

# DORINA AMĂRIUCĂI-MANTU

## Research Areas/Interest

- **Chemistry and Health:** chemistry of heterocyclic compounds and medicinal chemistry;
- **Chemistry and nanosciences:** ionic liquids derived from imidazole;
- **Chemistry and the Environment:** Eco-friendly reactions under ultrasound assistance.

**Chemistry and Health:** synthesis of biologically active target compounds (anticancer, antituberculosis, antimicrobials), growth factors in agriculture, new nanomaterials with imidazole skeleton;

**Chemistry and Nanoscience:** synthesis of ionic liquids, new highly fluorescent materials, chemosensors;

**Chemistry and environment:** "environmentally friendly" reactions under ultrasound assistance; chemosensors.

**Keywords:** heterocycles, diazines, ylides, aza-cryptands, ultrasounds, cycloadditions, anticancer, tuberculosis, antibiotics, growth factors, fluorescent materials, semiconductors, ionic liquids, "eco-friendly" chemistry.



(b.1983)

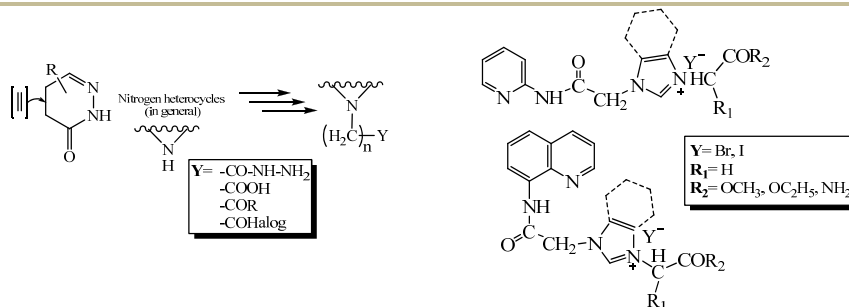
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Organic Chemistry  
Heterocyclic  
Chemistry

PhD studies-  
„Alexandru Ioan Cuza”  
University of Iasi, 2010

Research stage:  
November 2014,  
University of Konstanz,  
Department of  
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## Publications (selection)

Mantu, D., Antoci, V., Moldoveanu, C., Zbancioc, Ghe., Mangalagiu, I.I., Hybrid imidazole (benzimidazole)/pyridine (quinoline) derivatives and evaluation of their anticancer and antimycobacterial activity, *J. Enzym. Inhib. Med. Ch.*, **Published online:** 02 Jun 2016.

Moldoveanu, C., Zbancioc, G., Mantu, D., Maftai, D., Mangalagiu, I., The Cycloaddition of the Benzimidazolium Ylides with Alkynes: New Mechanistic Insights, *PLoS ONE* 11(5): e0156129, doi: 10.1371/journal.pone.0156129, Published online: May 25, 2016.

Antoci, V., Mantu, D., Cozma, D. G., Ursu, C., Mangalagiu, I. I., Hybrid anticancer 1,2- diazine derivatives with multiple mechanism of action. Part 3 [4,5], *Med. Hypotheses*, 82(1), 11-15, 2014.

Tucaliuc, R.A., Cotea, V.V., Niculaua, M., Tuchilus, C., Mantu, D., Mangalagiu, I.I., New pyridazine-fluorine derivatives: Synthesis, chemistry and biological activity. Part II, *Eur. J. Med. Chem.*, 67(1), 367-372, 2013.

Bejan, V., Mantu, D., Mangalagiu, I. I., Ultrasound and microwave assisted synthesis of isoindolo-1,2-diazine: A comparative study, *Ultrason. Sonochem.*, 19(5), 999-1002, 2012.

Mantu, D., Luca, M.C., Moldoveanu, C., Zbancioc, G., Mangalagiu, I.I., Synthesis and antituberculosis activity of some new pyridazine derivatives. Part II, *Eur. J. Med. Chem.*, 45(11), 5164-5168, 2010.

Mantu, D., Moldoveanu, C., Nicolescu, A., Deleanu, C., Mangalagiu, I. I., A facile synthesis of pyridazinone derivatives under ultrasonic irradiation, *Ultrason. Sonochem.*, 16(4), 452-454, 2009.