

Supplementary Information

**Release of Biopolymers from *Saccharomyces cerevisiae* Biomass Through Thermal
and Non-Thermal Technologies**

**Marianna Ciccone^{1*}, Muhammad Rehan Khan¹, Junior Bernardo Molina Hernandez¹,
Joel Armando Njieukam¹, Lorenzo Siroli^{1,2}, Davide Gottardi^{1,2}, Rosalba Lanciotti^{1,2},
Pietro Rocculi^{1,2} and Francesca Patrignani^{1,2}**

¹ Department of Agricultural and Food Sciences, Campus of Food Science, Alma Mater Studiorum,
University of Bologna, Piazza Goidanich 60, 47521 Cesena, Italy

² Interdepartmental Centre for Agri-Food Industrial Research, Campus of Food Science, Alma Mater
Studiorum, University of Bologna, Via Quinto Bucci 336, 47521 Cesena, Italy

* Correspondence: marianna.ciccone2@unibo.it

***Saccharomyces cerevisiae*: Observation (magnification 40×)**

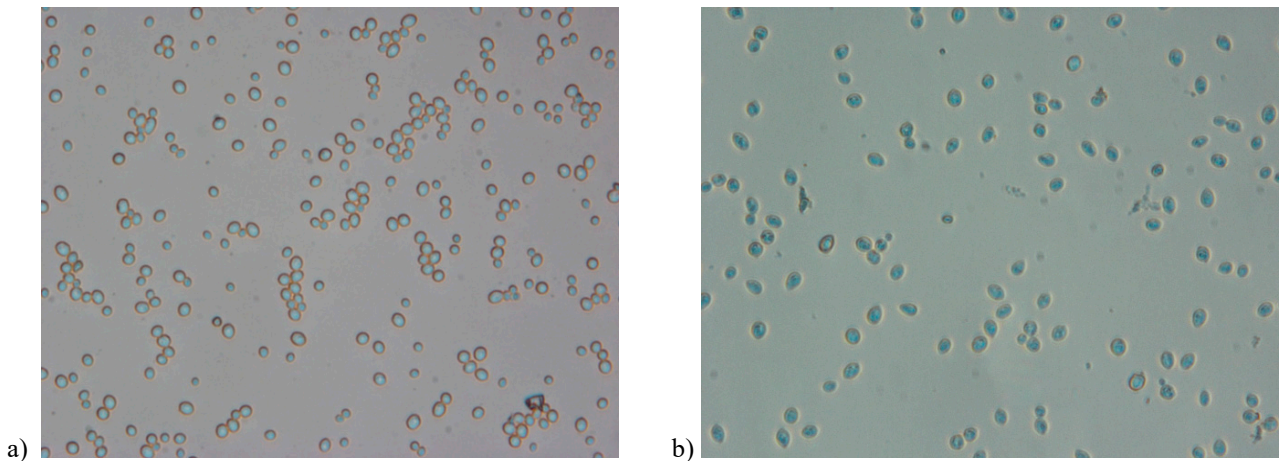


Figure S1: Observation of NT samples (magn.40×)
a) Baker's commercial yeast; b) Brewer's spent yeast

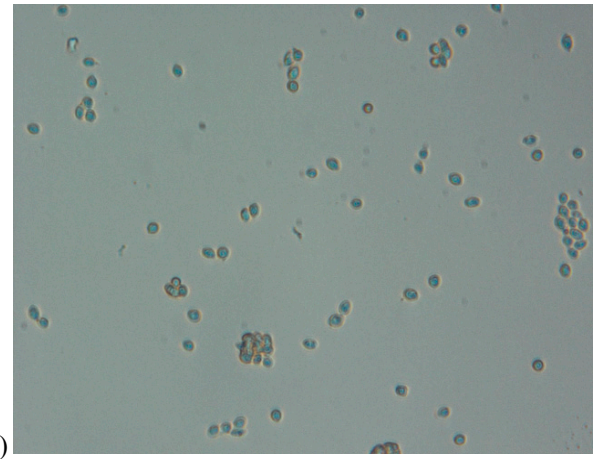
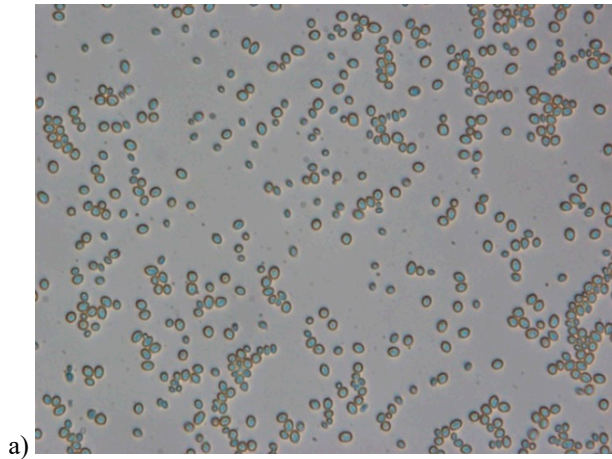


Figure S2: Observation of TT samples (magn.40×)
a) Baker's commercial yeast; b) Brewer's spent yeast

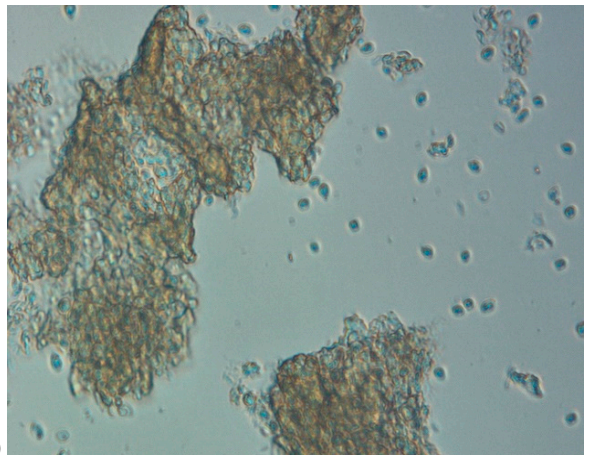
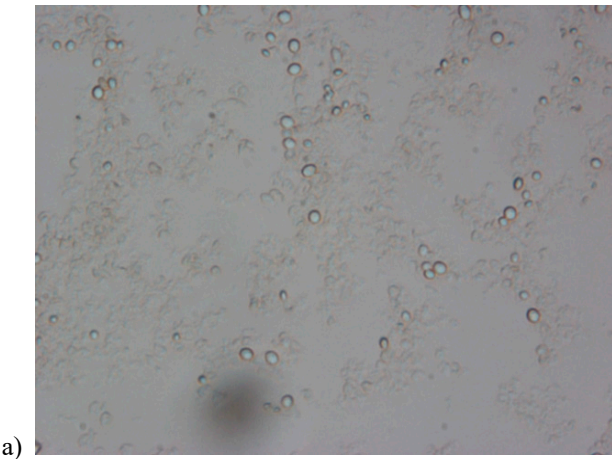


Figure S3: Observation of HPH samples (magn.40×)
a) Baker's commercial yeast; b) Brewer's spent yeast

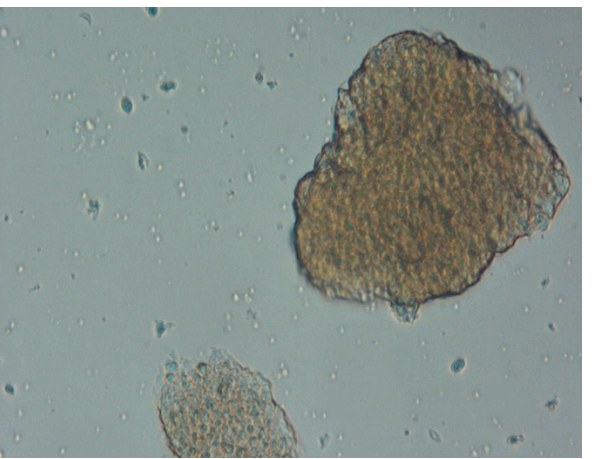
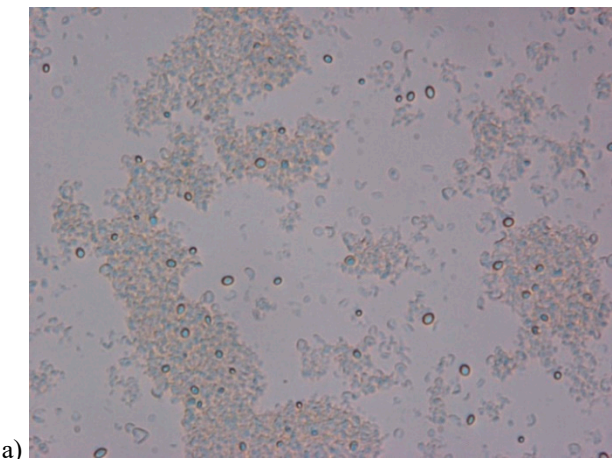
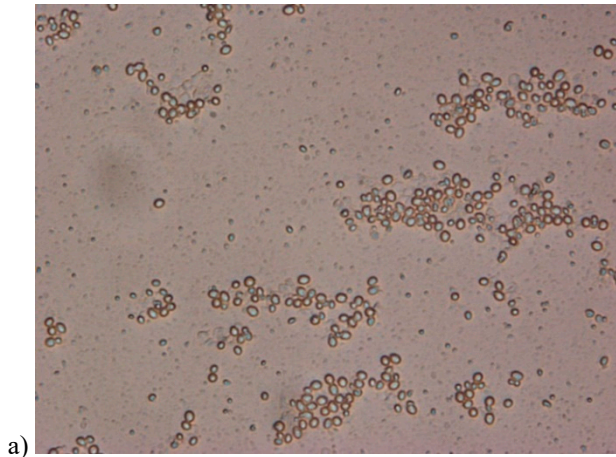
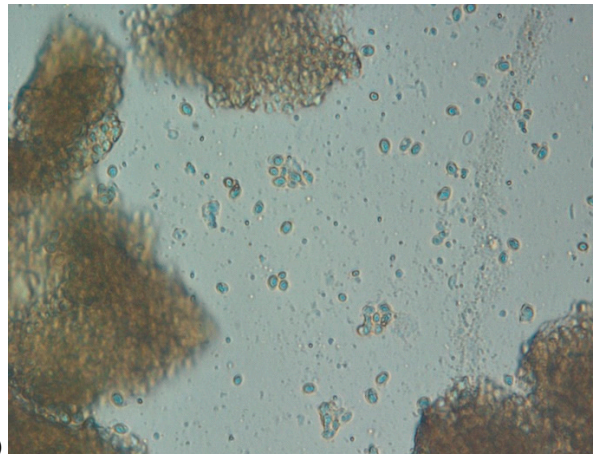


Figure S4: Observation of HPH+TT samples (magn.40×)
a) Baker's commercial yeast; b) Brewer's spent yeast

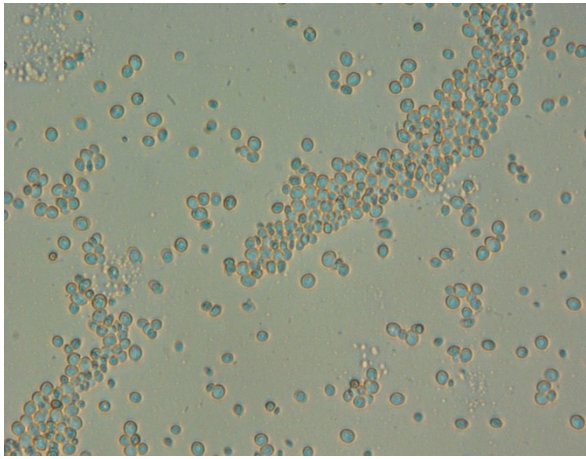


a)

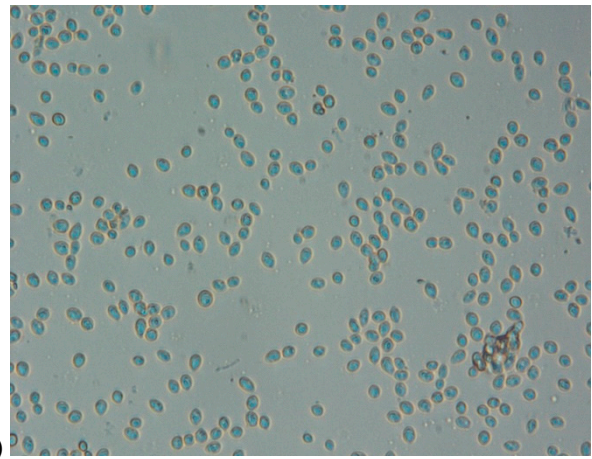


b)

Figure S5: Observation of TT+HPH samples (magn.40×)
a) Baker's commercial yeast; b) Brewer's spent yeast

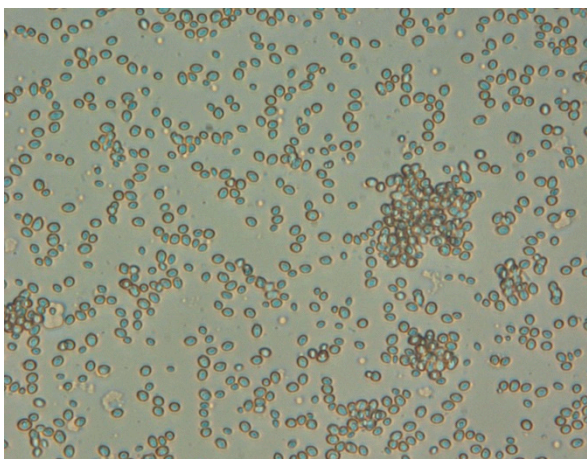


a)

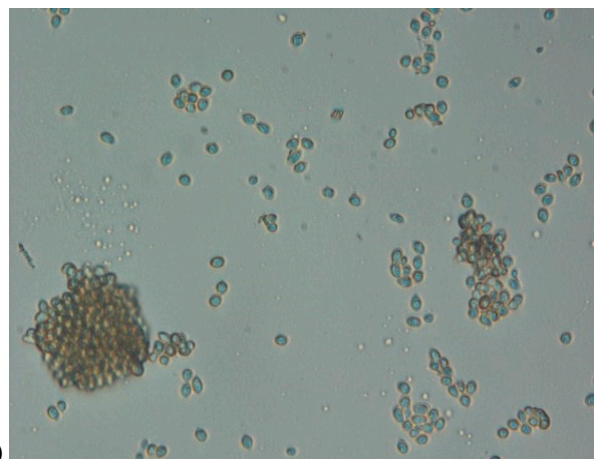


b)

Figure S6: Observation of PEF samples (magn.40×)
a) Baker's commercial yeast; b) Brewer's spent yeast

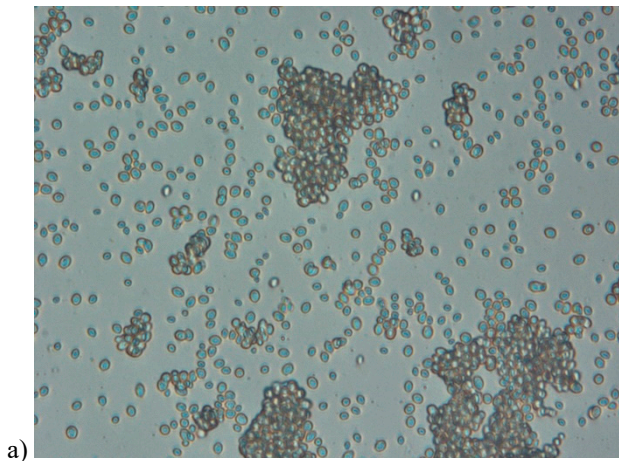


a)

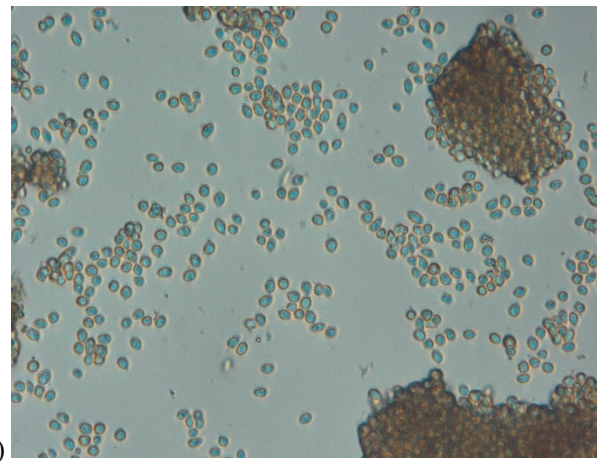


b)

Figure S7: Observation of PEF+TT samples (magn.40×)
a) Baker's commercial yeast; b) Brewer's spent yeast

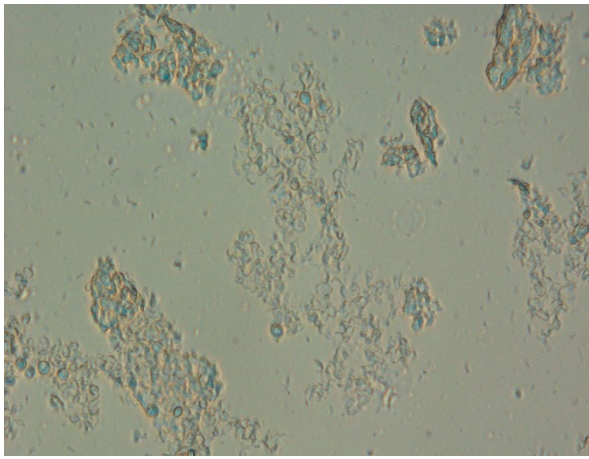


a)

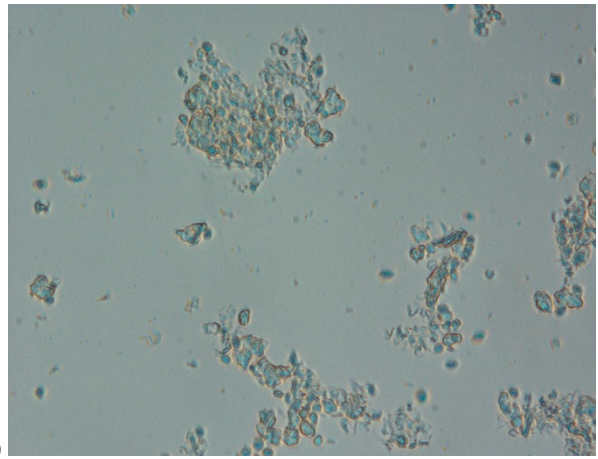


b)

Figure S8: Observation of TT+PEF samples (magn.40×)
a) Baker's commercial yeast; b) Brewer's spent yeast

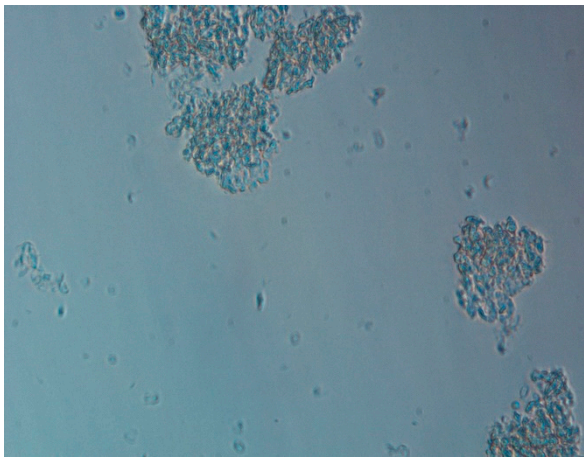


a)

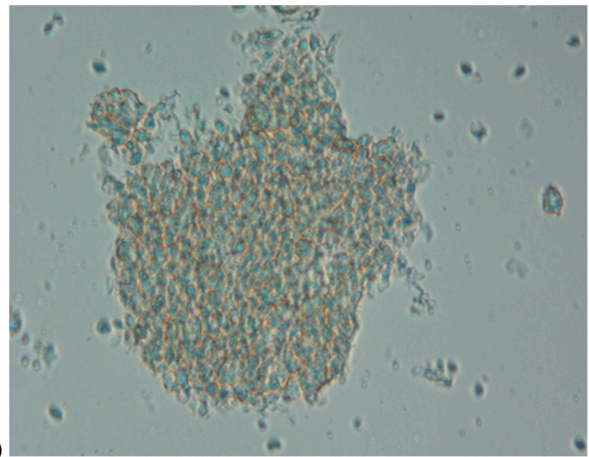


b)

Figure S9: Observation of HPH+PEF samples (magn.40×)
a) Baker's commercial yeast; b) Brewer's spent yeast



a)



b)

Figure S10: Observation of PEF+HPH samples (magn.40×)
a) Baker's commercial yeast; b) Brewer's spent yeast

Saccharomyces cerevisiae: Observation (magnification 100×)

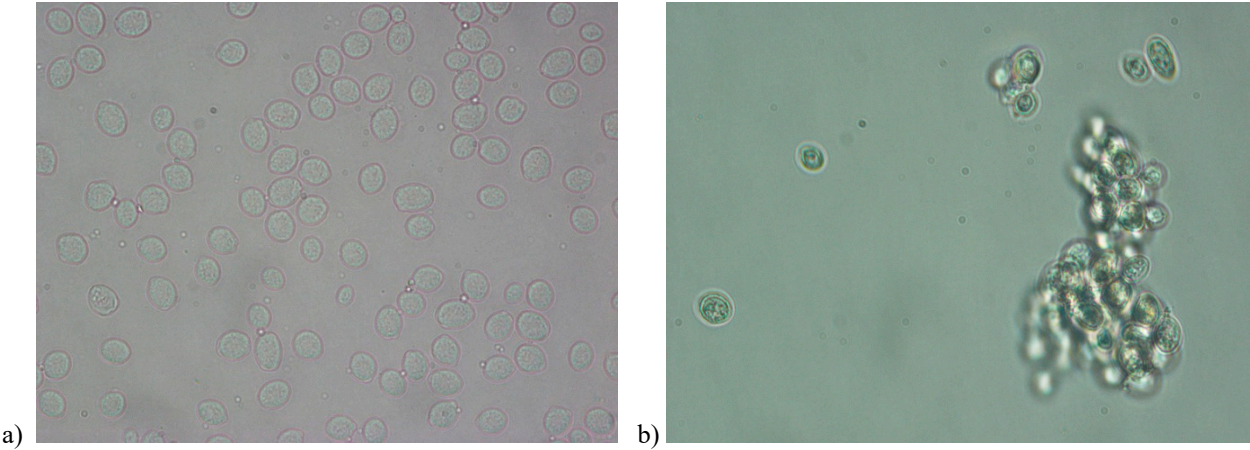


Figure S11: Observation of TT samples (magn.100×)
a) Baker's commercial yeast; b) Brewer's spent yeast

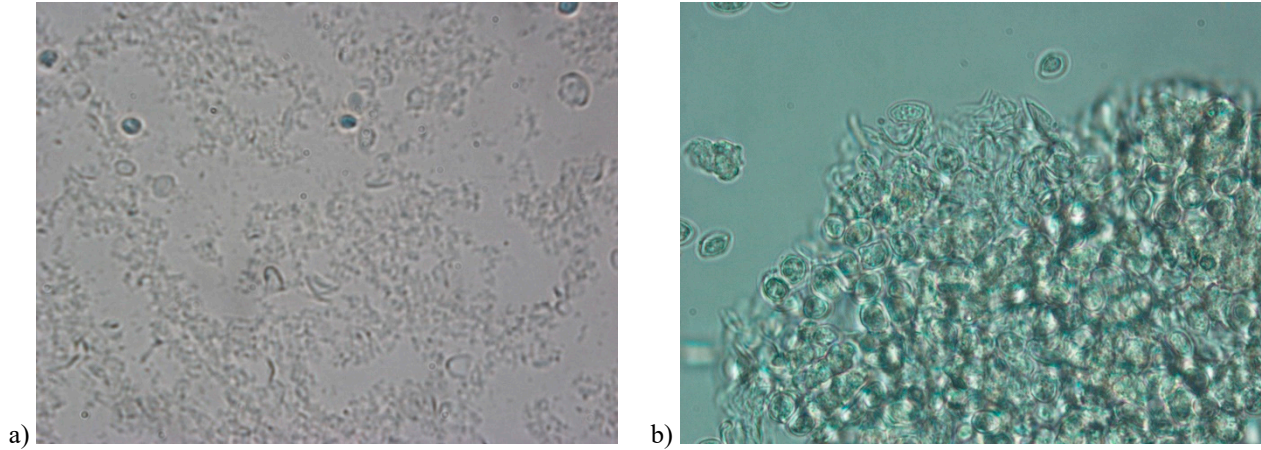


Figure S12: Observation of HPH samples (magn.100×)
a) Baker's commercial yeast; b) Brewer's spent yeast

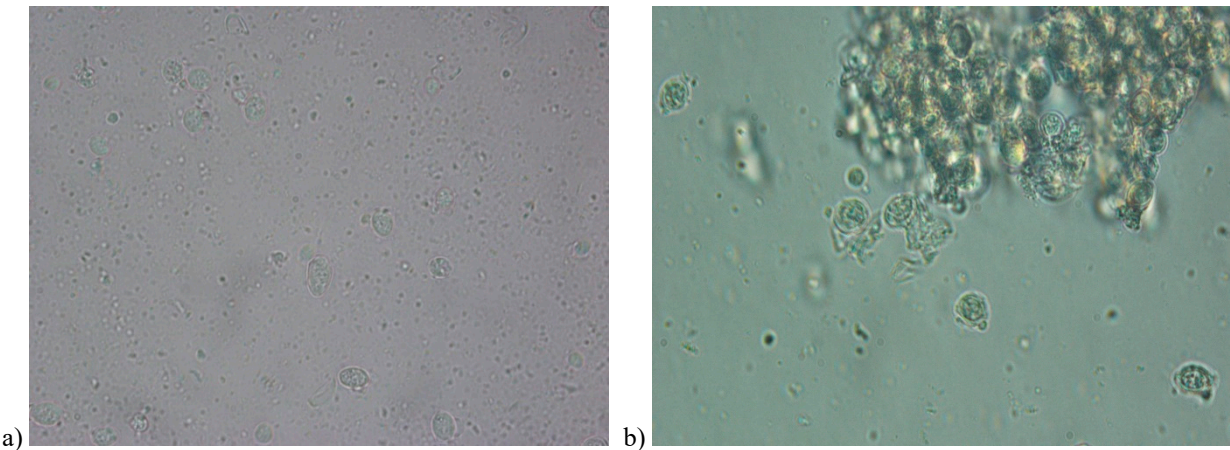


Figure S13: Observation of TT+HPH samples (magn.100×)
a) Baker's commercial yeast; b) Brewer's spent yeast

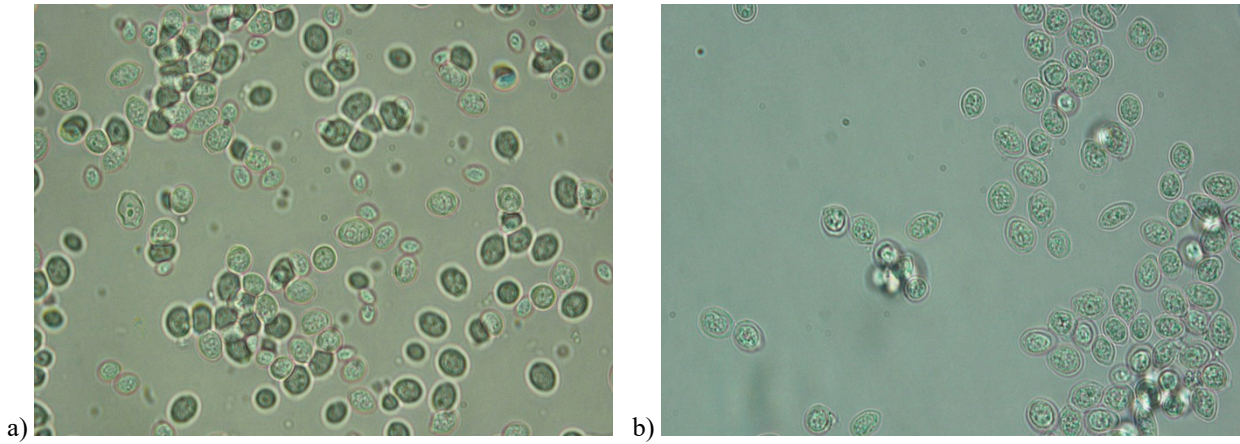


Figure S14: Observation of PEF+TT samples (magn.100×)
a) Baker's commercial yeast; b) Brewer's spent yeast

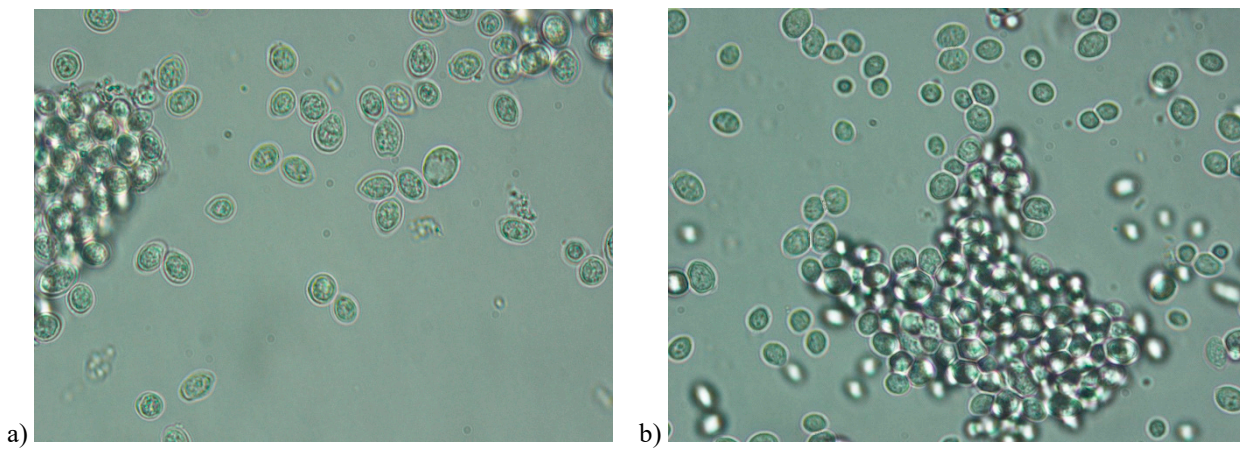


Figure S15: Observation of TT+PEF samples (magn.100×)
a) Baker's commercial yeast; b) Brewer's spent yeast

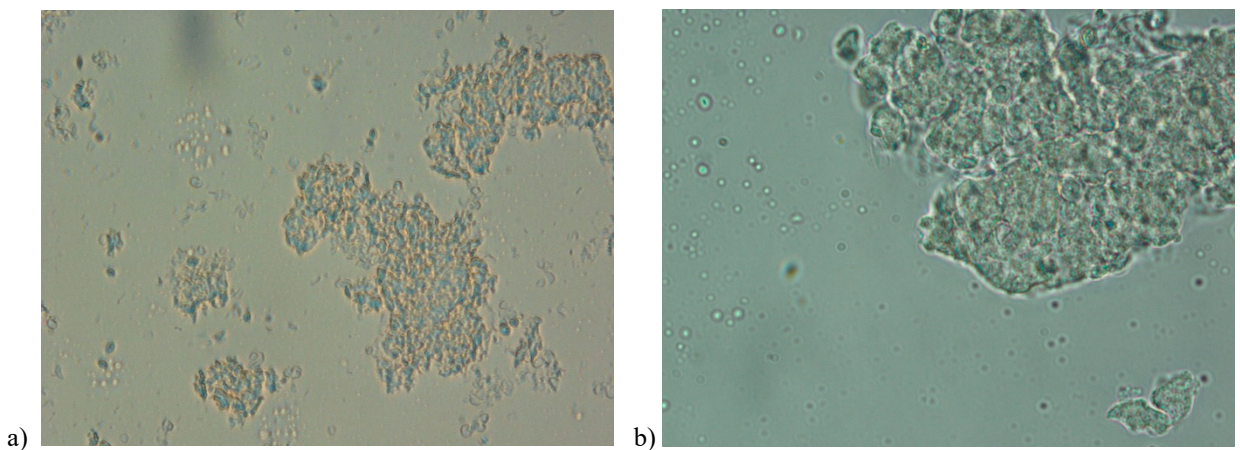


Figure S16: Observation of PEF+HPH samples (magn.100×)
a) Baker's commercial yeast; b) Brewer's spent yeast