

عنوان مقاله:

Wiener Neural Identification, Nonlinear Model Predictive Control, Test Signal, Tubular Reactor, HYSYS Simulator

محل انتشار:

یازدهمین کنگره ملی مهندسی شیمی ایران (سال: 1385)

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خلاصه مقاله:

The drying of solids in concurrent flow conveyor belt dryer (continuous operation system) in which particles move on a wire net conveyor was theoretically studied. For modeling concurrent conveyor belt dryer, a parallel air stream to the surface of bed is considered and diffusion as main mechanism of mass transfer is assumed. In other word, transfer of moisture to the surface of the bed and vaporization is modeled for drying process. The finite volume method was used to solve numerically the governing conservation equations. The results of moisture content of the material (yellow corn kernel) and residence time and conveyor length are presented and analyzed. This model can predict humidity ratio and temperature of air, moisture content and temperature of material along the drying process.

کلمات کلیدی:

Drying, conveyor, dryer, belt, mathematical modeling, finite volume, corn

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