

27. In electrolytic production Al with  $T_{\text{melting}}=938\text{ }^{\circ}\text{C}$  eutectic is achieved when the content of cryolite in the melt is equal to:

- A) 35% by wt.;
- B) 50% by wt.;
- C) 15% by wt.;
- D) from 18 to 38% by wt.;
- E) < 65% by wt.

28. In the production of aluminum, secondary processes of cryolite-alumina melt electrolysis are:

- A) at the anode:  $\text{C}+\text{O}_2=\text{CO}_2$  ;
- B)  $2\text{Al}_2\text{O}_3+3\text{C}=4\text{Al}+3\text{CO}_2$  ;
- C)  $\text{Al}_2\text{O}_3+3\text{C}=2\text{Al}+3\text{CO}$  ;  $\text{C}+\text{O}=\text{CO}$  ;
- D)  $2\text{Al}_2\text{O}_3+3\text{C}=4\text{Al}+3\text{CO}_2$  ;  $\text{C}+\text{O}=\text{CO}$  ;
- E)  $\text{Al}_2\text{O}_3+3\text{C}=2\text{Al}+3\text{CO}$  ;  $2\text{Al}_2\text{O}_3+3\text{C}=4\text{Al}+3\text{CO}_2$  .

29. In the production of aluminum, secondary processes of cryolite-alumina melt electrolysis are:

- A) at the anode:  $\text{C}+\text{O}_2=\text{CO}$ ;
- B)  $\text{Al}_2\text{O}_3+3\text{C}=2\text{Al}+3\text{CO}$  ;
- C)  $2\text{Al}_2\text{O}_3+3\text{C}=4\text{Al}+3\text{CO}_2$  ;
- D)  $\text{Al}_2\text{O}_3+3\text{C}=2\text{Al}+3\text{CO}$  ;  $\text{C}+\text{O}=\text{CO}$  ;
- E)  $2\text{Al}_2\text{O}_3+3\text{C}=4\text{Al}+3\text{CO}_2$  ;  $\text{C}+\text{O}=\text{CO}$  .

30. In the production of aluminum, secondary processes of cryolite-alumina melt electrolysis are:

- A)  $\text{Al}_2\text{O}_3+3\text{C}=2\text{Al}+3\text{CO}$  ;  $\text{C}+\text{O}=\text{CO}$  ;
- B)  $\text{Al}_2\text{O}_3+3\text{C}=2\text{Al}+3\text{CO}$  ;
- C)  $2\text{Al}_2\text{O}_3+3\text{C}=4\text{Al}+3\text{CO}_2$  ;
- D) oxidation of carbon electrodes to form CO and  $\text{CO}_2$ ;
- E)  $\text{Al}_2\text{O}_3+3\text{C}=2\text{Al}+3\text{CO}$  ;  $2\text{Al}_2\text{O}_3+3\text{C}=4\text{Al}+3\text{CO}_2$  .

31. Processes of electrolysis of cryolyte-alumina melt in aluminium production:

- A) at the anode:  $\text{C}+\text{O}=\text{CO}$ ;
- B) at the anode:  $\text{C}+\text{O}_2=\text{CO}_2$ ;
- C) oxidation of carbon electrodes to form CO and  $\text{CO}_2$ ;
- D)  $\text{Al}_2\text{O}_3+3\text{C}=2\text{Al}+3\text{CO}$ ;
- E)  $2\text{Al}_2\text{O}_3+3\text{C}=4\text{Al}+3\text{CO}_2$ ,  $\text{C}+\text{O}=\text{CO}$ .

32. Processes of electrolysis of cryolyte-alumina melt in aluminium production:

- A) at the anode:  $\text{C}+\text{O}=\text{CO}$ ;
- B) at the anode:  $\text{C}+\text{O}_2=\text{CO}_2$ ;
- C) oxidation of carbon electrodes to form CO and  $\text{CO}_2$ ;
- D)  $2\text{Al}_2\text{O}_3+3\text{C}=4\text{Al}+3\text{CO}_2$ ;
- E)  $\text{Al}_2\text{O}_3+3\text{C}=2\text{Al}+3\text{CO}$ .

33. Processes of electrolysis of cryolyte-alumina melt in aluminium production:

- A) at the anode:  $\text{C}+\text{O}=\text{CO}$ ;
- B) at the anode:  $\text{C}+\text{O}_2=\text{CO}_2$ ;