

The invention relates to chemical industry, namely to technology for production of not concentrated nitric acid, and can be used also for production of concentrated nitric acid, nitrite-nitrate salts and potassium fertilizers.

The improvements concern a stage of preparation and processing of nitrose gas. Novelty in the method of acid production consists in: additional oxidation of nitrogen oxide (II) up to nitrogen oxide (IV) is carried out by solution of nitric acid with simultaneous enrichment of nitrose gas by nitrogen oxide (IV) to remove moisture of reaction from nitrose gas at certain temperature; low-grade heat of nitrose gas is also used; additional oxidation of nitrogen oxide (II) up to nitrogen oxide (IV) is carried out by an intermediate product - 40-50 per cent solution of nitric acid; absorption is carried out at the presence of solution of stripped and deoxidized nitric acid.

The method allows to increase content of nitrogen oxides in nitrose gas upstream column absorber, allows to improve economy of process as a whole. While improving and preserving basic technological parameters of process at a known level the method allows to exclude from operation a circulating contour of production nitric acid, to exclude power inputs for it, to exclude reactor of catalytic oxidation of nitrogen oxide (II) of nitrose gas, to save cooling water.