



## **Book of abstracts**





## 31<sup>st</sup> October - 01<sup>st</sup> November 2019 Iasi, Romania



## OC-04. Microwave assisted reactions of pyrrolodiazine compounds as potential fluorescent biological markers

<u>Gheorghita Zbancioc</u><sup>1\*</sup>, Costel Moldoveanu<sup>1</sup>, Cătălina Ciobanu<sup>1</sup>, Vasilichia Antoci<sup>1</sup>, Violeta Mangalagiu<sup>2</sup>, Dorina Amariucai-Mantu<sup>1</sup>, Ionel I. Mangalagiu<sup>1</sup>

1"Alexandru Ioan Cuza" University of Iasi, Faculty of Chemistry, 11 Carol I, Iasi, 700506, Romania

2"Alexandru Ioan Cuza" University of Iasi, Integrated Centre of Environmental Science Studies in the North
Eastern Region (CERNESIM), 11 Carol I, Iasi, 700506, Romania

\*correspondence to: gheorghita.zbancioc@uaic.ro

Pyrrolodiazines are an important class of N-bridgehead heterocycles which has received increasing interest during the last years driven by a wide range of potential applications, from electroluminescent materials [1] to interesting biological [2]. In the last years, azaheterocycle derivatives have been reported to display a large variety of applications in the fields of medicinal chemistry [2-3].

The preparation of all pyrrolodiazine derivatives, **3**, **4**, involves two steps: initially N-alkylation of the diazine with bromoacetone **3** followed by a 3+2 dipolar cycloaddition of diazinium ylides **2** to the corresponding dipolarophiles. As bromination method we chose the bromination in heterogeneous catalysis using copper (II) bromide.

**Acknowledgements**: Authors are thankful to UEFISCDI Bucharest, Romania, project PN-III-P1-1.1-TE-2016-1205 for financial support and the POSCCE-O 2.2.1, SMIS-CSNR 13984-901, No. 257/28.09.2010 Project, CERNESIM, for NMR experiments.

## References

- [1] Y. Cheng, B. Ma, F. Wudl, Synthesis and optical properties of a series of pyrrolopyridazine derivatives: deep blue organic luminophors for electroluminescent devices, J. Mater. Chem. 9 (1999) 2183-2188. https://doi.org/10.1039/A903025E.
- [2] C. Sandeep, P. Basavaraj, K.N. Venugopala, S.K. Rashmi, V. Rashmi, B. Odhav, Efficient synthesis and characterization of ethyl 7-acetyl-2-substituted 3-(substitutedbenzoyl) indolizine-1-carboxylates for in vitro anticancer activity, Asian J. Chem. 28(5) (2016) 1043-1048. https://dx.doi.org/10.14233/ajchem.2016.19582.
- [3] L.L. Gundersen, C. Charnock, A.H. Negussie, F. Rise, S. Teklu, Synthesis of indolizine derivatives with selective antibacterial activity against Mycobacterium tuberculosis, Eur. J. Pharm. Sci. 30(1) (2007) 26-35. https://doi.org/10.1016/j.eips.2006.09.006.