

**17. Raw materials for the production of gas sulfur are:**

- A) gases containing hydrogen sulfide;
- B) lump sulfur;
- C) gases containing carbon dioxide;
- D) gases containing sulfur dioxide;
- E) native sulfur.

**18. The concentration of SO<sub>2</sub> in the sulfur firing gas reaches:**

- A) 50%;
- B) 19%;
- C) 21%;
- D) 75%;
- E) 93%.

**19. Natural and process gases containing hydrogen sulfide include:**

- A) converted gases, carbon dioxide, acetylene;
- B) flue gases, acetylene, ammonia;
- C) agglomeration gases, carbon monoxide;
- D) refinery waste gases, inert gases, ammonia;
- E) natural gas, coke oven gas, generator gas.

**20. The reaction of producing sulfur dioxide from hydrogen sulfide:**

- A)  $2\text{H}_2\text{S} + \text{O}_2 = \text{S}_2 + 2\text{H}_2\text{O}$ ;
- B)  $2\text{H}_2\text{S} + 4\text{O}_2 = 2\text{SO}_3 + 2\text{H}_2\text{O}$ ;
- C)  $2\text{H}_2\text{S} + \text{SO}_2 = 3\text{S} + 2\text{H}_2\text{O}$ ;
- D)  $\text{H}_2\text{S} + 2\text{O}_2 = \text{H}_2\text{SO}_4$ ;
- E)  $2\text{H}_2\text{S} + 3\text{O}_2 = 2\text{SO}_2 + 2\text{H}_2\text{O}$ .

**21. The composition of the gas obtained from hydrogen sulfide:**

- A) SO<sub>2</sub>, SO<sub>3</sub>, N<sub>2</sub>, O<sub>2</sub>;
- B) O<sub>2</sub>, SO<sub>2</sub>, As<sub>2</sub>O<sub>3</sub>, NO<sub>2</sub>;
- C) H<sub>2</sub>O, SO<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub>;
- D) SO<sub>3</sub>, SO<sub>2</sub>, N<sub>2</sub>, NO<sub>2</sub>;
- E) SeO<sub>2</sub>, SO<sub>3</sub>, N<sub>2</sub>.

**22. To increase the degree of oxidation of SO<sub>2</sub> to SO<sub>3</sub> in the reaction  $\text{SO}_2 + 0.5\text{O}_2 = \text{SO}_3$ , it is necessary to:**

- A) reduce the concentration of SO<sub>3</sub>;
- B) increase the concentration of SO<sub>3</sub>;
- C) reduce the concentration of O<sub>2</sub>;
- D) increase the temperature of the process;
- E) lower the process pressure.

**23. To increase the degree of SO<sub>3</sub> absorption by sulfuric acid solutions, it is necessary to:**

- A) reduce the concentration of SO<sub>3</sub> in the gas;
- B) reduce pressure;
- C) increase the temperature;
- D) increase the concentration of SO<sub>3</sub> in the gas;
- E) select the optimal concentration of sulfuric acid.

**24. The oxidation process of sulfur dioxide in the presence of a catalyst is called:**

- A) enrichment;