

Project title: Polymer inclusion membranes for separation of metal ions in aqueous solutions with applications in passive sampling and water treatment (METPIMS)

Crt. No.	Type of result/product proposed	Assumed at contracting	Results (deliverables) achieved	Degree of achievement
1	Revised documentation on the existing PIMs	1 documentation	1 documentation	Fulfilled 100%
2	6 new products (PIMs) and recipes for preparation	6 new recipes and products	6 new recipes and products	Fulfilled 100%
3	1 Report on physicochemical and structural characterization of new PIMs	1 Report on physicochemical and structural characterization of new PIMs	1 Report on physicochemical and structural characterization of new PIMs	Fulfilled 100%
4	New PIMs-based passive samplers (EM)	1 new type of PIM-based passive samplers (EM)	1 new type of PIM-based passive samplers (EM)	Fulfilled 100%
5	Experiment and optimization report on PIMs-based passive samplers (EM)	1 report on experiment and optimization of PIMs-based passive samplers (EM)	1 report on experiment and optimization of PIMs-based passive samplers (EM)	Fulfilled 100%
6	Experiment and optimization report on PIMs for metal ions separation from water – first part	1 Report on experiment and optimization of PIMs for metal ions separation from water – first part	1 Report on experiment and optimization of PIMs for metal ions separation from water – first part	Fulfilled 100% (part one)
7	Participation at scientific events	2 communications at conferences	4 communications at conferences/scientific events	Exceeded, 200%
8	Publication papers in ISI journals with IF>3	2 papers published/submitted	4 ISI papers published in papers with IF>3	Exceeded, 200%
9	Technical report	1 Technical report	1 Technical report	Fulfilled 100%

Results dissemination:

Participation at scientific events

1. M. Senila, S.B. Angyus, L. Senila, E. Kovacs. Passive sampling for Cd determination in wastewaters using a new polymer inclusion membrane. *15th International Conference Processes in Isotopes and Molecules*, 16-19.09.2025, Cluj-Napoca, Romania, poster
2. M. Senila, L. Senila, E. Kovacs. Polymer Inclusion Membrane for Passive Sampling of Zn(II) in Water. *The 2nd International Online Conference on Toxics* 08-10.09.2025, prezentare poster online
3. M. Senila, B.S. Angyus. Determination of Pb in table salt using diffusive gradients in thin-film technique for passive sampling prior GFAAS analysis. *8th International Conference on Emerging Technologies in Materials Engineering, EMERGEMAT*, 06-07.10.2025, Pantelimon, Ilfov, Romania, poster online
4. M. Senila, O. Cadar, L. Senila, E. Kovacs, O. Todor-Boer, S.B. Angyus, Polymer inclusion membranes for separation of metal ions in aqueous solutions with applications in passive sampling and water treatment, PRO INVENT 2025, 15-17 oct 2025, Cluj-Napoca, Romania – Gold Medail

ISI papers

1. M. Senila, S. B. Angyus, Determination of copper labile species in wine using diffusive gradients in thin-films technique with open and restricted diffusive gels, *Microchemical Journal*, 2025, 215, 114330, <https://doi.org/10.1016/j.microc.2025.114330>, (I.F. = 5.1)
2. M. Senila, Polymer Inclusion Membranes (PIMs) for Metal Separation—Toward Environmentally Friendly Production and Applications, *Polymers*, 2025, 17, 725, <https://doi.org/10.3390/polym17060725>, (I.F. = 4.9)
3. L. Senila, E. Kovacs, M. Senila, A Review of Polylactic Acid (PLA) and Poly(3-hydroxybutyrate) (PHB) as Bio-Sourced Polymers for Membrane Production Applications, *Membranes*, 2025, 15, 210. <https://doi.org/10.3390/membranes15070210>, (I.F. = 3.6)
4. M. Senila, O. Cadar, Determination of metals in wine by ICP-OES: Comparative study of matrix effects and greenness of different sample preparation approaches, *Journal of Food Composition and Analysis*, 2025, 148, 108331, <https://doi.org/10.1016/j.jfca.2025.108331>, (I.F. = 3.9).