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*VABILO NA PREDAVANJE
V OKVIRU DOKTORSKEGA ŠTUDIJA
KEMIJSKE ZNANOSTI*

Prof. Jennifer Littlechild

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z naslovom:

**Thermophilic Enzymes and Applications as
Industrial Biocatalysts**

**v sredo, 21. 4. 2021 ob 15. uri,
preko spletnega orodja Zoom**

<https://uni-lj-si.zoom.us/j/95173468785>

(Meeting ID: 951 7346 8785)

Vljudno vabljeni!

Abstract:

This lecture will introduce the importance of using enzymes in Industrial Biotechnology. The use of enzymes in biocatalytic applications result in an environmentally sustainable process without the use of high temperatures, organic solvents or metal catalysts. Nature has provided us with a plentiful supply of natural enzymes many of which are still unidentified and therefore provide an undiscovered natural resource.

Enzymes are already used in many of our everyday activities involving, food, laundry, cosmetics, and pharmaceuticals. They have an important role in the breakdown of waste and in production of biofuels.

This presentation will address how enzymes isolated from organisms living in 'Hot Environments' can be developed as industrial biocatalysts.

General References

Discovery of Novel Hydrolases from Hot Environments, Wohlgemuth, R. Littlechild, J. Monti, D, Schnorr, K., Rossum, T, Siebers, B., Menzel, P., Kublanov, I., Rike, A., Skretas, G, Szabo,Z , Peng, X, Young, M (2018) *Biotechnology Advances*, 36, 2077-2100

Improving the 'Tool Box' for Robust Industrial Enzymes, Littlechild, J. A. (2017) *J. Industrial Microbiology and Biotechnology*, 44, 711–720

Enzymes from Extreme Environments and Their Industrial Applications. Littlechild,J.A. *Front Bioeng Biotechnol.* (2015) 3, 161.

Archaeal Enzymes and Applications in Industrial Biocatalysts. Littlechild, J.A. *Archaea.* (2015), 147671

Mechanism of Thermal Stability Adopted by Thermophilic Proteins and Their Use in White Biotechnology Littlechild, J. Novak, H., James, P. and Sayer C. (2013) in *Thermophilic Microbes in Environmental and Industrial Biotechnology: Biotechnology of Thermophiles*, Springer. p481-509.