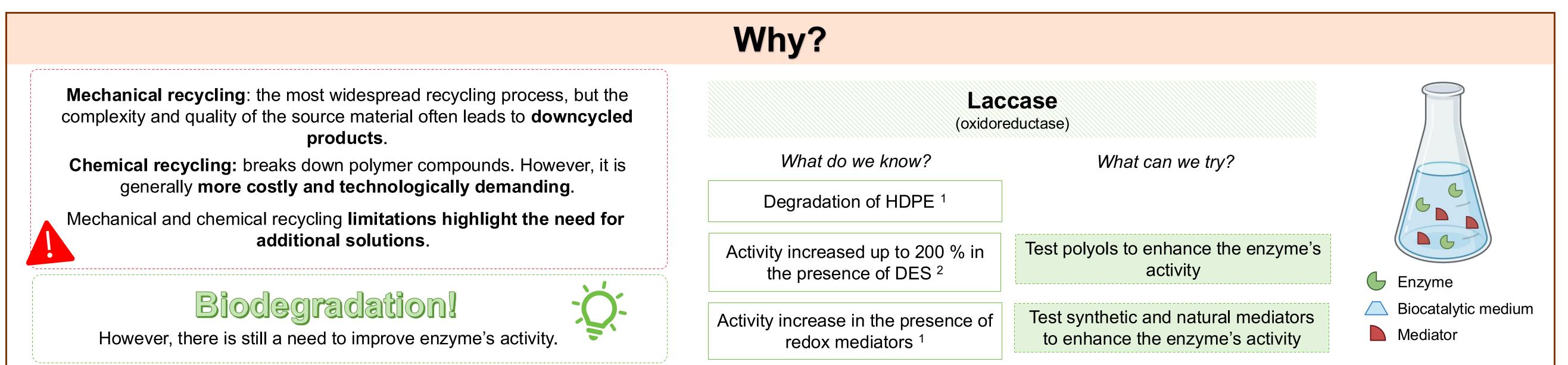
Enhancing the potential of laccase-driven biodegradation of polymers using biosolvents

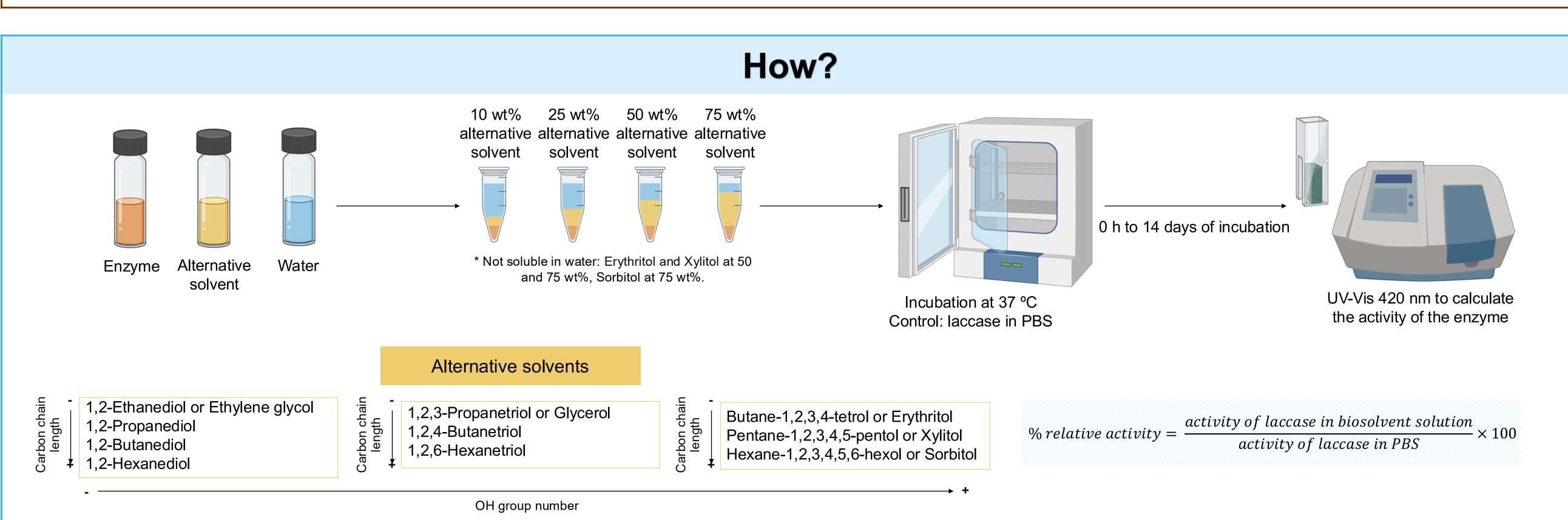
Mariana I. S. Aguiar^{1,2}*, Daniela Espínola¹, Maria Inês C. Santos¹, João A. P. Coutinho¹, Ana P. M. Tavares¹, Frederik R. Wurm², Andreia F. Sousa¹, Ana M. Ferreira¹

¹CICECO, Department of Chemistry, University of Aveiro, 3810-193, Aveiro, Portugal.

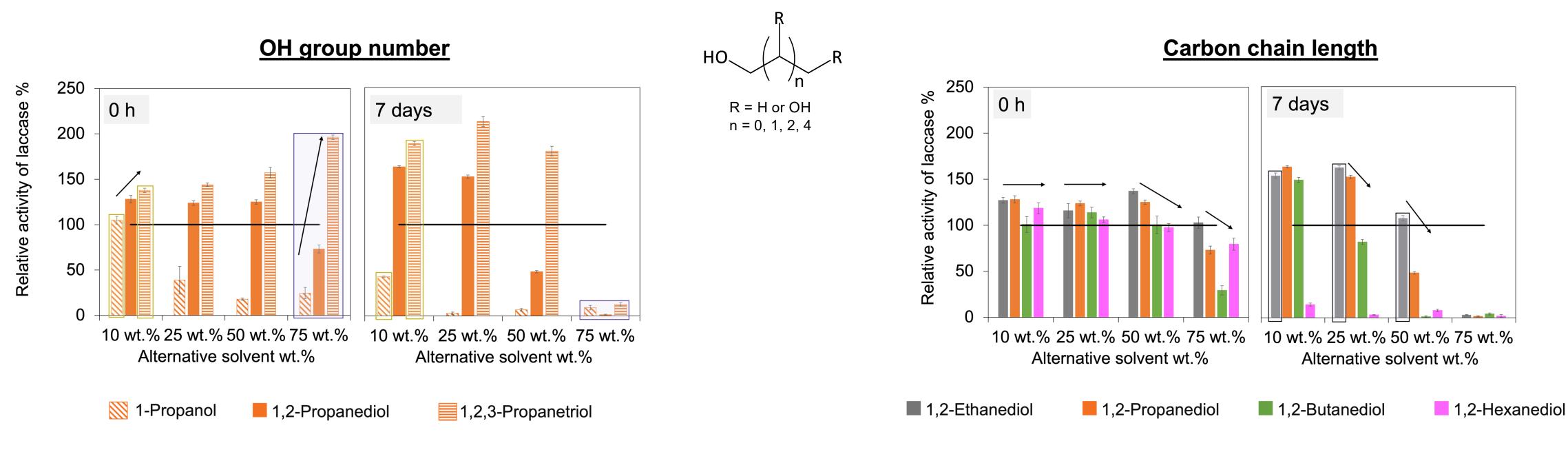
²Sustainable Polymer Chemistry, Department of Molecules & Materials, MESA+ Institute for Nanotechnology, University of Twente, P.O. Box 217, 7500 AE, Enschede, Netherlands.

* m.aguiar@ua.pt





Influence of

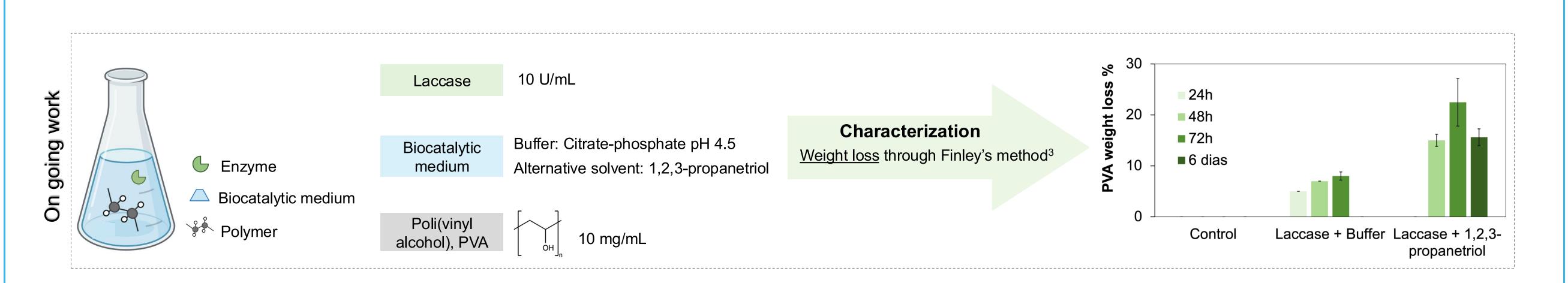


Increase of the OH groups of the solvents lead to increased laccase activity, especially noticeable at higher solvent concentration (initial moment)

More concentrated alternative solvent leads to a greater decrease in laccase activity (over time)

For **lower concentrations** (10 and 25 wt%) **C-chain length** appears to have **no influence** on laccase activity (<u>initial moment</u>)

For higher concentrations (50 and 75 wt%), increase of C-chain length decrease laccase activity (initial moment and over time)



Take home message*



Increase of the OH groups of the solvents lead to increased laccase activity

Higher number of OH groups help maintain laccase activity over time

1,2,3- propanetriol (i.e., glycerol) showed the most promising results

GreenPATH

These results provide valuable insights for the development of biodegradation treatments for polymers; however, further comprehensive studies are required to validate and optimize their application.

* work under development



References & Acknowledgments

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