCM-41 Mesoporous Materials”, *Anal. Stiint. Univ. Al.I. Cuza Iasi*, (2008) **16**, 47-60.
32. Asaftei, I. V., Iofcea, Ghe., **Bîrsă, M. L.**, Bîlbă, N., „Aromatisation of the Technical  $C_4/C_4^-$  Fraction Over Zn-MFI Catalysts”, *Acta Chem. Iasi*, (2009) **17**, 5-34.
33. Goanta, M., Ciobanu, A.S., Birsa, A., Asaftei, I.V., and **Birsa, M. L.**, “Synthesis of 4-(3-Bromo-2-Hydroxy-5-Methylphenyl)-2-Dialkylamino-1,3-Dithiolium Chlorides”, *Acta Chem. Iasi*, (2009) **17**, 35-48.

34. **Birsa, M. L.**, Hopf, H., "A New Way to Generate Functionalized Bridges in [2.2]Cyclophanes", *Synlett* (2009), 3000-3002.
35. Birsa, A., Ignat, L., Hopf, H., **Birsa, M. L.**," [2.2]Paracyclophanes: The Interaction of *Pseudo-Geminal* Bispropargylic Alcohols with Sulfur Halides", *Acta Chem. Iasi*, (2009) **17**, 187-196.
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37. Belei, D., Bicu, E., Jones, P. G., **Birsa, M. L.**," A New Synthetic Methodology for the Pyrrolidine Ring", *Synlett*, (2010), 931-933.
38. **Birsa, M. L.**, Hopf, H., "A New Bridge in [2.2]Cyclophanes: The Addition of  $\text{Se}_2\text{Cl}_2$  to *Pseudo-Geminally* Substituted Bispropargylic Alcohols", *Heteroatom Chem.* (2010) **21**, 126-130.
39. Sarbu, L. G., Birsa, A., Ignat, L., Hopf, H., **Birsa, M. L.**," [2.2]Paracyclophanes: The Interaction of *Pseudo-Geminal* Bisacetylene with Electrophiles", *Acta Chem. Iasi*, (2010) **18**, 69-76.
40. Belei, D., Bicu, E., Jones, P. G., **Birsa, M. L.**," A Selective Synthesis of Enamines vs. Aziridines", *J. Heterocycl. Chem.*, (2011) **48**, 129-134.
41. **Birsa, M. L.**, Jones, P. G., Hopf, H., "Orthogonal  $\pi$ -Bridges in [2.2]Paracyclophanes", *Synlett*, (2011), 259-261.
42. Sarbu, L. G., Birsa, A., Hopf, H., **Birsa, M. L.**, "New Bridges In [2.2]Paracyclophanes: The Interaction Of Chalcogenide Halides With *Pseudo-Geminal* Triple Bonds", *Phosphorus, Sulfur, and Silicon, and the Related Elements* (2011) **186**, 1246-1250.
43. **Birsa, M. L.**,\* Jones, P. G., Hopf, H. "[2.2]Paracyclophanes with New Bridges", *Synfacts*, **2011**, 387.
44. Gosav, S., Praisler, M., **Birsa, M. L.** *Int. J. Mol. Sci.*, "Principal Component Analysis Coupled with Artificial Neural Networks" (2011) **12**, 6668-6684.

45. Sarbu, L. G., **Birsa, M. L.**, “Synthesis of Iodine Containing Mesoionic 2-(1,3-Dithiolium)phenolates”, *Acta Chem. Iasi*, (2011) **18**, 125-135.
46. Belei, D., Abuhaie, C., Bicu, E., Jones, P. G., Hopf, H., **Birsa, M. L.**, “A Direct Synthesis of Octahydropyrrolo[2,1,5-*cd*]indolizin-6-one Derivatives”, *Synlett*, **2012**, 545-548.

#### **D. Contribuții publicate la conferințe academice**

1. Braverman, S.; Cherkinsky, M.; **Birsa, M. L.**, “*Tandem Isomerization and Cycloaromatization of Macrocyclic Sulfur and Selenium Bridged Di- and Tetraalkynes*”, The 67<sup>th</sup> Annual Meeting of the Israel Chemical Society, Jerusalem, January 29-30, 2002, Abstracts p 228.
2. **Birsa, M. L.**, Hopf, H., “*Pseudo-Geminal [2.2]-Paracyclophane As Spacer For Bisallenyl Sulfoxides And Sulfones*”, The 21<sup>st</sup> International Symposium on Organic Chemistry of Sulfur, Madrid, July 4-9, 2004, Abstract p 144.
3. S. Braverman, M. Cherkinsky, H. E. Gottlieb, **M. L. Birsa**, H. Hopf, “*Synthesis and Cycloaromatization of Sulfur Bridged pseudo-gem-Bis-ethynyl[2.2]paracyclophane*”, The 70<sup>th</sup> Annual Meeting of the Israel Chemical Society, Bar-Ilan, February 14-16, 2005, Abstracts p 153.
4. **Birsa, M. L.**, Keynote lecture on “*Synthesis and Reactivity of Sulfur and Selenium Bridged Di- and Tetraalkynes*”, International Symposium on Organic Chemistry, Sofia, December 9-12, 2006, Abstracts p 18.
5. **Birsa, M. L.**, Ciobanu, A. S., Vornicu, N., Bicu E., “*New mesoionic phenothiazinyl derivatives*”, The 41<sup>st</sup> IUPAC Congress, Torino, August 4-11, 2007, Abstract p 56.

#### **E. Granturi si Contracte de cercetare**

Grant postdoctoral al Fundatiei Alexander von Humboldt, RUM-1113505  
Director contract de cercetare: 2

1. Contract CEEX modul II, ET 5902 / 18.09.2006

2. Contract PN II – IDEI cod 2095 / 2008

Participant la contracte de cercetare: 8, din care

7 contracte Tip A cu Ministerul Educației Naționale:

1. 1998 - CNSU 33/91

2. 1999 - CNCSIS 32/184

3. 2001 – CNCSIS 11/948;

4. 2002 - CNCSIS 55/304;

5. 2003 - CNCSIS 122/304;

6. 2005 - CNCSIS 5/1483;

7. 2006 - CNCSIS 7/1483.

1 contract CEEX, Modul I CERES 2CEX06-11-105 / 25