

27. Advantage of the membrane method of electrolytic production of caustic soda in comparison with the diaphragm method:

- A) the polymer membrane separates the anode and cathode space and facilitates the penetration of NaCl from the brine to the cathode;
- B) chlorine is released at the anode and excreted together with the depleted brine, and sodium ions and partially water pass through the membrane to the cathode and participate in the formation of lye of a given concentration;
- C) the polymer membrane facilitates the transfer of OH-ions to the anode of the electrolyzer;
- D) sodium ions and partially water do not pass through the membrane to the cathode;
- E) both processes increase the yield of alkali.

28. Advantage of the membrane method of electrolytic production of caustic soda in comparison with the diaphragm method:

- A) the membrane type electrolyzer contains from 20 to 25 cells;
- B) capacity of the membrane electrolyzer up to 50 thousand tons per year;
- C) the membrane type electrolyzer contains from 40 to 80 cells;
- D) the load on the cell (current) of the membrane electrolyzer does not exceed 15 kA;
- E) both electrolyzers are cost-effective.

29. Indicate the advantage of the membrane method of electrolytic production of caustic soda in comparison with the diaphragm:

- A) the load on the cell (current) of the membrane electrolyzer does not exceed 17 kA;
- B) capacity of the membrane electrolyzer up to 50 thousand tons per year;
- C) the membrane type electrolyzer contains from 20 to 25 cells;
- D) capacity of the membrane electrolyzer up to 80 thousand tons per year;
- E) the output and cost of production from both electrolyzers are comparable.

30. One of the advantages of the membrane method of electrolytic production of caustic soda in comparison with the diaphragm:

- A) capacity of the membrane electrolyzer up to 50 thousand tons per year;
- B) the load on the cell (current) of the membrane electrolyzer does not exceed 7.5 kA;
- C) the membrane type electrolyzer contains from 20 to 25 cells;
- D) the load on the cell (current) of the membrane electrolyzer does not exceed 20 kA;
- E) both electrolyzers are cost-effective.

31. The main stages of obtaining soda ash and sodium bicarbonate according to the Solve method:

- A) grinding sodium bicarbonate;
- B) calcination of limestone;
- C) neutralization of ammonia solution;
- D) obtaining sodium bicarbonate;
- E) synthesis of ammonia.

32. One of the stages of obtaining soda ash and sodium bicarbonate according to the Solve method:

- A) preparation of limestone for roasting;
- B) calcination with the formation of soda;
- C) calcination of limestone;
- D) separation of CaCl₂;
- E) dissolution of limestone.