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All the Variables

In class, Jim Haefner led a discussion in which students identified the following critical variables determinining the interaction between yeast and sugar in a well-mixed homogenous environment:

y -
Number of yeast cells/volume.

g_i -
Concentration of glucose bound *inside* yeast population, used for respiration and budding.

g_o -
Concentration of glucose *outside* yeast population, in solution, primarily decreasing due to uptake by yeast population.

a -
Alcohol concentration in solution, produced as a by-product of respiration and expected to inhibit population growth.

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