Abstract

STIRRED TANK REACTOR AND METHOD

Container for sample preparation or processing, such as biomass culturing or processing, and optionally sample purification. In certain embodiments, the reactor is a bioreactor that includes a stirred cell device that simulates a tangential flow filter to reduce or eliminate clogging that can be caused by the solids generated. In certain embodiments, the solids comprise a precipitate or floc or beads, such as one that includes a polymer that binds the biomolecule(s) of interest, and impurities. In its method aspects, embodiments disclosed herein include purification and isolation of biomolecules of interest derived from cell culture fluids. The method include carrying out sample preparation or processing in a container, culturing a biomass; generating solids by precipitating or flocculating a biomolecule of interest from the cultured broth; preventing the solids from settling in the container by agitation; and purification, such as by eluting the biomolecule of interest and filtering the same.

Fig. 5