

A process for preparation of nitric acid comprises absorption of nitrogen oxides from nitrose gases by nitric acid and water in the absorption column, to which water is supplied to the upper part of the column, and nitrose gas and air are supplied to the lower part of the column against nitric acid and water, which are drained downwards column trays. Water to the column is supplied in two flows: the first water flow is supplied to the upper part of the column, and the second flow is supplied to the middle part of the column; air to the column is also supplied in two flows: the first flow is supplied to the lower part of the column, and the second flow is supplied to the lower part of the column below inlet of the second water flow.