

Flocculation of brewers' yeast

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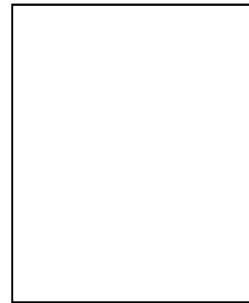
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Institute: Delft University of Technology, Department of Biotechnology, section Bioprocess Technology

Project term: 1990 - 1994

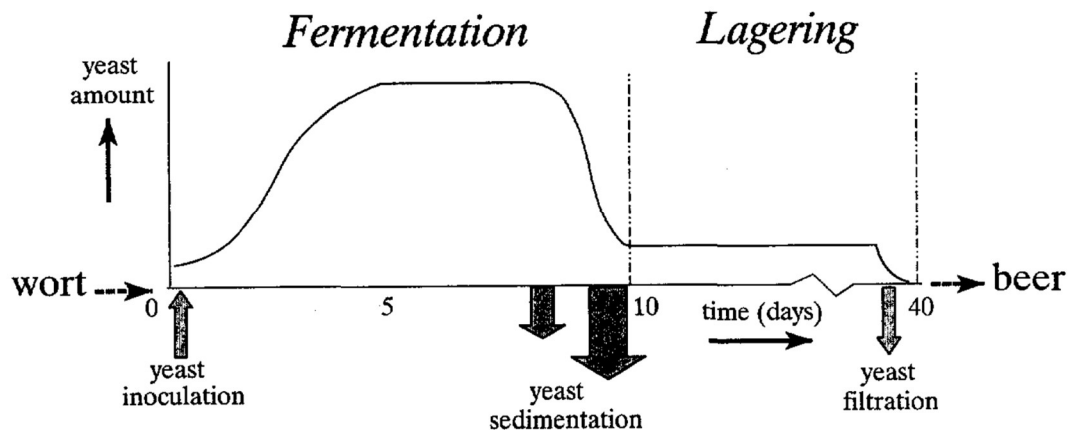
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Description

General aim of a project on yeast flocculation was to improve the controllability of flocculation and sedimentation of yeast during fermentation. Specific aim of this work was to study, measure, describe and model the physicochemical interactions between yeast cells and the physical mechanisms of flocculation.

It is shown that a physical approach is a way to understand these mechanisms. Via modelling the process, the mechanisms of flocculation and sedimentation were found. Flocculation can be described by three parameters: bond strength, shear rate and cell concentration. Sedimentation is mainly determined by carbon dioxide production. Control of the process can be achieved via one of these parameters. An important aspect related to this is the measurement of yeast flocculation. During this work three methods to quantify and/or qualify yeast flocculation were developed.



Dissertation

E.H. van Hamersveld, Flocculation of brewers' yeast – quantification, modelling and control - . PhD Thesis, Delft University of Technology, 1996. (in TUD-repository, <https://repository.tudelft.nl/islandora/object/uuid%3A3d55966c-a540-4784-a1e4-f328d8b87224?collection=research>).

Publications from the dissertation

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<https://doi.org/10.1007/BF00151864>
