Optimal Peptide Tag Design and Synthesis of Downstream Protein Processing

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Abstract
In biochemical production plants, downstream protein processing can significantly be improved with the use of peptide purification tags; comparatively short sequences of amino acids fused onto the product protein, capable of simplifying the purification flowsheet. The objective of this work is to develop a framework that integrates the selection of optimal peptide tags with the synthesis of downstream protein processes. The methodology is validated by an illustrative example based on experimental data.

Keywords: protein purification processes, peptide tags, mixed integer optimisation

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