

## LISTA LUCRĂRILOR ȘTIINȚIFICE

Teza de doctor și Rezumatul tezei de doctor în științe chimice, *Sinteza și caracterizarea polimerilor coordinativi ai Zn(II) și Cd(II) în baza liganzilor punte azinici și azometinicii*, Autor Lozovan Vasile, specialitatea 141.01. CHIMIE ANORGANICĂ, CHIȘINĂU, 2021. <http://www.cnaa.md/thesis/57058/>

### Articole în reviste științifice cotate în baza de date ISI și SCOPUS.

1. **Vasile Lozovan**, Victor Ch. Kravtsov, Natalia V. Costrucova, Anatolii V. Siminel, Olga V. Kulikova, and Marina S. Fonari. Tunability in dimension, metal and ligand coordination modes and emission properties in Cd(II) and Zn(II) coordination networks based on 4,4'-(hydrazine-1,2-diylidenebis(methanylylidene)) dibenzoic acid linker. In: *Journal of Solid State Chemistry*, June 2022, Vol. 310, 123021. <https://doi.org/10.1016/j.jssc.2022.123021>
2. KRAVTSOV, V.C., **LOZOVAN, V.**, SIMINEL, N., COROPCEANU, E.B., KULIKOVA, O.V., COSTRIUCOVA, N.V., FONARI, M.S. From 1D to 2D Cd(II) and Zn(II) Coordination Networks by Replacing Monocarboxylate with Dicarboxylates in Partnership with Azine Ligands: Synthesis, Crystal Structures, Inclusion, and Emission Properties. In: *Molecules*, 2020, vol. 25, nr. 23, pp. 5616. <https://doi.org/10.3390/molecules25235616>
3. **LOZOVAN, V.**, KRAVTSOV, V.Ch., COROPCEANU, E.B., SIMINEL, Nikita, KULIKOVA, O.V., COSTRIUCOVA, N.V., FONARI, M.S. Seven Zn(II) and Cd(II) 1D coordination polymers based on azine donor linkers and decorated with 2-thiophenecarboxylate: Syntheses, structural parallels, Hirshfeld surface analysis, and spectroscopic and inclusion properties. In: *Polyhedron*, 2020, vol. 188, pp. 114702. <https://doi.org/10.1016/j.poly.2020.114702>
4. **LOZOVAN, V.**, KRAVTSOV, V.Ch., COROPCEANU, E.B., SIMINEL, Anatolii V., KULIKOVA, O.V., COSTRIUCOVA, N.V., FONARI, M.S. Water-sulfate anion interplay in the evolution of solid state architectures and emission properties of Zn and Cd coordination networks with four azine ligands. In: *Journal of Solid State Chemistry*, 2020, vol. 286, pp. 121312. <https://doi.org/10.1016/j.jssc.2020.121312>
5. **LOZOVAN, V.**, CH. KRAVTSOV, V., GORINCIOI, E., ROTARU, A., COROPCEANU, E.B., SIMINEL, N., FONARI, M.S. Chromism, positional, conformational and structural isomerism in a series of Zn(II) and Cd(II) coordination polymers based on methylated azine N,N'-donor linkers. In: *Polyhedron*, 2020, vol. 180, pp. 114411. <https://doi.org/10.1016/j.poly.2020.114411>
6. **LOZOVAN, V.**, CH. KRAVTSOV, V., COROPCEANU, E.B., ROTARU, P., SIMINEL, A.V., FONARI, M.S. Binuclear and polymeric Zn(II) and Cd(II) coordination compounds with chromophore N-((pyridin-4-yl)methylene)benzene-1,4-diamine obtained in situ: Preparation, structural and spectroscopic study. In: *Inorganica Chimica Acta*, 2019, vol. 491, pp. 42-51. <https://doi.org/10.1016/j.ica.2019.03.034>
7. **LOZOVAN, V.**, COROPCEANU, E.B., BOUROSH, P.N., MICU, A., FONARI, M.S. Coordination Polymers of Zn and Cd Based on Two Isomeric Azine Ligands: Synthesis, Crystal Structures, and Luminescence Properties. In: *Russian Journal of Coordination Chemistry*, 2019, vol. 45, nr. 1, pp. 11-21. <https://doi.org/10.1134/S107032841901007X>

### Rezumate în culegeri științifice, însoțite de poster, la Conferințe Naționale și Internaționale.

1. **LOZOVAN, V.**, COROPCEANU, E.B., BOLD, V., BOUROSH, P.N. Sinteza noilor liganzi dipiridinici și asamblarea compușilor coordinativi în baza lor. In: *A XXXIV-a Conferință Națională de Chimie*, Ediția a XXXIV-a, 04 – 07 oct., 2016, Călimănești-Căciulata, România, P.S.II. – 14, p. 14.
2. **LOZOVAN, V.**, COROPCEANU, E.B., BOUROSH, P.N. Synthesis and crystal structure of 1D Coordination Polymer Zn(II) with Schiff-base N,N'-Type Ligand. In: *Multidisciplinary in Modern Science for the Benefit of Society*. 21-22 sept., 2017, Chișinău, Moldova: IFA, PS-20, p. 60, ISBN 978-9975-9787-1-2.
3. **LOZOVAN, V.**, COROPCEANU, E.B., BOUROSH, P.N. New two-dimensional Cd(II) coordination polymer bearing decanedioic acid and 1,4-bis(4-pyridyl)-2,3-diaza-1,3-butadiene units/ligands. In: *A XXVI-a sesiune de*

- comunicări științifice "Progrese În Știința Compușilor Organici Și Macromoleculari"* Ediția a XXVI-a, 5-6 oct., 2017, Iași, P15, p. 56.
4. **LOZOVAN, V.**, COROPCEANU, E.B., BOUROSH, P.N. Synthesis And Crystal Structures Of cadmium 1D Coordination Polymers With Schiff-Base N,N'-Type Ligands. In: *27th International Chugaev Conference on Coordination Chemistry*, 2–6 oct., 2017, Nizhny Novgorod, p. 217, CZU: 061.6(471.41)+54:006.16.
  5. **LOZOVAN, V.**, KRAVTSOV, V.CH., COROPCEANU, E.B., FONARI, M.S. Two Three-Dimensional Cd(II) Coordination Polymers Based On Isomeric Bidentate Schiff Base Ligands. In: *XIII Международная научная конференция „Проблемы сольватации и комплексообразования в растворах”* 1–6 iul., 2018, Суздаль, Россия, p. 206. ISBN 978-5-904580-56-8.
  6. **LOZOVAN, V.**, KRAVTSOV, V.CH., COROPCEANU, E.B., FONARI, M.S. New Ditopic Ligand 4-((Pyridin-4-Ylmethylene)Amino)Aniline - A Useful Linker In Crystal Design Of Binuclear And Polymeric Zn Coordination Compounds. In: *XIII Международная научная конференция „Проблемы сольватации и комплексообразования в растворах”* 1–6 iul., 2018, Суздаль, Россия, p. 205. ISBN 978-5-904580-56-8.
  7. **LOZOVAN, V.**, KRAVTSOV, V.CH., COROPCEANU, E.B., FONARI, M.S. From Binuclear Complex To Two-Dimensional Coordination Polymer Originated From Zinc Sulfate And 4-Bis(4-Pyridyl)-2,3-Diaza-1,3-Butadiene Ligand, In: *XX Ukrainian Conference On Inorganic Chemistry*, 17-20 sept., 2018, Dnipro, Ukraine, P16, p. 42. ISBN 978-966-981-038-0.
  8. **LOZOVAN, V.**, KRAVTSOV, V.CH., COROPCEANU, E.B., FONARI, M.S. Coordination network based on {Cd<sub>4</sub>} node and new linker 4,4'-(hydrazine-1,2-diylidenebis(methanylylidene)) dibenzoic acid. In: *9th International Conference on Materials Science and Condensed Matter Physics*, Ediția a 9-a, 25-28 sept., 2018, Chișinău, Moldova: IFA, P25, p. 136. ISBN 978-9975-142-35-9.
  9. **LOZOVAN, V.**, KRAVTSOV, V.CH., COROPCEANU, E.B., ROTARU, P., PETUHOV O., FONARI, M.S. Thermal Analysis Of Binuclear Zn(II) Coordination Compound And New Bidentate Ligand, In: *The 12th European Symposium on Thermal Analysis and Calorimetry (ESTAC12)*. 27-30 aug., 2018, Brasov, Romania, PS2.171, p. 537. ISBN 978-3-940237-50-7.
  10. **LOZOVAN, V.**, KRAVTSOV, V.CH., COROPCEANU, E.B., FONARI, M.S. One-dimensional coordination polymers of Zn and Cd assembled from 2-thiophenecarboxylic acid and 1,2-bis(pyridin-4-ylmethylene)hydrazine ligands. In: *XXXV-Th Romanian Chemistry Conference*. Ediția a XXXV-a, 2-5 oct., 2018, Călimănești-Căciulata, Romania P.S.II.-28, p. 219.
  11. **LOZOVAN, V.**, KRAVTSOV, V.CH., COROPCEANU, E.B., FONARI, M.S. Thermal analysis of Zn(II) coordination polymer assembled via organic and inorganic bridging ligands. In: *28th Symposium on Thermal Analysis and Calorimetry – Eugen Segal – of the Commission for Thermal Analysis and Calorimetry of the Romanian Academy (CATCAR28) & 2nd Symposium on Thermal Analysis and Calorimetry of Moldova (MoldTAC2)*. 9-10 May, 2019, West University of Timișoara (UVT), P34, p. 67. ISBN 978-606-675-208-4.
  12. **LOZOVAN, V.**, KRAVTSOV, PETUHOV O., V.CH., COROPCEANU, E.B., FONARI, M.S. Thermal analysis of Cd(II) coordination polymers assembled from bridging sulfate anions and N,N'-donor Schiff base ligands. In: *5th Central and Eastern European Conference on Thermal Analysis and Calorimetry (CEEC-TAC5) and 14th Mediterranean Conference on Calorimetry and Thermal Analysis (Medicta2019)*. 27-30 aug., 2019, Rome, Italy, PS2,017, p. 307. ISBN 978-3-940237-59-0.
  13. **LOZOVAN, V.**, KRAVTSOV, V.CH., COROPCEANU, E.B., FONARI, M.S. 1D double chain Cd(II) coordination polymers assembled from 2-thiophenecarboxylic acid and N,N'-bipyridyl ligands. In: *Progrese În Știința Compușilor Organici Și Macromoleculari. A 27-a Sesiune de Comunicări Științifice*, 2-4 oct., 2019, Iași, P21, p. 86.
  14. **LOZOVAN, V.**, KRAVTSOV, V.CH., COROPCEANU, E.B., FONARI, M.S. Two- And Three-Dimensional Cd(II) Coordination Polymers Assembled From Bridging Sulfate Anions And Isomeric N,N'-Donor Schiff Base Ligands. In: *International Conference Achievements And Perspectives Of Modern Chemistry*, 9-11 oct., 2019, Chisinau, Republic of Moldova, P56, p. 122. ISBN 978-9975-62-428-2.
  15. **LOZOVAN, V.**, KRAVTSOV, V.CH., COROPCEANU, E.B., FONARI, M.S. Two Isomorphous 1D Coordination Polymers Derived From Zn(II) And Cd(II) Iodide And Bridged N,N'-Donor Azomethine Ligand. In: *International Conference Achievements And Perspectives Of Modern Chemistry*, 9-11 oct.,

- 2019, Chisinau, Republic of Moldova, P57, p. 123. ISBN 978-9975-62-428-2.
16. **LOZOVAN, V.**, KRAVTSOV, V.CH, COROPCEANU, E.B., FONARI, M.S. Single And Double Chain Zn(II) Coordination Polymers Based On Isomeric Bidentate Schiff Base Ligands. In: *International Conference Achievements And Perspectives Of Modern Chemistry*, 9-11 oct., 2019, Chisinau, Republic of Moldova, P58, p. 124. ISBN 978-9975-62-428-2.
  17. GORINCIOI, E., **LOZOVAN, V.** Dosy NMR Studies Of Some Zn(II) And Cd(II) Coordination Polymers Based On Methylated N,N'-Donor Azine Ligands. In: *International Conference Achievements And Perspectives Of Modern Chemistry*, 9-11 oct., 2019, Chisinau, Republic of Moldova, P18, p. 84. ISBN 978-9975-62-428-2.
  18. **LOZOVAN, V.**, KRAVTSOV, V.CH, COROPCEANU, E.B., FONARI, M.S. Conformational Behavior Of N,N'-Donor Azine Ligands In The Crystals Of 1D Coordination Polymers Zn(II) And Cd(II) In: *Пятый междисциплинарный научный форум с международным участием "Новые Материалы И Перспективные Технологии"* 30 oct.-1 noi., 2019, Москва, Россия, P50, ISBN 978-5-6043996-2-0.
  19. **LOZOVAN, V.**, KULIKOVA, O.V., KRAVTSOV, V.CH, COROPCEANU, E.B., FONARI, M.S. Luminescent Properties Of Cd(II) Coordination Polymer Assembled From 2-Thiophenecarboxylic Acid and 1,2-Bis(pyridin-4-ylmethylene)hydrazine Ligands. In: *12-Th International Conference "Electronic Processes In Organic And Inorganic Materials" (ICEPOM-12)*, 1-5 iun., 2020, Kamianets-Podilskyi, Ukraine, p. 239.
  20. **LOZOVAN, V.**, KRAVTSOV, V.CH, COROPCEANU, E.B., FONARI, M.S. 2D Cd(II) coordination polymer assembled from sebacic acid and 1,2-bis(pyridin-4-ylethylidene)hydrazine ligands. In: *Международный молодежный научный форум "Ломоносов-2020"*, 10-27 noi., 2020, МГУ Ломоносов, Москва, p. 675. ISBN 978-5-00171-642-6.
  21. BLAJA, Svetlana; KUCHKOVA, Kaleria; LUNGU, Lidia; **LOZOVAN, Vasile**; ARICU, Aculina. Synthesis of hydrazide containing trinorlabdane derivatives. In: *New frontiers in natural product chemistry. A destiny on the altar of research. Dedicated to academician Pavel Vlad*. 21 mai 2021, Chişinău, Republica Moldova, 2021, p. 22. DOI: 10.19261/nfnpc.2021.ab15.
  22. V. N. **LOZOVAN**, Victor Ch. KRAVTSOV, Marina S. FONARI, 3D Cd(II) COORDINATION POLYMER ASSEMBLED FROM BIPHENYL-4,4'-DICARBOXYLIC ACID AND N,N'-(1,4-PHENYLENE) BIS(1-(PYRIDIN-4-YL)METHANIMINE) LIGANDS, In: "New trends and strategies in the chemistry of advanced materials with relevance in biological systems, technique and environmental protection" 13th Edition, Timisoara, October 07-08, 2021.
  23. Marina Fonari, **Vasile Lozovan**, Victor Kravtsov, 2D and 3D Nd(III) Coordination Polymers Assembled via Bridging 1,4-Benzenedicarboxylate and Oxalate Linkers, The 7th International Conference ECOLOGICAL & ENVIRONMENTAL CHEMISTRY 2022, Chisinau, March 3-4, 2022.
  24. V. N. **Lozovan**, V. Ch. Kravtsov, M. S. Fonari, Polimer coordinativ 2D al Zn(II) în baza acidului dicarboxilic 4,4'-(hidrazin-1,2-diilidenbis(metanililiden)) dibenzoic, Conferința Științifico-Practică Internațională „Instruire prin Cercetare Pentru o Societate Prosperă”, ediția a IX-a, Chişinău, 19 – 20 martie 2022.

#### Articole în reviste din RM

1. MOȘANU, Elena; SANDU, Maria; **LOZOVAN, Vasile**; BÎRCA, Natalia; BEIU, Marina; CARP, Alina. Calitatea apei pârâului și fântânilor din localitatea Sireți. In: *Acta et commentationes. Științe Exacte și ale Naturii*. 2017, nr. 1(3), pp. 88-93. ISSN 2537-6284. [https://ibn.idsi.md/vizualizare\\_articol/65467](https://ibn.idsi.md/vizualizare_articol/65467)
2. NEDBALIUC, Boris; NEDBALIUC, Rodica; GRATI, Vasile; COADĂ, Viorica; ȚÎGANAȘ, Ana; **LOZOVAN, Vasile**. Contribuții la studierea algoflorei Lacului de acumulare Izvorul Muntelui. In: *Acta et commentationes. Științe Exacte și ale Naturii*. 2017, nr. 1(3), pp. 94-101. ISSN 2537-6284. [https://ibn.idsi.md/vizualizare\\_articol/65469](https://ibn.idsi.md/vizualizare_articol/65469)
3. COROPCEANU E., TANASACHI O., LOZOVAN V. Dezvoltarea competenței antreprenoriale: mecanism de stimulare a interesului pentru disciplina Chimie. *Univers pedagogic*. 2019. Nr. 4. P. 28-33.

### **Brevet de invenție:**

**LOZOVAN Vasile**, FONARI Marina, KRAVȚOV Victor, SIMINEL Nikita, COROPCEANU Eduard, KULIKOVA Olga, COSTRIUCOVA Natalia; *Polimer unidimensional al cadmiului(II) în baza liganzilor 1,2-bis(piridin-4-ilmetilen)hidrazină și acid 2-aminobenzoic, care manifestă activitate fotoluminescentă și capacitate de schimb a moleculelor de solvent*. Aviz pozitiv la cerere de brevet 29.09.2021. Publicare: 30 noi 2021. Nr. 4776 B1.

### **Participare la salonul de invenții Euroinvent 2022**

**LOZOVAN Vasile**, FONARI Marina, KRAVȚOV Victor, SIMINEL Nikita, COROPCEANU Eduard, KULIKOVA Olga, COSTRIUCOVA Natalia, *One-dimensional coordination polymer of cadmium(II) based on 1,2-bis (pyridin-4-ylmethylene)hydrazine and 2-aminobenzoic acid ligands, which shows photoluminescent activity and the ability to exchange solvent molecules*, Euroinvent 14th edition, 26-28 MAY 2022, Apreciere – medalia de argint

### **Lucrări metodice**

Melentiev E., **Lozovan V.**, Coropceanu E., Chimie coordinativă. Lucrări practice (Exerciții și probleme). Lucrări de laborator (Obținerea compușilor coordinativi. Studiu calitativ și cantitativ). Chișinău: UST. 2018. 119 p. ISBN 978-9975-76244-1.