

44. To conduct alkaline absorption in the absorption towers for the production of diluted nitric acid, a solution is used:

- A) CaOH_2 ;
- B) Na_3PO_4 ;
- C) CaCl_2 ;
- D) Na_2CO_3 ;
- E) CaCO_3 .

45. In the production of diluted nitric acid, an apparatus is used to purify air from mechanical and chemical impurities:

- A) mesh foam washer;
- B) an acid absorber;
- C) a centrifugal scrubber;
- D) an alkaline absorber;
- E) flushing tower.

46. The azeotropic mixture contains HNO_3 , %:

- A) 98.9;
- B) 68.4;
- C) 100;
- D) 47.5;
- E) 92.5.

47. The concentration of commercial nitric acid is, %:

- A) 45;
- B) 56;
- C) 37;
- D) 47;
- E) 46.

48. In the production of concentrated nitric acid as a dewatering agent is used:

- A) H_2SO_4 ;
- B) H_2SO_3 ;
- C) H_2S ;
- D) P_2O_5 ;
- E) H_3PO_4 .

49. Direct synthesis of concentrated nitric acid is carried out in accordance with the equation:

- A) $\text{N}_2\text{O}_3 + \text{H}_2\text{SO}_4 \rightarrow \text{HNSO}_5 + \text{H}_2\text{O}$;
- B) $3\text{NO}_2 + \text{H}_2\text{O} \rightarrow 2\text{HNO}_3 + \text{NO}$;
- C) $2\text{N}_2\text{O}_4 + 2\text{H}_2\text{O} + \text{O}_2 = 4\text{HNO}_3 + \text{Q}$;
- D) $2\text{NO}_2 + \text{H}_2\text{SO}_4 \rightarrow \text{HNSO}_5 + \text{HNO}_3$;
- E) $\text{N}_2\text{O}_3 + \text{H}_2\text{O} \rightarrow 2\text{HNO}_2$.

50. In which apparatus the diluted nitric acid is distilled with concentrated sulfuric acid to obtain concentrated nitric acid:

- A) denitration towers;
- B) absorbing towers;
- C) rectification plate columns;
- D) distillation columns;
- E) plate bubbling columns.