



YEAST VITALITY ANALYZED FOR THE FIRST TIME WITH PARTICLE CHARGE

CONTEXT

Yeast vitality is, among other things, an important parameter for alcoholic fermentation and beverage quality. ^[1/2] Using the example of beer, good yeast vitality can be seen in the color of the beer, the taste, and the stability of the foam. ^[1]

The determination of the vitality of the yeast is currently carried out with a time-consuming and expensive cytometer. With the help of particle charge determination and combined charge titration, a cost-effective and fast method is available. ^[1]

PARTICLE CHARGING IN TITRATION

Whether the interface is a smooth surface, a particle surface, or a molecular surface, the same laws apply to all of them. A charged interface attracts opposite-polar excess ions from the liquid environment, which shield the charge from the outside. The loosely bound ions of the charge cloud (double layer) can be sheared off by an electric field or by mechanical work (flow).

The potential that forms on the shear layer can be tapped with the STABINO ZETA measuring devices by mechanical shear as a flow potential signal or zeta potential ζ (**Figure 1**).