

Course work in discipline "Materials of construction technology of inorganic substances" on " Industrial synthesis of methanol"

Explanatory note contains 16 p., 5 tab., 20 bibl

Physicochemical fundamental of methanol synthesis have been considered, process flow sheet has been introduced. The drawings of the technological scheme of the main unit have been presented.

Construction materials for technological equipment and apparatus have been chosen.

METHANOL SYNTHESIS, SYNTHESIS GAS, SYNTHESIS COLUMN WITH METHANOL.

For the heater should be taken or steel 110Г13Л or 120Г13Х2БЛ. For mixers and heat exchangers 12Х17, 12Х18Н9. For tubular converter used ВСТ 5 or СТ6сп, 45, 12Х18Н10Т 12Х18Н9Т but should futter refractory bricks, for example, fireclay bricks and shaped stones, semi-acid bricks and refractory bricks of type Gzhelian. The recovery boiler using ВСТ 5 or СТ6сп, 50, and СЧ 12, futter fireclay brick. Heat exchanger futter fireclay brick and used the ВСТ 5, 50, СЧ 12, Х17 or 12Х18Н9. For the air cooler 50, 15Х or 20Х. The separator is constructed from 50, 15Х or 20Х, 12Х18Н9. The compressor should be made of ВСТ 5 or СТ6сп, Х17Н2, 55 or 60, 15ХМ. For heat exchangers to used ВСТ 5, 50 and futter. The body of the column the methanol synthesis should be constructed of durable heat-resistant material 15ХСНД, 10ХСНД, futter, a box with a catalytic 15ХМ, 10ХСНД, 15ХСНД. Electric heater with Бр9Мц7Х3. Fridge-capacitor made of 15Х, 30Х3МФ, 50Г2. Separator do with 15Х, 30ХРА, 20 НМ. Cistern collection concentrated methanol 15ХСНД, 12Х18Н9Т.