



Showcasing research from Professor Gardossi's laboratory, University of Trieste, Italy in collaboration with EnginZyme, Solan, Sweden and ELETTRA Sincrotrone Trieste, Trieste, Italy.

FTIR microscopy for direct observation of conformational changes on immobilized ω -transaminase: effect of water activity and organic solvent on biocatalyst performance

The study reports the first example of rational development of immobilization protocols relying on the direct observation of the enzyme conformation upon immobilization as a result of mutual interaction between process parameters and carrier properties. Confocal microscopy, FTIR microscopy and imaging were employed for describing the distribution and conformation of an ω -transaminase as the result of its immobilization on a solid carrier (EziG™). When placed in toluene, the secondary structure of the immobilized ω -transaminase undergoes a β -sheet rich folding, which corresponds to an observed increase in the biocatalyst activity.

As featured in:



See Lucia Gardossi *et al.*,
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