

OKSIDIRAJUĆE DJELOVANJE

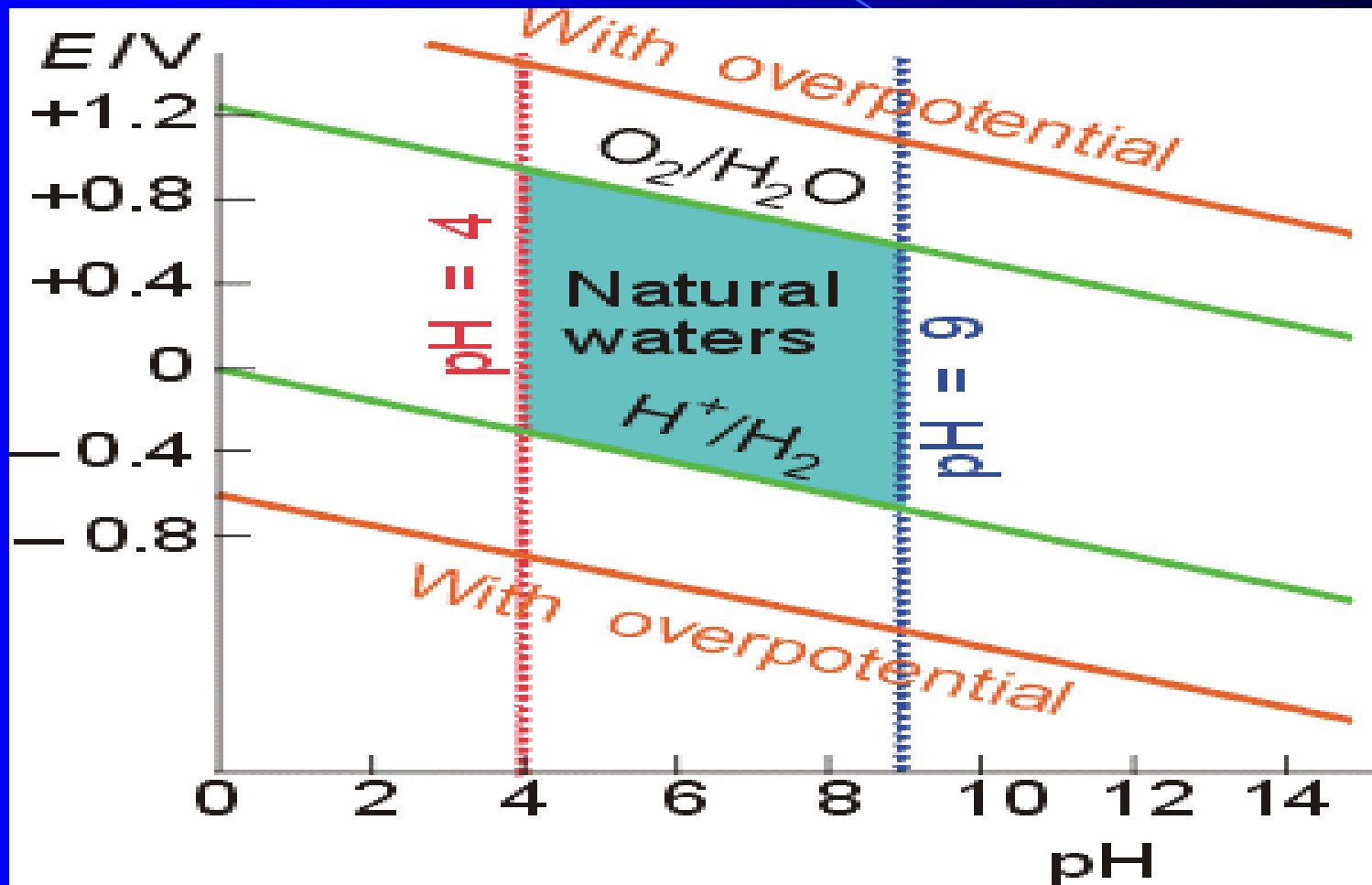
- | | $E_{O/R}/V$ |
|---|-------------------|
| • $H^+ + e^- \leftrightarrow \frac{1}{2} H_2$ 0 | pH = 7 -0,414 |
| • $H_2O + e^- \leftrightarrow \frac{1}{2} H_2 + OH^-$ 0 | pH = 14 -0,828 |
| • $E = -0,059 V \cdot pH$ | |

REDUCIRAJUĆE DJELOVANJE:

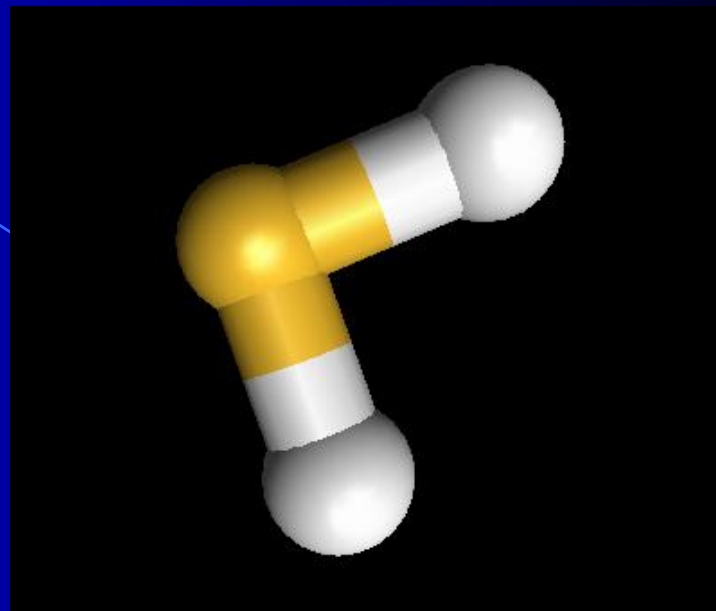
- | | |
|--|-------------------|
| • $\frac{1}{2} O_2 + 2 H^+ + 2 e^- \leftrightarrow H_2O$ 0 $-II$ | pH = 0 1,23 |
| • $\frac{1}{2} O_2 + 2 H^+ + 2 e^- \leftrightarrow H_2O$ | pH = 7 0,82 |
| • 0 $-II$ | |
| • 0 | |
| • 0 | |
| • $\frac{1}{2} O_2 + H_2O + 2 e^- \leftrightarrow 2 OH^-$ | pH = 14 0,41 |

$$E = 0,40 \text{ V} + 0,059 \text{ V} \cdot \text{pOH}$$

$$E = 1,23 \text{ V} - 0,059 \text{ V} \cdot \text{pH}$$



H₂S



- $pK_1 = 6,88$
- $pK_2 = 14,15$
- $H_2S \leftrightarrow H^+ + HS^- \leftrightarrow 2 H^+ + S_2^-$
- $ZnS(s) + 2 H^+ \leftrightarrow Zn^{2+} + H_2S$
-
- $2 Fe^{3+} + H_2S \leftrightarrow 2 Fe^{2+} + \overset{0}{S} + 2 H^+$
-
- $2 H_2S + O_2 \xrightarrow{\text{polako}} 2 \overset{0}{S} + 2 H_2O$
- zrak
- (gorenje) $\downarrow \rightarrow SO_2$
- **H₂S OTROVAN KAO I HCN**

OSTALI SPOJEVI:

OKSIDI:-KISELI

CO₂, SO₃, SiO₂

● **-BAZNI**

Na₂O, CaO

● **-AMFOTERNI**

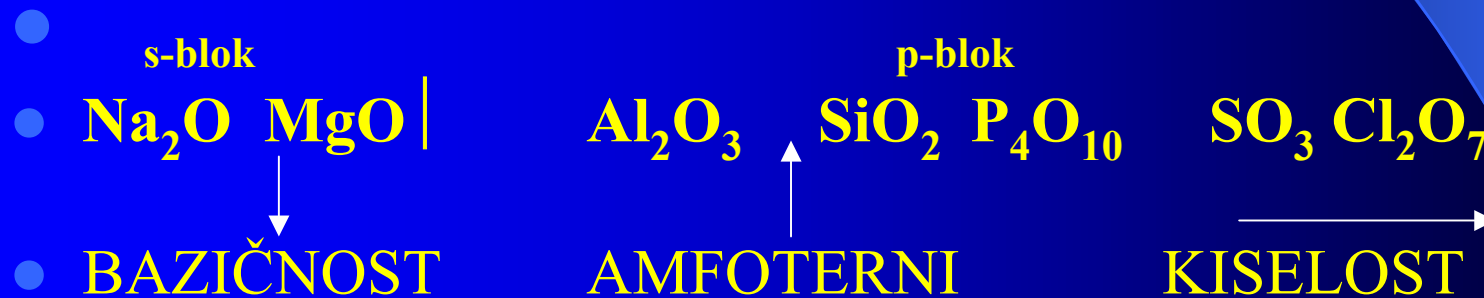
Sb₄O₆, ZnO

● **-NEUTRALNI**

N₂O, NO, CO

DEF. KISELIH OKSIDA:

- 1. $\text{SO}_3 + \text{H}_2\text{O} \leftrightarrow \text{H}^+ + \text{HSO}_4^-$
- 2. $\text{SO}_3 + \text{OH}^- \rightarrow \text{HSO}_4^-$
- 3. $\text{SiO}_2 + \text{NaOH} (\ell) \rightarrow \text{Na}_2\text{SiO}_3 + \text{H}_2\text{O} (\text{g})$



- OVISNOST KISELOSTI O OKSID.
STUPNJU:

-



- →

KISELOST

-



- bazičan

amfoter.

kiseli

-

KLASIFIKACIJA PREMA STRUKTURI:

- -MOLEKULSKA $\text{SO}_2, \text{NO}_2, \text{OsO}_4$

-

- -SLOJEVITA ILI LANČANA

-

PbO

$\beta\text{-SO}_3$

-

- -TRODIOMENZIONALNA REŠETKA

-

- a) binarni A_xO_y

-

- b) kompleksni $\text{A}_x\text{B}_y\text{O}_z$

-

-

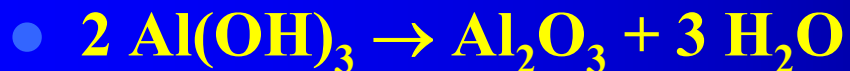
$z = 2, 3, 4$

DOBIVANJE OKSIDA:

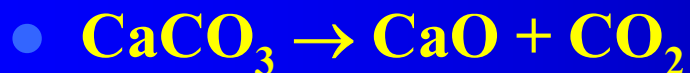
- SINTEZA IZ ELEMENATA



- DEHIDRATACIJA HIDROKSIDA



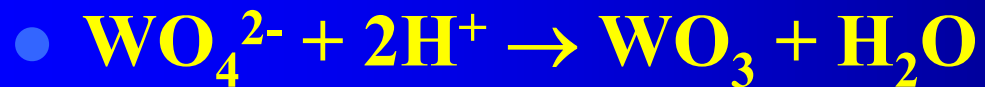
- TERMIČKA RAZGRADNJA SOLI:



- PRŽENJE SULFIDA NA ZRAKU:

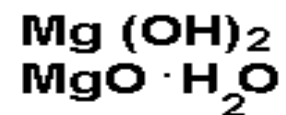
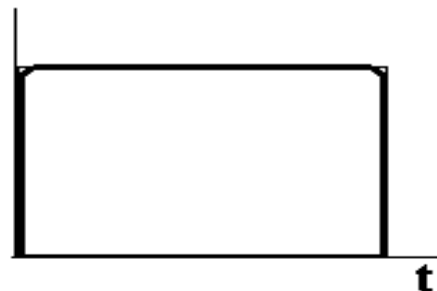


- PRECIPITACIJA IZ OTOPINE SOLI:

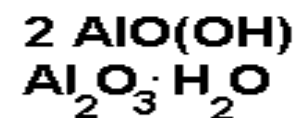
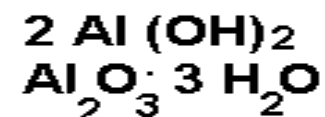
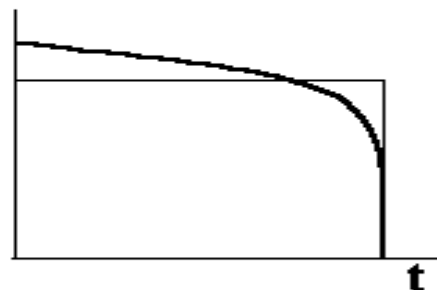


Dehidratacija hidroksida:

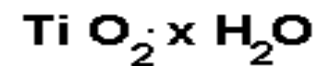
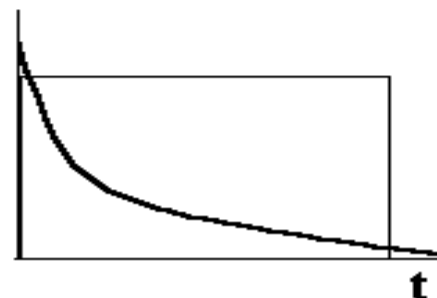
$$\frac{n(\text{H}_2\text{O})}{n(\text{oksid})}$$



$$\frac{n(\text{H}_2\text{O})}{n(\text{oksid})}$$



$$\frac{n(\text{H}_2\text{O})}{n(\text{oksid})}$$



DOBIVANJE SULFIDA

- DIREKTNA SINTEZA



- TALOŽNA REAKCIJA



- REDUKCIJA SULFATA



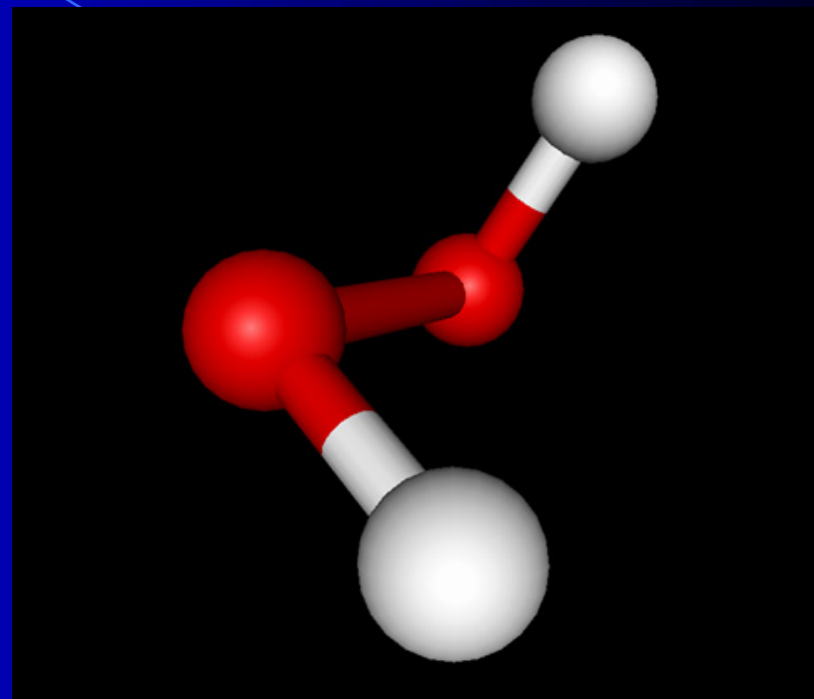
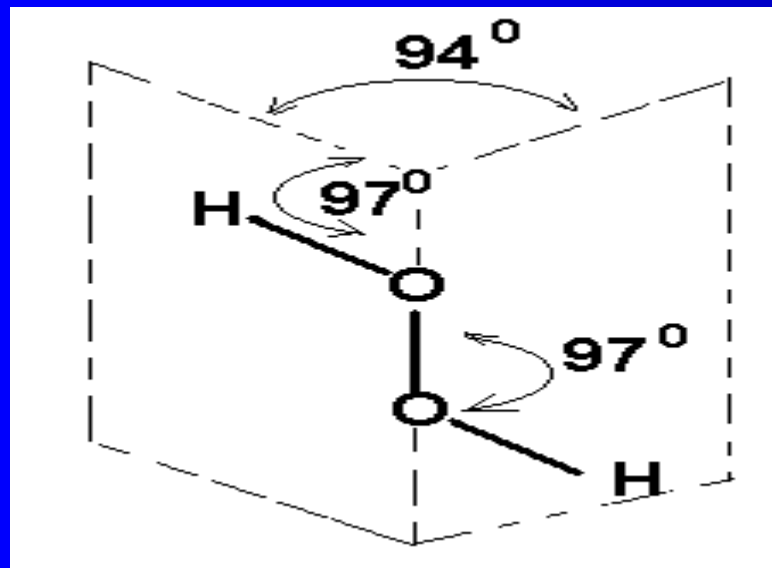
SVOJSTVA:

- $\text{S}^{2-} + \text{H}_2\text{O} \leftrightarrow \text{HS}^- + \text{OH}^-$
-
- $\text{S}^{2-} + 2\text{H}^+ \rightarrow \text{H}_2\text{S}$
-
- $3\text{CuS} + 8\text{H}^+ + 2\text{NO}_3^- \rightarrow 3\text{Cu}^{2+} + 3\text{S} + 2\text{NO} + 4\text{H}_2\text{O}$
-

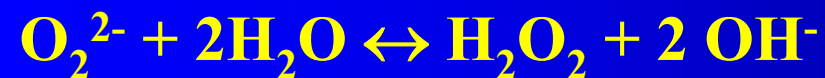
-1

H_2O_2

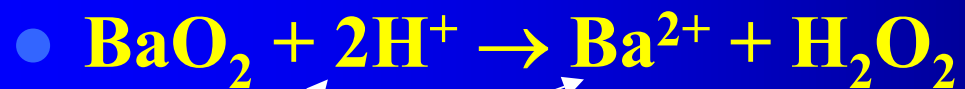
H_2O_2



$$K_1 = 10^{-12} \text{ mol dm}^{-3}$$



Dobivanje:



-



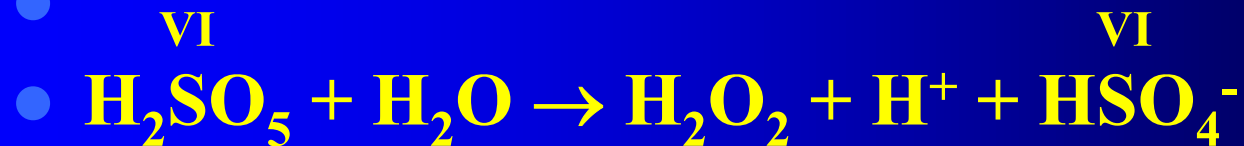
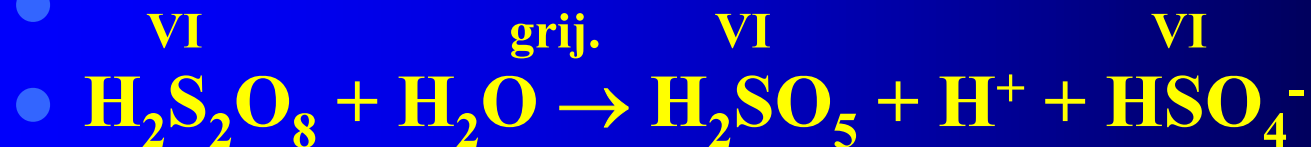
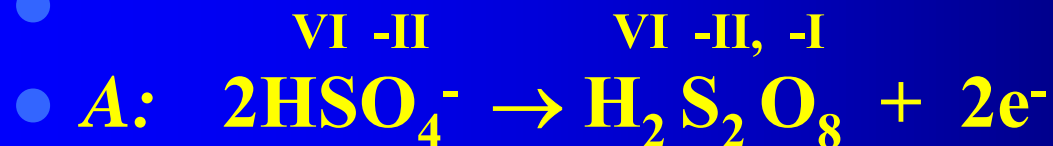
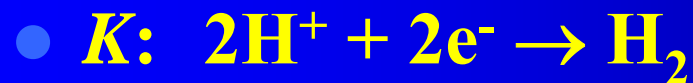
-



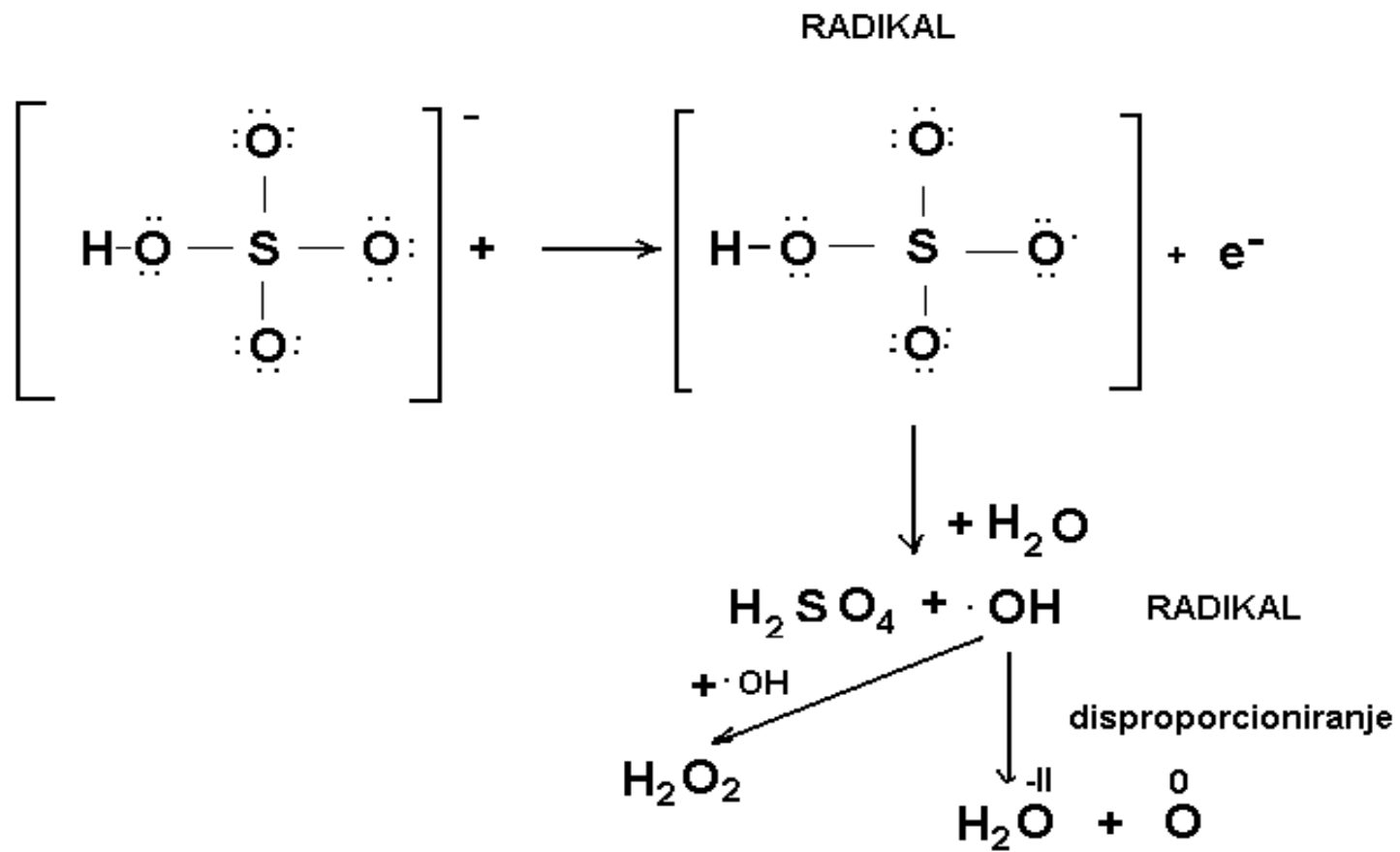


● ELEKTROLITIČKI

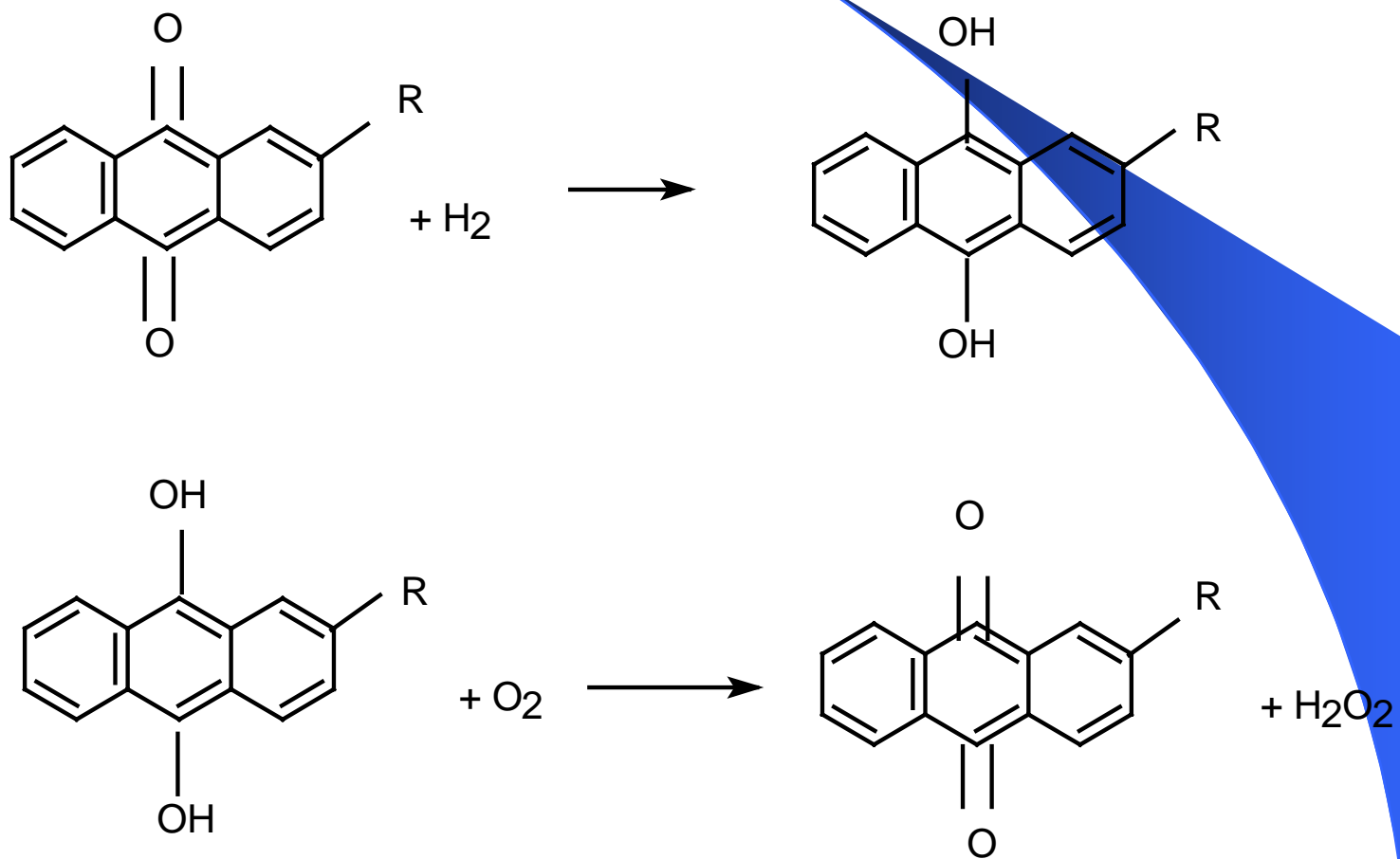
$$w(\text{H}_2\text{SO}_4) = 0,5$$



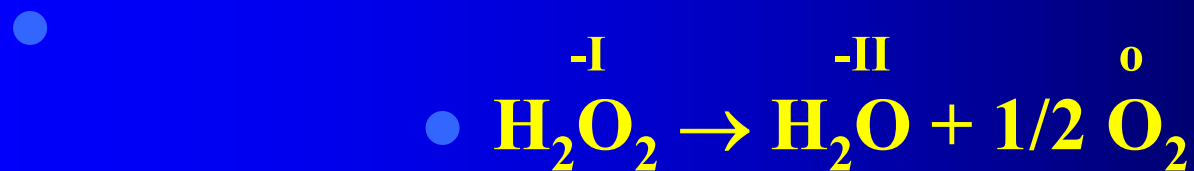
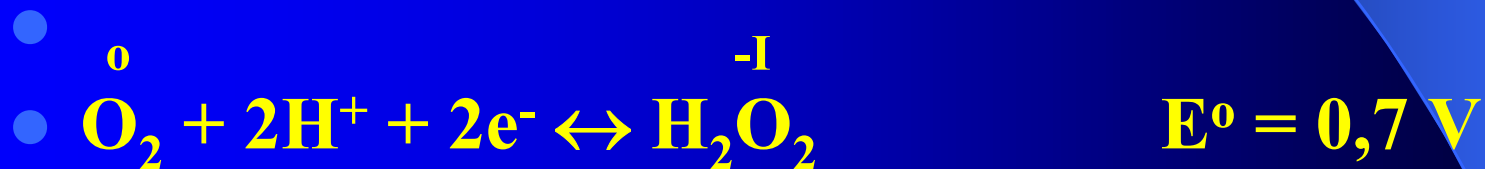
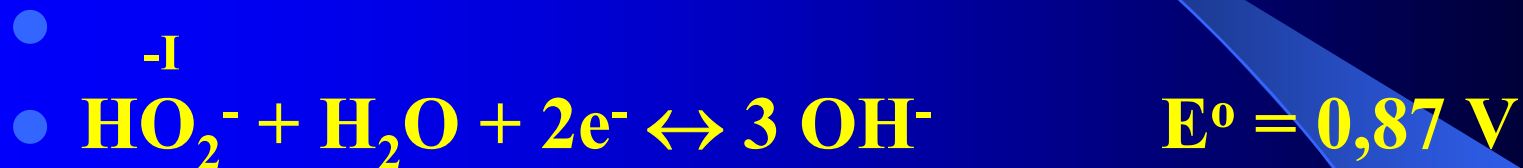
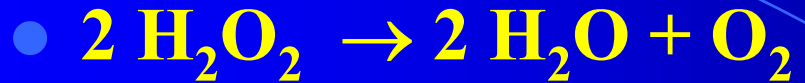
MEHANIZAM:



2-alkylantrakinon

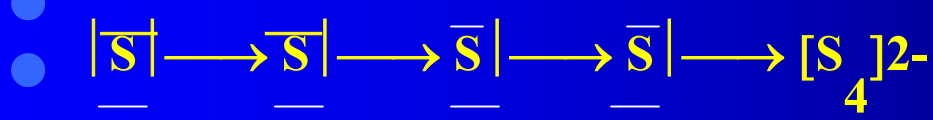
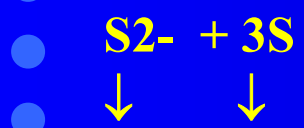
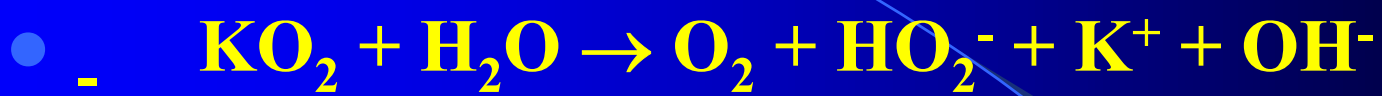


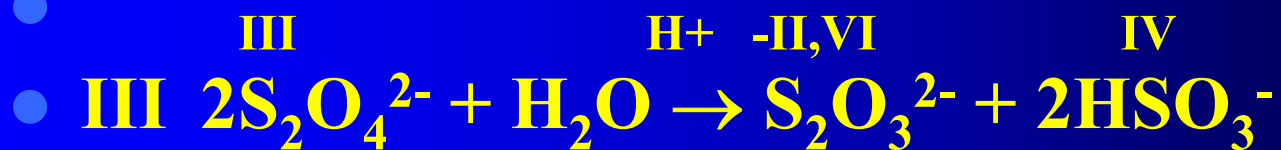
SVOJSTVA



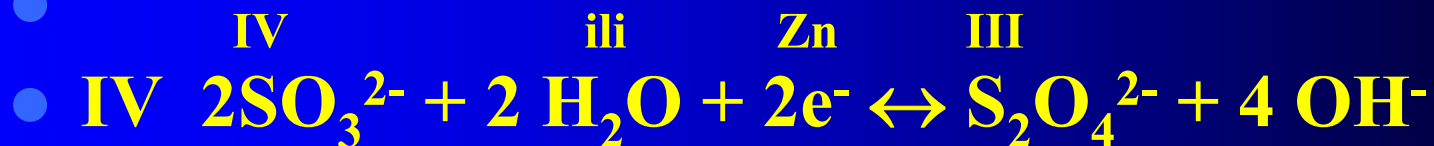
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- **SUPEROKSID**





K:



$E^0 = - 1,12 V$

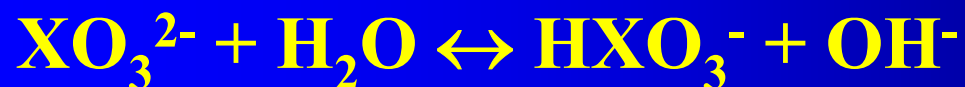
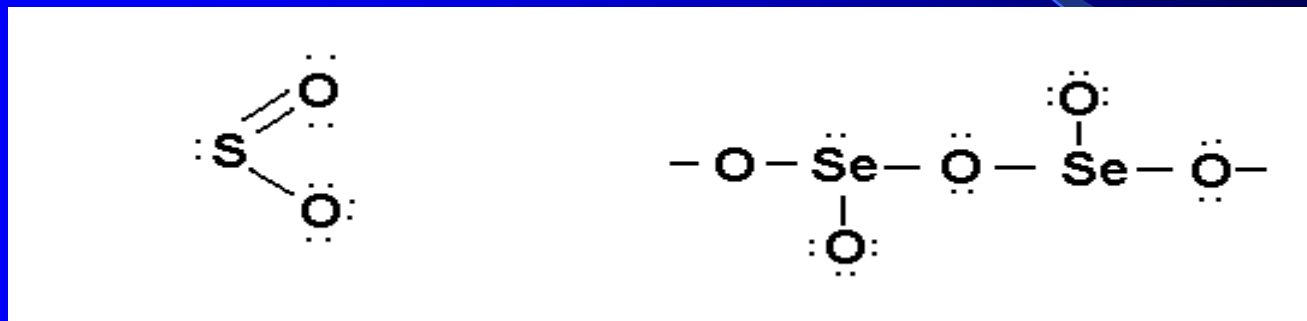
• SO_2 SeO_2

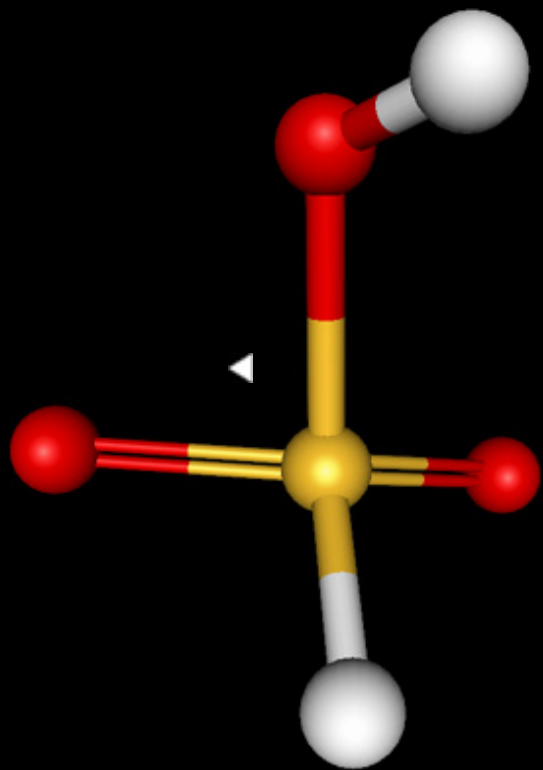
• ←

• **KISELOST**

TeO_2

AMFOTERAN

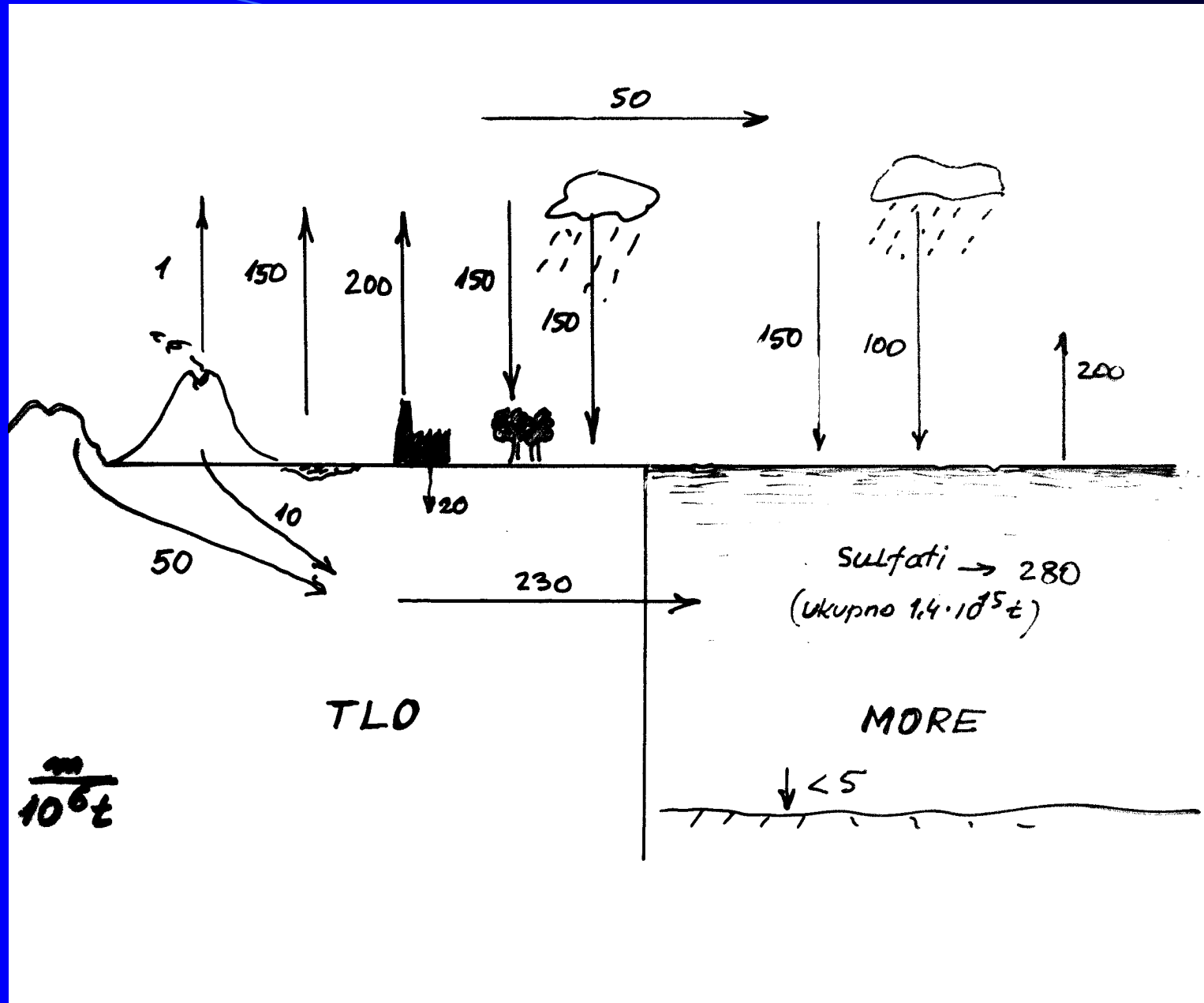


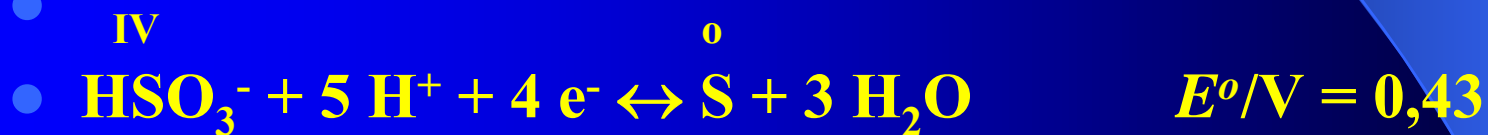
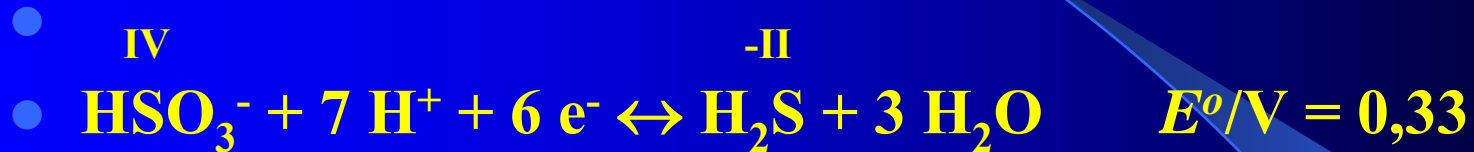


- Sumporasta
kiselina



- sumporov IV oksid

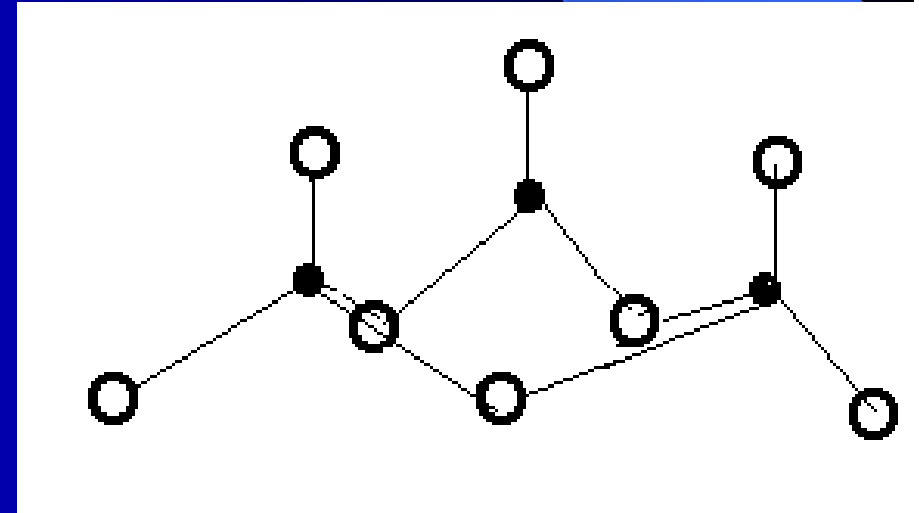
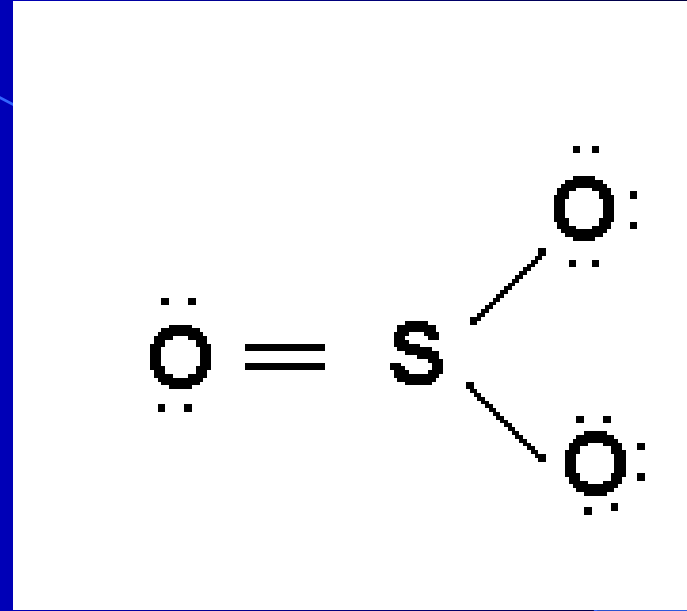




VI

- VI
- SO_3

- $\alpha - \text{SO}_3$

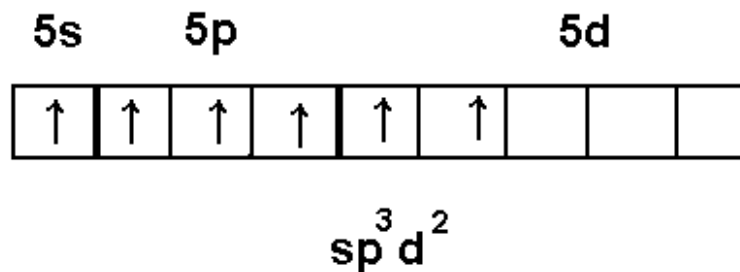




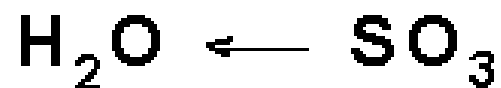
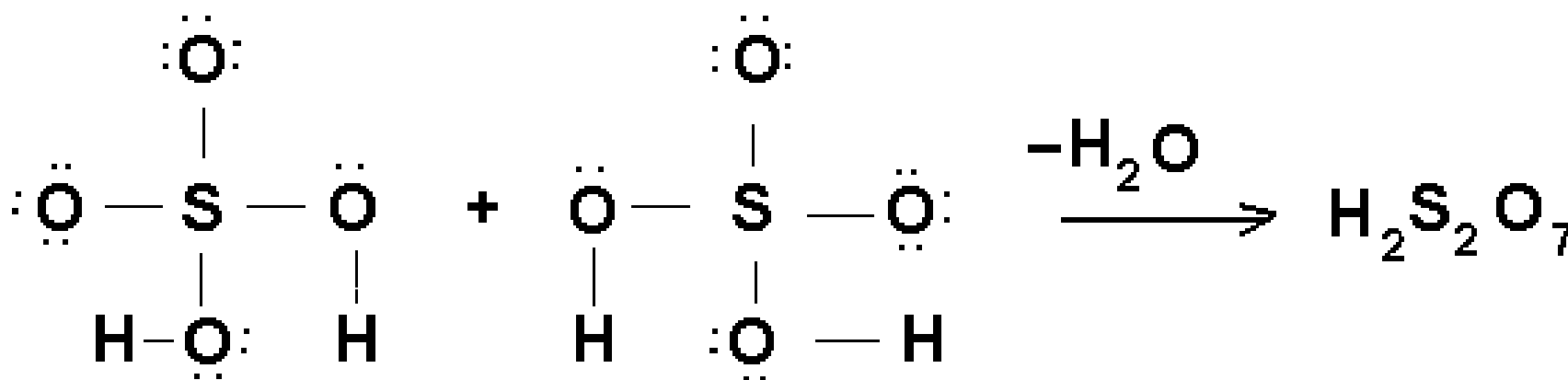
$$\Delta_r H = -270 \text{ kJ/mol}$$



vrlo slaba



- $\text{SO}_3 + \text{H}_2\text{O} \rightarrow \text{H}_2\text{SO}_4$, $\Delta H_r = -90 \text{ kJ/mol}$
- $\text{SO}_3 + \text{H}_2\text{SO}_4 \rightarrow \text{H}_2\text{S}_2\text{O}_7$



- POSTUPAK OLOVNIH KOMORA



-



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-

- GLOVEROV TORANJ



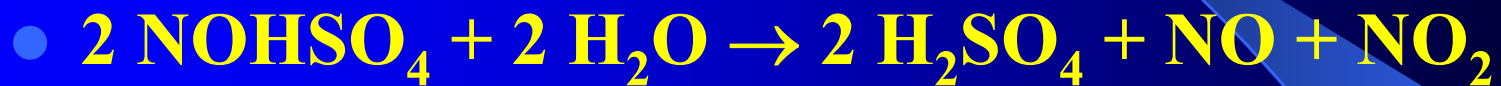
-

$$w = 0,8$$

- **OLOVNA KOMORA**



-



- $w = 0,6$

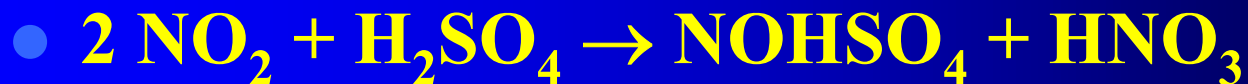
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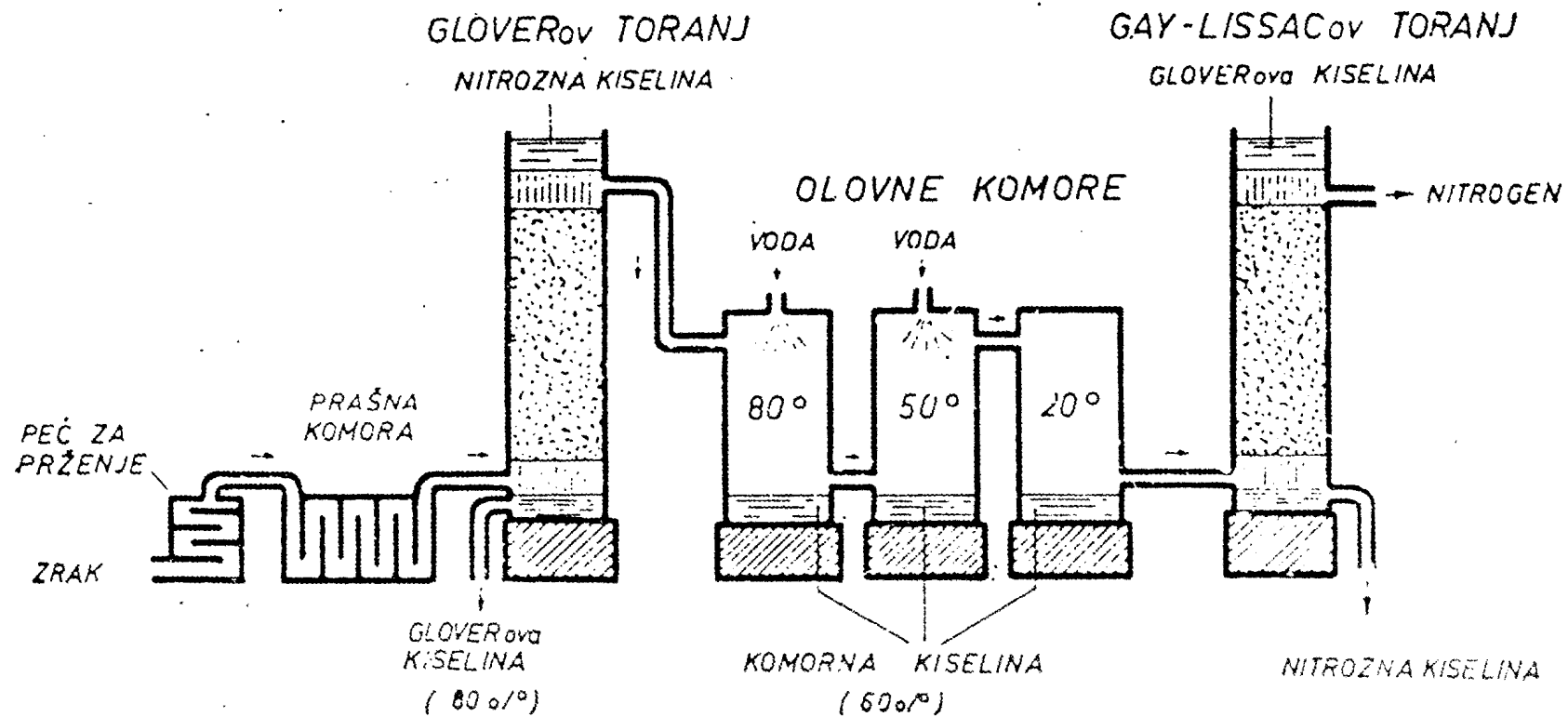
- **GAY - LUSSACOV TORANJ**

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- -



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The image features a blue gradient background. A curved line starts from the top left and curves towards the bottom right, separating a darker blue area from a lighter blue area. The text "THE END" is centered in a yellow, bold, sans-serif font.

THE END