

A First Course on Kinetics and Reaction Engineering

Unit 21. Reaction Engineering of CSTRs

Definitions

steady-state (operation) - Condition where none of the variables describing a reactor are varying with time.

transient (operation) - Condition where at least one of the variables describing a reactor is varying with time.

Nomenclature

τ	space time
V	reaction volume
\dot{V}^0	inlet volumetric flow rate

Equations

$$\tau = \frac{V}{\dot{V}^0} \quad (21.1)$$