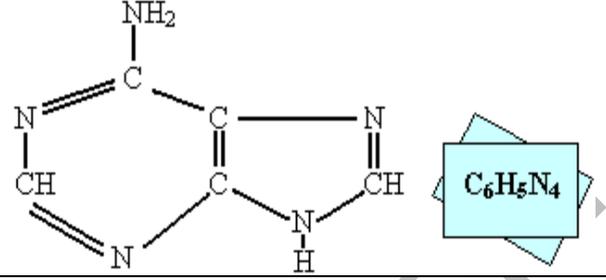
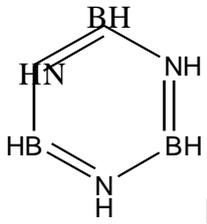


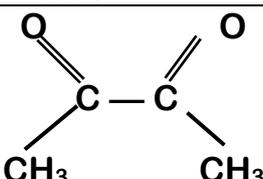
<b>KISLOTALAR</b>	
Arsenit kislota	$H_3AsO_3$
Bromat kislota	$HBrO_3$
Bromid kislota	$HBr$
Dixromat kislota	$H_2Cr_2O_7$
Fosfit kislota	$H_3PO_3$
Ftorid kislota	$HF$
Gipobromid kislota	$HBrO$
Gipofosfit kislota	$H_3PO_2$
Gipoxlorid kislota	$HClO$
Gipoyodid kislota	$HJO$
Karbonat kislota	$H_2CO_3$
Manganat kislota	$H_2MnO_4$
Metaborat kislota	$HBO_2$
Metafosfat kislota	$HPO_3$
Metasilikat kislota	$H_2SiO_3$
Nitrat kislota	$HNO_3$
Nitrit kislota	$HNO_2$
Ortoborat kislota	$H_3BO_3$
Ortofosfat kislota	$H_3PO_4$
Ortosilikat kislota	$H_4SiO_4$
Ortoyodat kislota	$H_5JO_6$
Permanganat kislota	$HMnO_4$
Persulfat kislota	$H_2S_2O_4$
Peroxlorat kislota	$HClO_4$
Peryodat kislota	$HJO_4$
Rodanid kislota	$HSCN$
Selenat kislota	$H_2SeO_4$
Selenid kislota	$H_2Se$
Selenit kislota	$H_2SeO_3$
Sianat kislota	$HOCN$
Sianid kislota	$HCN$
Silikat kislota	$H_2SiO_3$
Sulfat kislota	$H_2SO_4$
Sulfid kislota	$H_2S$
Sulfit kislota	$H_2SO_3$
Tetraxromat kislota	$H_2Cr_4O_{13}$
Trimetafosfat kislota	$H_3(PO_3)_3$
Trixromat kislota	$H_2Cr_3O_{10}$
Xlorat kislota	$HClO_3$
Xlorid kislota	$HCl$
Xlorit kislota	$HClO_2$
Xromat kislota	$H_2CrO_4$
Yodat kislota	$HJO_3$
Yodid kislota	$HJ$

## MODDALAR VA ULARNING NOMLARI

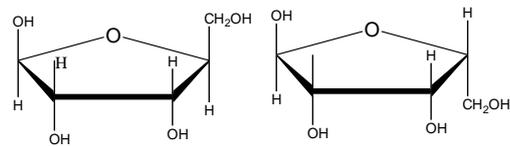
Modda nomi	Formulasi
2-metil-butadiyen-1,3 yoki izopren	$\begin{array}{c} \text{CH}_2 = \text{C} - \text{CH} = \text{CH}_2 \\   \\ \text{CH}_3 \end{array}$
Adenin	
Adipin kislota	HOOC — (CH <sub>2</sub> ) <sub>4</sub> — COOH neylon tolasi olish uchun ishlatiladi.
Ablest	3MgO • 2SiO <sub>2</sub> • 2H <sub>2</sub> O
Achchiqtosh	KAl(SO <sub>4</sub> ) <sub>2</sub> • 12H <sub>2</sub> O
Achchiqtuz (infimiz tuzi, taxir tuz)	MgSO <sub>4</sub> • 7H <sub>2</sub> O
Adsarbsida	Bir modda ustiga ya'ni yuzasiga ikkinchi bir moddaning yutilishidir.
Adsorbent	Yuzasida yutilish jarayoni yuz beradigan moddalar.
Akril kislota	CH <sub>2</sub> = CH — COOH
Akronitral	CH <sub>2</sub> = CH — C ≡ N
Akrolein	$\text{CH}_2 = \text{CH} - \overset{\text{O}}{\parallel}{\text{C}} - \text{H}$
Alanin	$\begin{array}{c} \text{CH}_3 - \text{CH} - \text{COOH} \\   \\ \text{NH}_2 \end{array}$
Albaster (yarim kuydirilgan gips)	CaSO <sub>4</sub> • 0,5H <sub>2</sub> O
Albit	Na <sub>2</sub> O • Al <sub>2</sub> O <sub>3</sub> • 6SiO <sub>2</sub>
Albit	[Na(AlSi <sub>3</sub> O <sub>8</sub> )], Na <sub>3</sub> O • Al <sub>2</sub> O <sub>3</sub> • 6SiO <sub>2</sub>
Aldama rux	ZnS
Alebaster	2CaSO <sub>4</sub> • H <sub>2</sub> O
Allen	CH <sub>2</sub> = C = CH <sub>2</sub>
Alunit	K <sub>2</sub> SO <sub>4</sub> • Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> • 2Al <sub>2</sub> O <sub>3</sub> • 6H <sub>2</sub> O
Alunit	K <sub>2</sub> SO <sub>4</sub> • Al <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub> • Al <sub>2</sub> O <sub>3</sub> • 6H <sub>2</sub> O
Alyumel	Ni [95%] • Al [1,8–2,5%] • Mn [1–2,2%] • Si [0,88–1,15%] dan iborat Qotishma xromel va alyumel elektor xosi temperatura o'zgartirishida juda sezgir kater bo'gani uchun termoo'lchagichlar, termoparalar, yasamasi ishlatiladi.

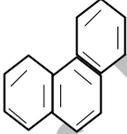
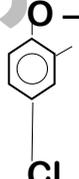
Alyuminiy digidrofosfat	$\text{Al}(\text{H}_2\text{PO}_4)_3$
Alyuminiy gidrofosfat	$\text{Al}_2(\text{HPO}_4)_3$
Alyuminiy karbid	$\text{Al}_4\text{C}_3$
Alyuminiy sulfat	$\text{Al}_2(\text{SO}_4)_3$
Amblironit	$\text{LiAl}(\text{PO}_4)\text{F}$
Amil (pentil) radikal	$\text{C}_5\text{H}_{11}$
Amilen, metilatsetilen, propin	$\text{CH} \equiv \text{C} - \text{CH}_3$
Aminobenzol (anilin)	$\text{C}_6\text{H}_5 - \text{NH}_2$
Aminoetan kislota	$\begin{array}{c} \text{CH}_2 - \text{COOH} \\   \\ \text{NH}_2 \end{array}$
Aminosirka kislota	$\begin{array}{c} \text{CH}_2 - \text{COOH} \\   \\ \text{NH}_2 \end{array}$
Amitist (agat), qum, kvars	$\text{SiO}_2$
Ammiak, azot gidridi	$\text{NH}_3$
Ammiakli selitra	$\text{NH}_4\text{NO}_3$
Ammiakli selitra	$\text{NH}_4\text{NO}_3$
Ammofos	$\text{NH}_4\text{H}_2\text{PO}_4 \cdot (\text{NH}_4)_2\text{HPO}_4$
Ammofos	$\text{NH}_4\text{H}_2\text{PO}_4 \cdot (\text{NH}_4)_2\text{HPO}_4$
Ammofos	$\text{NH}_4\text{H}_2\text{PO}_4$ yoki $(\text{NH}_4)_2\text{HPO}_4$
Ammoniy digidroortofosfat	$\text{NH}_4\text{H}_2\text{PO}_4$
Ammoniy dixromat	$(\text{NH}_4)_2\text{Cr}_2\text{O}_7$
Ammoniy gidroortofosfat	$(\text{NH}_4)_2\text{HPO}_4$
Ammoniy sianat	$\text{NH}_4\text{CNO}$
Ammoniy sulfide	$(\text{NH}_4)_2\text{S}$
Ammoniy temir (III) achchiqtosh	$(\text{NH}_4)\text{FeSO}_4)_2 \cdot 12\text{H}_2\text{O}$
Ammoniy temir achchiqtosh	$(\text{NH}_4)\text{Fe}(\text{SO}_4)_2 \cdot 12\text{H}_2\text{O}$
Ammoniy xlorid	$\text{NH}_4\text{Cl}$
Ammoniyli selitra	$\text{NH}_4\text{NO}_3$
Amorf qumtuproq	$\text{SiO}_2 \cdot n\text{H}_2\text{O}$
Angidrit	$\text{CaSO}_4$
Anilin (benzil amin, aminobenzol)	$\text{C}_6\text{H}_5\text{NH}_2$
Anorganik benzol	 <p>bunda 3 <math>\uparrow\uparrow</math> bog` o`zaro qoplashmagan</p>
Anorit	$\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$ yoki $\text{Ca}(\text{Al}_2\text{Si}_2\text{O}_8)$
Anortit	$\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$
Antimonit	$\text{Sb}_2\text{S}_3$

Antoamin	$\text{C}_{14}\text{H}_{33}$ yoki $\text{C}_{14}\text{H}_{33}$
Appatit	$\text{Ca}_5(\text{PO}_4)_3\text{F}_2(\text{OH})_2$
Arabinoza	$\text{C}_5\text{H}_{10}\text{O}_5$
Araxidon kislota	$\text{C}_{19}\text{H}_{31}\text{COOH}$
Argentit	$\text{Ag}_2\text{S}$
Argentit (kumush yaltirog'i)	$\text{Ag}_2\text{S}$
Argentit, kumush yaltirog'i	$\text{Ag}_2\text{S}$
Arginin	$\text{NH}_2-\underset{\text{NH}}{\underset{\parallel}{\text{C}}}-\text{NH}-\text{CH}_2-\underset{\text{NH}_2}{\underset{ }{\text{CH}_2}}-\text{CH}_2-\text{CH}-\text{COOH}$
Arsenit kislota	$\text{H}_3\text{AsO}_3$
Asbest	$\text{CaO} \cdot 3\text{MgO} \cdot 4\text{SiO}_2$
Asbest	$3\text{MgO} \cdot 2\text{SiO}_2 \cdot 2\text{H}_2\text{O}$
Asharit	$2\text{MgO} \cdot \text{B}_2\text{O}_3 \cdot \text{H}_2\text{O}$
Asparagin	$\text{HOOC}-\underset{\text{NH}_2}{\underset{ }{\text{CH}}}-\text{CH}_2-\text{CONH}_2$
Asparagin kislota	$\text{HOOC}-\text{CH}(\text{NH}_2)-\text{CH}_2\text{COOH}$
Astbest	$3\text{MgO} \cdot 2\text{SiO}_2 \cdot 2\text{H}_2\text{O}$
Astraxanit	$\text{Na}_2\text{SO}_4 \cdot \text{MgSO}_4 \cdot 4\text{H}_2\text{O}$
Atsetaldegid (sirka aldegid yoki metanal)	$\text{CH}_3-\text{CHO}$ yoki $\text{CH}_3-\overset{\text{O}}{\parallel}{\text{C}}-\text{H}$
Atsetamid (Sirka kislotaning mazi)	$\text{CH}_3-\overset{\text{O}}{\parallel}{\text{C}}-\text{NH}_2$
Atsetat tola	$\text{C}_6\text{H}_7\text{O}_2$ $\begin{matrix} \text{OCOCH}_3 \\ \text{OCOCH}_3 \\ \text{OCOCH}_3 \end{matrix}$
Atsetilen (etin)	$\text{HC} \equiv \text{CH}$ yoki $\text{C}_2\text{H}_2$
Atseton (binarsaton), dimetilketon, propanon	$\text{CH}_3-\overset{\text{O}}{\parallel}{\text{C}}-\text{CH}_3$
Auratlar	$\text{KAuO}_2 \cdot 3\text{H}_2\text{O}$
Azafoska	$(\text{NH}_4)_3\text{PO}_4$
Azid kislota	$\text{HN}_3$ yoki $\text{H}-\text{N}=\text{N} \equiv \text{N}$
Babbatlar	$\text{Pb}$ [65%] • $\text{Sn}$ [19–17%] • $\text{Sb}$ [15–17%] • $\text{Cu}$ [2%] metallar saqlagan qotishmalar bo'lib padoshnik ishlab chiqarishning asosiy materiali hisoblanadi.
Balost	$\text{CaSO}_4$
Barit	$\text{BaSO}_4$ (oq ↓)
Bariy peroksid	$\text{BaO}_2$
Bariy selenat	$\text{BaSeO}_4$
Bariy sulfatning nordon tuzi	$\text{Ba}(\text{HSO}_4)_2$
Bariyli shpat	$\text{BaO} \cdot \text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$
Bariyli suv	$\text{Ba}(\text{OH})_2$

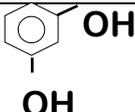
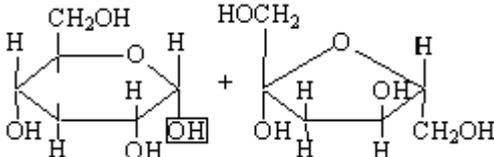
Bastnezit	$(\text{Ce, La})\text{FCO}_3$
Benzil spirt	 $\text{CH}_2 - \text{OH}$
Benzol	$\text{C}_6\text{H}_6$
Benzoy kislota	$\text{C}_6\text{H}_5\text{COOH}$
Beril	$(\text{Be}_3\text{Al}_2)\text{Si}_6\text{O}_{18}$
Berill	$3\text{BeO} \cdot \text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2$
Berinit	$\text{H}_2\text{BeO}_2$
Berlin sarig'i (berlin zangorisi, lazuri)	$\text{Fe}_4[\text{Fe}(\text{CN})_6]_3$
Bertole tuzi	$\text{KClO}_3$
Biatsetal (diketon)	
Billur (xrustal) shisha	$\text{K}_2\text{O} \cdot \text{PbO}_2 \cdot 6\text{SiO}_2$
Billur (xrustal) shisha	$\text{K}_2\text{O} \cdot \text{PbO} \cdot 6\text{SiO}_2$
Binafsha shisha	$\text{Na}_2\text{O} \cdot \text{MnO}_2 \cdot 6\text{SiO}_2$
Binopar qorishmasi (oxakli qorishmasi), so'ndirilgan oxak	$\text{Ca}(\text{OH})_2$
Bipolyar ion	$[\text{H}_3\text{N}^+ - \text{CH}_2 - \text{COO}^-]$
Bishofit	$\text{MgCl}_2 \cdot 6\text{H}_2\text{O}$
Bishofit	$\text{MgCl}_2 \cdot 6\text{H}_2\text{O}$
Boksid (giltuproq)	$\text{Al}_2\text{O}_3 \cdot n\text{H}_2\text{O}$
Bor (ohaktosh, marmar, marmarid, kuydirilmagan oxak, stalogint, stalaptit), oq loy	$\text{CaCO}_3$
Bor karbid	$\text{B}_4\text{C}_3$
Bor nitrid	$\text{BN}$ yoki $(\text{BN})_3$
Boranlar	$\text{B}_2\text{H}_6$
Bornit	$\text{Cu}_5\text{FeS}_4$
Braunit	$\text{Mn}_2\text{O}_3$
Braunit	$\text{Mn}_2\text{O}_3$
Bronza	Misning tarkibida 20% gacha Sn saqlagan, qotishmasi oson quyiladi: podshipnik, polirenlarning xalqalari klapanlar ishlab chiqarishda va badiiy buyumlar, quyqalar, quyishda ishlatiladi.
Bura	$\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$
Butadiyen 1,3 (divinil)	$\text{CH}_2 = \text{CH} - \text{CH} = \text{CH}_2$
Butadiyen kauchuk	$(-\text{CH}_2 - \text{CH} = \text{CH} - \text{CH}_2 -)$ Bu kauchuk polimerlarining sis va trans

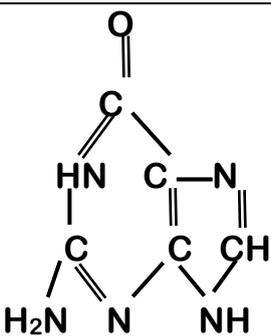
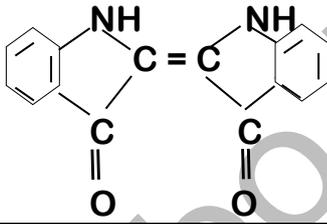
	zvenolari tasodifan bir-biriga ulanadi.
Butadiyen stirol kauchugi	$(-CH_2-CH=CH-CH_2-\underset{\text{C}_6\text{H}_5}{\text{CH}}-CH_2-)$
Byotit	$K(\text{Mg}, \text{Fe})_3\text{AlSi}_3\text{O}_{10}(\text{OH})_2$
Byuret	$\text{NH}_2-\text{CO}-\text{NH}-\text{CO}-\text{NH}_2$
Chili selitrasi	$\text{NaNO}_3$
Chili selitrasi	$\text{NaNO}_3$
Cho'yan	$[\text{Fe } 93\%]\cdot[\text{C } 4,5\%]\cdot[\text{Si } 0,5-2\%]\cdot[\text{Mn } 1,3\%]\cdot[\text{P } 0,02-2,5\%]\cdot[\text{S } 0,005-0,08\%]$
Chumoli aldegid	$\text{HCHO}$ yoki $\text{HC} \begin{array}{l} \nearrow \text{O} \\ \searrow \text{H} \end{array}$
Chumoli kislota	$\text{HCOOH}$
Chumoli kislota amidi, formaldegid	$\text{H}-\overset{\text{O}}{\parallel}{\text{C}}-\text{NH}_2$
Dala shpati (albit)	$[\text{Na}(\text{AlSi}_3\text{O}_8)]$
Dala shpati (anortit)	$[\text{Ca}(\text{Al}_2\text{Si}_2\text{O}_8)]$
Dala shpati (ortaklaz)	$[\text{K}(\text{AlSi}_3\text{O}_8)], 6\text{SiO}_2 \cdot \text{K}_2\text{O} \cdot \text{Al}_2\text{O}_3$
Dala shpati (selzian)	$[\text{Ba}(\text{Al}_2\text{Si}_2\text{O}_8)]$
Datolit	$2\text{CaO} \cdot \text{B}_2\text{O}_3 \cdot 2\text{SiO}_2 \cdot \text{H}_2\text{O}$
Defoliant	$\text{Mg}(\text{ClO}_3)_2$ g'o'za bargini to'kishta ishlatiladi
Deraza oynasi	$\text{Na}_2\text{O} \cdot \text{CaO} \cdot 6\text{SiO}_2$
Diamid, gidrazin	$\text{N}_2\text{H}_4$
Didsian	$\begin{array}{c} \text{C} \equiv \text{N} \\   \\ \text{C} \equiv \text{N} \end{array}$ <span style="border: 1px solid black; padding: 2px;"><math>\text{CN}_2</math></span>
Difosfat kislota (pirofosfat)	$\text{H}_4\text{P}_2\text{O}_7$
Difosfin	$\text{P}_2\text{H}_4$
Digidroksoalyuminiy karbonat	$[\text{Al}(\text{OH})_2]_2\text{CO}_3$
Digidroksoalyuminiy xlorid	$\text{Al}(\text{OH})_2\text{Cl}$
Dikremniy kislota	$\text{H}_6\text{Si}_2\text{O}_7$ yoki $2\text{SiO}_2 \cdot 3\text{H}_2\text{O}$
Dimetil amin	$\text{CH}_3-\text{NH}-\text{CH}_3$
Dimetilnitroza amin	$(\text{CH}_2)_2\text{N}-\text{N}=\text{O}$
Dimetilsilikat kislota	$\text{H}_2\text{Si}_2\text{O}_5$ yoki $2\text{SiO}_2 \cdot \text{H}_2\text{O}$
Dimolibden kislota	$\text{H}_2\text{Mo}_2\text{O}_7$
Dinitroglikonpol (kuchli portlovchi)	$\begin{array}{c} \text{CH}_2-\text{O}-\text{NO}_2 \\   \\ \text{CH}_2-\text{O}-\text{NO}_2 \end{array}$
Dinitroselluloza	$(\text{C}_6\text{H}_7\text{O}_2) \begin{array}{l} \nearrow \text{CH}_2-\text{O}-\text{NO}_2 \\ \rightarrow \text{CH}_2-\text{O}-\text{NO}_2 \\ \searrow \text{CH}_2-\text{O}-\text{OH} \end{array}$

Dioksan	$\begin{array}{c} \text{CH}_2 - \text{O} - \text{CH}_2 \\   \qquad \qquad   \\ \text{CH}_2 - \text{O} - \text{CH}_2 \end{array}$
Ditsian	$\text{C}_2\text{N}_2$
Divinil kauchuk	$\text{CH}_2 = \text{CH} - \text{CH} = \text{CH}_2$ kauchuk chiziqli va sterioizchil tuzilishga ega sintetik kauchuk monomeri.
Dixromat kislota, biromit	$\text{H}_2\text{Cr}_2\text{O}_7$
Diyuralyuminiy	asosiy qism Al • Cu [3,5%] • Mg, Ni, Mn [1%] metallar saqlagan mehanik ta'sirga chidamli, lekin yong'in qotishmasida, samalyotsoz, mashinasoz va boshqa asbobsoz
Dizoksiriboza	$\text{C}_5\text{H}_{10}\text{O}_4$
Dizoksiribozaning aldegid shakli	$\begin{array}{ccccccc} \text{CH}_2 & - & \text{CH} & - & \text{CH} & - & \text{CH}_2 & - & \text{C} \\   & &   & &   & & & & // \\ \text{OH} & & \text{OH} & & \text{OH} & & & & \text{O} \\ & & & & & & & & \backslash \\ & & & & & & & & \text{H} \end{array}$
Dizoksiribozaning keton shakli	$\begin{array}{ccccccc} \text{CH}_2 & - & \text{CH} & - & \text{C} & - & \text{CH} & - & \text{CH}_2 \\   & &   & &    & &   & &   \\ \text{OH} & & \text{OH} & & \text{O} & & \text{OH} & & \text{OH} \end{array}$
Dizoksiribozaning siklik shakli (keton)	 <p>A-shakli                      b-shakli</p>
Doimiy qattqlik	$\text{CaSO}_4 \cdot \text{MgSO}_4$
Dolomit	$\text{CaCO}_3 \cdot \text{MgCO}_3$
Ebonit	S [25 – 40%]                      Agar kauchukka S ko'p qo'shilsa kauchuk qattiq mo'rt va elastikligini yo'qotadi. Xosil bo'lgan modda ebonit deyiladi.
Eritroza (tetrozalarga mansub) aldegid shakli	$\begin{array}{ccccccc} \text{CH}_2 & - & \text{CH} & - & \text{CH} & - & \text{C} \\   &   &   & & // & & \backslash \\ \text{OH} & \text{OH} & \text{OH} & & \text{O} & & \text{H} \end{array}$
Eritroza (tetrozalarga mansub) keton shakli	$\begin{array}{ccccccc} \text{CH}_2 & - & \text{CH} & - & \text{C} & - & \text{CH}_2 \\   &   &    & &   & &   \\ \text{OH} & \text{OH} & \text{O} & & \text{OH} & & \text{OH} \end{array}$

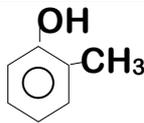
Eruvchan shisha	$K_2O \cdot Na_2O \cdot 6SiO_2$
Eruvchan shisha	$Na_2SiO_3, K_2SiO_3$
Etan	$C_2H_6$ ( $CH_3 - CH_3$ )
Etan kislota	$CH_3COOH$
Etandiol, etilenglikol	$CH_2 - OH$   $CH_2 - OH$
Etanol, etil spirt	$C_2H_5OH$
Etil spirt, etanol	$C_2H_5OH$
Etilen	$C_2H_4$ ( $CH_2 = CH_2$ ) uning molekulasida $\pi$ bog' xosil bo'lishida qatnashmagan P elektronlar qatnashadi.
Etilenglikol, etandiol	$CH_2 - OH$   $CH_2 - OH$
Etin (atsetilen)	$C_2H_2$ ( $CH \equiv CH$ )
Felin suyuqligi	$Cu(OH)_2$ va vino kislotaning Na va K li tuzi aralashmasi
Fenantren (antrasenning izomeri)	
Fenil radikali	$C_6H_5 -$
Fenilamin	$C_6H_5NH_2$
Feniletilen, vinilbenzol, stirol	$CH = CH_2$ 
Fenoksisirka 2,4 dioxlor kislota	$O - CH_2 - COOH$  Cl uning Na va K li tuzlari gerbitsidlar sifatida ishlatiladi.
Fenol	$C_6H_5OH$
Fenolformaldegid smolasi	$\left( \begin{array}{c} OH \\   \\ \text{benzene ring} \\   \\ CH_2 - \end{array} \right)_n$
Fenoxit	$Kr_2SiO_4$
Ferrat kislota	$H_2FeO_4$
Ferraxrom	$FeO \cdot Cr_2O_3$
Flyuorit	$CaF_2$
Formalin	formaldegidning 35 – 40% li eritmasi
Formiamid	$H - C \begin{array}{l} \text{O} \\ // \\ \text{NH}_2 \end{array}$
Formiat kislota	$HCOOH$
Fosfat angidrid	$P_2O_5$
Fosfin	$PH_3$

Fosfit kislota	$H_3PO_3$
Fosforit kukuni	$Ca_3(PO_4)_2$
Fosgen	$CCl_2O$ yoki $COCl_2$
Fotoelementlar	Cs yoruglik energiyasini elektr energiyasiga aylantiradi.
Freon	$CCl_2F_2$
Fruktoza	$C_6H_{12}O_6$
Fruktoza, meva shakari	$C_6H_{12}O_6$ yoki $\begin{array}{ccccccc} CH_2 & - & CH & - & CH & - & CH & - & C & - & CH_2 \\   & &   & &   & &   & &    & &   \\ OH & & OH & & OH & & OH & & O & & OH \end{array}$
Ftor peroksid	$F_2O_2$
Ftoroapatit	$3Ca_3(PO_4)_2 \cdot CaF_2$
Fumar kislota	$\begin{array}{c} H - C - COOH \\    \\ HOOC - C - H \end{array}$
Furan	$\begin{array}{c} HC - CH \\    \quad    \\ HC - CH \\ \diagdown \quad / \\ O \end{array}$
Galenit	$PbS$
Galit	$NaCl$
Galmay	$ZnCO_3$
Galmei	$ZnCO_3$
Gals (pb yaltirog'i)	$PbS$
Gausmanit	$Mn_3O_4$
Gausmanit	$Mn_3O_4$
Geksaaminnikel (II) xlorid	$Ni[(NH_3)_6Cl_2]$
Geksaammiakat	$[Me(NH_3)_6]^+$
Geksaxloran	$C_6H_6Cl_6$
Geksaxlorsiklogeksan	$C_6H_6Cl_6$
Geksoamino Nikel (III) xlorid	$Ni(NH_3)_6Cl_2$
Gematit	$Fe_2O_3$
Gematit (qizil temirtosh)	$Fe_2O_3$
Gemimorfit	$2H_4Si_2O_7(OH)_2 \cdot H_2O$
Gemoglobin	$(C_{738}H_{1166}O_{208}S_2Fe)_4$
Generator gazi	$CO + N_2 + 4184 \text{ kJ}$
Geteropoli kislota	$H_7[PO_3(MeO_7)_3]$
Getit	$2Fe_2O_3 \cdot 2H_2O$
Gidrazin, diamid	$N_2H_4$ yoki $H_2N-NH_2$
Gidrokaxonin	$\begin{array}{c} \text{OH} \\   \\ \text{OH} \end{array}$
Gidroksilamin	$NH_2OH$
Gidroksoalyuminiy karbonat	$Al(OH)CO_3$

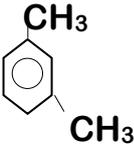
Gidroksoamin	$\text{NH}_2\text{OH}$
Gidroksokalsiy perxlorat	$\text{Ca}(\text{OH})\text{ClO}_4$
Gidroksoniy ioni	$\text{H}_3\text{O}^+$
Gidroxinon	 $\text{HO} - \text{C}_6\text{H}_4 - \text{OH}$
Gidrozin	$\text{NH}_2 - \text{CH} - \text{COOH}$   $\text{CH}_2 - \text{C}_6\text{H}_4 - \text{OH}$
Giltuproq	$\text{Al}_2\text{O}_3$
Giltuproq	$\text{Al}_2\text{O}_3$
Gipofosfit	$\text{HPO}_2$
Gipofosfit kislota	$\text{H}_3\text{PO}_2$
Giponitrit	$\text{H}_2\text{N}_2\text{O}_2$
Gips	$\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$
Glauber tuzi (Mibrit)	$\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$
Glauberit	$\text{CaSO}_4 \cdot \text{Na}_2\text{SO}_4$
Glikonal	$\text{NH}_2$   $\text{CH}_2 - \text{C} \begin{matrix} \text{O} \\ // \\ \text{OH} \end{matrix}$
Gliozem	$\text{Al}_2\text{O}_3$
Glioksal	$\text{OHC} - \text{CHO}$
Glitserin	$\text{CH}_2(\text{OH}) - \text{CH}_2(\text{OH}) - \text{CH}_2(\text{OH})$
Glituin	$\text{NH}_2$   $\text{CH}_2 - \text{C} \begin{matrix} \text{O} \\ // \\ \text{OH} \end{matrix}$
Glutamin kislota	$\text{NH}_2 - \text{CH} - \text{COOH}$   $\text{CH}_2 - \text{CH}_2 - \text{COOH}$
Glyukon kislota	$\text{CH}_2\text{OH} - (\text{CH} - \text{OH})_4 - \text{C} - \text{OH}$
Glyukoza (uzum shakari) (aldegid spirt)	$\text{C}_6\text{H}_{12}\text{O}_6$
Glyukoza <span style="font-size: small;">ning aldegid shakli</span>	$\text{CH}_2 - \text{CH} - \text{CH} - \text{CH} - \text{CH}_2 - \text{C} \begin{matrix} \text{O} \\ // \\ \text{H} \end{matrix}$                   $\text{OH} \quad \text{OH} \quad \text{OH} \quad \text{OH} \quad \text{H}$
Glyukoza <span style="font-size: small;">ning xalqa shakli</span>	 $\alpha\text{-D-glyukoza} \quad \beta\text{-D-fruktoza}$

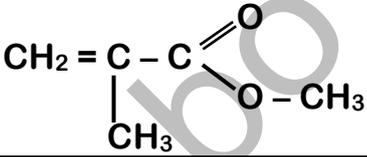
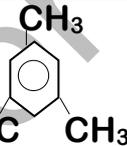
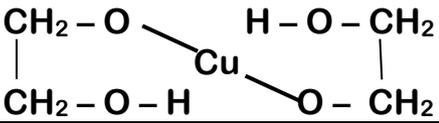
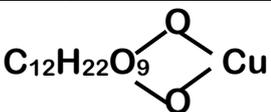
Granit	$N(\text{Al}_3\text{Si})_4\text{O}_8$
Griniar reaktivi	$\text{CH}_3\text{MgCl}$
Grinokit	$\text{CdS}$
Guanin	 <div style="border: 1px solid black; display: inline-block; padding: 5px; margin-left: 20px;"><math>\text{C}_5\text{H}_5\text{N}_5</math></div>
Ichimlik soda	$\text{NaHCO}_3$
Imenit (temir titan)	$\text{FeTiO}_3$
Indigo	
Infraqizil nurlarga sezgir fotoelement	In
Ingliz tuzi (taxir tuz)	$\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$
Insulin	$\text{C}_{254}\text{H}_{377}\text{N}_{65}\text{O}_{75}\text{S}_6$ $\text{Mr} = 6000\text{g}$
Iotsich reaktivi	$\text{CH} \equiv \text{CMgCl}$
Is gazi	$\text{CO}$
Izoamil radikali	$\text{CH}_3 - \underset{\text{CH}_3}{\text{CH}} - \text{CH}_2 - \text{CH}_2 -$
Izobutilformiat, chumoli kislotaning izobutil efiri	$\text{HCOOCH}_2 - \text{CH}(\text{CH}_3) - \text{CH}_3$
Izoleysin	$\text{NH}_2 - \underset{\text{CH}_3}{\text{CH}} - \text{COOH}$ $\text{CH}_3 - \text{CH} - \text{CH}_2 - \text{CH}_3$
Izooktan	$\text{CH}_3 - \underset{\text{CH}_3}{\text{CH}} - \text{CH}_2 - \underset{\text{CH}_3}{\text{CH}} - \text{CH}_3$
Izopren, 2-metil-butadiyen-1,3	$\text{CH}_2 = \underset{\text{CH}_3}{\text{C}} - \text{CH} = \text{CH}_2$ (tabiiy kauchuk monomeri)
Izopropilbenzol (kumol)	$\text{CH}_3 - \underset{\text{C}_6\text{H}_5}{\text{CH}} - \text{CH}_3$
Javel suvi	$(\text{KOH} + \text{Cl}_2)$ yoki $\text{KCl} \cdot \text{KClO} \cdot \text{H}_2\text{O}$
Javel suzi	$\text{KClO} \cdot \text{KCl}$

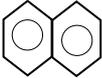
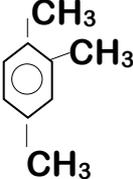
Jez	Tarkibida 10% dan 50% gacha Zn saqlagan Cu qotishmasi asbobsozlikda va motorsozlikda ishlatiladi.
Jez Qotishmasi	$Cu_3Zn_2$
Kainit	$KCl \cdot MgSO_4 \cdot 3H_2O$
Kainit	$KCl \cdot MgSO_4 \cdot 3H_2O$
Kaliy alyuminiyli achchiqtosh	$K_2SO_4 \cdot Al_2(SO_4)_3$ yoki $KAl(SO_4)_2, KAl(SO_4)_2 \cdot 12H_2O$
Kaliy digidrofosfat	$KH_2PO_4$
Kaliy dixromat	$K_2Cr_2O_7$
Kaliy geksagidroksooplumbat	$K_4[Pb(OH)_6]$
Kaliy geksatsiono – (II) ferrat	$K_4[Fe(CN)_6]$
Kaliy permanganat	$KMnO_4$
Kaliy peroksid	$K_2O_2$
Kaliy stearat (suyuq sovun)	$C_{17}H_{35}COOK$
Kaliy superoksid	$K_2O_4$
Kaliy tetraxromat	$K_2Cr_4O_{13} \cdot 12H_2O$
Kaliy trixromat	$K_2Cr_3O_{10}$
Kaliy xlorat	$KClO_3$
Kaliyli selitra	$KNO_3$
Kalloksilen	Tabobatda qo'llashga qulay tug'diruvchi xususiyatga ega. U dinitroselluloza spirt va dietil efir aralashmasini eritish bilan olinadi. Selluloza mono va diefiri (N = 11,17%) aralashmasi "Kalloksilen" deyiladi.
Kalomel	$Hg_2Cl_2$
Kalsinatsil soda	$Na_2CO_3$
Kalsiy digidrofosfat	$Ca(H_2PO_4)_2$
Kalsiy fosfat	$Ca_3(PO_4)_2$
Kalsiy gidrofosfat	$CaHPO_4$
Kalsiy karbid	$CaC_2$
Kalsiy saxarad	$C_6H_7O \begin{matrix} O \\ / \quad \backslash \\ (OH)_3 \\ \backslash \quad / \\ O \end{matrix} Ca$
Kalsiy saxarid	$C_{12}H_{22}O_{11}Ca$
Kalsiy sianid	$Ca(CN)_2$
Kalsiyli selitra	$Ca(NO_3)_2$
Kalsiy narilgan soda	$Na_2CO_3$
Kaolin (toza tuproq)	$Al_2O_3 \cdot 2SiO_2 \cdot 3H_2O$
Kaolinit	$Al_2Si_2O_5(OH)_4$ yoki $Al_2O_3 \cdot 2SiO_2 \cdot 2H_2O$ kremniyning tabiatda eng ko'p tarqalgan birikmasi.
Kapron (poliamid tola)	$(-NH-(CH_2)_5-C-)n$

	$\begin{array}{c} \parallel \\ \text{O} \end{array}$
Kapron kislota	$\text{CH}_3 - (\text{CH}_2)_4 - \text{COOH}$
Karbamid	$\text{CO}(\text{NH}_2)_2$
Karbamid (siydikchil), mochevina	$\text{CO}(\text{NH}_2)_2$
Karboksimetilselluloza	$\text{C}_6\text{H}_7\text{O}_2(\text{OH})_2 - \text{O} - \text{CH}_2 - \text{COOH}$
Karbol kislota (fenol)	$\text{C}_6\text{H}_5\text{OH}$
Karbonil	$\text{CH}_3\text{OH}$
Karborund	$\text{SiC}$
Karborund yoki Kremniy (IV) karbid	$\text{SiC}$
Karnallit	$\text{KCl} \cdot \text{MgCl}_2 \cdot 6\text{H}_2\text{O}$
Karnolit	$\text{KCl} \cdot \text{MgCl}_2 \cdot 6\text{H}_2\text{O}$
Karnotit	$\text{K}_2\text{O} \cdot 2\text{VO}_3 \cdot 3\text{H}_2\text{O}$
Karpolat tola	$\begin{array}{c} \text{CH}_2 - \text{CH}_2 - \text{CH}_2 \\ \diagup \quad \diagdown \\ \text{H}_2\text{C} \quad \text{C} = \text{O} \\ \diagdown \quad \diagup \\ \text{CH}_2 - \text{CH}_2 - \text{CH}_2 \end{array}$
Kassiterit	$\text{SnO}_2$
Kaustik soda	$\text{NaOH}$
Kernit	$\text{Na}_2\text{B}_4\text{O}_7 \cdot \text{H}_2\text{O}$
Kimyoviy shisha	$\text{K}_2\text{O} \cdot \text{CaO} \cdot 6\text{SiO}_2$
Kinovar	$\text{HgS}$
Kir soda	$\text{Na}_2\text{CO}_3$
Kislotali selitra	$\text{KNO}_3$
Kizerit	$\text{MgSO}_4 \cdot \text{H}_2\text{O}$
Klechatka (paxta tolasi, selluloza)	$\text{C}_6\text{H}_{10}\text{O}_5$
Ko'k shisha	$\text{Na}_2\text{O} \cdot \text{CoO} \cdot 6\text{SiO}_2$
Koks	$\text{C}$ (95% toza C)
Koks gazi	$\text{H}$ [35%] • $\text{CO}$ [20%] • $\text{CH}_4$ [15%] • $\text{CO}_2$ [18%] • $\text{N}$ [11%]
Konstantal	$\text{Cu}$ [60%] • $\text{Ni}$ [38-40%]
Korund	$\text{Al}_2\text{O}_3$
Kraxmal	$\text{C}_6\text{H}_{10}\text{O}_5$
Krezol	
Kriolit	$\text{Na}_3\text{AlF}_6$ yoki $3\text{NaF} \cdot \text{AlF}_3$
Kristall soda	$\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$
Krokoit	$\text{PbCrO}_4$
Krotonil	$\text{HC} \equiv \text{C} - \text{CH}_2 - \text{CH}_3$
Ksenon tetraftorid	$\text{XeF}_4$
Ksenotim	$(\text{V}, \text{Eu}, \text{Cd})\text{PO}_4$
Ksilol	$\text{CH}_2$

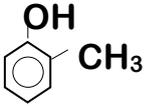
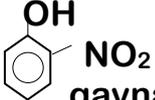


	molekulalar: H <sub>2</sub> O, NH <sub>3</sub> , CO, NO, C <sub>6</sub> H <sub>6</sub> , C <sub>2</sub> H <sub>2</sub> lar kiradi.
Limon kislota	$\begin{array}{c} \text{OH} \\   \\ \text{HOOC} - \text{CH}_2 - \text{C} - \text{CH}_2 - \text{COOH} \\   \\ \text{COOH} \end{array}$
Limunit	2Fe <sub>2</sub> O <sub>3</sub> • 3H <sub>2</sub> O
Linol	C <sub>17</sub> H <sub>31</sub> COOH
Linol kislota	C <sub>17</sub> H <sub>31</sub> COOH
Linolein kislota	C <sub>17</sub> H <sub>29</sub> COOH
Linolin	C <sub>17</sub> H <sub>29</sub> COOH
Linolin	C <sub>17</sub> H <sub>29</sub> COOH (3 ta qo'sh bog')
Lizin	$\text{NH}_2 - (\text{CH}_2)_4 - \underset{\text{NH}_2}{\text{CH}} - \text{COOH}$
Lyapis	AgNO <sub>3</sub>
Magnetit	Fe <sub>3</sub> O <sub>4</sub>
Magnezial sement	MgO • MgCl <sub>2</sub>
Magnezit	MgCO <sub>3</sub>
Magneziya	MgO
Magnitli temirtosh	Fe <sub>3</sub> O <sub>4</sub>
Magniy amid	Mg(NH <sub>2</sub> ) <sub>2</sub>
Magniy digidrofosfat	Mg(H <sub>2</sub> PO <sub>4</sub> ) <sub>2</sub>
Magniy imid	MgNH
Makroo'g'itlar	10ta C, O, H, N, P, K, S, Ca, Mg, Fe
Malaxit	Cu(OH) <sub>2</sub> • CuCO <sub>3</sub> yoki Cu <sub>2</sub> (OH) <sub>2</sub> CO <sub>3</sub>
Malein kislota, Fumar kislota trans-sis izomeri	$\begin{array}{c} \text{CH} - \text{COOH} \\    \\ \text{CH} - \text{COOH} \end{array}$
Malon kislota	HOOC - CH <sub>2</sub> - COOH
Maltoza (don shakari), saxaroza izomeri	C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>
Manganat kislota	H <sub>2</sub> MnO <sub>4</sub>
Margimush	As <sub>2</sub> O <sub>3</sub>
Marmartosh, bor (ohaktosh, marmar, marmarid, kuydirilmagan oxak, stalogint, stalaptit), oq loy	CaCO <sub>3</sub>
Metafosfat kislota	HPO <sub>3</sub>
Metakreazol	
Metakremniy kislota	H <sub>2</sub> SiO <sub>3</sub>
Metakril kislota (2 metil	CH <sub>2</sub> = C - COOH

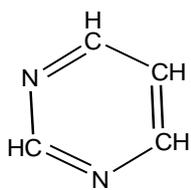
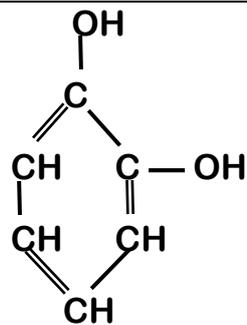
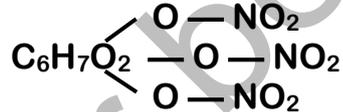
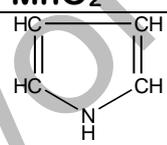
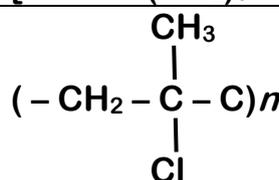
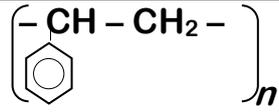
propilen kislota)	$\text{CH}_3$
Metan	$\text{CH}_4$
Metan (chumoli) kislota	$\text{HCOOH}$
Metanal (chumoli aldehyd, formaldehyd)	$\text{HCHO}$
Metanitrofenol	 <p>qaynash <math>t^0</math> ning <math>97^{\circ}\text{C}</math> dan yuqoriroq bo'lishining sababi metanitrofenolda molekulararo H bog'lanish mavjudligidir.</p>
Metasilikat kislota	$\text{H}_2\text{SiO}_3$ yoki $\text{SiO}_2 \cdot \text{H}_2\text{O}$
Metil xlorid	$\text{CH}_3\text{Cl}$
Metilamin	$\text{CH}_3 - \text{NH}_2$
Metilmerkaptan	$\text{CH}_3 - \text{SH}$
Metilmetakrilat kislota	
Meuskovit	$\text{K}_2\text{Al}_4(\text{AlSi}_3\text{O}_4)_2(\text{OH})_2\text{O}_4$
Mezitelin	
Mikroo'g'itlar	B, Cu, Co, Mn, Zn, Mo, J
Millon reaktivi	$\text{Pb}(\text{NO}_3)_2 \cdot \text{HNO}_3$
Mirabilit	$\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$
Mis glikolyat	
Mis kolchedani	$\text{CuFeS}_2$
Mis kolchedani (xalkopirit)	$\text{CuFeS}_2$
Mis kuporosi	$[\text{Cu}(\text{H}_2\text{O})_4]\text{SO}_4 \cdot \text{H}_2\text{O}$ yo $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
Mis saxarad	
Mis to'tiyosi	$\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
Mis xloridning asos tuzi	$\text{Cu}(\text{OH})\text{Cl}$
Mis yaltirog'i, xalkozin	$\text{Cu}_2\text{S}$
Mitrabit (glauber tuzi)	$\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$
Mochevina (karbamid)	$\text{CO}(\text{NH}_2)_2$
Momsula, oq fosfor	$\text{P}_4$
Monatsid	$(\text{Ge}, \text{La}, \text{Nd})\text{PO}_4$
Mor tuzi	$\text{Fe}(\text{NH}_4)_2(\text{SO}_4)_2 \cdot 6\text{H}_2\text{O}$

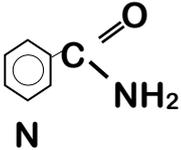
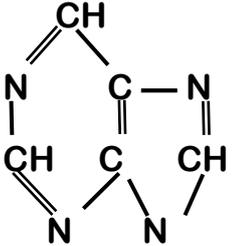
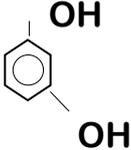
Moy (butan ) kislota	$C_3H_7COOH$
Moy aldegid	$C_3H_7CHO$
Muvaqqat qattqlik	$CaHCO_3 \cdot MgHCO_3$
Naftalin	 <span style="border: 1px solid black; padding: 2px;"><math>C_{10}H_8</math></span>
Narkoz efiri, dietil efiri	$C_2H_5 - O - C_2H_5$ asabni bo'shashtirish xossasiga ega bo'lganligi uchun tibbiyotda qo'llaniladi.
Nasturan	$U_3O_8$
Natriy disulfid	$Na_2S_2$
Natriy fenolyat	$C_6H_5ONa$
Natriy kuprit	$Na_2[Cu(OH)_4]$
Natriy plumbat	$Na_2PbO_2$
Natriy stearat, qattiq sovun	$C_{17}H_{35}COONa$
Natriy tetragid - roksoberillat	$Na_2[Be(OH)_4]$
Natriyli selitra	$NaNO_3$
Natron (xlorli) oxak	$Ca(ClO)_2$
Naylon 6,6 tolasi	$HO - \left[ \overset{O}{\parallel} C - (CH_2)_4 - \overset{O}{\parallel} C - \overset{H}{ } N - (CH_2)_6 - NH \right] -$
Nefelin	$Na_2O \cdot Al_2O_3 \cdot 2SiO_2$ yoki $Na_2[Si_2Al_2O_8]$
Neopentan	$\begin{array}{c} CH_3 \\   \\ CH_3 - C - CH_3 \\   \\ CH_3 \end{array}$
Nikel tetrakarbamid	$Ni(CO)_4$
Nitron (poliakrilonitron)	$\left[ \begin{array}{c} - CH_2 - CH - \\   \\ CH_2 \equiv N \end{array} \right]_n$
Nitropropan	$C_3H_7 - NO_2$ suvda kam eriydigan suyuqlik
Nixrom	$Ni [60\%] \cdot Fe [14 - 16\%] \cdot Cr [24 - 26\%]$ iborat qotishma, yuqori elektr qarshiligiga ega bo'lgani uchun isitish moslamalari ishlab chiqarishda ishlatiladi.
Norvegiya selitrasi	$Ca(NO_3)_2$
Nosimmetrik trimetilbenzol	
Novshadil spirt	$NH_4OH$
O'lik gips, suvsiz gips, kalsiy	$CaSO_4$

sulfat	
O'q o'tmaydigan shisha	$K_2O \cdot PbO \cdot nB_2O_3$ tashqi ta'sirga chidamli shisha
O'ta og'ir suv	$T_2O$ (T) – tritiy
Oddiy shisha	$Na_2O \cdot CaO \cdot 6SiO_2$
Oddiy superfosfat	$Ca(H_2PO_4)_2 \cdot 2CaSO_4$
Og'ir suv	$D_2O$ (D) – deyteriy
Oksalat kislota	$HOOC - COOH$
Oksoozon fluorid	$F_2O_4$
Olein kislota	$CH - (CH_2)_7 - CH_3$    $CH - (CH_2)_7 - COOH$ yoki $C_{17}H_{35}COOH$
Oleum	$H_2SO_4 \cdot SO_3$ yoki $H_2S_2O_7$
Olevin	$Mg_2SiO_4$
Olivin	$(Mg, Al)SiO_4$
Olma kislota	$COOH - CH - CH_2 - COOH$   OH
Oltin kislota	$H[AuCl_4]$
Oltinugurt guli	<b>S</b> 444,6°C da to'q qo'ng'ir bug' xosil qilib qaynaydi. Agar <b>S</b> bug'i tez sovitsa <b>S</b> ning juda mayday kristallaridan iborat mayin kukun xosil bo'ladi, u <b>Oltinugurt guli</b> deyiladi.
Oq chil	$Al_2O_3 \cdot 2SiO_2 \cdot 2H_2O$ kremniyning tabiatda eng ko'p tarqalgan birikmasi. Silikat sanoatida <b>foyans</b> va chinni olinadi.
Oq fosfor, momsula	$P_4$
Oq loy, marmartosh, bor (ohaktosh, marmar, marmarid, kuydirilmagan oxak, stalogint, stalaptit),	$CaCO_3$
Oq slyuda	$K_2O \cdot 3Al_2O_3 \cdot 6SiO_2 \cdot 2H_2O$
Oqartirgich oxak yoki xlorli oxak	$CaCl(ClO)$
Oqartiruvchi xlor, xlorli oxak	$Ca(ClO)_2 \cdot CaCl_2$
Organik shisha	$CH_2 = C - COOCH_3$   CH <sub>3</sub>
Organik shisha (polimetil metakriat)	$\begin{array}{c} O \\    \\ C - O - CH_3 \\   \\ (-CH_2 - C -)_n \end{array}$

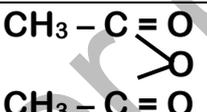
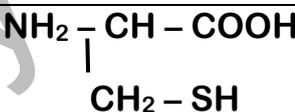
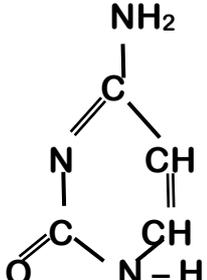
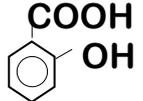
	$\begin{array}{c}   \\ \text{CH}_3 \\ \text{Yoki } (-\text{CH}_2-\text{C}(\text{CH}_3) \\ (\text{COOCH}_3)-)_n \end{array}$
Ortoklaz (dala shpati)	$\text{K}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2$ yoki $\text{KAlSi}_3\text{O}_8$
Ortokreazol	
Ortokremniy kislota	$\text{H}_4\text{SiO}_4$
Ortomanganat kislota	$\text{H}_4\text{MnO}_4$
Ortonitrofenol	 <p>qaynash <math>t^0</math> ning <math>45^\circ\text{C}</math> bo'lishida uning ichki molekulariyar H bog'lanish mavjudligidir.</p>
Ortosilikat kislota	$\text{H}_4\text{SiO}_4$ yoki $\text{SiO}_2 \cdot 2\text{H}_2\text{O}$
Ortoyodat kislota	$\text{H}_5\text{JO}_6$
Oxak mumi so'ndirilmagan oxak, kuydirilgan oxak	$\text{CaO}$
Oxak so'ndirilmagan	$\text{CaO}$
Oxak suti	Sutga o'xshash loyda (suspenziya). U mo'l so'ndirilgan oxak suvda aralashtirilganda xosil bo'ladi. Oxak suti xlorli oxak tayyorlashda, qand ishlab chiqarishda, o'simliklarning kasalliklariga qarshi ishlatiladigan aralashmalar tayyorlashda, daraxtlarning tanasini oqlashda ishlatiladi.
Oxak suvi	$\text{Ca}(\text{OH})_2$ ning Oxak sutini ishlatishda olinadigan tiniq eritmasi.
Oxak va qorishma	so'ndirilgan oxak $\text{Ca}(\text{OH})_2$ qim suv aralashma
oxakli qorishmasi(binopar qorishmasi ), so'ndirilgan oxak	$\text{Ca}(\text{OH})_2$
Oxakli suv, so'ndirilgan oxak	$\text{Ca}(\text{OH})_2$
Oxaktosh, marmartosh, bor ( marmar, marmarid, kuydirilmagan oxak, stalogint, stalaptit), oq loy	$\text{CaCO}_3$
Oynakka rang beradigan	$\text{Cr}_2\text{O}_3$ (yashil), $\text{CaO}$ (ko'k), $\text{MnO}_2$ (to'q qizil)
Ozonforid	$\text{F}_2\text{O}_3$
Palmitin kislota, pentadekan	$\text{C}_{15}\text{H}_{31}\text{COOH}$

kislota	
Paraldegid	
Paxta tolasi, selluloza	$(C_6H_{10}O_5)_n$
Pelargon kislota	$CH_3 - (CH_2)_7 - COOH$
Permanganat kislota	$HMnO_4$
Perovietik	$CaTiO_3$
Perxlorat kislota	$HClO_4$
Peryodat	$HJO_4 (H_5JO_6)$
Petalit	$Li_2O \cdot Al_2O_3 \cdot 8SiO_2$
Pikrin kislota, 2,4,6-trinitrotoluol	
Piperidin	<p>Yoki <math>C_5H_{10}NH</math></p>
Piragallol	
Piridin	<p>u dorivor modda,</p> <p>sulfidni sintez qilishda ishlatiladi <math>C_5H_5N</math></p>
Piridoksal	

Pirimidin	 <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;"><math>C_4H_4N_2</math></div>
Pirit, temir kolchedani	$FeS_2$
Pirofor	$CrO$
Pirokatexin, 1,2 benzoldiol	
Piroksilin, trinitroselluloza	$C_6H_7O_2$ 
Pirolyuzit	$MnO_2$
Pirrol	 <div style="display: inline-block; vertical-align: middle; margin-left: 10px;"> <p>kuchsiz kislota</p> <p>xossasini namoyon qiladi.</p> </div> <div style="border: 1px solid black; display: inline-block; padding: 2px; margin-left: 10px;"><math>C_4H_5N</math></div>
Plavik kislota	$HF$
Plyumbat kislota	$H_2[PbO_2]$
Po'lat	$[Fe\ 98,3\%] \cdot [C\ 0,3-1,7\%]$
Poliakrilonitrat	$(-CH_2-CH-)_n$ 
Poliefir tolasi, lavsan	$[-OC-C_6H_4-COOCH_2-CH_2O-]_n$
Polietilen	$(-CH_2-CH_2-)_n$
Polikaprolaktam	$[-NH-(CH_2)_5-CO-]_n$
Polimetilmetakrilat	
Polistirol	
Polivinilxlorid	$(-CH_2-CH-)_n$ 

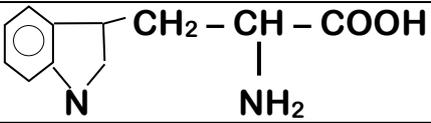
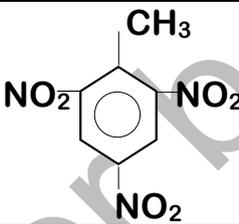
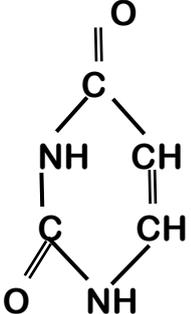
Pollutsit	$\text{CsAl}(\text{SiO}_3)_2$
Potash	$\text{K}_2\text{CO}_3$
PP vitamin	
Pretsipitat o'g'iti	$\text{CaHPO}_4 \cdot 2\text{H}_2\text{O}$
Propargir spirt	$\text{HC} \equiv \text{C} - \text{CH}_2 - \text{OH}$
Propil spirt	$\text{C}_3\text{H}_7\text{OH}$
Propilen	$\text{CH}_2 = \text{CH} - \text{CH}_3$
Propion kislota	$\text{CH}_3 - \text{CH}_2 - \text{COOH}$
Purin	 yoki <span style="border: 1px solid black; padding: 2px;"><math>\text{C}_5\text{H}_3\text{N}_4</math></span>
Qahrabo kislota	$\text{C}_2\text{H}_4 \cdot (\text{COOH})_2$ yoki $\text{HOOC} - \text{CH}_2 - \text{CH}_2 - \text{COOH}$
Qaldiroq gaz	$2\text{H}_2 \cdot \text{O}_2$
Qattiq sovun	$\text{C}_{17}\text{H}_{35}\text{COONa}$
Qiyin suyuqlanadigan shisha	$\text{K}_2\text{O} \cdot \text{CaO} \cdot 6\text{SiO}_2$
Qizil fosfor	$\text{P}_2$
Qizil qon tuzi	$\text{K}_3[\text{Fe}(\text{CN})]_6$
Qizil shisha	$\text{Na}_2\text{O} \cdot \text{Cu}_2\text{O} \cdot 6\text{SiO}_2$
Qizil temirtosh	$\text{Fe}_2\text{O}_3$
Qo'ng'ir rangli gaz	$\text{NO}_2$
Qo'ng'ir temirtosh	$2\text{Fe}_2\text{O}_3 \cdot 3\text{H}_2\text{O}$
Qo'rg'oshin qiyoti	$\text{PbO}$
Qo'rg'oshin yaltirog'i	$\text{PbS}$
Qo'sh superfosfat	$\text{Ca}(\text{H}_2\text{PO}_4)_2$
Qon gemoglobin	$(\text{C}_{738}\text{H}_{1166}\text{O}_{208}\text{S}_2\text{Fe})_4$
Qora porox	$[\text{KNO}_3 - 75\%] \cdot [\text{C} - 15\%] \cdot [\text{S} - 10\%]$
Qum, kvarts	$\text{SiO}_2$
Quruq muz	$\text{CO}_2$
Qutbsiz molekullar	$\text{CH}_4, \text{CO}_2, \text{CS}_2, \text{CCl}_4, \text{BeCl}_2, \text{BeH}_2, \text{CF}_4$ (teflon), $\text{SF}_6, \text{BF}_3, \text{SO}_3$ , sikloalkanlar.
Rezortsin	
Riboza aldegid shakli	$\text{CH}_2 - \underset{\text{OH}}{\text{CH}} - \underset{\text{OH}}{\text{CH}} - \underset{\text{OH}}{\text{CH}} - \underset{\text{H}}{\text{C}} = \text{O}$
Riboza keton shakli	$\text{CH}_2 - \underset{\text{OH}}{\text{CH}} - \underset{\text{OH}}{\text{CH}} - \underset{\text{H}}{\text{C}} = \text{CH}_2$

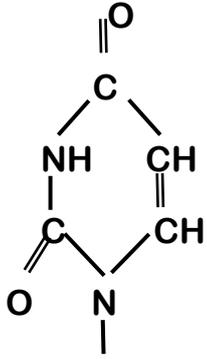
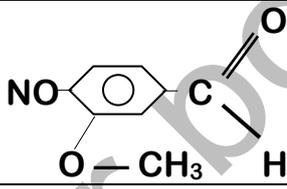
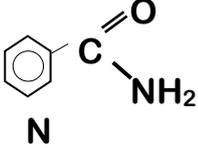
	OH OH OH O OH
Rodanid kislota	HSCN
Rubin shisha	Shishaga oltin (Au) qo'shilsa faqat nurni o'tkazadigan rubin shisha hosil bo'ladi.
Rux aldamasi	ZnS
Rux aldamasi	ZnS
Rux kuporosi	ZnSO <sub>4</sub> · 7H <sub>2</sub> O
Sariq qon tuzi	K <sub>4</sub> [Fe(CN) <sub>6</sub> ]
Sassolin	H <sub>3</sub> BO <sub>3</sub> · nH <sub>2</sub> O
Saxaroza	C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>
Segnet tuzi	KNaC <sub>4</sub> H <sub>4</sub> O <sub>6</sub> · 4H <sub>2</sub> O
Selenat kislota	H <sub>2</sub> SeO <sub>4</sub>
Selenit kislota	H <sub>2</sub> SeO <sub>3</sub>
Selestin	SrSO <sub>4</sub>
Sellobioza	C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>
Sellyuloza	$\begin{array}{c} \text{C}_6\text{H}_{10}\text{O}_5 \\ \text{C}_6\text{H}_7\text{O}_2 \begin{array}{l} \nearrow \text{OH} \\ \text{---} \text{OH} \\ \searrow \text{OH} \end{array} \end{array} \quad \text{Cu(OH)}_2$ <p>Shveysv reaktivi eritmasidayaxshi eriydi.</p>
Sellyuloza ksantosenati, viskoza	$\text{C}_6\text{H}_7\text{O}_2(\text{OH}_2)_2 - \text{O} - \text{C} \begin{array}{l} \text{---} \text{S} - \text{NH}_2 \\ \parallel \\ \text{S} \end{array}$
Sellyuloza triatasetati	C <sub>6</sub> H <sub>7</sub> O <sub>2</sub> (O - C(O)CH <sub>3</sub> ) <sub>3</sub>
Sellyuloza trinitrati	C <sub>6</sub> H <sub>7</sub> O <sub>2</sub> (ONO <sub>2</sub> ) <sub>3</sub>
Selsian	[Ba(Al <sub>2</sub> Si <sub>2</sub> O <sub>8</sub> )]
Sementit, temir karbid	Fe <sub>3</sub> C
Seolitlar	Ni <sub>2</sub> Al <sub>2</sub> Si <sub>4</sub> O <sub>12</sub>
Serin	$\begin{array}{c} \text{NH}_2 - \text{CH} - \text{COOH} \\   \\ \text{CH}_2 - \text{OH} \end{array}$
Serit	Ge <sub>2</sub> Si <sub>2</sub> O <sub>7</sub>
Serpenit	3MgO · 2SiO <sub>2</sub> · 2H <sub>2</sub> O
Shakar	C <sub>12</sub> H <sub>22</sub> O <sub>11</sub>
Shisha, deraza, oyna	Na <sub>2</sub> O · CaO · SiO <sub>2</sub>
Shovlin (oksalat) kislota	HOOC - COOH
Shox arog'i, zar suvi	HCl · 3HNO <sub>3</sub>
Shpinellar	M <sub>2</sub> O · M <sub>2</sub> O tarkiblilar
Shvetser reaktivi	Cu ammiakli eritma [Cu(NH <sub>3</sub> ) <sub>4</sub> ](OH) <sub>2</sub> uldan selluloza
Sianid kislota	HCN
Siderit	FeCO <sub>3</sub>

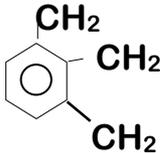
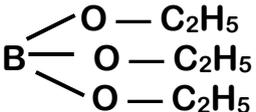
Siderit, shpatli temirtosh	$\text{FeCO}_3$
Silan	$\text{SiH}_4$
Silfinit	$\text{MgCl}_2 \cdot 6\text{H}_2\text{O}$
Silikat nefelin	$\text{Na}_2[\text{Si}_2\text{Al}_2\text{O}_8]$
Silumin	Al [86 – 88%] • Si [12 – 14%] dan iborat qotishma o'lchov va signal boruvchi moslamalarda ishlatiladi.
Silvin	KCl
Silvinit	$\text{NaCl} \cdot \text{KCl}$
Simob tuzlari (hayot uchun xafli)	$\text{Hg}(\text{CN})_2$
Simol	 $\text{CH}_3 - \text{CH} - \text{CH}_3$
Sinkat	$\text{Na}_7\text{Al}_6\text{S}_2\text{O}_{24}$
Sinkat kislota	$\text{H}_2\text{ZnO}_2$
Sintetik kauchuk	$\text{CH}_2 = \text{CH} - \text{CH} = \text{CH}_2$ (– $\text{CH}_2 - \text{CH} = \text{CH} - \text{CH}_2 -$ ) $_n$
Sintez gazi	$\text{CO} \cdot 2\text{H}_2$
Sirka angidriid	 $(\text{CH}_3\text{CO})_2\text{O}$
Sirka kislota	$\text{CH}_3\text{COOH}$
Sirka kislota	$\text{CH}_3\text{COOH}$
Sistein	
Sitozin, 2-oksi-6-aminopirimidin	
Siydikchil, karbamid	$\text{CO}(\text{NH}_2)_2$
Skipidar	$\text{C}_{10}\text{H}_{15}$
Slyuda	$\text{K}_2\text{O} \cdot 3\text{Al}_2\text{O}_3 \cdot 6\text{SiO}_2 \cdot 2\text{H}_2\text{O}$
So'ndirilmagan oxak	CaO
Solitsil kislota	$\text{LiAl}(\text{SiO}_3)_2$
Solitsil kislota	
Sorbit	$\text{CH}_2(\text{OH}) - (\text{CH} - \text{OH})_4 - \text{CH}_2 - \text{OH}$
Spodumen	$\text{Li}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 4\text{SiO}_2$ yoki $\text{LiAl}(\text{SiO}_4)_2$
Stearin kislota	$\text{C}_{17}\text{H}_{35}\text{COOH}$

Stearin kislota	$C_{17}H_{35}COOH$
Stibin	$SbH_3$
Stibin	$SbH_3$
Stirol, Vinilbenzol, Feniletilen	$CH = CH_2$ 
Stronsianit	$SrCO_3$
Sulema	$HgCl_2$
Superfosfat	$Ca(H_2PO_4)_2 \cdot CaSO_4$
Surik, bo'yoq	$Pb_3O_4$
Sut kislota	$CH_3 - CH - COOH$   OH
Suv gazi	$CO \cdot H_2$
Suvsizlantirilgan soda	$Na_2CO_3$
Suyak tolqoni	$Ca_3(PO_4)_2$
Suyak tolqoni, fosforit	$Ca_3(PO_4)_2$
Suyuq sovun	$C_{17}H_{35}COOK$
Tabiiy kauchuk monomeri, izopren	$CH_2 = C - CH = CH_2$   CH <sub>3</sub>
Talk	$3MgO \cdot 4SiO_2 \cdot H_2O$
Tanakor, bura	$Na_2B_4O_7$
Taxir tuz, shpliz tuzi	$MgSO_4 \cdot 7H_2O$
Teflon	$(-CF_2 - CF_2 -)_n$
Temir (II) gidroksonitrat	$Fe(OH)NO_3$
Temir (III) gidrofosfat	$Fe_2(HPO_4)_3$
Temir kuporosi	$FeSO_4 \cdot 7H_2O$
Temir kuporosi	$FeSO_4 \cdot 7H_2O$
Temir kuyindisi, magnitli temirtosh	$Fe_3O_4$
Temir rodanid	$Fe(SCN)_3$
Tenar ko'ki	$Co(AlO_2)_2$
Tenardit	$Na_2SO_4$
Tereftal kislota	$HOOC - \text{C}_6\text{H}_4 - COOH$ yoki $C_6H_4 \cdot (COOH)_2$
Termit	$(Al + Fe_3O_4)$ yoki $4Al_2O_3 \cdot 9Fe$
Termolit	$Ca_2Mg_5(Si_4O_{11})_2(OH)_2$
Tetraamin mis (II)	$[Cu(NH_3)_4]^{2-}$
Tetraborat kislota	$H_2B_4O_7$
Tetrafosfor	$P_4$
Tetraftorborat	$H[BF_4]$

Tetragidrofuran	$  \begin{array}{c}  \text{CH}_2 - \text{CH}_2 \\    \quad   \\  \text{CH} - \text{CH} \\  \diagdown \quad / \\  \text{O}  \end{array}  $
Tetratianat kislota	$\text{H}_2\text{S}_4\text{O}_6$
Texnik soda	$\text{NaOH}$
Timil radikali	$  \begin{array}{c}  \text{O} \\     \\  \text{C} \\  / \quad \backslash \\  \text{HN} \quad \text{C} - \text{CH}_3 \\  \backslash \quad / \\  \text{C} = \text{CH} \\     \\  \text{O} \\    \\  \text{N}  \end{array}  $
Timin, 5-metil-2,6-dioksipirimidin	$  \begin{array}{c}  \text{O} \\     \\  \text{C} \\  / \quad \backslash \\  \text{NH} \quad \text{C} - \text{CH}_3 \\  \backslash \quad / \\  \text{C} = \text{CH} \\     \quad   \\  \text{O} \quad \text{NH}  \end{array}  $
Tiofen	$  \begin{array}{c}  \text{CH} - \text{CH} \\     \quad    \\  \text{CH} \quad \text{CH} \\  \backslash \quad / \\  \text{S}  \end{array}  $
Tiosulfat	$\text{H}_2\text{S}_2\text{O}_8$
Tirozin	$  \begin{array}{c}  \text{NH}_2 - \text{CH}_2 - \text{COOH} \\    \\  \text{CH}_2 - \text{C}_6\text{H}_4 - \text{OH}  \end{array}  $
To'q yashil shisha	$\text{Na}_2\text{O} \cdot \text{FeO} \cdot 6\text{SiO}_2$
Tolishpok	$\text{Ca}_3(\text{PO}_4)_2 \cdot \text{H}_2\text{O}$
Toluol, metil benzol	$\text{C}_6\text{H}_5\text{CH}_3$
Tomas shlak	$\text{Ca}_3(\text{PO}_4)_2 \cdot \text{CaO}$
Tortveytit	$(\text{Y}, \text{Sc})_2\text{Si}_2\text{O}_7$
Triasetilselluloza, triatsetat selluloza	$(\text{C}_6\text{H}_7\text{O}_2)(\text{CH}_3\text{COO})_3$
Triborat kislota	$\text{H}_5\text{B}_3\text{O}_7$
Tribornitroamid	$\text{B}_3\text{N}_3\text{H}_6$
Trimetafosfat kislota	$4\text{H}_3(\text{PO}_3)_3$ yoki $3\text{P}_4\text{O}_{10} \cdot 6\text{H}_2\text{O}$

Trimetilamin	$\begin{array}{c} \text{CH}_3 - \text{N} - \text{CH}_3 \\   \\ \text{CH}_3 \end{array}$
Trinitroselluloza, piroksilin	$\text{C}_6\text{H}_7\text{O}_2 \begin{array}{l} \diagup \text{O} - \text{NO}_2 \\   \text{---} \text{O} - \text{NO}_2 \\ \diagdown \text{O} - \text{NO}_2 \end{array}$
Triptofan	
Tristearin	$\begin{array}{c} \text{O} \\    \\ \text{CH}_2 - \text{O} - \text{C} - \text{C}_{17}\text{H}_{35} \\   \\ \text{O} \\    \\ \text{CH}_2 - \text{O} - \text{C} - \text{C}_{17}\text{H}_{35} \\   \\ \text{O} \\    \\ \text{CH}_2 - \text{O} - \text{C} - \text{C}_{17}\text{H}_{35} \end{array}$
Trotil	
Tserussit	$\text{PbCO}_3$
Turnbul ko'ki	$\text{Fe}_3[\text{Fe}(\text{CN})_6]_2$
Tuyaminit	$\text{CaO} \cdot 2\text{MnO}_2 \cdot \text{V}_2\text{O}_5 \cdot 8\text{H}_2\text{O}$
Uchlamchi butilamin	$\begin{array}{c} \text{NH}_2 \\   \\ \text{CH}_3 - \text{C} - \text{CH}_3 \\   \\ \text{CH}_3 \end{array}$
Uglerod monoksid, is gazi	$\text{CO}$
Uran qorasi	$(\text{UO}_2 \cdot \text{UO})_2$
Uratsil, 2,6-dioksimirimidin	

Uridil radikali	
Uviol shisha	Shisha tarkibiga $\text{Fe}_2\text{O}_3$ qo'shilsa, ultrabinafsha nurlarni o'tkazmaydigan (uviol) shisha hosil bo'ladi.
Valerian (pentan) kislota	$\text{C}_4\text{H}_9\text{COOH}$ U o'simliklardan olinadi.
Valin	$\text{NH}_2 - \text{CH} - \text{COOH}$   $\text{CH}_3 - \text{CH} - \text{CH}_3$
Vanadiy karbid	VC
Vanillin	
Venil	$\text{CH}_2 - \text{CH}_2$
Vinil (etenil) radikali	$\text{CH}_2 = \text{CH} -$
Vinil atsetat	$\text{CH}_2 = \text{CH} - \text{COOCH}_3$
Vinil benzol (stiroi, feniletilen)	$\text{CH} = \text{CH}_2$ 
Vinil spirt	$\text{CH}_2 = \text{CH} - \text{OH}$
Vinil xlorid	$\text{CH}_2 = \text{CH} - \text{Cl}$
Vino kislota	$\text{HOOC} - \text{CH} - \text{CH} - \text{COOH}$     OH OH
Vino spirit	$\text{CH}_3 - \text{CH}_2 - \text{OH}$
Viskoza	$\text{C}_6\text{H}_7\text{O}_2(\text{OH})_2 - \text{O} - \text{C} - \text{S} - \text{Na}$    S
Vismutin	$\text{BiH}_3$
Vitamin B <sub>12</sub>	$\text{C}_{63}\text{H}_{90}\text{O}_{14}\text{N}_{14}\text{PCa}$
Vitamin PP	
Viterit	$\text{BaCO}_3$
Volfram karbidi	WC

Vstinaltrimetilbenzol	
Xalkopirit	$\text{CuFeS}_2$
Xalkopirit	$\text{CuFeS}_2$
Xalkozin	$\text{Cu}_2\text{S}$
Xalkozin, mis yaltirog'i	$\text{Cu}_2\text{S}$
Xavo gazi	$\text{CO}$ [30%] • $\text{N}_2$ [60%] • $\text{CO}_2$ [10%]
Xavorang shisha	$\text{Na}_2\text{O} \cdot \text{CuO} \cdot 6\text{SiO}_2$
Xayot uchun havfli aralashma	$\text{AlCl}_3 \cdot \text{NaCl}$
Xibin apatit	$\text{Ca}_3(\text{PO}_4)_2$
Xind selitrasi	$\text{KNO}_3$
Xindiston selitrasi	$\text{HNO}_3$
Xlorli oxak	$\text{Ca}(\text{ClO})_2 \cdot \text{CaCl}_2$
Xlorli suv	$\text{HClO}$
Xlornitroriamin plumbat (IV) sulfat	$[\text{Pb}(\text{NH}_3)_3\text{NO}_2\text{Cl}]\text{SO}_4$
Xloroform	$\text{CHCl}_3$
Xlorpren	$\text{CH}_2 = \underset{\text{Cl}}{\text{C}} - \text{CH}_2 = \text{CH}_2$
Xom cho'yan	$\text{Fe}_3\text{C}$
Xrom geksa karbinol	$\text{Cr}(\text{OH})_6$
Xrom temirtosh	$\text{FeO} \cdot \text{Cr}_2\text{O}_3$
Xromel	$\text{Ni}$ [90%] • $\text{Cr}$ [10%]
Xromli aralashma	$(\text{K}_2\text{Cr}_2\text{O}_7 + \text{H}_2\text{SO}_4)$
Yarim kuydirilgan gips (alebaster)	$\text{CaSO}_4 \cdot 0,5\text{H}_2\text{O}$
Yashil rang berib yonadigan modda	
Yashil shisha	$\text{Na}_2\text{O} \cdot \text{Cr}_2\text{O}_3 \cdot 6\text{SiO}_2$
Yodargirit	$\text{AgJ}$
Yodargirit	$\text{AgJ}$
Yoqut	$[\text{Cr}(\text{H}_2\text{O})_4\text{Cl}_2]\text{Cl} \cdot 2\text{H}_2\text{O}$ (tog' yashil rangida)
Zar suvi, shox arog'i	$\text{HCl} \cdot 3\text{HNO}_3$

MODDA	IZOMERI
2 metil propaning dixlorli xosilasi	3 ta
2 xil $\text{H}_2$ , 3 xil $\text{O}_2$ izotopidan tuzilgan peroksidlar soni	18 ta

2,2 dimetil butanning monoxlorli xosilasi	3 ta
2,2 dimetil propaning monoxlorli xosilasi	1 ta
Butanning ... ta izomeri bo'lib, ularda ... ta 1 lamchi, ... ta 2lamchi va ... ta 3 lamchi C atomlari bo'ladi.	2 ta izomer: 5 ta 1 lamchi, 2 ta 2lamchi, 1 ta 3 lamchi
$C_{10}H_{22}$	75 ta
$C_{13}H_{28}$	802 ta
$C_{20}H_{42}$	336`319 ta
$C_3H_5Cl$	4 ta (sis – trans 1 ta)
$C_3H_5NO_2$	8 ta (sis – trans 2 ta)
$C_3H_5NO_2$	5 ta ochiq zanjirli izomer
$C_3H_5NO_2$	8 ta (2 ta sis – trans)
$C_3H_5R$	3 ta bir valentli radikal
$C_3H_6ClCOOH$	5 ta izomer
$C_3H_6O_2$	5 ta ochiq zanjirli izomer
$C_3H_7O_2N$	2 ta kislota izomeri
$C_3H_7OH$	2 ta izomer spirt
$C_3H_8O_2$	3 ta izomer
$C_3H_9N$ tarkibli aminning nechta izomeri mavjud.	4 ta izomer
$C_3H_9OH$	3 ta spirt
$C_4H_{10}$	2 ta
$C_4H_{10}$	5 ta to'yinmaganlar izomer (alken – 3ta, alkin – 2ta)
$C_4H_{10}$	4 ta monoxlorli izomeri
$C_4H_{10}$ tarkibli alkanning barcha izomeridagi C atomining oksidlanish darajasi yig'indisi ... ga teng.	Normal butan (-10) + 2 metil propan (-10) = -20
$C_4H_{10}O$ formulaga to'g'ri keladigan birlamchi spirtlar va oddiy efirlar sonini ko'rsating.	2 ta birlamchi spirtlar va 3 ta oddiy efirlar
$C_4H_{10}O_2$	6 ta ikki atomli spirt
$C_4H_{11}N$	8 ta ochiq izomer
$C_4H_{11}N$	4 ta birlamchi aminlar soni
$C_4H_4$	2 ta ochiq zanjirli izomer
$C_4H_6$	6 ta (2 ta sis – trans) barcha izomer
$C_4H_6$	4 ta (2ta -diyen va 2 ta -in) izomer

$C_4H_6O_2$	4 ta to'yinmagan ugv. li kislota
$C_4H_6O_2$	10 ta (2 ta sis – trans) to'yinmagan kislota va efir
$C_4H_7Cl$	11 ta (3 ta sis – trans)
$C_4H_7NO_2$	10 ta ochiq va yopiq zanjirli
$C_4H_7NO_2$	4 ta yopiq zanjirli
$C_4H_7NO_2$	8 ta aminokislota
$C_4H_8$	6 ta (3 ta –yen, 2 ta sikloalkan va 1 ta sis – trans)
$C_4H_8$	6 ta (-in, -diyen, -en)
$C_4H_8$	2 ta sikloparafin
$C_4H_8O$	5 ta (1 ta sis – trans) yopiq, 5 ta (1 ta sis – trans) ochiq
$C_4H_8O$	2 ta aldegid, 1 ta keton, 4 ta to'yinmagan spirt
$C_4H_8O$	11 ta barcha izomer
$C_4H_8O$	4 ta to'yinmagan zanjirli spirt, 4 ta to'yinmagan oddiy efir
$C_4H_8O_2$	6 ta (2 ta kislota va 4 ta murakkab efir)
$C_4H_9CHO$ tarkibli aldegidning (tarkibida – CHO tutgan) ... ta izomer mavjud.	4 ta
$C_4H_9COOH$	4 ta karbon kislota
$C_4H_9NO_2$ tarkibli aminokislota izomerlari nechta.	5 ta
$C_4H_9O_2N$	5 ta aminokislota (2 ta aldegid)
$C_4H_9OH$	4 ta optik izomer
$C_4H_9OH$	6 ta struktura izomer
$C_4H_9R$	2 ta to'yingan ugv. izomer
$C_5H_{10}$	6 ta sikloalkan (2 ta sis-trans)
$C_5H_{10}$	7 ta –yen va 6 ta yopiq halqali (2 geometrik)
$C_5H_{10}$	6 ta (1 ta sis – trans) barcha ochiq izomerlar
$C_5H_{10}$	5 ta turli sikloparafinlar
$C_5H_{10}O$	4 ta aldegid
$C_5H_{11}Br$ tarkibli alkanning galogenli izomeri nechta bo'lishi mumkin.	7 ta
$C_5H_{11}COOH$	8 ta karbon kislota
$C_5H_{11}NO_2$	12 ta aminokislota
$C_5H_{11}OH$ tarkibli bir atomli spirtning ... ta	8 ta

izomeri bo'ladi.	
$C_5H_{11}R$	8 ta R izomerlar soni
$C_5H_{12}$	3 ta
$C_5H_{12}$	3 ta to'yingan ugvl.
$C_5H_{12}$	8 ta monogalogenli xosila
$C_5H_{12}O$ tarkibli oddiy efir izomerlari ... ta	4 ta
$C_5H_8$	6 ta alkadiyen
$C_5H_8$	3 ta alkin
$C_5H_8$	10 ta: [3 ta -in] va [7 ta -diyen(1 ta sis - trans)]
$C_6H_{10}$	3 ta alkinlar
$C_6H_{10}$	7 ta -diyenlar ugvlari asosiy zanjirda 5 ta C
$C_6H_{12}$	7 ta to'yingan sikloalkan
$C_6H_{12}$	10 ta sikoparafinlar geometrik
$C_6H_{12}$	6 ta, 2 ta geometrik, asosiy zanjir 5 ta C
$C_6H_{12}$	13 ta alkenlar soni izomer
$C_6H_{12}$	3:0 ta asosiy zanjirda 4 ta C bo'lgan alken
$C_6H_{12}$	20 ta siklo va alkenlar soni
$C_6H_{12}$ tarkibli sikloalkan izomerlari soni -	12 ta: siklogeksan, metilsiklopentan, 1,1-dimetilsiklobutan, 1,2-dimetilsiklobutan, sis 1,3-dimetilsiklobutan, trans 1,3-dimetilsiklobutan, etilsiklobutan, propilsiklopropan, izopropilsiklopropan, 1-metil 2-etilsiklopropan, 1,1,2-trimetilsiklopropan, 1,2,3-trimetilsiklopropan,
$C_6H_{12}O$	6 ta keton
$C_6H_{12}O$	8 ta aldegid soni
$C_6H_{12}O_2$	7 ta kislota izomer
$C_6H_{12}O_2$	6 ta tarmoqlanmagan R li murkkab efir
$C_6H_{13}OH$	17 ta spirt izomerlar soni
$C_6H_{14}$	5 ta
$C_6H_3(CH)_3$	8 ta aromatik izomerlar (halqasida birikkan R da 18 ta birlamchi 5 ta ikkilamchi 1 ta uchlamchi 0 ta to'rtlamchi C bor)
$C_6H_3NO_2Cl_2$	6 ta dixlorli nitrobenzol
$C_7H_{12}$	8 ta aromatik R (I-18 ta, II-5 ta, III-1 ta, IV-0 ta)
$C_7H_{14}$	27 ta alken
$C_7H_{14}O$	15 ta keton
$C_7H_{15}OH$	39 ta izomerlar soni
$C_7H_{16}$	9 ta

$C_7H_{16}$	9 ta alkan to'yingan s.n
$C_7H_{16}$	5 ta, asosiy zanjirda 5 ta C atomi
$C_7H_{16}$	1 ta, asosiy zanjirda 4 ta C atomi
$C_7H_{16}$	3 ta, 1 ta uchlamchi C atomiga ega alkan
$C_7H_{16}$	2 ta, 2 ta uchlamchi C atomiga ega alkan
$C_7H_{18}$	14 alkin
$C_7H_7Br$	4 ta galogenli aromatik izomer
$C_7H_7NO_2$	4 ta aromatik nitrobirikma
$C_7H_9N$	4 ta aromatik amin
$C_8H_{10}$	4 ta benzol halqali
$C_8H_{10}$ tarkibli aromatik ugv.ning nechta izomeri bo'lishi mumkin.	4 ta
$C_8H_{10}O$	19 aromatik izomerlar
$C_8H_{10}O_2$	4 ta aromatik birikmalar Ag ko'zgu reaksiyasiga qatnashadi. (oksialdegid va oksikon hisobga olmang)
$C_8H_6O_2$	4 ta aromatik kislota
$C_8H_7Cl$	5 ta aromatik birikma
$C_8H_8O_2$	8 ta karboksil va murakkab efir bo'lgan birikmalar, Ag ko'zgu reaksiyasiga kirishadi.
$C_8H_8O_2$	1 ta gidrolizga qatnashadigan
$C_8H_8O_2$	4 ta aromatik birikmalar, Ag ko'zgu reaksiyasiga qatnashadi. (oksialdegid va oksiketoza xisobga olmang)
$C_8H_8O_2$	Aromatik birikmalarning 4 tasi Na metali bilan reaksiyaga kirishadigan (aldegid va oksiketoza xisobga olmang)
$C_9H_{10}$	7 ta aromatik s.n.lar (1 ta sis – trans)
$C_9H_{12}$	8 ta aromatik trimetil benzol
$C_9H_{18}$	154 ta alkenlar soni
$C_9H_{20}$	35 ta alkanlar soni
Dibrombenzolda	3 ta
Dibrompropaning	4 ta
Dimetil benzoy aldegidning	6 ta
Dixlor nitrobenzol	6 ta
Geksanning ... ta izomeri bo'lib, ularda ... ta uchlamchi uglerod atomi bo'ladi?	5 ta izomer; 4 ta uchlamchi C
Geksanning ... ta izomeri bo'lib, ularda 3lamchi uglerod atomi	5 ta izomer: 3lamchi 4 ta.

bo'ladi.	
Geksanning izomerlari va barcha izomerlaridagi 2lamchi, 3lamchi, 1 lamchi va 4 lamchi C larning yig'indisini ko'rsating.	5 ta izomer: 2lamchi 9, 3lamchi 4, 1 lamchi 16, 4 lamchi 1.
Izobutilformiat gidolizida hosil bo'lgan spirtning tarkibida OH-tutgan ... ta izomeri bo'ladi.	2 ta izobutilsirt
Izobutnning monoxlorli xosilasi	2 ta
Massalari 16, 17, 18 u.b ga teng bo'lgan O atomlari tutgan ozon molekulari necha xil bo'ladi.	10 ta
N. butanning dixlorli xosilasi	6 ta
N. pentanning monogaloidli xosilasi	3 ta
Pentanning barcha izomerlari soni ... ta bo'lib, ulardagi C larning ... tasi 1 lamchi C atomi hisoblanadi.	3 ta izomer: 9 ta 1 lamchi
Pentanning barcha izomerlari soni ... ta bo'lib, ulardagi C larning ... tasi 2lamchi C atomi hisoblanadi.	3 ta izomer: 4 ta 2 lamchi
Pentinning izomerlari –	3-metilbutin-1, izopren, metiletilatsetilen, 3-metilbutin-1, pentadiyen-1,4
Siklogeksanning uch a'zoli halqa tutgan izomerlar soni –	6 ta
Tarkibi $C_5H_{10}$ bo'lgan sikloparafinning izomerlari soni nechta.	6 ta (1 ta sis-trans)
Tarkibi $C_5H_{10}O_2$ bo'lgan bir asosli karbon kislotaning izomerlari ... ta	4 ta

Uglerod ( $^{12}\text{C}$ ) va 3 xil kislorod izotoplari ( $^{16}\text{O}$ , $^{17}\text{O}$ , $^{18}\text{O}$ ) dan t/t $\text{CO}_2$ molekulari nechta bo'lishi mumkin.	6 ta
Vodorodning $^1\text{H}$ , $^2\text{D}$ , $^3\text{T}$ va kislorodning $^{16}\text{O}$ , $^{17}\text{D}$ , $^{18}\text{T}$ izotoplari necha xil $\text{H}_2\text{O}$ xosil qilishi mumkin.	21 ta

### ELEMENTLAR HAQIDA MA'LUMOT

No	Elementlar formulasi	Kashf etilgan yili, kim tomonidan	MA'NOSI
1	H	1776, ingliz G. Kavendish	Suv tug'diruvchi
2	He	1868, ing N. Loker va fr J. Jansen	Quyosh
3	Li	1817, shved A. Arfvedson	Tosh
4	Be	1798, fransuz N. L. Voklen	"Berill" minerali nomidan olingan
5	B	1808, J. L. Gey-Lyussak, G. Devi va L. J. Tenar	"Bura" so'zidan olingan
6	C	Qadimdan ma'lum	Ko'mir xosil qiluvchi
7	N	1772, shotland D. Rezerford	(xayotsiz), selitra tug'diruvchi
8	O	1771, shved K. Sheele	Kislota tug'diruvchi
9	F	1771, shved K. Sheele	Yemiruvchi
10	Ne	1898, ingliz U. Ramzay va M. U. Travers	Yangi
11	Na	1807, ingliz G. Devi	Sirka qo'shilsa qaynab ketuvchi, soda
12	Mg	1775, J. Blek	"Magnezi" Gretsiyadagi joyning nomi
13	Al	1825, Daniyalik X. K. Ersted	Achchiqtosh
14	Si	1824, I. Berselius	(qoya), lotincha tarjimasi

			chaqmoqtosh
15	P	1669, X. Brand	Shu'la sochuvchi, yorug'lik tarqatuvchi
16	S	Qadimdan ma'lum	
17	Cl	1774, K. Sheele	Yashil, ko'k – sariq
18	Ar	1894, ing U. Ramzay va D. Relee	Yalqov
19	K	1807, ingliz G. Devi	Dengiz o'simtlarining kuli (ishqor)
20	Ca	1808, ingliz G. Devi	Yumshoq tosh (oxaktosh)
21	Sc	1879, Shvetsariyalik L. F. Nilson	Skandinaviya sharafiga
22	Ti	1771, ingliz U. Gregor	Mifologiya qahramoni
23	V	1801, Meksikalik A.M. Del Rio	Qadimgi skandinavlarining xudosi freya vanadiysining sharafiga
24	Cr	1797, fransuz N.M.Voklen	Bo'yoq
25	Mn	1774, shved K.Sheele va Yu. Gan	
26	Fe	Qadimdan ma'lum	Yulduz elementi, mustahkamlik
27	Co	1735, G. Brand	Tog'ning duxi
28	Ni	1751,	Mis shaytoni (dyavol)
29	Cu	Qadimdan ma'lum	Kipr orolining nomidan olingan
30	Zn	Qadimdan ma'lum	Oq, lotincha tarjimasi yuk
31	Ga	1875, fransuz G.E. Lekok de Bua – Bodran	Qadimgi Fransiyaning nomi
32	Ge	1881, K.A. Vinkler	Germaniya sharafiga
33	As	1789, A. Lavuazye	Mineral bo'yoq (lotincha

			tarjimasi)
34	Se	1817, shved I. Berselius, G. Gan	Oy
35	Br	1826, fr A.J. Balar, nemis S. Levig	Badbo'y, sassiq
36	Kr	1898, ingliz U. Ramzay va M. U. Travers	Yashirin
37	Rb	1861, R.V. Bunzey va german G. Kirxgof	To'q qizil
38	Sr	1808, G. Devi	Shotlandiyadagi joy nomini bildiradi
39	Y	1774, Finlyandiyalik Yu. Gadolin	Shaharning nomi
40	Zr	1798, Germanlik M.G. Klaprot	Arabcha "sakun" – kinovar
41	Nb	1801, I. Xatchet	Qadimgi Yunon mifologiyasiga ko'ra Nibeya Tantalning qizidir
42	Mo	1878, K. Sheele	Qo'rg'oshinning lotincha nomi
43	Tc	1937, italyan K. Pere va E. Serge	Sun'iy
44	Ru	1808, polyak E. Siyadeskiy	Rossiya sharafiga
45	Rh	1804, ingliz U.X. Vollaston	Atirgul
46	Pd	1803, ingliz U.X. Vollaston	Pallada asteroidi sharafiga
47	Ag	Qadimdan ma'lum	Ravshan, lotincha tarjimasi tovlanuvchi
48	Cd	Nemis F. Shtromeer	Rux rudasi
49	In	1863, nemis Rayx va G. Rixter	Indigo – ko'k chiziq
50	Sn	Qadimdan ma'lum	Qattiq, lotincha tarjimasi barqaror
51	Sb	Qadimdan ma'lum	Qoshni qoraga bo'yash

52	Te	1782, rumin F.I. Myuller fon Reyxenshteyn	Yer
53	J	1886, fransuz ximigi B. Kurtua	Binafsha
54	Xe	1898, U. Ramzay, M. U. Travers	Noma'lum
55	Cs	1806, I.R. Bunzen, G.R. Kirxgof	Ko'k – xavorang
56	Ba	1774, shved K. Sheele	Og'irlik (og'ir)
57	La	1839, shved K. Mosander	Yashirinmoq, qochmoq
58	Ce	1803, I. Berselius, V. Gizenger	Sereri yulduzi sharafiga
59	Pr	1885, Avstriya K.Auer fon Velsbax	
60	Nd	1885, Avstriya K.Auer fon Velsbax	
61	Pm	1945, AQSHlik J. Marinsk, L. Glenden, I. Koriyell	
62	Sm	1879, Lekok de Buabodran	
63	Eu	1901, E. Demarse	
64	Gd	1886, frans Lekok de Buabodran	
65	Tb	1843, K. Mosander	
66	Dy	1886, frans Lekok de Buabodran	Topilishi qiyin
67	Ho	1878, P. Kleve	Joyning nomidan olingan
68	Er	1843, K. Mosander	
69	Tm	1879, P. Kleve	
70	Yb	1794, Yu. Gadolin	Shaxarning nomidan olingan
71	Lu	1907, J. Urben	
72	Hf	1923, D.Xeveshi, D.Koster (Daniya)	Daniya poytaxti Kopengagenni ng qadimgi nomi
73	Ta	1802, A. Eksberg	Mifologiya qahramoni
74	W	1751, K. Sheele	Og'ir tosh
75	Re	1925, V. Hoddak	Reyn daryosining sharafiga

76	Os	1804, ingliz S. Tennat	hid
77	Ir	1804, ingliz S. Tennat	Kamalakrang
78	Pt	Qadimdan ma'lum	Kumushcha (kichik kumush)
79	Au	Qadimdan malum	
80	Hg	Qadimdan malum	Suyuq kumush (yunoncha tarjimasi)
81	Tl	1861, U. Kruks	Yashil novda
82	Pb	Qadimdan ma'lum	
83	Bi	Qadimdan ma'lum	Oq massa
84	Po	1848, polyak Pyer va Mariya Sadovskaya Kyuri	Polsha sharfiga
85	At	1940, AQSHlik D.R. Korson	Beqaror
86	Rn	1900, F. Dorn	Nur
87	Fr	1939, Margarit Perey	Fransiya sharfiga
88	Ra	1898, fransuz Pyer va Mariya Sadovskaya Kyuri	Nurli
89	Ac	1899, fransuz A. Debern	Birinchi nur
90	Th	1828, I. Berselius	Sayyora nomidan olingan
91	Pa	1918, Otto Gan	Sayyora nomidan olingan
92	U	1798, M.G. Klaprot	Sayyora nomidan olingan
93	Np	1940, E.M. Makmillan, F. Abelson	
94	Pu	1940, AQSHlik G.T. Siborg	Kyurilar sharfiga
95	Am	1944, AQSHlik G.T. Siborg	
96	Cm	1944, AQSHlik G.T. Siborg	
97	Bk	1949, S. Tomson	A. Eynshteyn sharfiga
98	Cf	1950, S. Tomson	
99	Es	1952, J. Choppin	D. I. Mendeleyev sharfiga
100	Fm	1952, J. Choppin	(A. B. nobel sharfiga)
101	Md	1955, AQSHlik A. Giorso	Ravshan, lotincha

			tarjimasi tovlanuvchi
102	(No)	1958, AQSHlik A. Giorso	Rux rudasi

### AYRIM QIZIQARLI SAVOLLARGA JAVOBLAR

SAVOLLAR	JAVOBLAR
“bosh guruhcha elementlar atomlarida tashqi pog’onaning elektronlar soni guruh tartib raqamiga teng” degan qoidadan chetlashish qaysi element atomida kuzatiladi	Geliy
“Elektron sakrash” kuzatiladigan elementlar	Cr <sup>1</sup> , Cu <sup>1</sup> , Nb <sup>1</sup> , Mo <sup>1</sup> , Ru <sup>1</sup> , Rh <sup>1</sup> , Pd <sup>2</sup> , Ag <sup>1</sup> , Pt <sup>1</sup> , Au <sup>1</sup>
“Kuldiruvchi gaz” deb ataladigan moddani ko’rsating	N <sub>2</sub> O
“Shirin” ta’mgaga ega, lekin juda zaharli tuzni aniqlang	Pb(CH <sub>3</sub> COO) <sub>2</sub>
“Tulkining dumi” deb ataladigan gaz	NO <sub>2</sub>
Arxeologik qazilmalarni yoshini aniqlashda uglerodning qaysi izotopidan foydalaniladi	C <sup>14</sup>
Atomning elektron pog’onalar soni nimaga teng bo’ladi	Davr raqamiga
Berselius fanga 4 ta termini kiritgan bular	Allotropiya, Kataliz, Organik kimyo, Izomeriya
Binar birikma	Ikki elementdan iborat birikmalar (oksidlar, sulfidlar, nitidlar, karbidlar)
Bir xil sharoitda va bir xil massada olingan qaysi gazning hajmi eng katta bo’ladi	O <sub>2</sub>
Bog’lanish turi qutbli, lekin molekulasiz qutbsiz moddalar	CS <sub>2</sub> , CO <sub>2</sub> , CH <sub>4</sub> , CCl <sub>4</sub> , BeCl <sub>2</sub> , BeH <sub>2</sub> , SF <sub>6</sub> , CF <sub>4</sub> (teflon), BF <sub>3</sub> , SO <sub>3</sub> , sikloalkanlar.
Bukilganda ovoz chiqaradigan metal	Sn
Cho’g’lanma lampa ishlab chiqarishda ishlatiladigan metallar	W, Pb, Sn, Sb, Fe, Cu, Zn
d – pog’onachasida elektronlar maksimal soni nechaga teng	10 ta elektron
Electron buluti shaklini qaysi kvant son belgilaydi	Orbital kvant son
Electron energiyasini qaysi kvant son belgilaydi	Bosh va orbital kvant son

Elektroliz yo'li bilan olinadigan metallar	Na, K, Cs, Ca, Mg, Al, Au, Cl <sub>2</sub> , F <sub>2</sub> , NaOH, HOH, KClO <sub>3</sub>
Elektroliz yo'li bilan olinadigan metallar	Na, K, Cs, Ca, Mg, Al, Au, Cl <sub>2</sub> , F <sub>2</sub> , NaOH, HOH, KClO <sub>3</sub>
Elementlarni davriy sistemadagi o'rnini uning qaysi belgisi belgilaydi	Protonlar soni
Eng aktiv metal	Cs va Fr
Eng og'ir metal	Os ( $\rho = 22,5 \text{ g/sm}^3$ )
Eng qarshiligi katta metal	W
Eng qattiq metal	Cr
Eng yaxshi elektr o'tkazuvchi	Ag $\rightarrow$ Cu $\rightarrow$ Au $\rightarrow$ Al
Eng yengil metal	Li ( $\rho = 0,534 \text{ g/sm}^3$ )
f – pog'onachasida elektronlar maksimal soni nechaga teng	14 ta elektron
Faqat bitta kislota gaz va suv aralashmasiga aylantiradigan kislota va gazni aniqlang	HF va SiF <sub>4</sub>
Fotoelement	Cs
Juda yuqori temperaturada gidrid bug'i zichligi kislorodning zichligiga teng bo'lgan elementni aniqlang	Si
Karborund tarkibida C dan boshqa qanday element bo'ladi	Si
Kimyo sohasida birinchi Nobel mukofoti sovrindori	Ya. X. Vant – Goff
Kislota ham asos bo'ladigan modda	HSO <sub>4</sub> <sup>-</sup> [gidrosulfat]
Koka – kola ichimligiga qo'shiladigan gaz	CO <sub>2</sub>
Konsentrlangan H <sub>2</sub> SO <sub>4</sub> bilan reaksiyaga kirishmaydigan metal/	Fe, Cr, Al, Au
Metallarni qaysi birini zichligi alyuminiyning yaqin bo'lsa ham, Al dan 3 marta mustahkam	Ti
O'simliklarga yashil rang bera oladigan metal	Mg
O'zbekiston oltin qazib olish bo'yicha nechanchi o'rinda turadi	7
O'zbekiston oltin zaxirasi bo'yicha nechanchi o'rinda turadi	4
Odam va hayvon tanasiga mustahkamlik (qattqlik) beruvchi moddalar qanday elementlardan iborat	P, O, Ca
p – pog'onachasida elektronlar maksimal soni nechaga teng	6 ta elektron
Pog'onachalardagi elektronlarning maksimal soni qanday formula orqali	2n <sup>2</sup>

topiladi	
Pog'onachalardagi energetik xolatlar (orbitallar) sonini qaysi kvant son belgilaydi	Bosh kvant son
Qanday maqsadlarda radiodetallarni bazi kontaktlari Qimmatbaho metallar bilan qoplandi	Oksidlovchilardan saqlash uchun
Qaysi anorganik moddani suvdagi eritmasi "novshadil spirt" deyiladi	NH <sub>3</sub>
Qaysi elementga uning oddiy modda holatidagi hidiga qarab nom berilgan	Br
Qaysi elementlarda proton va neytronlar soni bir xil emas	Li, Be, B, F, Na, K
Qaysi elementlarni oddiy modda holatidagi rangiga qarab nom berilgan	Cl <sub>2</sub> , J <sub>2</sub>
Qaysi gazlar zaharsiz bo'lgan holda, ularni ichida qolgan xayvonlar nobud bo'ladi	CO <sub>2</sub> , N <sub>2</sub>
Qaysi kislota kuchsiz, lekin kuchli zahar hisoblanadi	HCN
Qaysi kislota metallar zangini, quyqasini tozalashda ishlatiladi	Oksalat kislota
Qaysi kislota qattiq xolatda bo'ladi	Ortofosfat kislota [H <sub>3</sub> PO <sub>4</sub> ]
Qaysi kislotani eritmasi "salqin ichimlik" deyiladi	H <sub>2</sub> CO <sub>3</sub>
Qaysi metal "vabo" bilan kasallanadi	Sn
Qaysi metal bilan xat yozish mumkin	Pb
Qaysi metallarga suv tegishi bilan yonib ketadi	K, Na, Rb, Cs, Fr
Qaysi moddaning qizdirilishi natijasida qoldiq qolmaydi	NH <sub>4</sub> Cl
Qizdirilgan mis (II) oksid ustidan qaysi gaz o'tkazilsa, qizg'ish rang paydo bo'ladi	Vodorod
Qutbsiz molekullar	
Radioaktiv elementlarni o'rganib, 2 marta Nobel mukofotini olgan olimlar	M.Sadovskaya Kyuri
Respublikamizda qidirib topilgan neft konlari soni	160
s – pog'onachasida elektronlar maksimal soni nechaga teng	2 ta elektron
Sanoatda "kaustik soda" nomi bilan ishlatiladigan modda	NaOH
Shakardan ham shirin bo'lgan qaysi modda toshko'mir smolasidan olinadi	Saxarin
Sublimatlanish xossasiga ega bo'lgan moddani aniqlang	CO <sub>2</sub> , J <sub>2</sub> , oq P
Texnikada "kuporos moyi" deb ataladigan	H <sub>2</sub> SO <sub>4</sub>

kislota	
Tish poroshogi tarkibida qanday tuz bo'ladi	CaCO <sub>3</sub>
Yer sharida eng ko'p tarqalgan metallni aniqlang	Al
Yerda eng ko'p tarqalgan, dastlab olingan Ag dan 270 marta qimmat bo'lgan metal	Al
Yonayotgan qaysi moddani CO <sub>2</sub> bilan o'chirib bo'lmaydi	Mg
Zn(OH) <sub>2</sub> ni Mg(OH) <sub>2</sub> dan farqini qaysi reaktiv yordamida aniqlash mumkin	NaOH

## KRISTALL PANJARA TURLARI

moddalar			
MOLEKULYAR	NOMOLEKULYAR		
Molekulyar kristall panjara	Ion kristall panjara	Atom kristall panjara	Metall kristall panjara
<b>Metalmas+ Metalmas</b>	<b>Metal + Metalmas</b>	<b>Metalmas + Metalmas</b>	<b>Metal + Metall</b>
<b>Xossalari:</b> a) Kristall panjara tugunlarida molekula tutadi. b) Bog'lanishi kovalent. c) Suyuqlanish va qaynash t <sup>0</sup> lari past. d) Diaelektrik – elektr tokini o'tkazmaydi. e) Suvda yomon eriydi. f) Mo'rt bo'ladi. g) Sublimatlanish — qizdirilganda suyuqlanmasdan gaz xolatga o'tadigan fizik xodisa.	<b>Xossalari:</b> a) Kristall panjara tugunlarida ionlar tutadi. b) Bog'lanishi ionli. c) Suyuqlanish va qaynash t <sup>0</sup> lari yuqori. d) Qattiq xolatda tokni o'tkazmaydi, lekin suyuqlanmasi eritmalari tokni yaxshi o'tkazadi. e) Suvda yaxshi eriydi. f) Qutbsiz erituv-chilarda erimaydi. g) Qattiqligi yuqori.	<b>Xossalari:</b> a) Kristall panjara tugunlarida atomlar tutadi. b) Bog'lanishi puxta kovalent. c) Suyuqlanish va qaynash t <sup>0</sup> lari eng yuqori. d) Elektr tokini o'tkazmaydi (diaelektrik yoki yarim o'tkazgich). e) Suvda erimaydi. f) Qutbsiz erituv-chilarda erimaydi. g) Eng qattiq.	<b>Xossalari:</b> a) Kristall panjara tugunlarida metal kationlari tutadi. b) Metal bog'lanishli. c) Suyuqlanish va qaynash t <sup>0</sup> lari yuqori. d) Elektr tokini suyuqlanmasi va qattiq xolati juda yaxshi o'tkazadi. e) Suvda erimaydi. f) Qutbsiz erituv-chilarda erimaydi. g) qattiqligi mustahkam h) Delokallashgan. i) Plastik, bolg'alanuvchan
<b>Vakili: gaz [H<sub>2</sub>,</b>	<b>Vakili: MeO,</b>	<b>Vakili: C<sub>(Olmos),</sub></b>	<b>Vakili: sof metall</b>

Gal <sub>2</sub> , CO <sub>2</sub> (Quruq Muz), C <sub>6</sub> H <sub>6</sub> , O <sub>3</sub> , oq P, S, O <sub>2</sub> , N <sub>2</sub> , ...] <i>suyuq, kukun, organic spirtlar, CO(NH<sub>2</sub>)<sub>2</sub>, ...</i>	MeH, tuzlar, asoslar, CaO, LiH, KOH, NaCl, Ba(HCO <sub>3</sub> ) <sub>2</sub> , [Ba(OH)] <sub>2</sub> S, Me <sub>x</sub> O <sub>2</sub> , K <sub>4</sub> [Fe(CN) <sub>6</sub> ], ...	Be, B, Si, qizil P, qora P, C (Grafit), kvars (SiO <sub>2</sub> ), qum (SiO <sub>2</sub> ), karborund (SiC), ...	va metall qotishmalari (Na va K qotishmasi), Ca, Ba, Fr, Fe, Cu, ...
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### IZOTOP, IZOBAR, IZOTON, IZOELEKTRON haqida

<b>IZOTOP</b>	Bir xil: ✓ yadro zaryadi ✓ protonlar soni ✓ elektronlar soni Xar xil: 1) atom massasi 2) neytronlar soni	$O_8^{16}$ $O_8^{17}$ $O_8^{18}$ , $H_1^{11}$ $H_1^{12}$ $H_1^{13}$ , $Ca_{20}^{40}$ $Ca_{20}^{42}$ $Ca_{20}^{43}$ , $F_9^{19}$ (1ta), $K_{19}^{39}$ $K_{19}^{40}$ , $Cu_{29}^{63}$ $Cu_{29}^{65}$ , Fe (6 ta), Hg (7 ta), Xe (9 ta), Sn (10 ta).
<b>IZOBAR</b>	Bir xil: ✓ atom massasi Xar xil: 1) yadro zaryadi 2) protonlar soni 3) neytronlar soni 4) elektronlar soni	$Ar_{18}^{40}$ $K_{19}^{40}$ $Ca_{20}^{40}$ , $Cu_{29}^{65}$ $Zn_{30}^{65}$ , $Cd_{48}^{112}$ $Sn_{50}^{112}$
<b>IZOTON</b>	Bir xil: ✓ neytronlar soni Xar xil: 1) atom massasi 2) yadro zaryadi 3) protonlar soni 4) elektronlar soni	$Cr_{24}^{52}$ $Mn_{25}^{53}$ $Fe_{26}^{56}$ N = 28 ta, $Xe_{54}^{136}$ $Ba_{56}^{138}$ $La_{57}^{139}$ , N = 28 ta
<b>IZOELEKTRON</b>	Bir xil: ✓ elektronlar soni Xar xil: 1) atom massasi 2) yadro zaryadi 3) protonlar soni 4) neytronlar soni	$O_2^-$ $F^-$ $Ne$ $Na^+$ $Mg^{2+}$ $Al^{3+}$ $\bar{e} = 10$ ta, $CH_4$ $NH_3$ $H_2O$ $\bar{e} = 10$ ta

### ATOM TARKIBI

Yadro zaryadi	Protonlar (P) soni	Elektronlar (ē) soni	Neytronlar (N) soni	Elektron qobiqlar	Atom (Ar) massasi	Abso lyut (A <sub>abs</sub> ) mas sasi
Tartib raqamiga teng	Tartib raqamiga teng	Tartib raqamiga teng	$N = Ar - P$	Davr raqamiga teng	Davriy jadvalda berilgan	$A_{abs} = \frac{Ar}{Mr} \cdot 10^{23}$

YADROVIY REAKSIYALAR	
Yadroga birikish (qulash, bombardimon, nurlantirish, yog'dirish, ta'sir qilish, yutilish, qamrab olish)	Yadrodan ajralish (yemirilish, otilib chiqish, parchalanish, sochish,)
Bunda birikkan zarrachaning massa va zaryadlari yadroning massa va zaryadlariga qo'shiladi: ${}_{92}^{238}\text{U} + {}_2^4\alpha \rightarrow {}_{94}^{242}\text{Pu}$ ; ${}_{92}^{238}\text{U} + {}_0^1n \rightarrow {}_{92}^{239}\text{U}$ ; ${}_{92}^{238}\text{U}$ ;	Bunda ajrali chiqan zarrachaning massa va zaryadlari yadroning massa va zaryadlaridan ayiriladi: ${}_{92}^{238}\text{U} \rightarrow {}_{90}^{234}\text{Th} + {}_2^4\alpha$ ; ${}_{92}^{238}\text{U} + {}_2^4\alpha \rightarrow {}_{90}^{234}\text{Th}$ ;
!!! ${}_{-1}^0\beta$ va ${}_{-1}^0\bar{e}$ uchun teskari amal bajariladi ya'ni biriksa ayiriladi: ${}_{93}^{237}\text{Np} + {}_{-1}^0\beta ({}_{-1}^0\bar{e}) \rightarrow {}_{92}^{237}\text{U}$	!!! ${}_{-1}^0\beta$ va ${}_{-1}^0\bar{e}$ uchun teskari amal bajariladi ya'ni ajralsa qo'shiladi: ${}_{97}^{247}\text{Bk} \rightarrow {}_{98}^{247}\text{Np} + {}_{-1}^0\beta ({}_{-1}^0\bar{e})$

RADIOAKTIV ZARRACHALAR			
BELGI SI	NOMLANISHI	MASSASI	ZARYADI
${}_{2}^4\alpha$	Alfa	4 g	+2
${}_{-1}^0\beta$	Betta	0 g	-1
${}_{1}^1\text{P}$	Proton	1 g	+1
${}_{1}^2\text{D}$	Deyteriy	2 g	+1
${}_{1}^3\text{T}$	Tritiy	3 g	+1
${}_{0}^1n$	Neytron	1 g	0
${}_{-1}^0\bar{e}$	Elektron	0 g	-1
${}_{+1}^0\beta$	Pozitron	0 g	+1
${}_{0}^0\gamma$	Gamma	0 g	0

**DAVRIY JADVALDAN FOYDALANISH**  
**Davr raqami** Qobiqlar soni, tashqi elektronlar qobig'ining raqmini bildiradi.  
**Guruh raqami** Bosh a guruhcha elementlarining maksimal (yuqori) valentliklarini bildiradi (kislrod va ftor bundan mustasno). Bitta guruhchada joylashgan elementlarning kimyoviy

xossalari ham bir xil bo'ladi.

Tartib  
raqami

Yadro zaryadi, elektronlar soni va protonlar sonini  
bildiradi.

Formula	Yadrolararo masofa (nm)	Gibridlanishi	Valent burchagi
Al <sub>2</sub> Br <sub>6</sub>	Al-Br 0,222 ± 0,002 Al-Br` 0,238 ± 0,002		118 ± 3° 87 ± 6°
Al <sub>2</sub> Cl <sub>6</sub>	Al-Cl 0,208 ± 0,001 Al-Cl` 0,230 ± 0,002		123 ± 2° 79 ± 10°
As <sub>4</sub>	As-As 0,2435 ± 0,0004		60°
AsBr <sub>3</sub>	As-Br 0,2329 ± 0,0002 Br ... Br 0,3561 ± 0,005		99,7 ± 0,3°
AsCl <sub>3</sub>	As-Cl 0,21621 ± 0,0009		98,63 ± 0,37°
AsF <sub>3</sub>	As-F 0,17044 ± 0,00013		95,97 ± 0,28°
AsH <sub>3</sub>	As-H 0,15108 ± 0,00004		92,08 ± 0,04°
As <sub>4</sub> O <sub>6</sub>	As-O 0,178 ± 0,002		99 ± 2°
BBr <sub>3</sub>	B-Br 0,18932 ± 0,00054 Br ... Br 0,32830 ± 0,00053		120°
BCl <sub>3</sub>	B-Cl 0,17421 ± 0,00044 Cl ... Cl 0,30134 ± 0,00060		120°
BF <sub>3</sub>	B-F 0,13110 ± 0,00001		120°
B <sub>2</sub> H <sub>6</sub>	B-H 0,1196 ± 0,0008 B-H` 0,1339 ± 0,0006		122°
BJ <sub>3</sub>	B-J 0,2118 ± 0,0005 J ... J 0,3662 ± 0,008		101°
BaBr <sub>2</sub>	Ba-Br 0,299 ± 0,003		120°
BaCl <sub>2</sub>	Ba-Cl 0,282 ± 0,003		120 ± 10°
BaF <sub>2</sub>	Ba-F 0,232 ± 0,003		100°
BaJ <sub>2</sub>	Ba-J 0,320 ± 0,003		170°
BeBr <sub>2</sub>	Be-Br 0,191 ± 0,002		180°
BeCl <sub>2</sub>	Be-Cl 0,175 ± 0,002		180°
BeF <sub>2</sub>	Be-F 0,140 ± 0,003		180°
BeJ <sub>2</sub>	Be-J 0,210 ± 0,002		180°
BrF <sub>3</sub>	Br-F 0,18061 Br-F` 0,172		187,58°
BrF <sub>5</sub>	Br-F 0,1774 ± 0,0003 Br-F` 0,1689 ± 0,0008		86,22°
CO <sub>2</sub>	C-O 0,1167 ± 0,0006		84,8 ± 0,1°
CS <sub>2</sub>	C-S 0,15529 ± 0,0005		89,5 ± 0,1°
CaBr <sub>2</sub>	Ca-Br 0,267 ± 0,003		180°
CaCl <sub>2</sub>	Ca-Cl 251 ± 0,003		180°
CaF <sub>2</sub>	Ca-F 210 ± 0,003		140°
CaJ <sub>2</sub>	Ca-J 0,2867 ± 0,0015		180°

$\text{CdBr}_2$	$\text{Cd}-\text{Br}$ $0,237 \pm 0,002$	$180^\circ$
$\text{CdCl}_2$	$\text{Cd}-\text{Cl}$ $0,221 \pm 0,002$	$180^\circ$
$\text{CdF}_2$	$\text{Cd}-\text{F}$ $0,197 \pm 0,002$	$180^\circ$
$\text{CdJ}_2$	$\text{Cd}-\text{J}$ $0,255 \pm 0,002$	$180^\circ$
$\text{ClF}_3$	$\text{Cl}-\text{F}$ $0,1698 \pm 0,0005$ $\text{Cl}-\text{F}$ $0,1598 \pm 0,0005$	$87,5^\circ$
$\text{ClF}_5$	$\text{Cl}-\text{F}$ $0,167 \pm 0,005$ $\text{Cl}-\text{F}$ $0,158 \pm 0,005$	$86 \pm 0,5^\circ$
$\text{ClO}_2$	$\text{Cl}-\text{O}$ $0,1475$ $\text{O} \dots \text{O}$ $0,2524$	$117,7^\circ$
$\text{Cl}_2\text{O}$	$\text{Cl}-\text{O}$ $0,170038 \pm 0,000069$	$110,96 \pm 0,08^\circ$
$\text{Fe}_2\text{Cl}_6$	$\text{Fe}-\text{Cl}$ $0,211 \pm 0,003$ $\text{Fe}-\text{Cl}$ $0,228 \pm 0,003$	$128 \pm 3^\circ$ $92 \pm 3^\circ$
$\text{GeCl}_4$	$\text{Ge}-\text{Cl}$ $0,2113 \pm 0,0003$	$109,5^\circ$
$\text{GeF}_6$	$\text{Ge}-\text{F}$ $0,167 \pm 0,003$	$109,5^\circ$
$\text{HCN}$	$\text{H}-\text{C}$ $0,10655 \pm 0,00005$ $\text{C}-\text{N}$ $0,115321 \pm 0,000010$	$180^\circ$
$\text{HN}_3$	$\text{HN}$ $0,0975 \pm 0,0015$ $\text{NN}$ $0,1237 \pm 0,0002$ $\text{N}-\text{N}$ $0,1133 \pm 0,0002$	$114^\circ$
$\text{HNO}_3$	$\text{H}-\text{O}$ $0,0961$ $\text{O}-\text{N}$ $0,1405$ $\text{N}-\text{O}$ $0,121$	$102,2^\circ$ $115,9^\circ$ $130,2^\circ$
$\text{HOCl}$	$\text{H}-\text{O}$ $0,0959 \pm 0,0005$ $\text{O}-\text{Cl}$ $0,1689 \pm 0,0003$	$102,5 \pm 0,5^\circ$
$\text{H}_2\text{O}$	$\text{O}-\text{H}$ $0,095718 \pm 0,00003$	$104,52 \pm 0,05^\circ$
$\text{H}_2\text{O}_2$	$\text{O}-\text{H}$ $0,0965 \pm 0,0005$ $\text{O}-\text{O}$ $0,1452 \pm 0,0004$	$100 \pm 1^\circ$ ikki yoqlama burchagi $119,1 \pm 1,8^\circ$
$\text{H}_2\text{S}$	$\text{S}-\text{H}$ $0,13362$	$92,06^\circ$
$\text{H}_2\text{Se}$	$\text{Se}-\text{H}$ $0,1460 \pm 0,003$	$90,92 \pm 0,08^\circ$
$\text{H}_2\text{Te}$	$\text{Te}-\text{H}$ $0,1658$	$90,25^\circ$
$\text{HgCl}_2$	$\text{Hg}-\text{Cl}$ $0,2252 \pm 0,005$ $\text{Cl} \dots \text{Cl}$ $0,448 \pm 0,004$	$180 \pm 16^\circ$
$\text{MgBr}_2$	$\text{Mg}-\text{Br}$ $0,234 \pm 0,003$	$180^\circ$
$\text{MgCl}_2$	$\text{Mg}-\text{Cl}$ $0,2186 \pm 0,0011$	$180^\circ$
$\text{MgF}_2$	$\text{Mg}-\text{F}$ $0,1771 \pm 0,0010$	$180^\circ$
$\text{MgJ}_2$	$\text{Mg}-\text{J}$ $0,252 \pm 0,003$	$180^\circ$
$\text{NF}_3$	$\text{N}-\text{F}$ $0,1365 \pm 0,0002$	$102,37 \pm 0,03^\circ$
$\text{NH}_3$	$\text{N}-\text{H}$ $0,1030 \pm 0,0002$	$107,28^\circ$
$\text{NO}_2$	$\text{N}-\text{O}$ $0,1197$	$134,25^\circ$
$\text{N}_2\text{O}$	$\text{O}-\text{N}$ $0,11843$ $\text{N}-\text{N}$ $0,11282$	$180^\circ$

O <sub>3</sub>	O—O 0,12717 ± 0,00002	116,78 ± 0,03 <sup>0</sup>
OF <sub>2</sub>	O—F 0,1412	103,17 <sup>0</sup>
P <sub>4</sub>	P—P 0,221 ± 0,002	60 <sup>0</sup>
PBr <sub>3</sub>	P—Br 0,2220 ± 0,0003 Br ... Br 0,3424 ± 0,0006	101,0 ± 0,4 <sup>0</sup>
PCl <sub>3</sub>	P—Cl 0,2043 ± 0,0005	100 ± 1 <sup>0</sup>
PCl <sub>5</sub>	P—Cl 0,2124 ± 0,0009 P—Cl` 0,2020 ± 0,0007	120 <sup>0</sup> 90 <sup>0</sup>
PF <sub>5</sub>	P—F 0,1577 ± 0,0005 P—F` 0,1534 ± 0,0004	120 <sup>0</sup> 90 <sup>0</sup>
PH <sub>3</sub>	P—H 0,1415	93,60 <sup>0</sup>
P <sub>4</sub> O <sub>6</sub>	P—O 0,165 ± 0,002	127,5 ± 3 <sup>0</sup> 99 ± 3 <sup>0</sup>
P <sub>4</sub> O <sub>10</sub>	P—O 0,162 ± 0,002 P—O` 0,139 ± 0,002	123,5 ± 1 <sup>0</sup> 101,5 ± 1 <sup>0</sup> 116,5 ± 1 <sup>0</sup>
POCl <sub>3</sub>	P—O 0,1455 ± 0,005 P—Cl 0,1989 ± 0,0002	103,7 ± 1 <sup>0</sup>
POF <sub>3</sub>	P—O 0,1436 ± 0,0006 P—F 0,1524 ± 0,0003	101,3 ± 0,2 <sup>0</sup>
PbBr <sub>2</sub>	Pb—Br 0,260 ± 0,003	95 <sup>0</sup>
PbCl <sub>2</sub>	Pb—Cl 0,246 ± 0,002	96 ± 3 <sup>0</sup>
PbF <sub>2</sub>	Pb—F 0,218 ± 0,002	90 <sup>0</sup>
SCl <sub>2</sub>	S—Cl 0,2014 ± 0,0004	102,8 ± 0,2 <sup>0</sup>
SF <sub>2</sub>	S—F 0,159208 ± 0,000008	98,197 ± 0,011 <sup>0</sup>
SF <sub>4</sub>	S—F 0,1643 ± 0,0005 S—F` 0,1542 ± 0,0005	176,8 ± 2,5 <sup>0</sup> 103,8 ± 0,6 <sup>0</sup>
SF <sub>6</sub>	S—F 0,1564	90 <sup>0</sup>
SO <sub>2</sub>	S—O 0,1431 ± 0,0002 O ... O 0,2460 ± 0,0012	118,5 ± 1,0 <sup>0</sup>
SO <sub>3</sub>	S—O 0,1418 ± 0,0003	120 ± 0,6 <sup>0</sup>
SOCl <sub>2</sub>	S—O 0,1443 ± 0,0006 S—Cl 0,2076 ± 0,0006	96,1 ± 0,7 <sup>0</sup> 106,3 ± 0,6 <sup>0</sup>
SO <sub>2</sub> Cl <sub>2</sub>	S—O 0,1404 ± 0,0004 S—Cl 0,2011 ± 0,0005	123,5 ± 0,8 <sup>0</sup> 100,0 ± 0,7 <sup>0</sup> 107,7 ± 0,4 <sup>0</sup>
SOF <sub>2</sub>	S—O 0,14127 ± 0,00003 S—F 0,15854 ± 0,00002	92,83 ± 0,002 <sup>0</sup> 106,82 ± 0,003 <sup>0</sup>
SO <sub>2</sub> F <sub>2</sub>	S—O 0,1405 ± 0,0003 S—F 0,1530 ± 0,0003	124 ± 0,2 <sup>0</sup> 108,3 <sup>0</sup> 96,12 ± 0,17 <sup>0</sup>
SbBr <sub>3</sub>	Sb—Br 0,2490 ± 0,0003 Br—Br 0,376 ± 0,001	98,2 ± 0,6 <sup>0</sup>
SbCl <sub>3</sub>	Sb—Cl 0,2333 ± 0,0003 Cl ... Cl 0,350 ± 0,002	97,2 ± 0,9 <sup>0</sup>

SbCl <sub>5</sub>	Sb—Cl 0,243 ± 0,006 Sb—Cl` 0,231 ± 0,006		90° 120°
SbF <sub>3</sub>	Sb—F 0,1879 ± 0,0004		95,0 ± 0,8°
SbH <sub>3</sub>	Sb—H 0,17102		91,3 ± 0,3°
SiCl <sub>4</sub>	Si—Cl 0,2018 ± 0,0002		109,5°
SiF <sub>4</sub>	Si—F 0,1555 ± 0,0002 F ... F 0,2534 ± 0,0003		109,5°
SiH <sub>4</sub>	Si—H 0,14798 ± 0,00004		109,5°
SnCl <sub>2</sub>	Sn—Cl 0,2342		100°
SnCl <sub>4</sub>	Sn—Cl 0,2281 ± 0,0004		109,5°
SrBr <sub>2</sub>	Sr—Br 0,282 ± 0,003		180°
SrCl <sub>2</sub>	Sr—Cl 0,267 ± 0,003		130 ± 8°
SrF <sub>2</sub>	Sr—F 0,220 ± 0,003		140°
SrJ <sub>2</sub>	Sr—J 0,3009 ± 0,0015		180°
XeF <sub>2</sub>	Xe—F 0,1977 ± 0,00015		180°
XeF <sub>4</sub>	Xe—F 0,194 ± 0,001		90°
XeO <sub>3</sub>	Xe—O 0,176		103°
XeO <sub>4</sub>	Xe—O 0,1736 ± 0,002		180°
ZnBr <sub>2</sub>	Zn—Br 0,221 ± 0,001		180°
ZnCl <sub>2</sub>	Zn—Cl 0,205 ± 0,001		180°
ZnF <sub>2</sub>	Zn—F 0,181 ± 0,002		180°
ZnJ <sub>2</sub>	Zn—J 0,238 ± 0,002		180°

No	EL EM.	ATOM RADIUS	ION RADIUSI	SUYUQ . t°	QAY. t°	ZICHLI GI	2-IONLANISH POTENSIALI	3-IONLANISH POTENSIALI
1	H	0,79	1 <sup>-</sup> = 0,136 1 <sup>+</sup> = 0,000	-255,34	-252,87	8,99 E-5	—	—
2	He	0,49	0 = 0,136	-272,2	-268,93	1,78 E-4	54,416	—
3	Li	2,05	1 <sup>+</sup> = 0,068	180,54	1342	0,53	76,638	122,451
4	Be	1,4	2 <sup>+</sup> = 0,034	1287	2472	1,85	18,211	153,893
5	B	1,17	3 <sup>+</sup> = (0,020)	2079	4000	2,34	25,154	37,93
6	C	0,91	4 <sup>+</sup> = 0,020 4 <sup>-</sup> = (0,260)	3825	4827	2,62	24,384	47,887
7	N	0,75	3 <sup>+</sup> = 5 <sup>+</sup> = 0,015 3 <sup>-</sup> = 0,148	-209,36	-195,8	1,25 E-3	29,601	47,448

8	O	0,65	2 <sup>-</sup> = 0,136	-218,4	-182,96 2	1,43 E- 3	31,117	54,93 4
9	F	0,57	1 <sup>-</sup> = 0,133	-219,62	-188,14	1,69 E- 3	34,97	62,70 7
10	Ne	0,51	0 = 0,160	-248,67	-246,04 8	8,99 E- 4	40,962	63,45
11	Na	2,23	1 <sup>+</sup> = 0,098	97,81	882,9	0,97	47,286	71,64 1
12	Mg	1,72	2 <sup>+</sup> = 0,074	648,8	1090	1,74	15,035	80,14 3
13	Al	1,82	3 <sup>+</sup> = 0,057	660,37	2519	2,7	18,227	28,44 7
14	Si	1,46	4 <sup>+</sup> = 0,039	1410	3265	2,33	16,345	33,49 2
15	P	1,23	3 <sup>+</sup> = 5 <sup>+</sup> = 0,035 3 <sup>-</sup> = 0,186	44,1	277	1,82	19,725	30,18
16	S	1,09	2 <sup>-</sup> = 0,182 6 <sup>+</sup> = (0,029)	115,21	444,6	2,07	23,33	34,83
17	Cl	0,97	1 <sup>-</sup> = 0,181 7 <sup>+</sup> = (0,026)	-100,93	-34,6	3,21 E- 3	29,81	39,61 1
18	Ar	0,88	0 = 0,192	-189,2	-185,7	1,78 E- 3	27,629	40,74
19	K	2,77	1 <sup>+</sup> = 0,133	63,25	759,9	0,86	31,625	45,72
20	Ca	2,23	2 <sup>+</sup> = 0,104	839	1484	1,55	11,871	50,90 8
21	Sc	2,09	3 <sup>+</sup> = 0,083	1541	2830	3	12,8	24,76
22	Ti	2	2 <sup>+</sup> = 0,078 3 <sup>+</sup> = 0,069 4 <sup>+</sup> = 0,064	1668	3287	4,5	13,58	27,49 1
23	V	1,92	2 <sup>+</sup> = 0,072 3 <sup>+</sup> = 0,067 4 <sup>+</sup> = 0,061 5 <sup>+</sup> = 0,040	1890	3407	5,8	14,65	29,31
24	Cr	1,85	2 <sup>+</sup> = 0,083 3 <sup>+</sup> = 0,064 6 <sup>+</sup> = 0,035	1857	2672	7,19	16,5	30,96
25	Mn	1,79	2 <sup>+</sup> = 0,091 3 <sup>+</sup> = 0,070 4 <sup>+</sup> = 0,052	1244	2061	7,43	15,64	33,66 7

			7+ = (0,046)					
2 6	Fe	1,72	2+ = 0,080 3+ = 0,067	1535	2861	7,86	16,18	30,65 1
2 7	Co	1,67	2+ = 0,078 3+ = 0,064	1495	2927	8,9	17,06	33,5
2 8	Ni	1,62	2+ = 0,074	1453	2913	8,9	18,168	35,17
2 9	Cu	1,57	1+ = 0,098 2+ = 0,080	1083	2567	8,96	20,292	36,83
3 0	Zn	1,53	2+ = 0,083	419,58	907	7,14	17,964	39,77 2
3 1	Ga	1,81	3+ = 0,062	29,78	2204	5,91	20,51	30,71
3 2	Ge	1,52	2+ = 0,065 4+ = 0,044	937,4	2830	5,32	15,934	34,22
3 3	As	1,33	3+ = 0,069 5+ = (0,047) 3- = 0,191	817	613	5,72	18,633	28,35 1
3 4	Se	1,22	2- = 0,103 4+ = 0,069 6+ = 0,035	217	684,9	4,79	21,19	30,82
3 5	Br	1,12	1- = 0,196 7+ = (0,039)	-7,2	58,78	3,12	21,8	36
3 6	Kr	1,03	0 = 0,198	-156,6	-152,3	3,71 E- 3	24,359	36,95
3 7	Rb	2,98	1+ = 0,149	38,89	686	1,53	27,28	40
3 8	Sr	2,45	2+ = 0,120	769	1384	2,6	11,03	43,6
3 9	Y	2,27	3+ = 0,097	1522	3338	4,47	12,24	20,52
4 0	Zr	2,16	4+ = 0,082	1852	4377	6,4	13,13	22,99
4 1	Nb	2,08	4+ = 0,067 5+ = 0,066	2468	4742	8,57	14,32	25,04
4 2	Mo	2,01	4+ = 0,068 6+ = 0,065	2617	4612	10,2	16,461	27,06
4 3	Tc	1,95	—	2172	4877	11,5	15,26	29,54
4 4	Ru	1,89	4+ = 0,062	2334	4150	12,2	16,76	28,47
4 5	Rh	1,83	3+ = 0,075 4+ = 0,065	1966	3695	12,4	18,08	31,06

4 6	Pd	1,79	4 <sup>+</sup> = 0,064	1552	2940	12,02	19,63	32,93
4 7	Ag	1,75	1 <sup>+</sup> = 0,113	961,93	2162	10,5	21,49	34,83
4 8	Cd	1,71	2 <sup>+</sup> = 0,099	320,9	765	8,65	16,908	37,48
4 9	In	2	1 <sup>+</sup> = 0,136 3 <sup>+</sup> = 0,092	156,61	2080	7,31	18,869	28,03
5 0	Sn	1,72	2 <sup>+</sup> = 0,102 4 <sup>+</sup> = 0,067	-231,97	2602	7,3	14,632	30,50 2
5 1	Sb	1,53	3 <sup>+</sup> = 0,090 5 <sup>+</sup> = 0,062 3 <sup>+</sup> = 0,208	630,74	1587	6,68	16,53	25,3
5 2	Te	1,42	2 <sup>-</sup> = 0,211 4 <sup>+</sup> = 0,089 6 <sup>+</sup> = (0,056)	449,5	989,9	6,24	18,6	27,96
5 3	I	1,32	1 <sup>-</sup> = 0,22 7 <sup>+</sup> = (0,050)	113,5	184,35	4,93	19,131	33
5 4	Xe	1,24	0 = 0,218	-111,9	-107,1	5,88 E- 3	21,21	32,1
5 5	Cs	3,34	1 <sup>+</sup> = 0,165	28,4	669,3	1,87	25,1	—
5 6	Ba	2,78	2 <sup>+</sup> = 0,138	725	1897	3,51	10,004	—
5 7	La	2,74	3 <sup>+</sup> = 0,104 4 <sup>+</sup> = 0,090	918	3464	6,7	11,059	19,17 4
5 8	Ce	2,7	3 <sup>+</sup> = 0,102 4 <sup>+</sup> = 0,088	798	3433	6,78	10,851	20,2
5 9	Pr	2,67	3 <sup>+</sup> = 0,100	931	3520	6,77	10,551	21,62
6 0	Nd	2,64	3 <sup>+</sup> = 0,099	1021	3074	7	10,727	22,07 6
6 1	Pm	2,62	3 <sup>+</sup> = 0,(098)	1042	3000	6,48	10,903	22,28 3
6 2	Sm	2,59	3 <sup>+</sup> = 0,097	1074	1794	7,54	11,069	23,42 3
6 3	Eu	2,56	3 <sup>+</sup> = 0,097	822	1527	5,26	11,245	24,92 6
6 4	Gd	2,54	3 <sup>+</sup> = 0,094	1313	3273	7,89	12,095	20,63 5
6 5	Tb	2,51	3 <sup>+</sup> = 0,089	1356	3230	8,27	11,525	21,91
6 6	Dy	2,49	3 <sup>+</sup> = 0,088	1412	2567	8,536	11,67	22,80 2

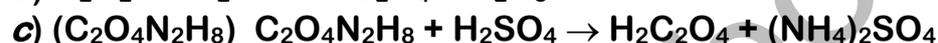
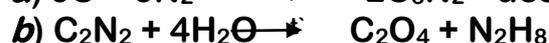
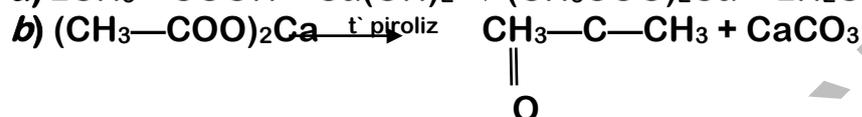
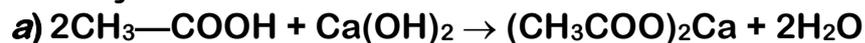
6 7	Ho	2,47	3 <sup>+</sup> = 0,086	1474	2700	8,8	11,805	22,84 3
6 8	Er	2,45	3 <sup>+</sup> = 0,085	1529	2868	9,05	11,929	22,73 9
6 9	Tm	2,42	3 <sup>+</sup> = 0,085	1545	1950	9,33	12,054	26,36 7
7 0	Yb	2,4	3 <sup>+</sup> = 0,081	819	1196	6,98	12,188	25,03
7 1	Lu	2,25	3 <sup>+</sup> = 0,080	1663	3402	9,85	13,888	20,95 7
7 2	Hf	2,16	4 <sup>+</sup> = 0,082	2227	4602	13,2	14,925	23,32
7 3	Ta	2,09	5 <sup>+</sup> = (0,066)	2996	5425	16,6	—	—
7 4	W	2,02	4 <sup>+</sup> = 0,068 6 <sup>+</sup> = 0,065	3410	5660	19,3	—	—
7 5	Re	1,97	6 <sup>+</sup> = 0,052	3180	5627	21	—	—
7 6	Os	1,92	4 <sup>+</sup> = 0,065	3054	5027	22,4	—	—
7 7	Ir	1,87	4 <sup>+</sup> = 0,065	2410	4130	22,42	—	—
7 8	Pt	1,83	4 <sup>+</sup> = 0,064	1772	3827	21,45	18,563	—
7 9	Au	1,79	1 <sup>+</sup> = (0,137)	1064,3	2808	19,32	20,521	—
8 0	Hg	1,76	2 <sup>+</sup> = 0,112	-38,87	356,58	13,546	18,759	34,20 2
8 1	Tl	2,08	1 <sup>+</sup> = 0,136 3 <sup>+</sup> = 0,105	303,5	1457	11,85	20,428	29,32 9
8 2	Pb	1,81	2 <sup>+</sup> = 0,126 4 <sup>+</sup> = 0,076	327,50 2	1740	11,34	15,028	31,94 3
8 3	Bi	1,63	3 <sup>+</sup> = 0,120 5 <sup>+</sup> = 0,074 3 <sup>-</sup> = 0,213	271,3	1560	9,8	16,687	25,55 9
8 4	Po	1,53	—	254	962	9,4	—	—
8 5	At	1,43	—	302	337	—	—	—
8 6	Rn	1,34	—	-71	-61,8	9,73 E- 3	—	—
8 7	Fr	—	—	27	677	—	—	—
8 8	Ra	—	2 <sup>+</sup> = 0,144	700	1140	5	10,148	—
8 8	Ac	—	3 <sup>+</sup> = 0,111	1050	3200	10,07	12,126	—

9								
90	Th	—	3 <sup>+</sup> =0,108 4 <sup>+</sup> =0,095	1750	4000	11,7	11,504	20,00 3
91	Pa	—	3 <sup>+</sup> =0,106 4 <sup>+</sup> =0,091	1600	—	15,4	—	—
92	U	—	3 <sup>+</sup> =0,104 4 <sup>+</sup> =0,088	1132	3818	18,9	—	—
93	Np	—	3 <sup>+</sup> =0,102 4 <sup>+</sup> =0,086	640	3902	20,45	—	—
94	Pu	—	3 <sup>+</sup> =0,101 4 <sup>+</sup> =0,085	641	3232	19,8	—	—
95	Am	—	3 <sup>+</sup> =0,100 4 <sup>+</sup> =0,080	994	2607	13,6	—	—
96	Cm	—	—	1340	—	13,5	—	—
97	Bk	—	—	—	—	—	—	—
98	Cf	—	—	—	—	—	—	—
99	Es	—	—	—	—	—	—	—
100	Fm	—	—	—	—	—	—	—
101	Md	—	—	—	—	—	—	—
102	(No)	—	—	—	—	—	—	—
103	Lr	—	—	—	—	—	—	—
104	Rf	—	—	—	—	—	—	—
105	Db	—	—	—	—	—	—	—
106	Sg	—	—	—	—	—	—	—
107	Bh	—	—	—	—	—	—	—
108	Hs	—	—	—	—	—	—	—

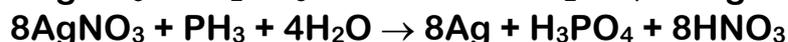
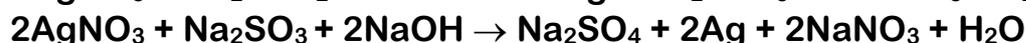
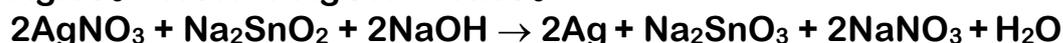
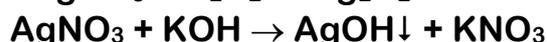
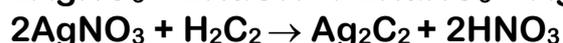
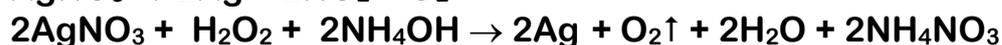
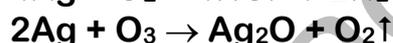
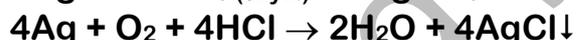
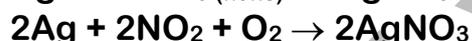
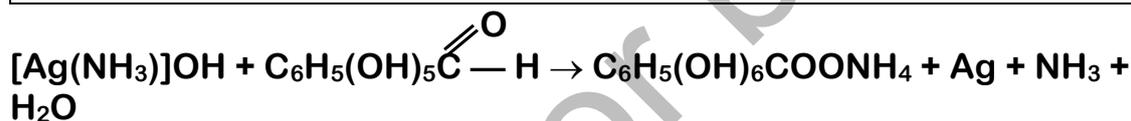
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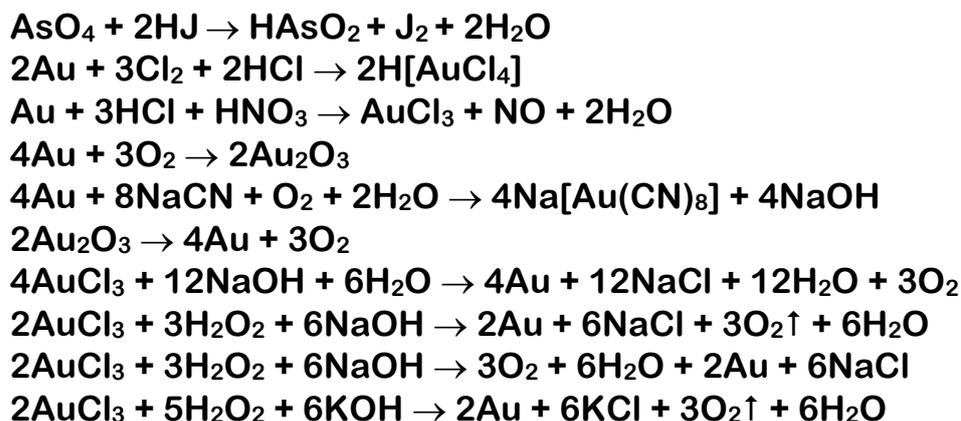
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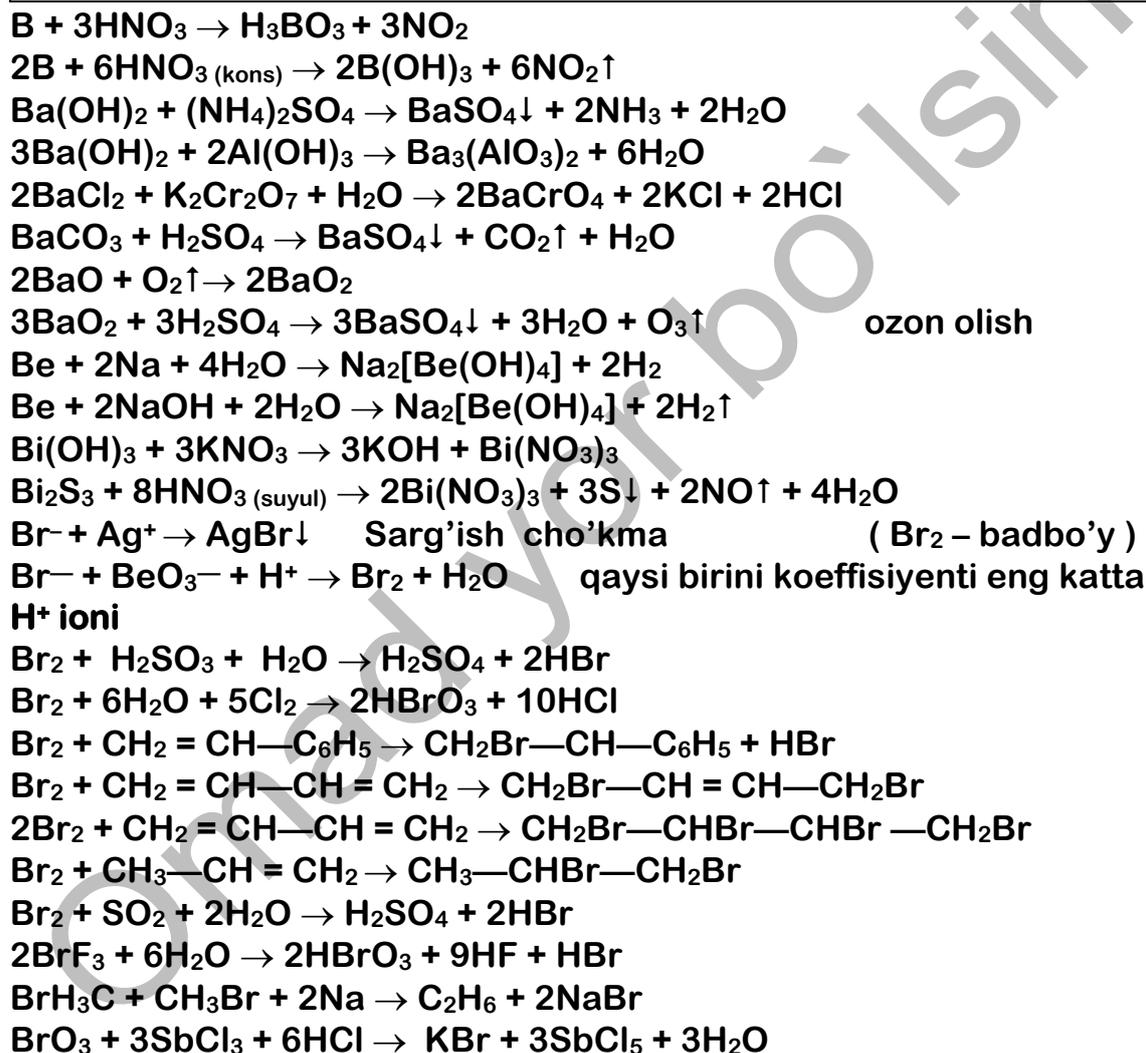
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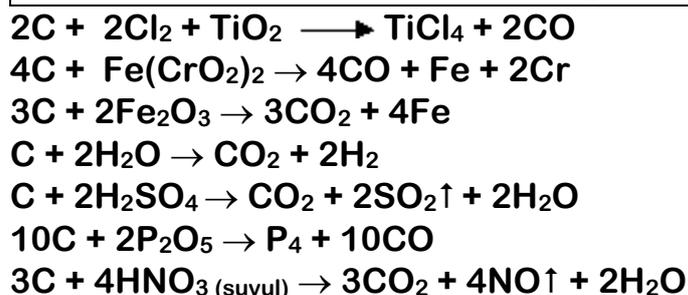


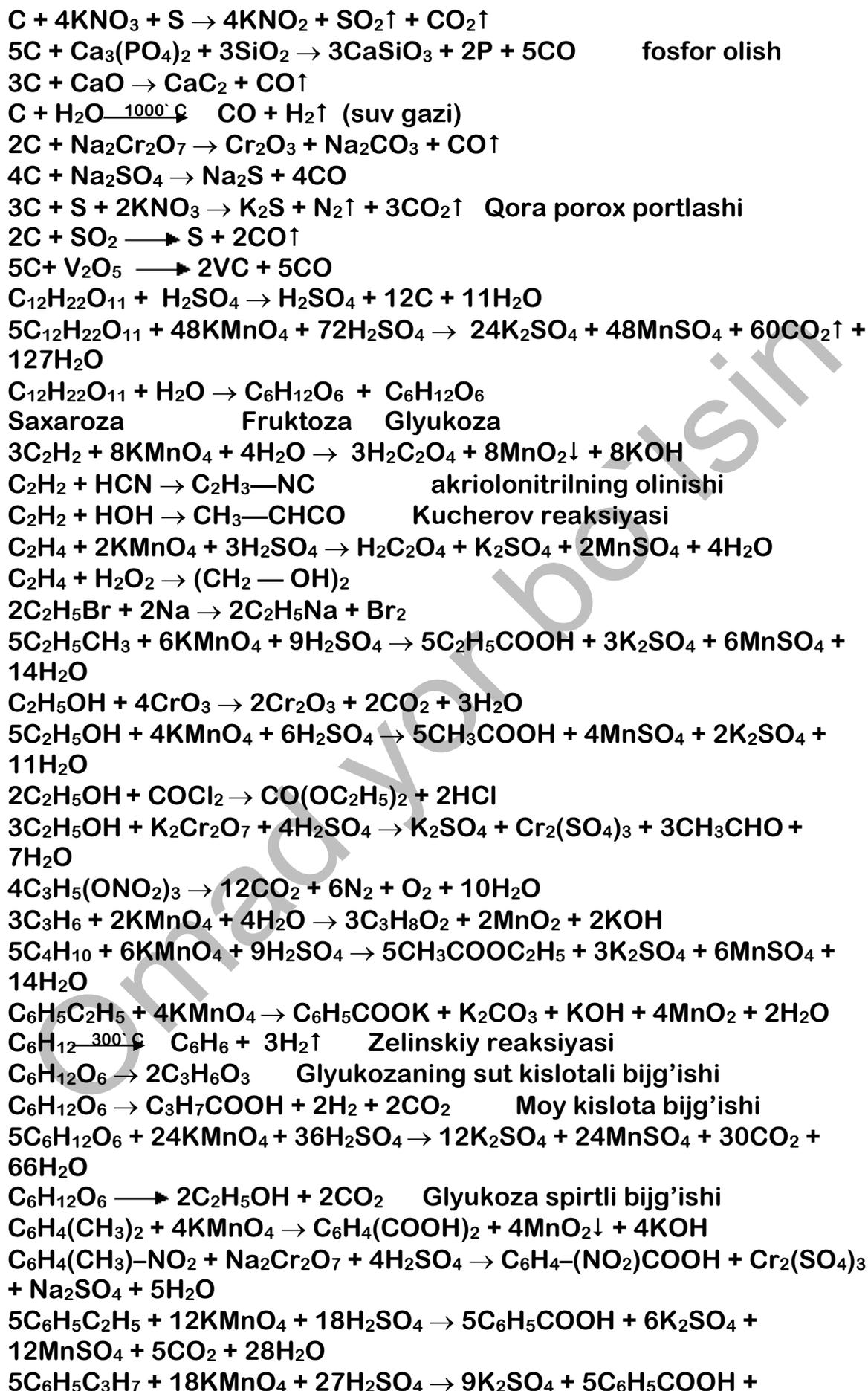


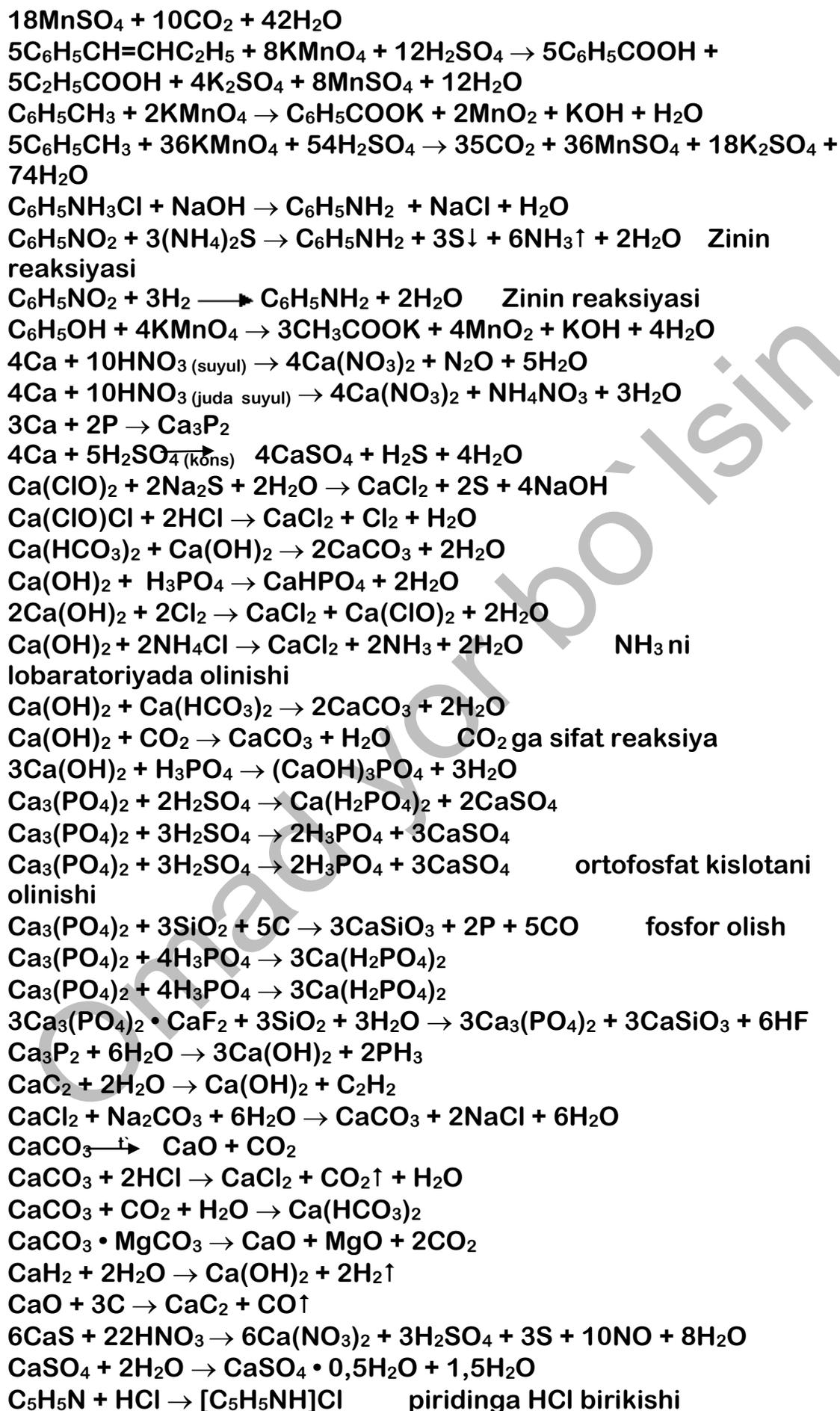
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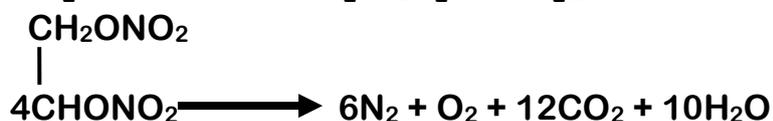
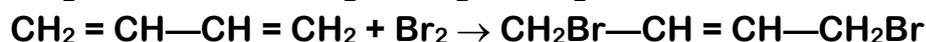
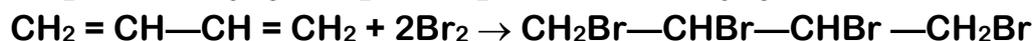
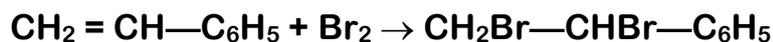
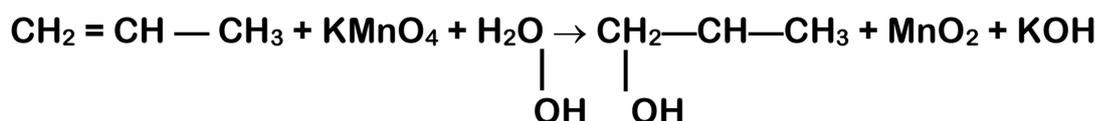


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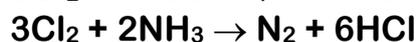
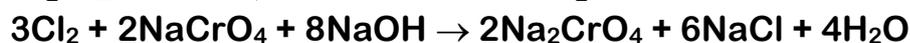
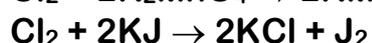
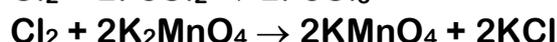
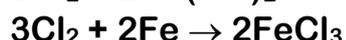
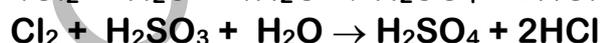
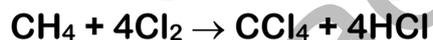
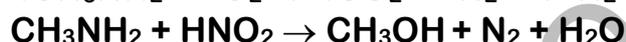
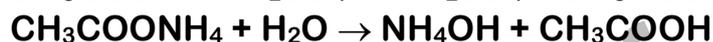
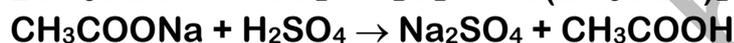
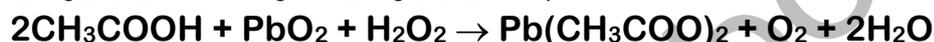
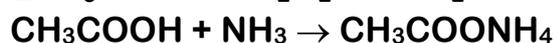
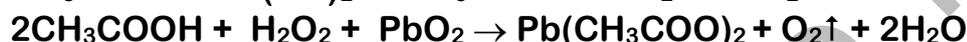
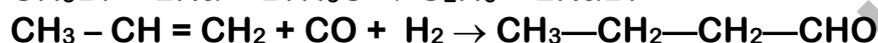


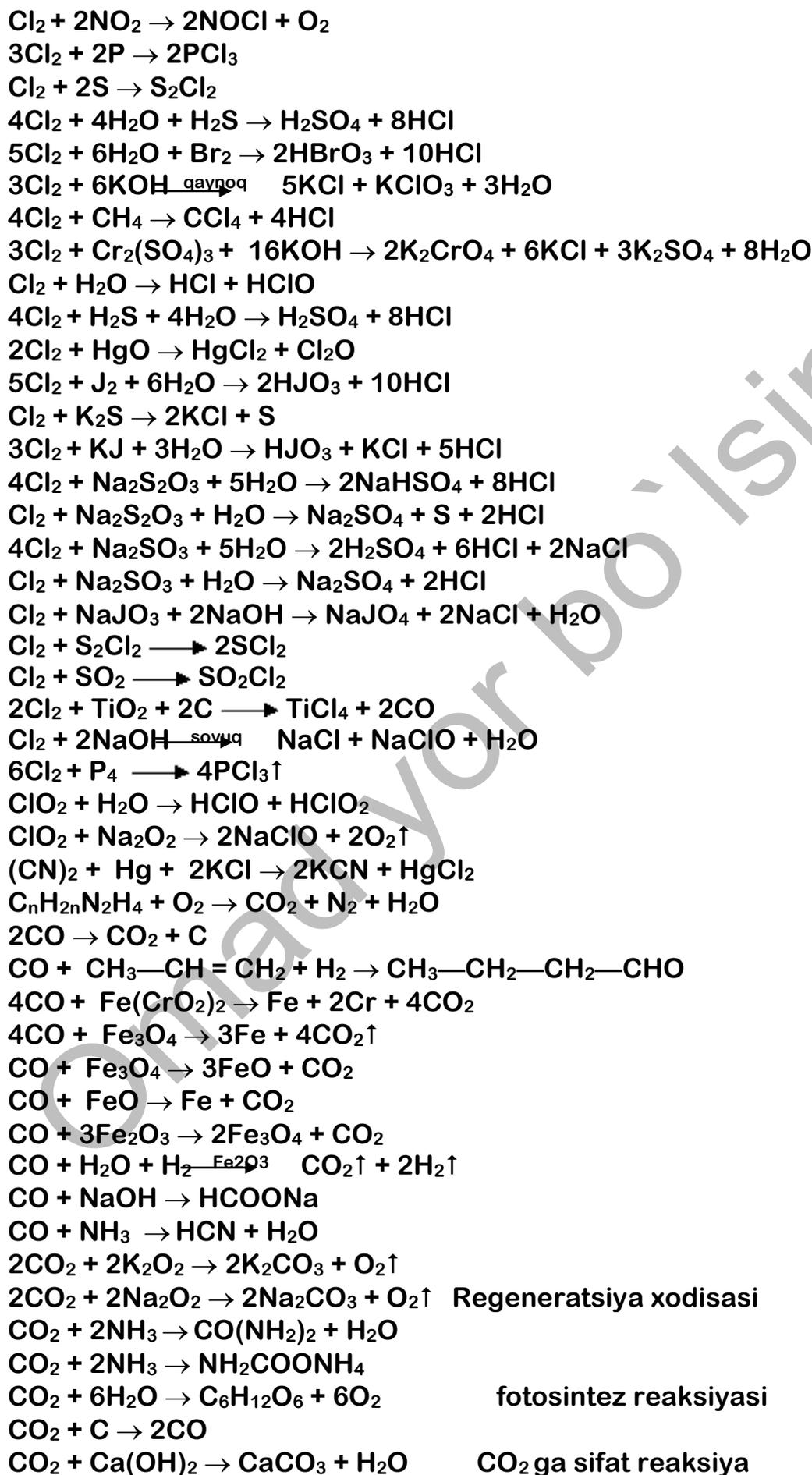


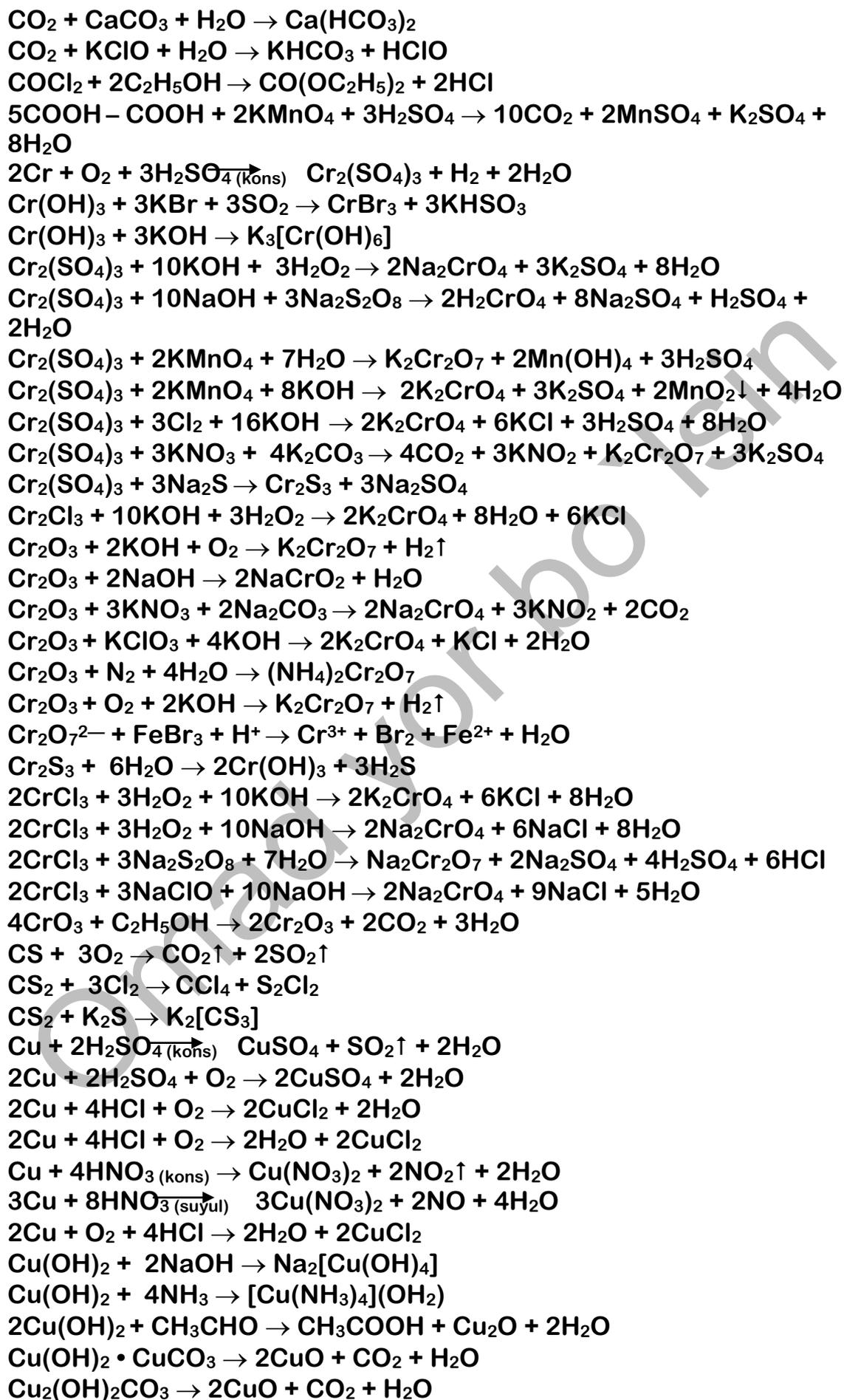


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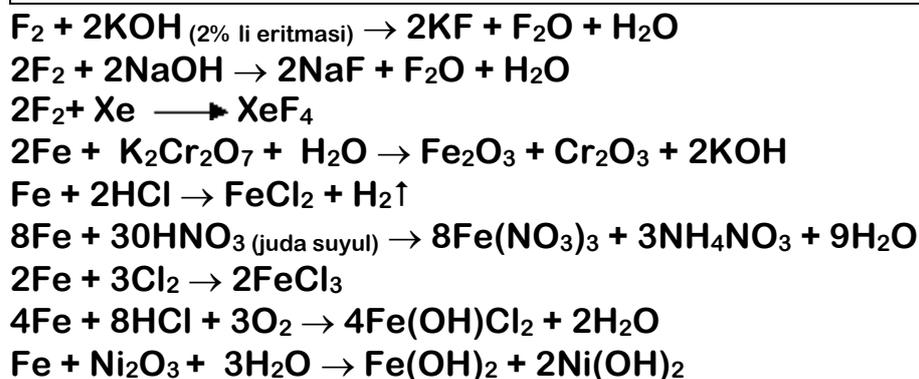


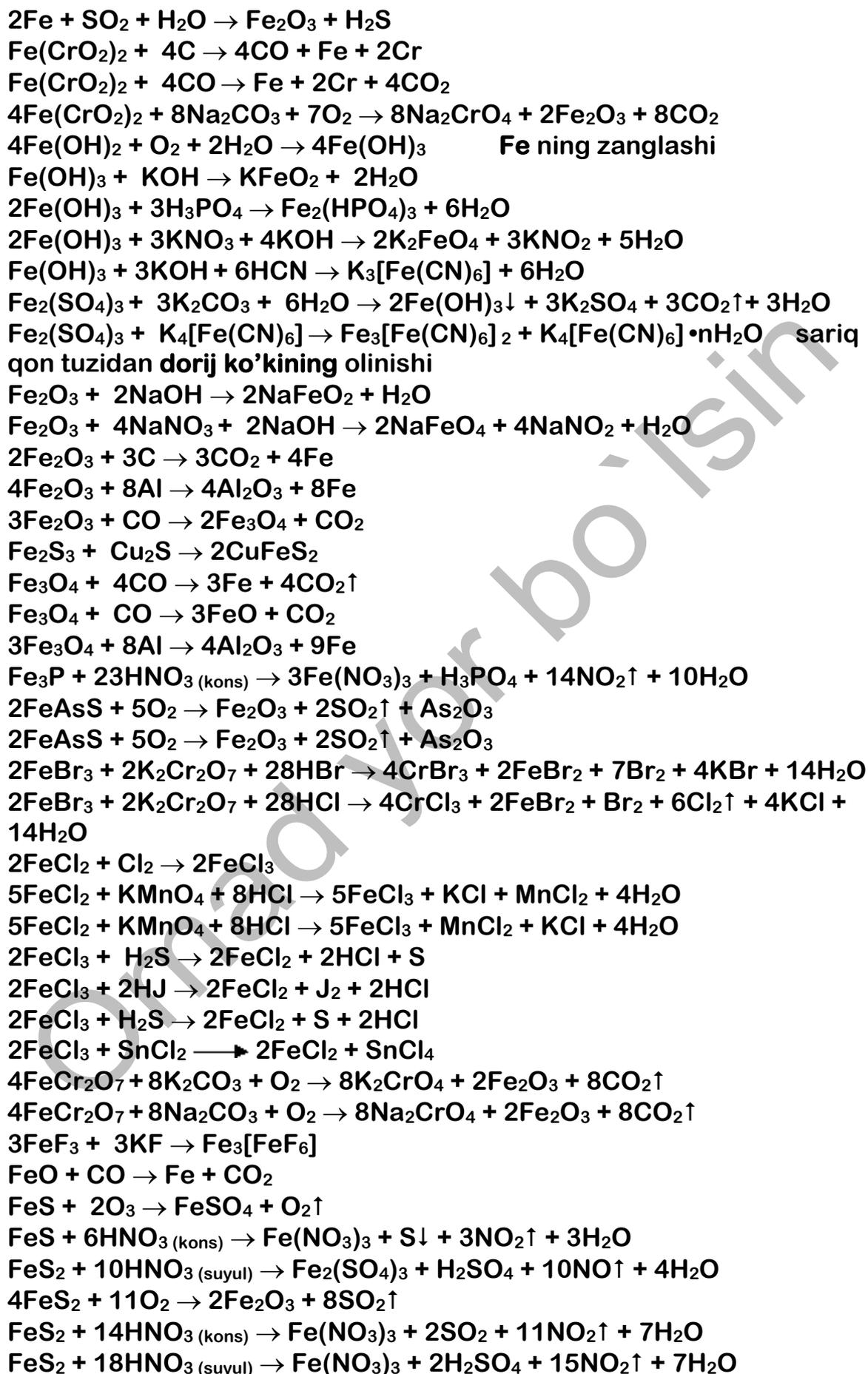


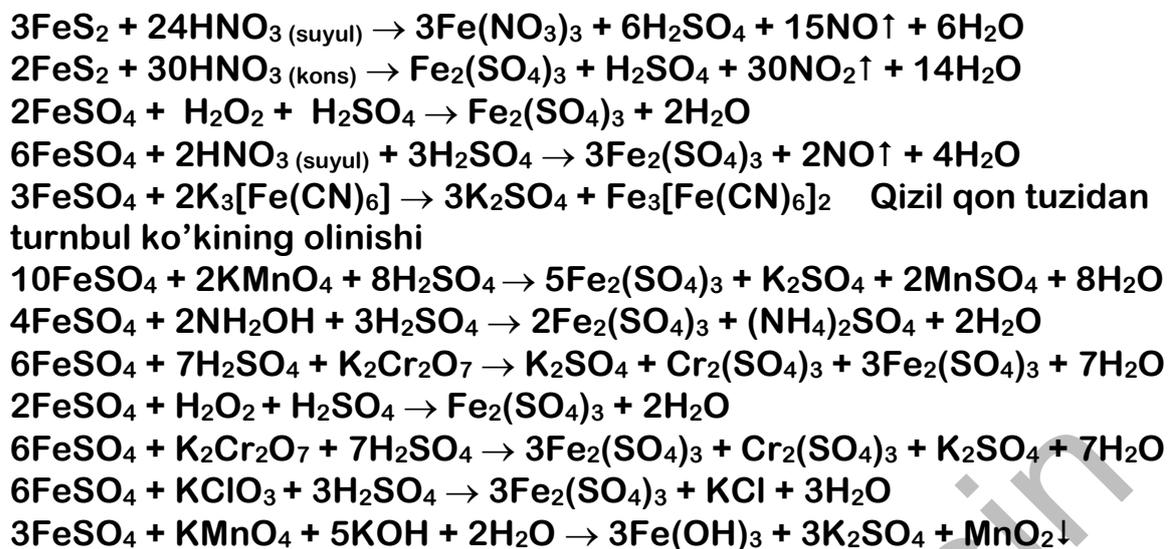




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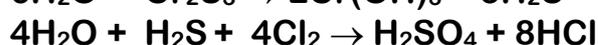
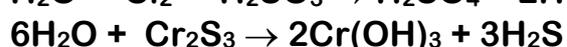
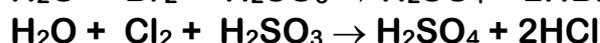
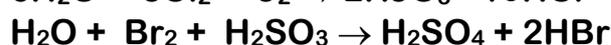
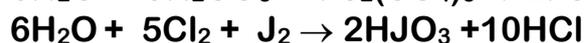
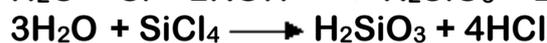
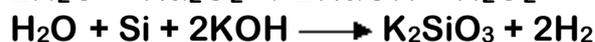
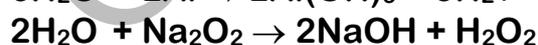
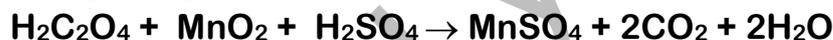
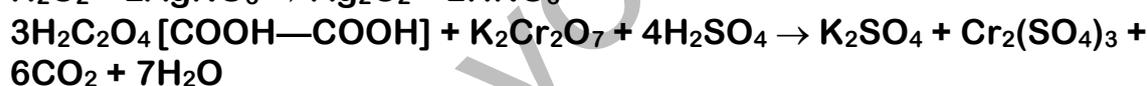
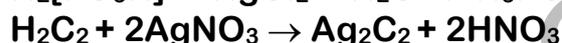
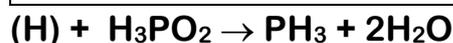


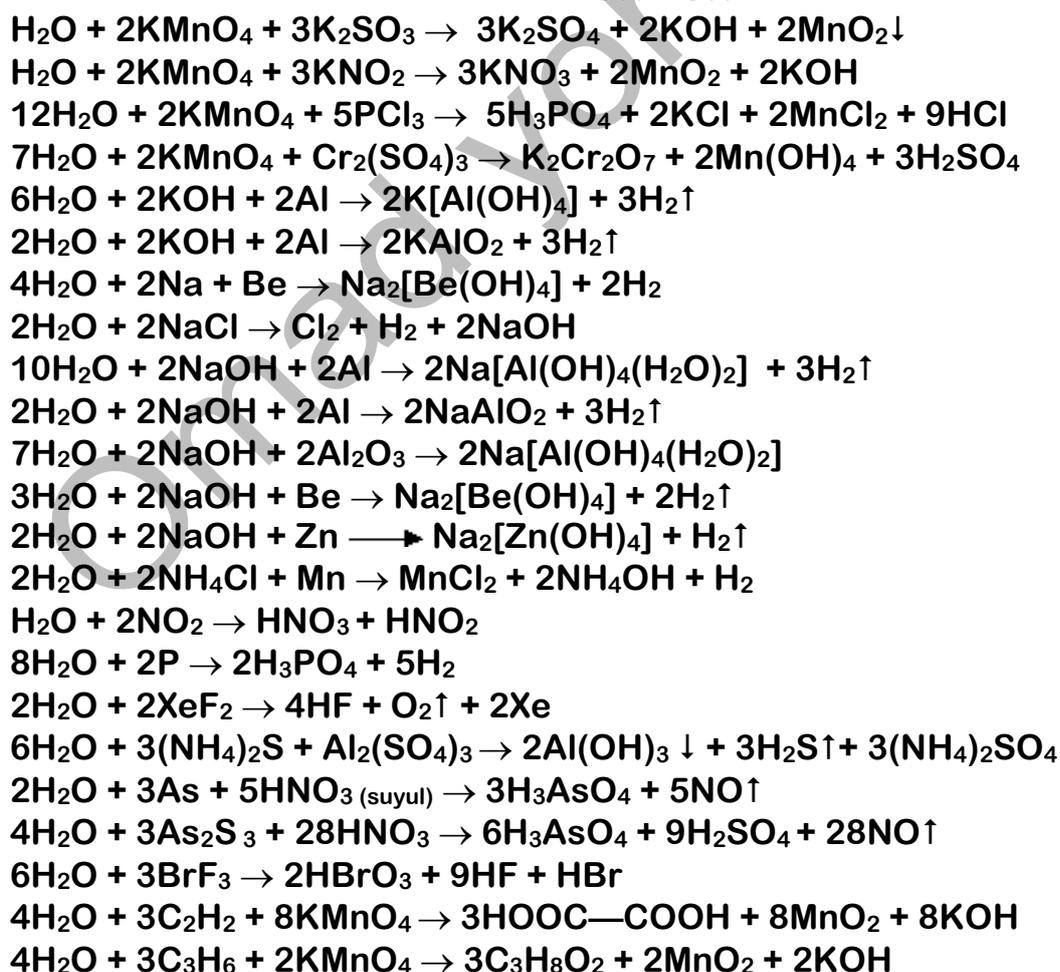
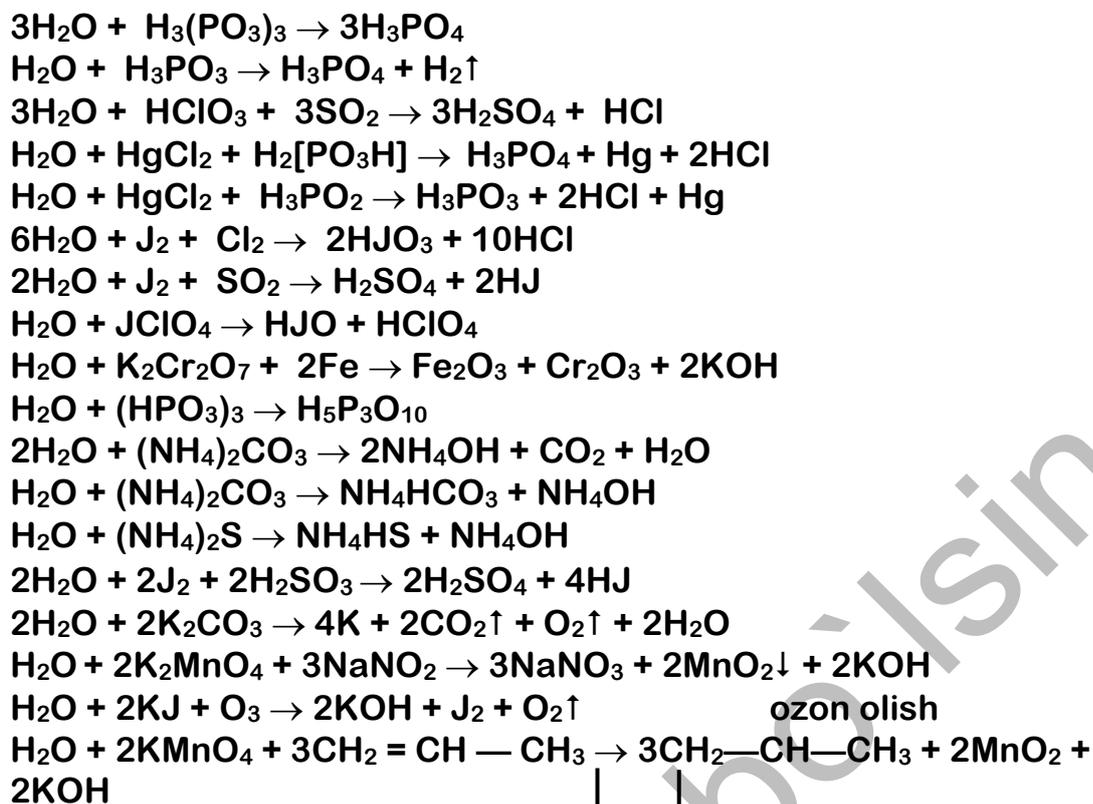


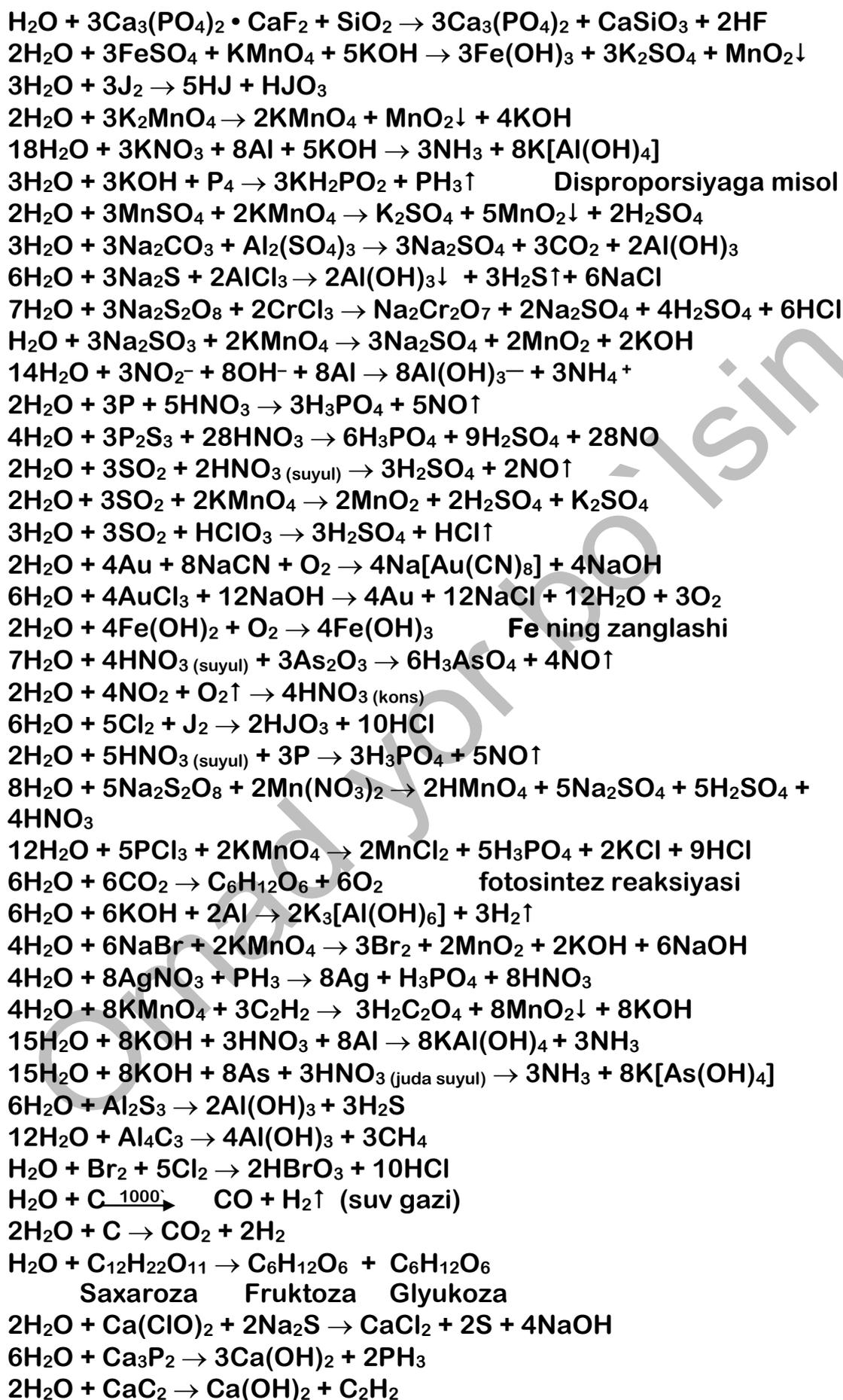
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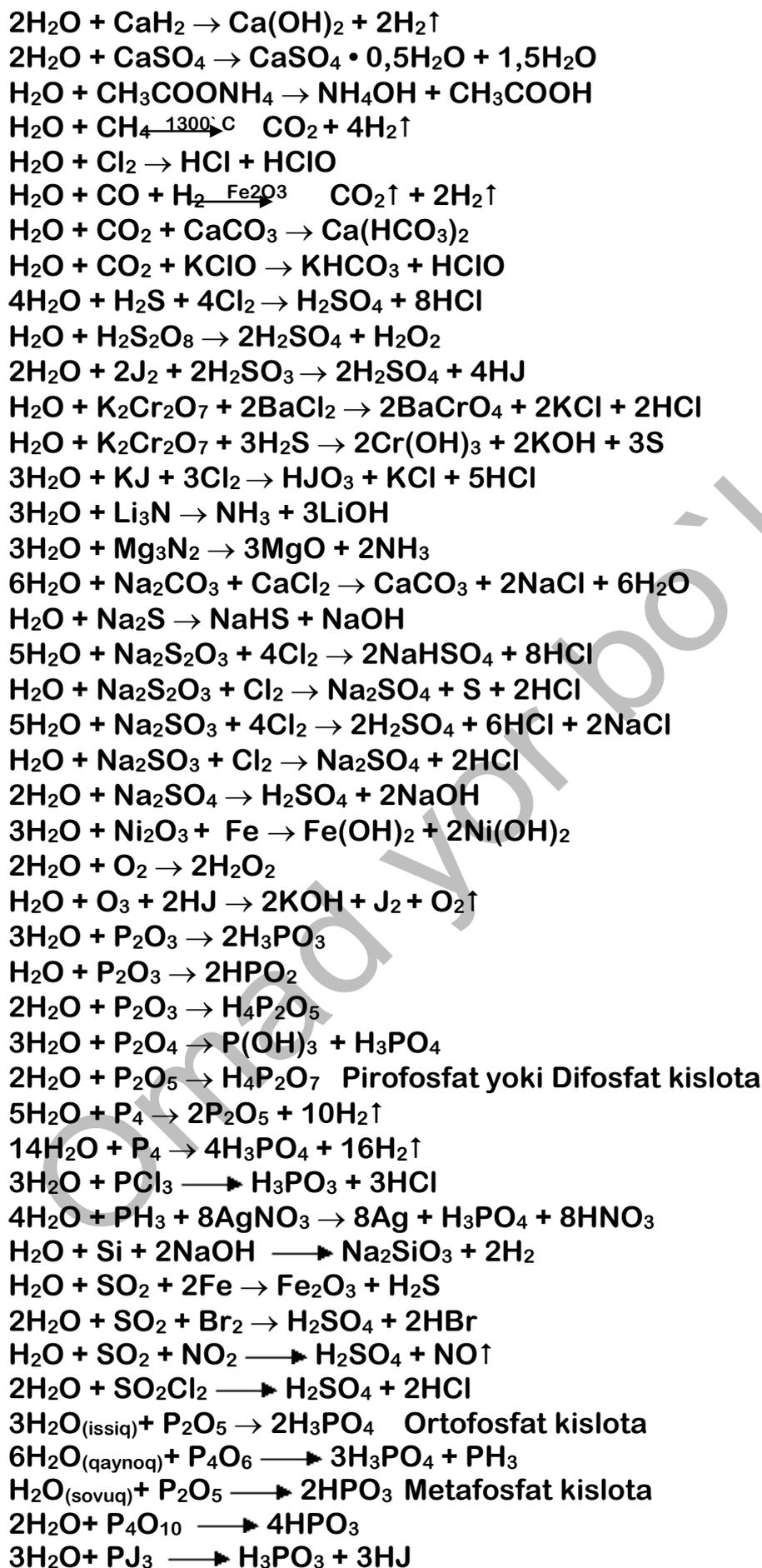


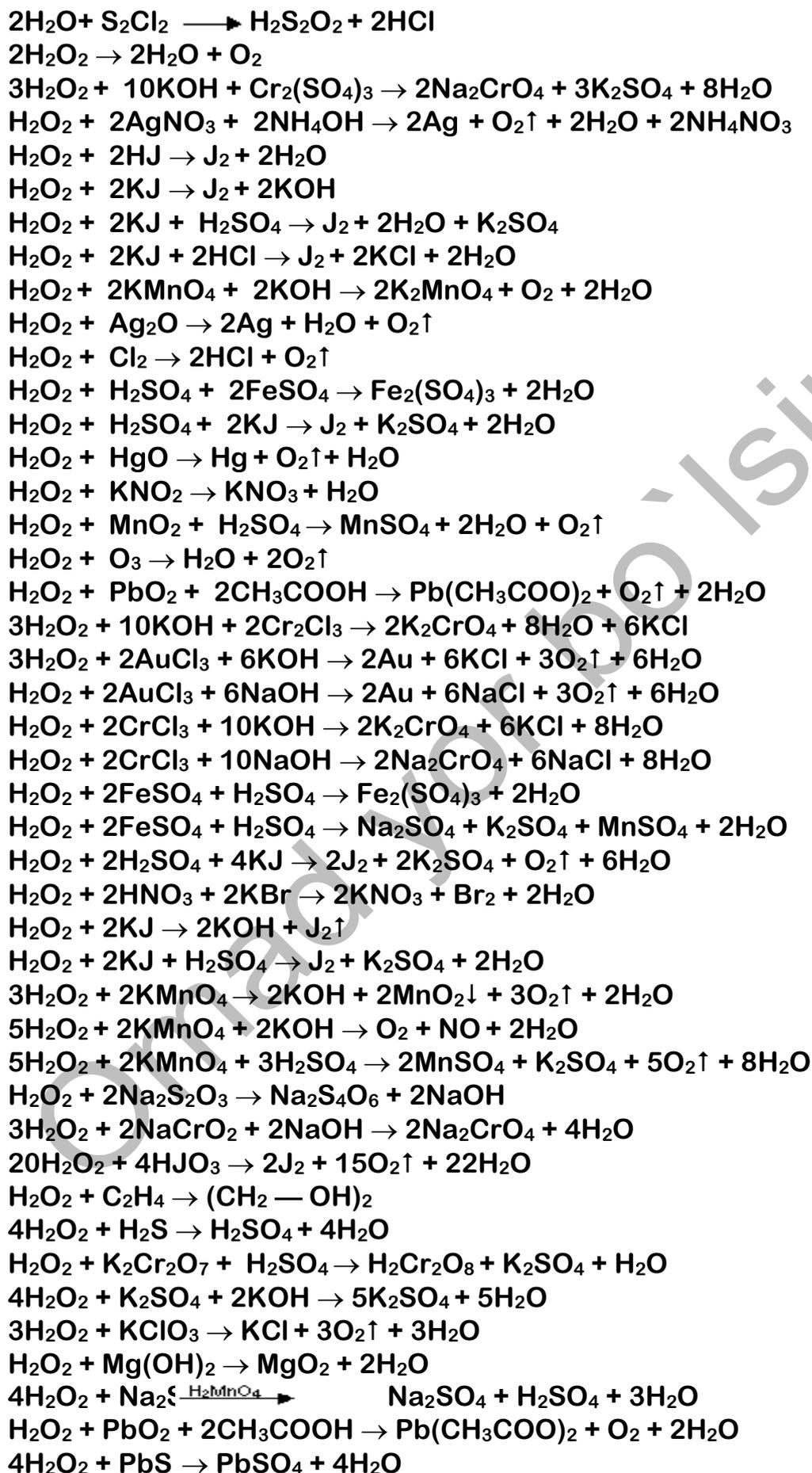
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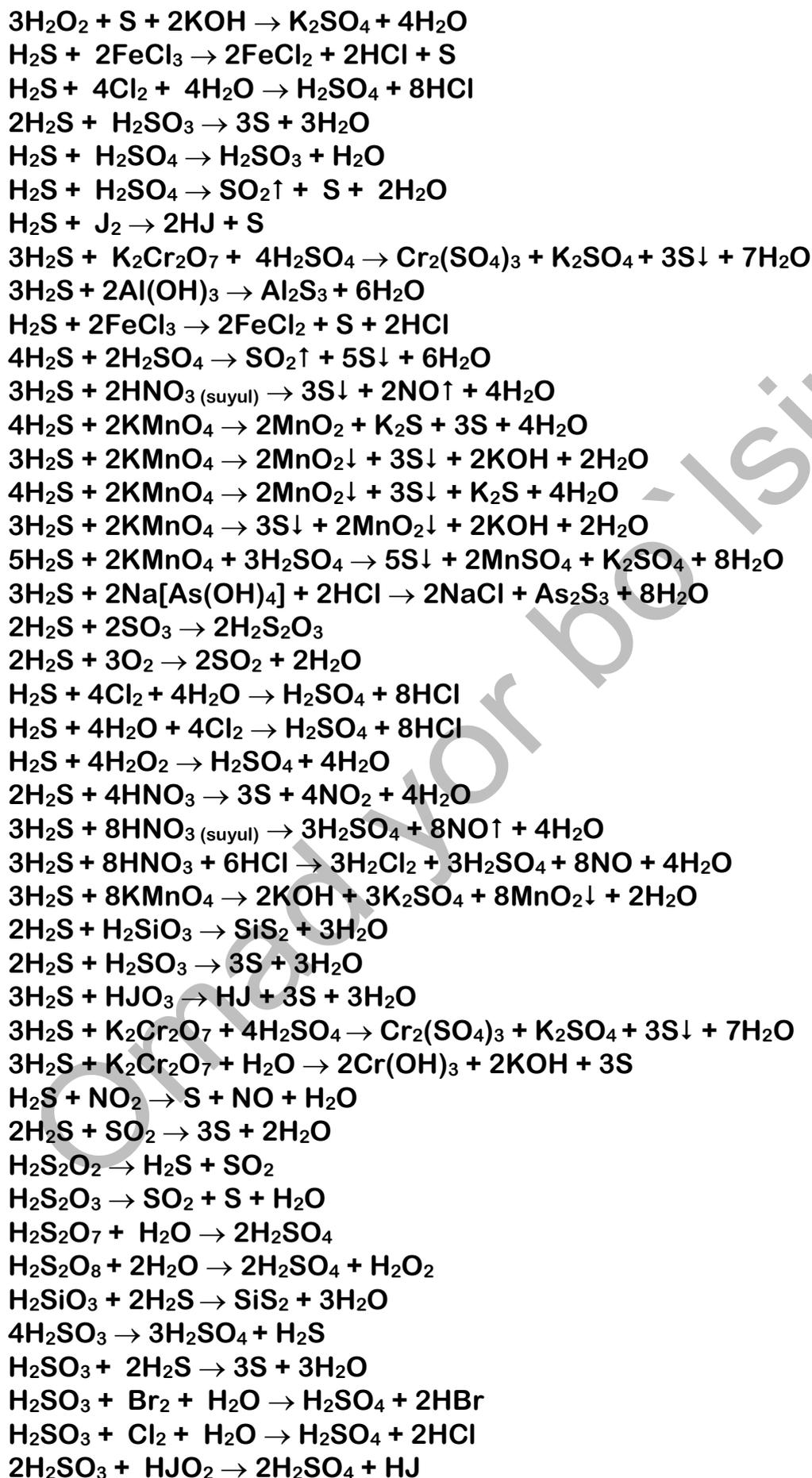


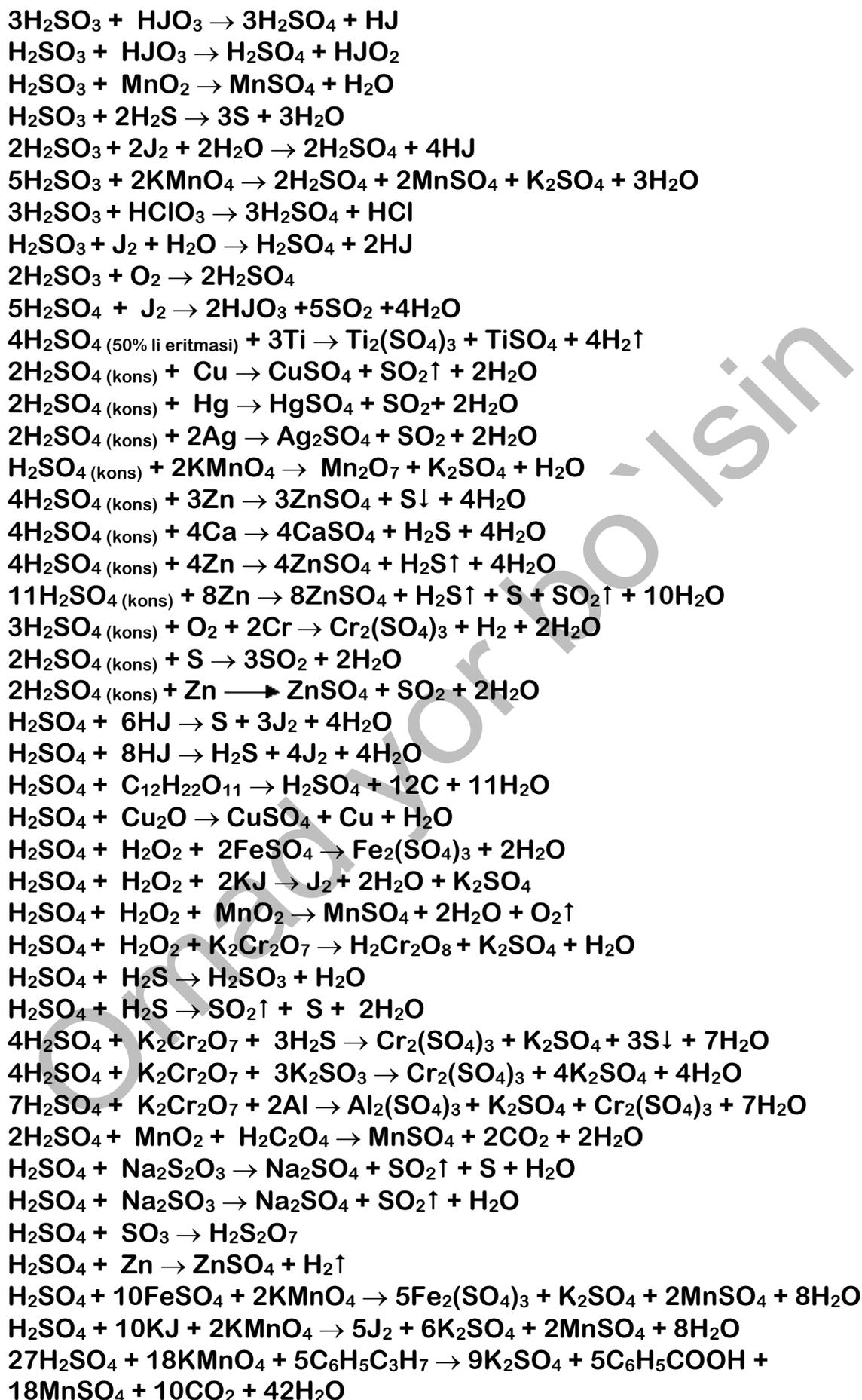


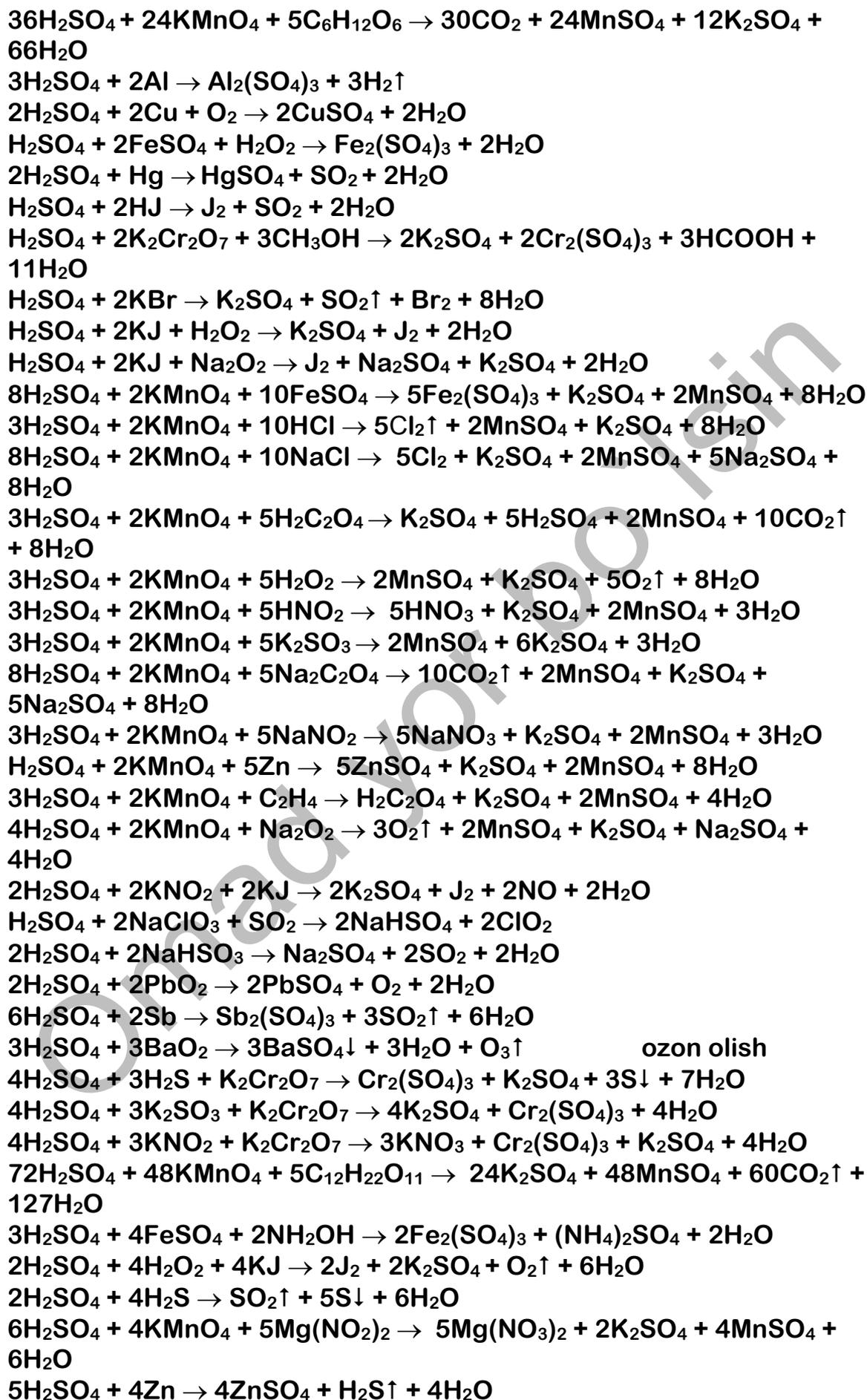


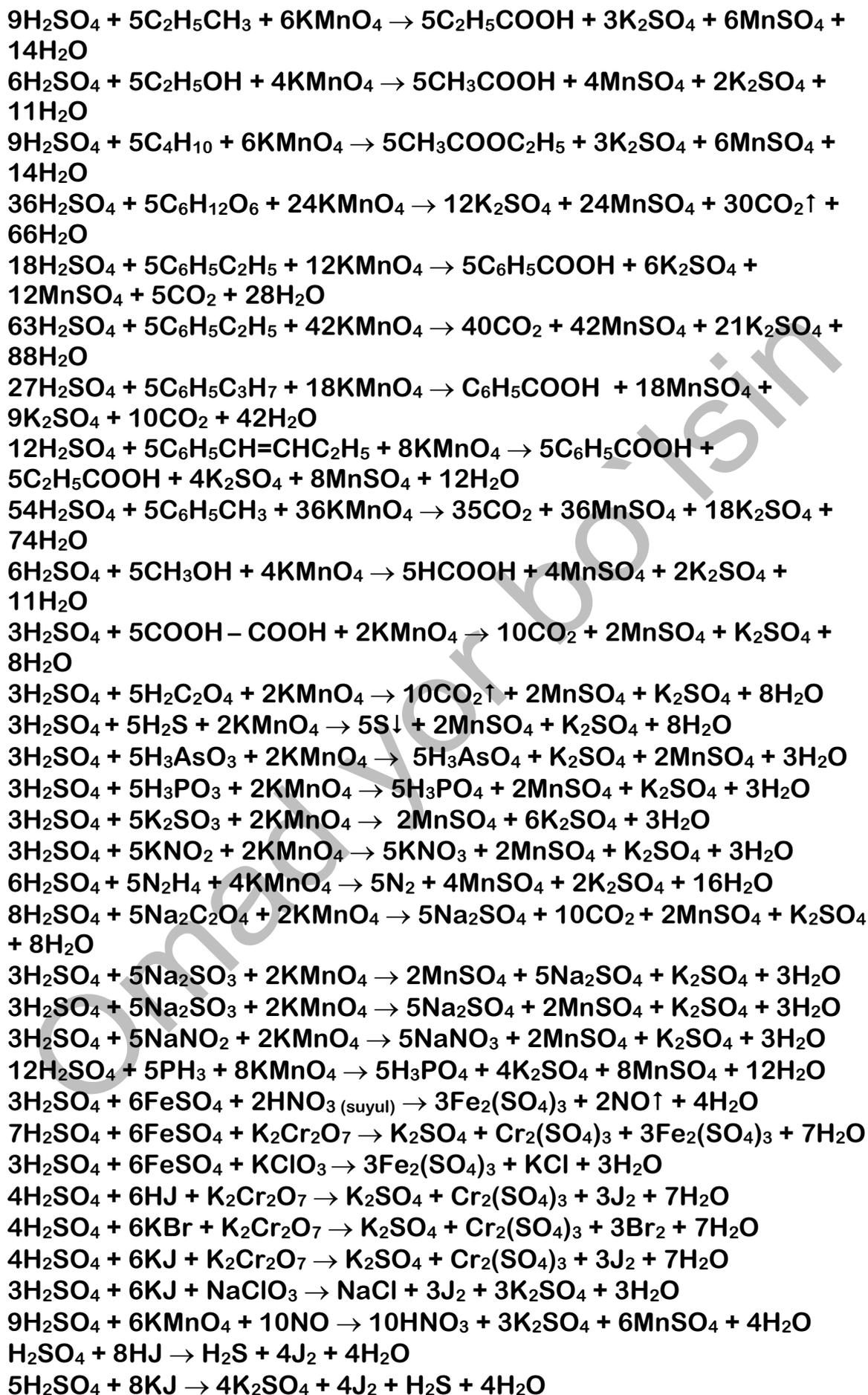


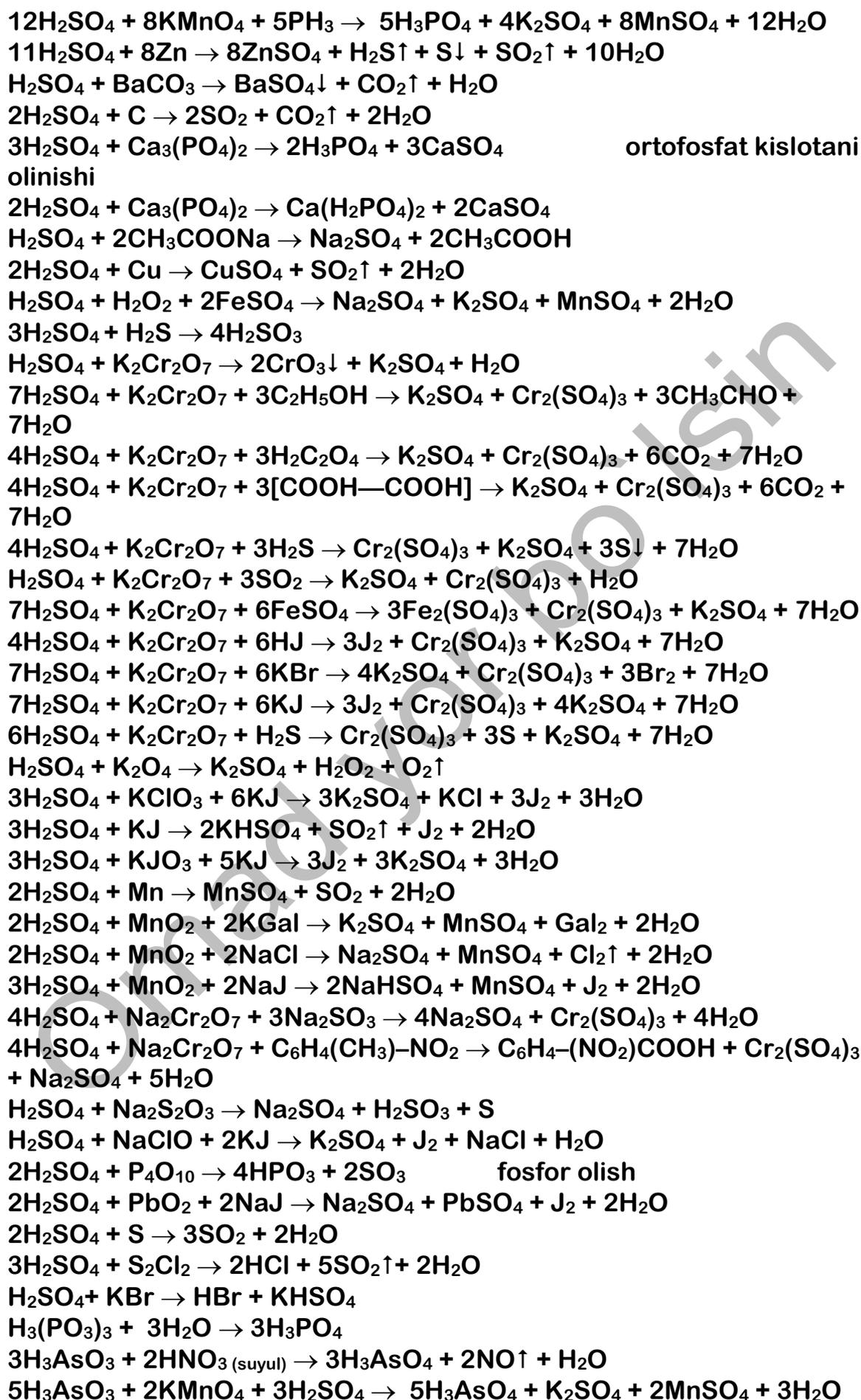


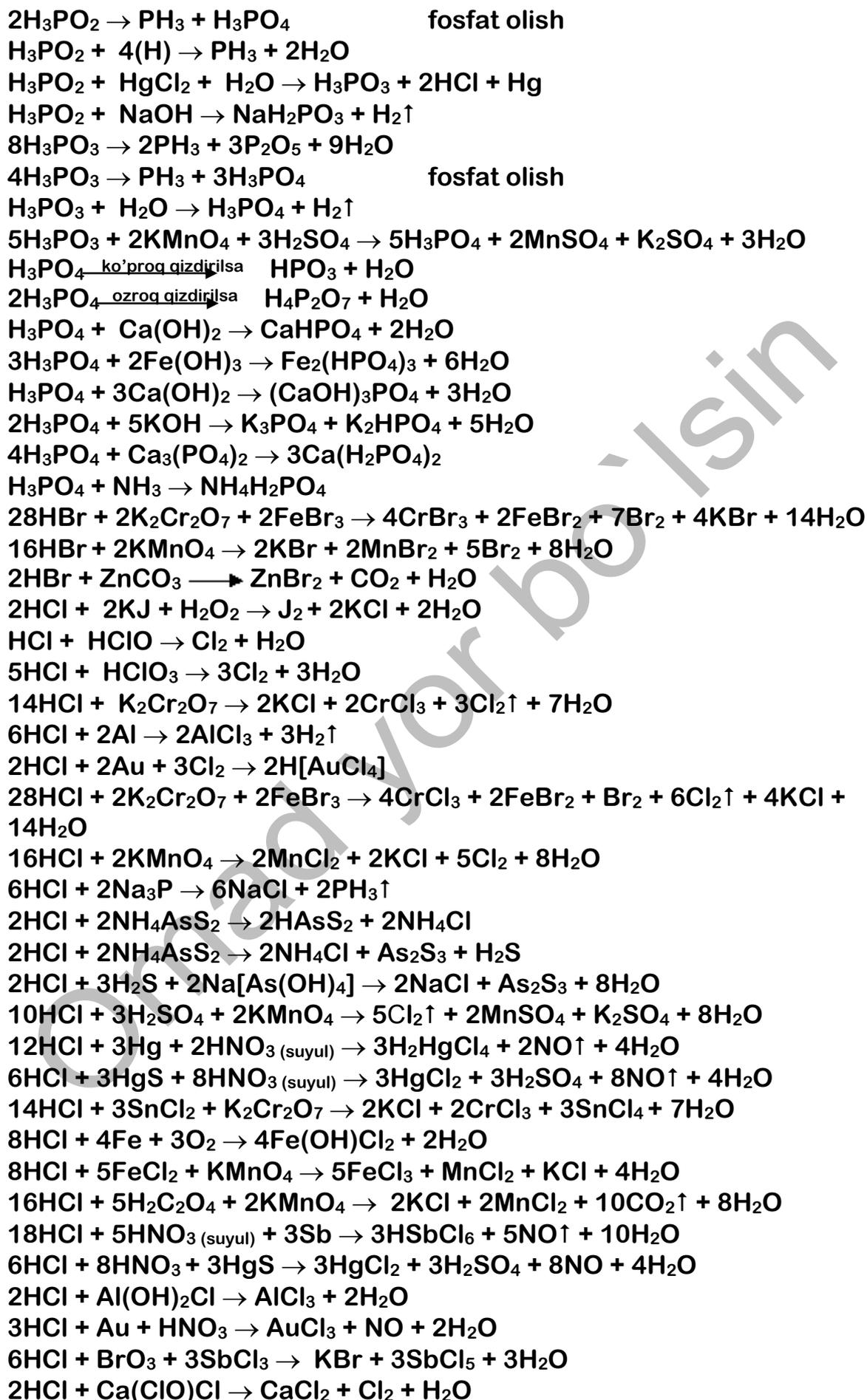


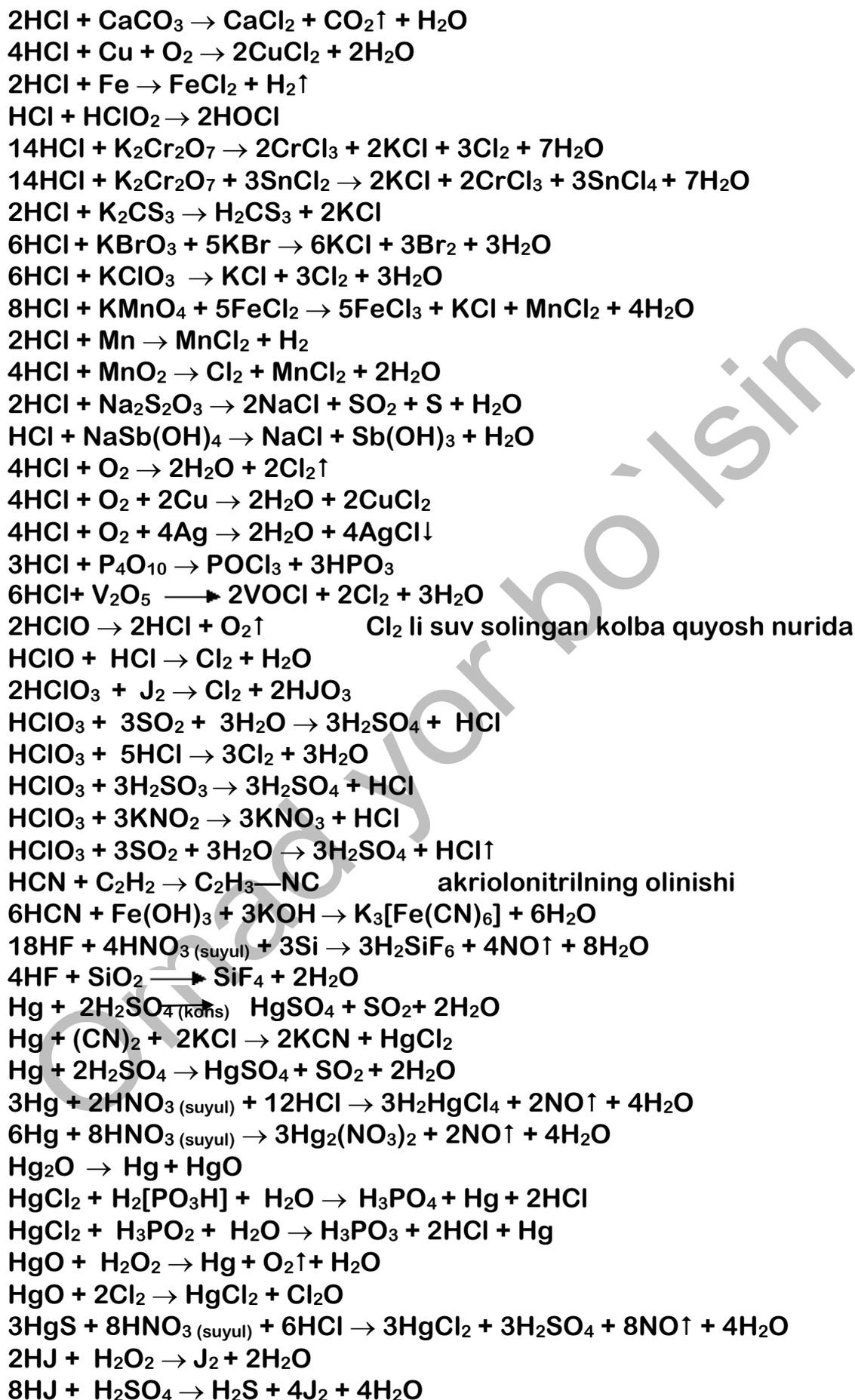


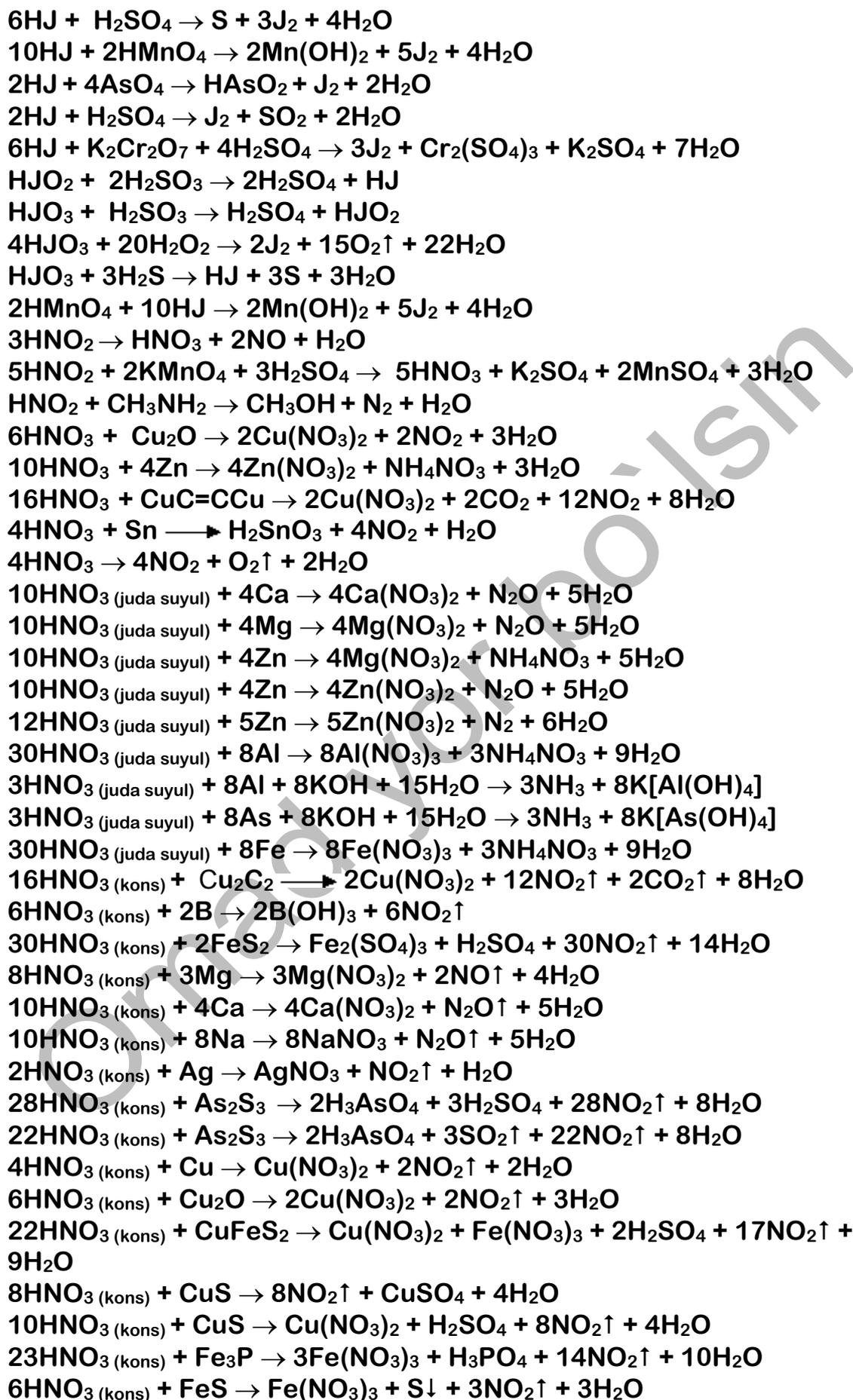


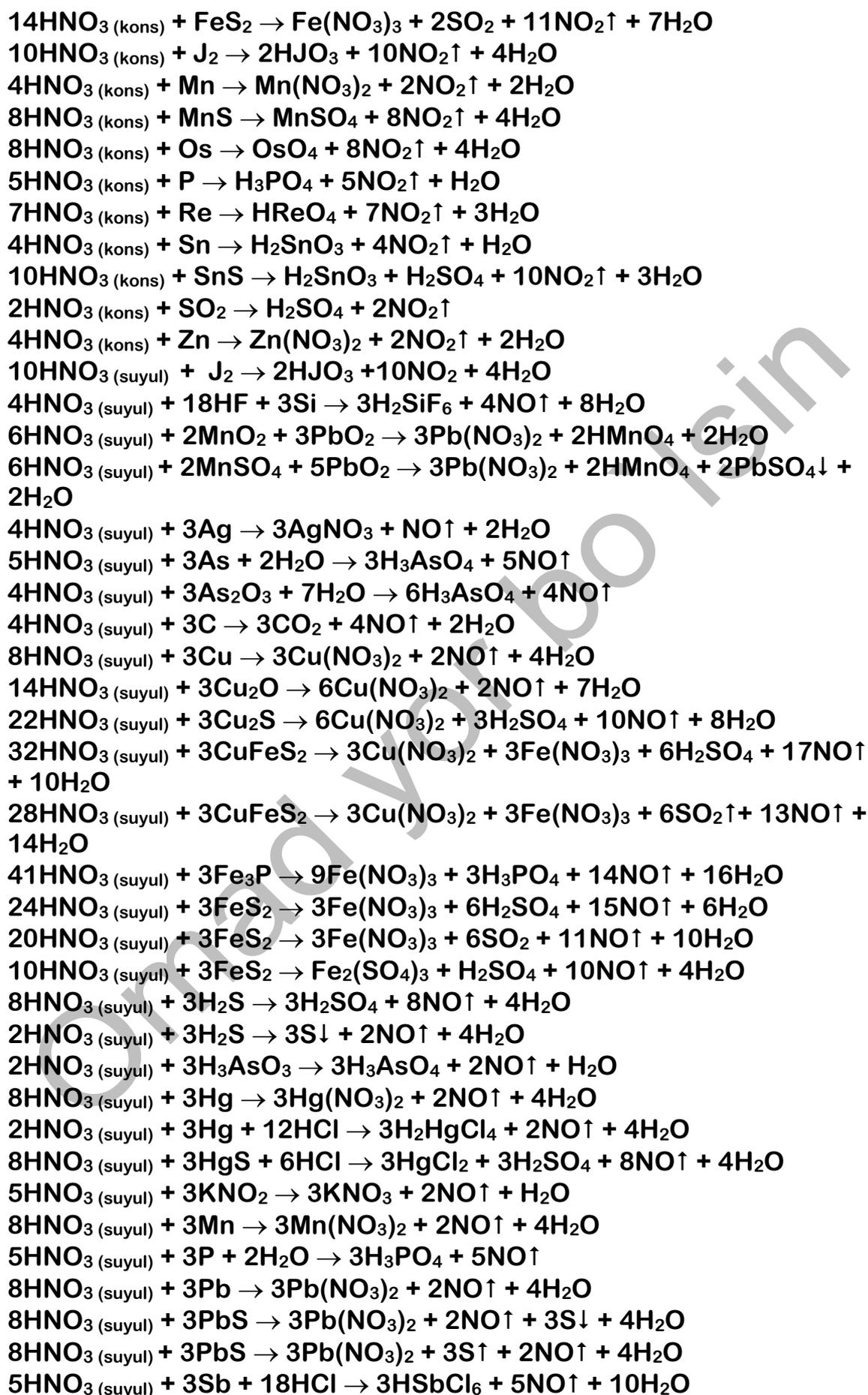


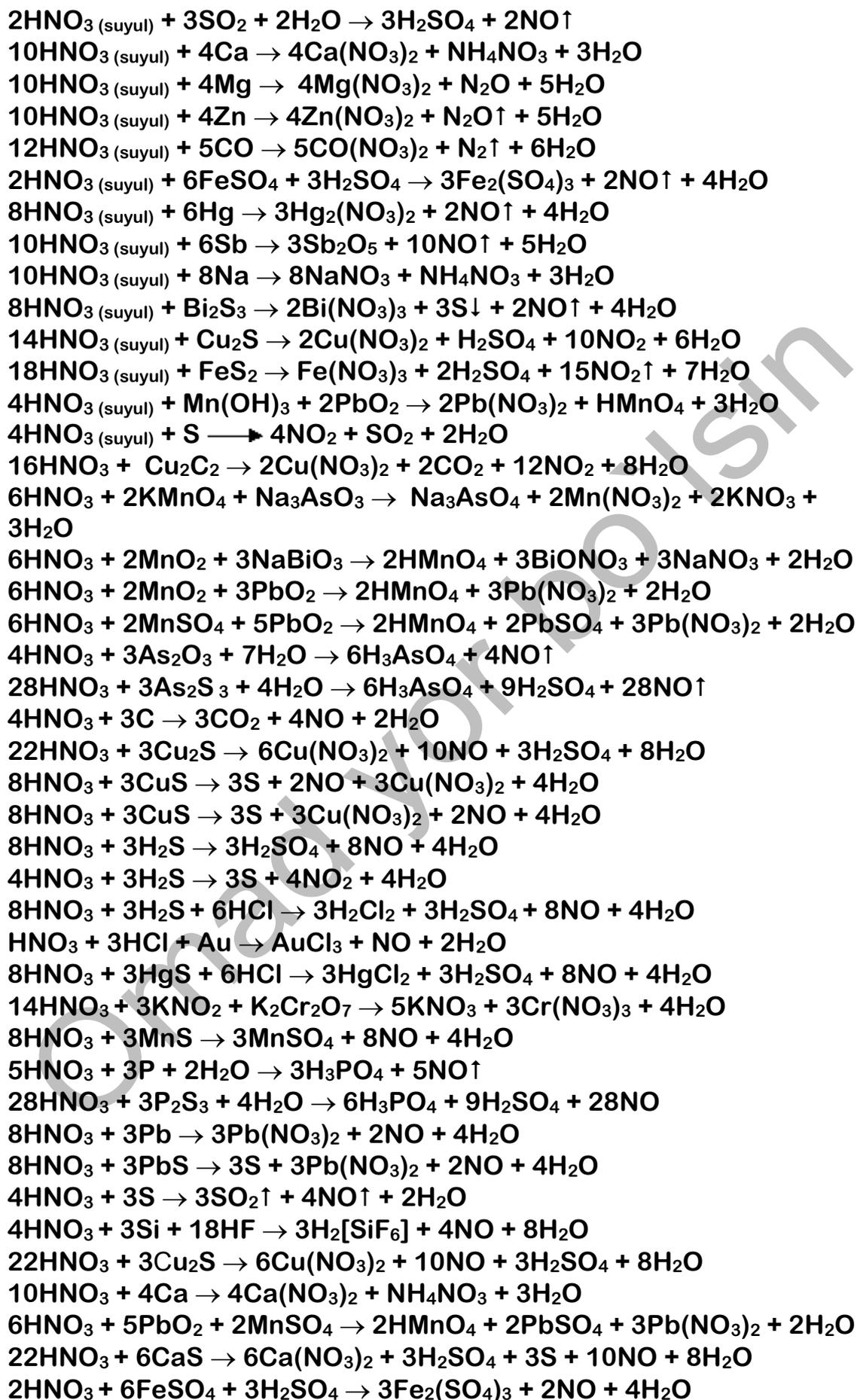


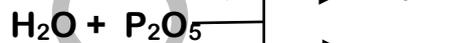
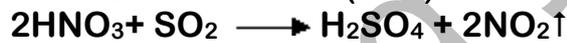
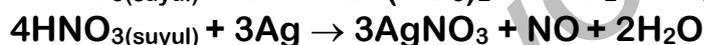
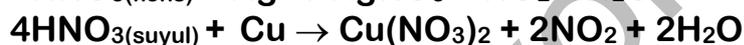
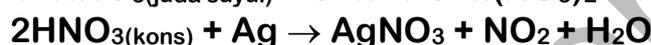
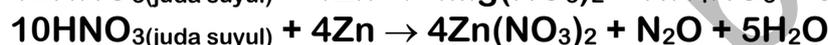
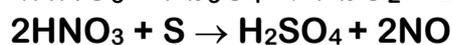
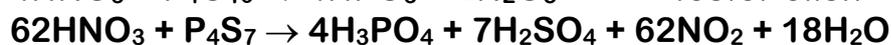
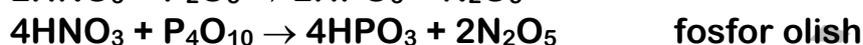
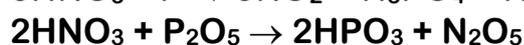
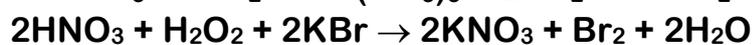
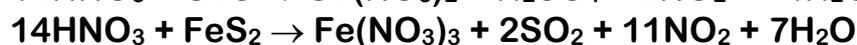
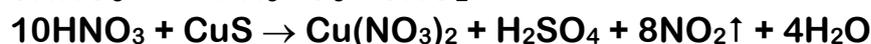
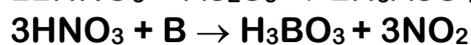
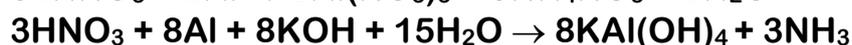




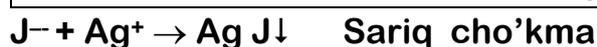




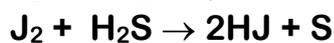
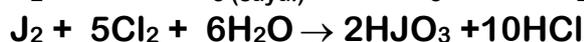
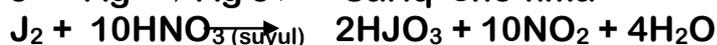


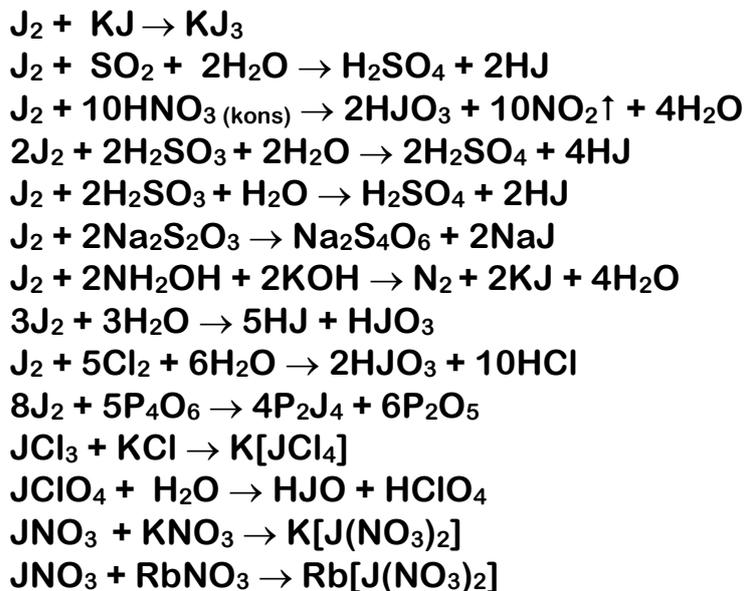


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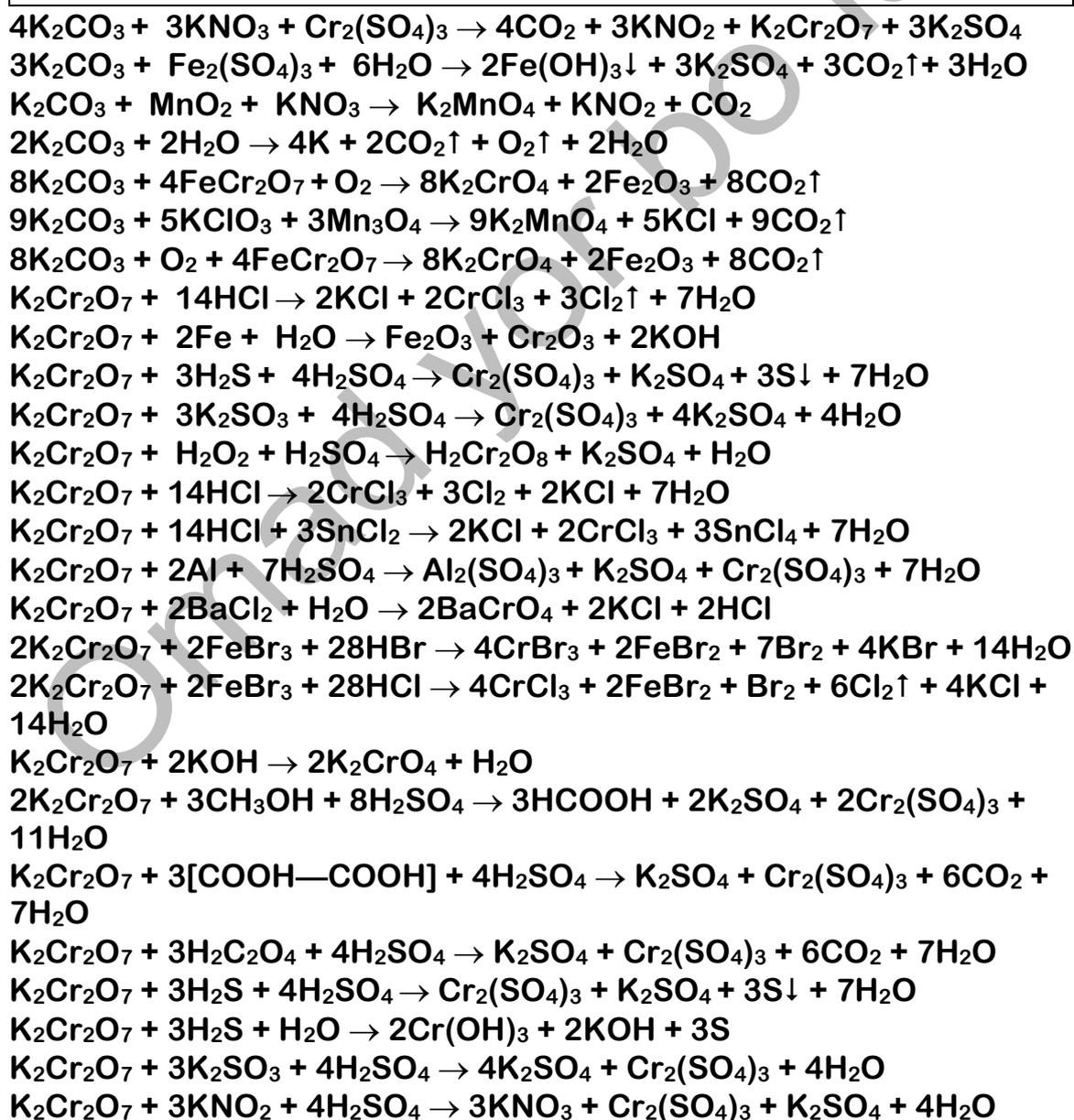


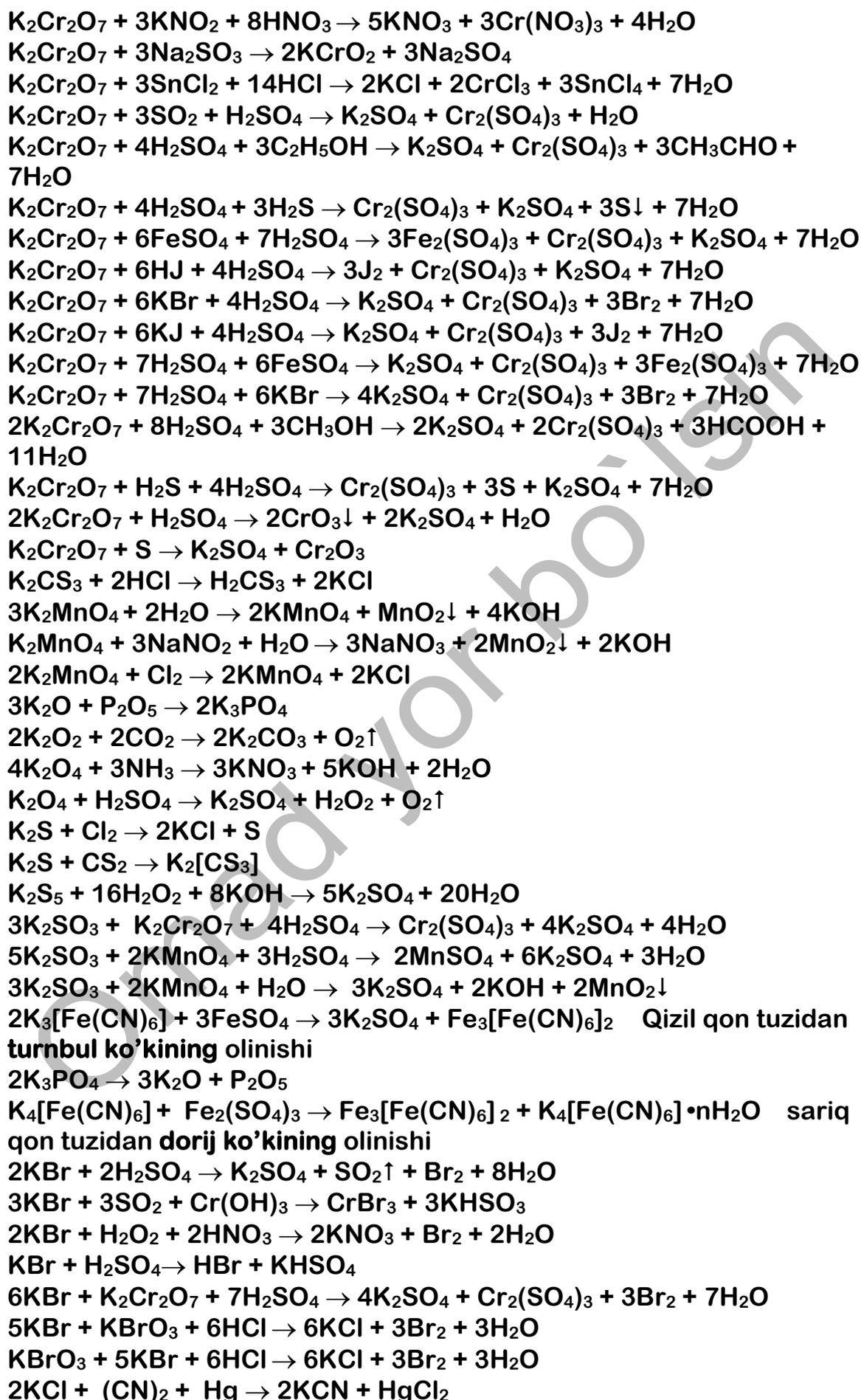
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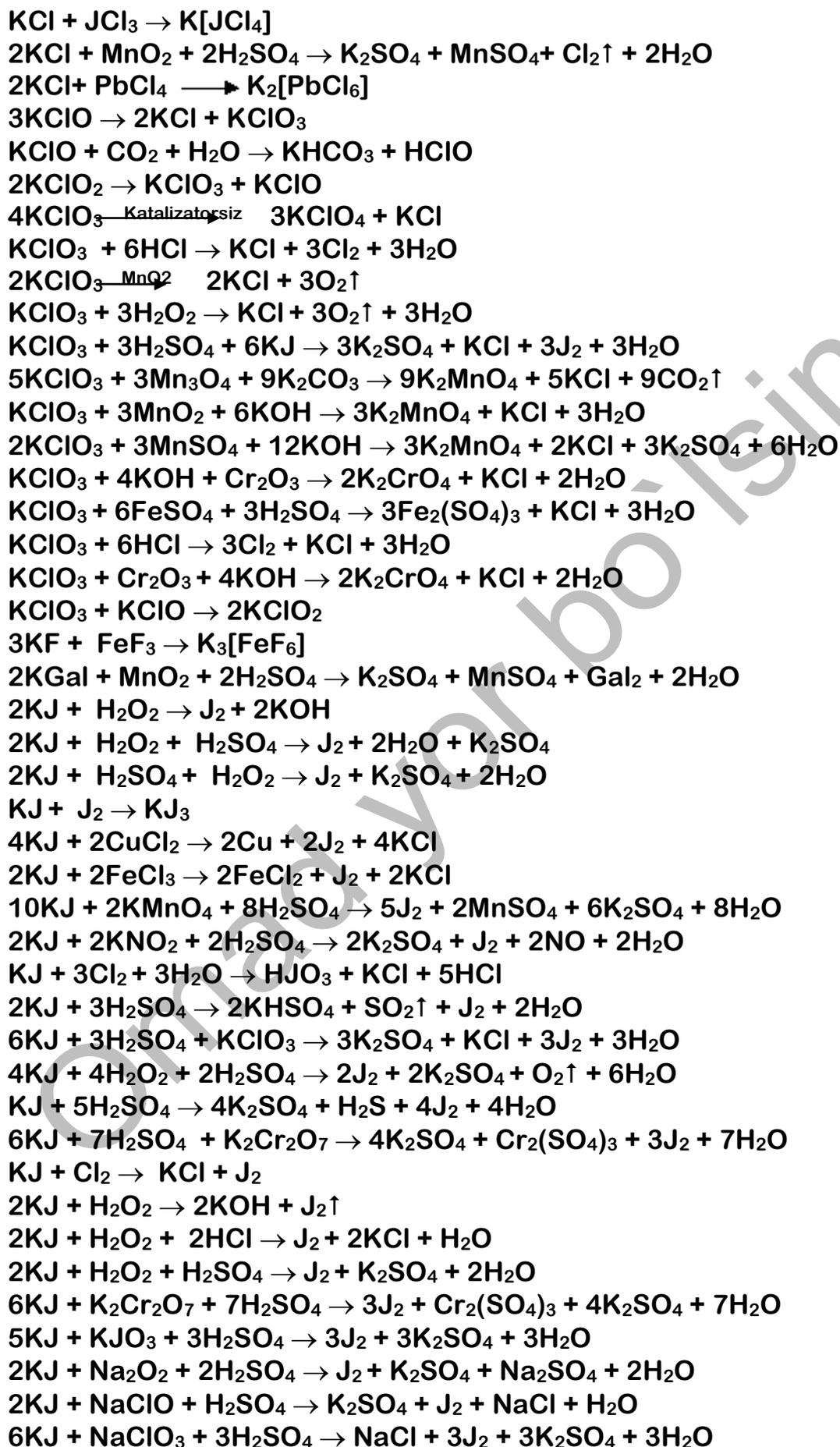


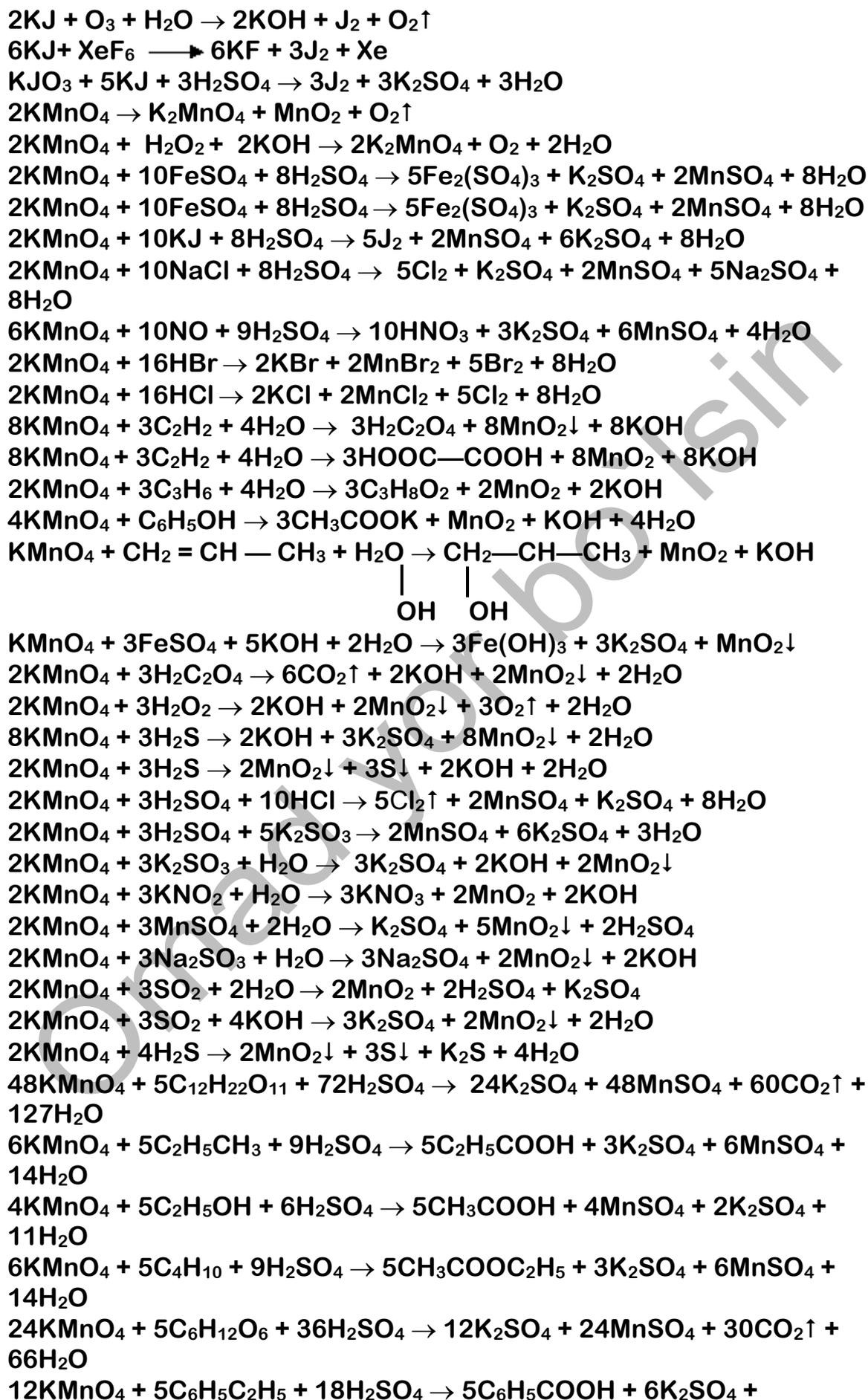


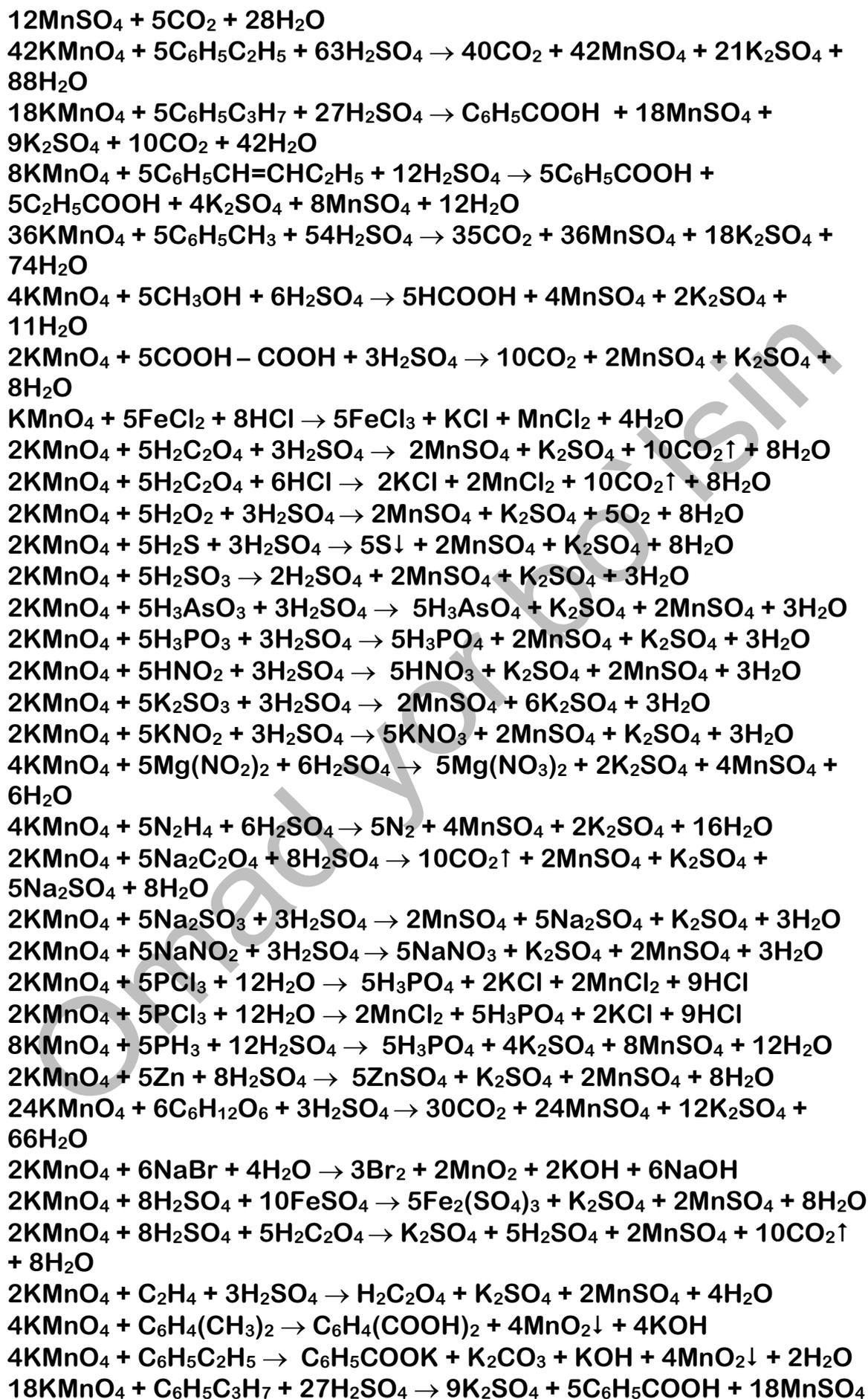
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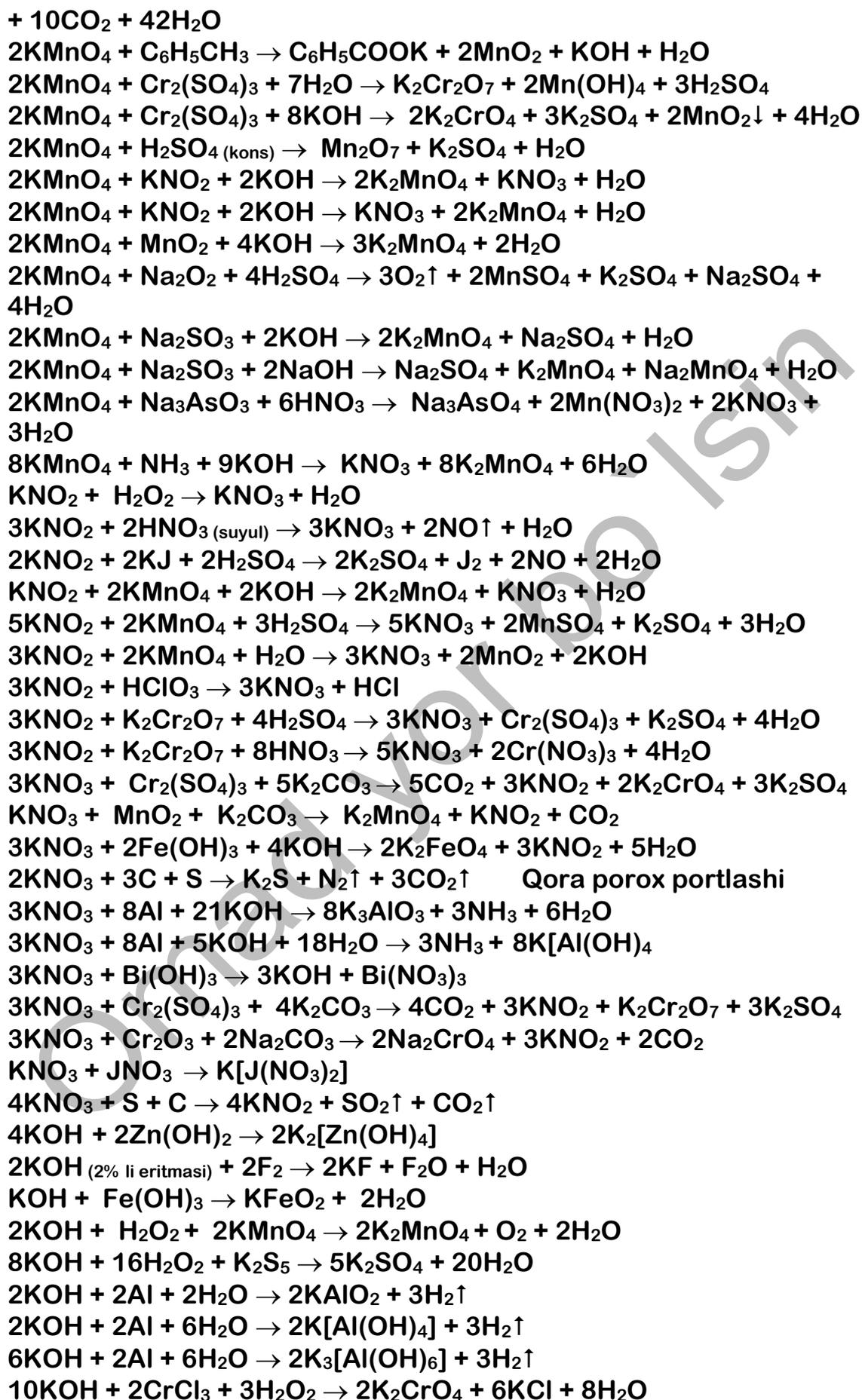




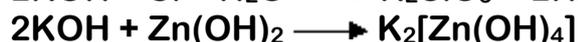




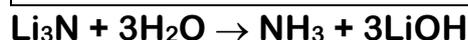




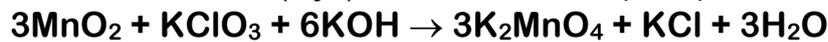
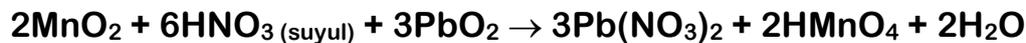
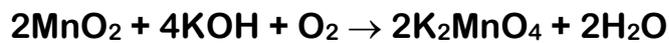
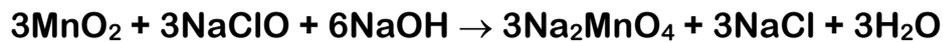
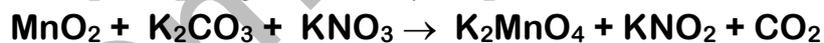
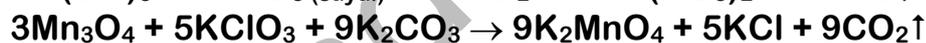
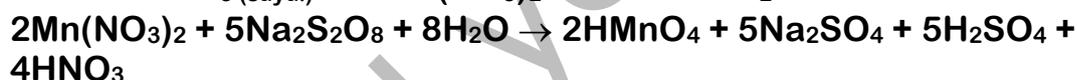
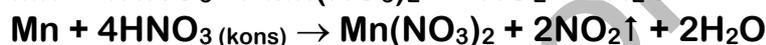
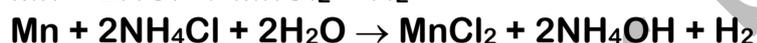
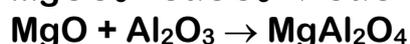
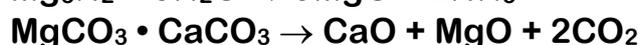
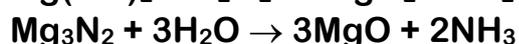
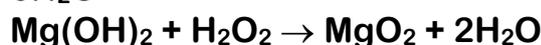
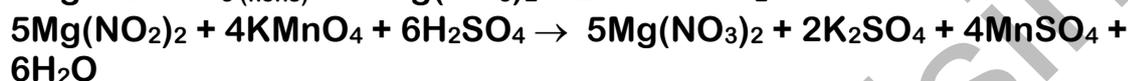
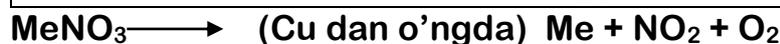


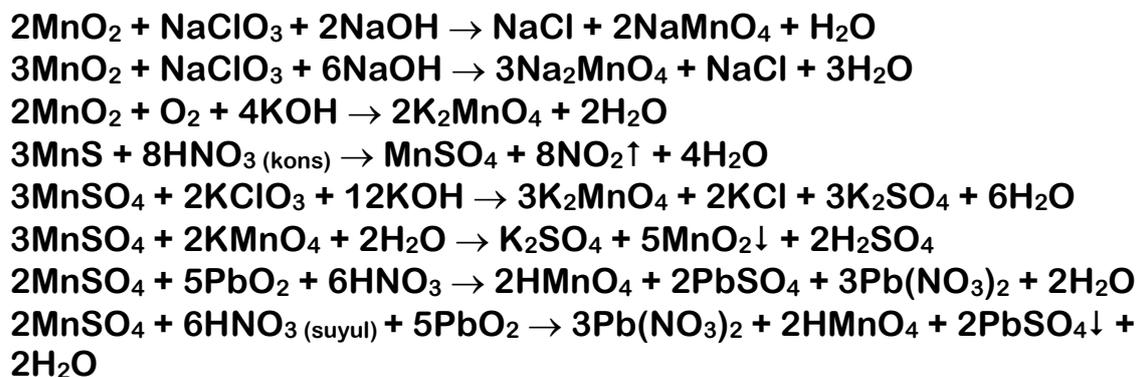


**L**

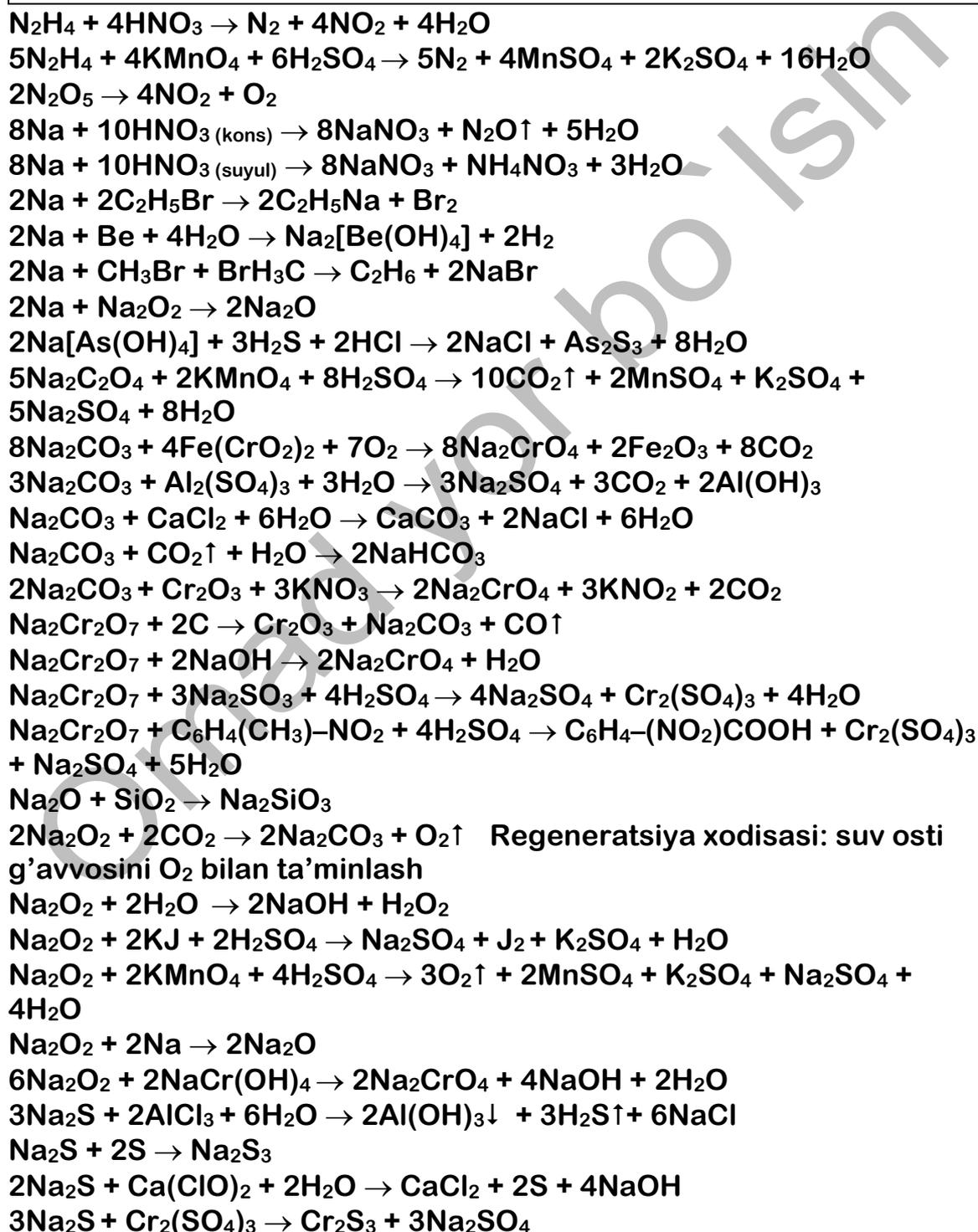


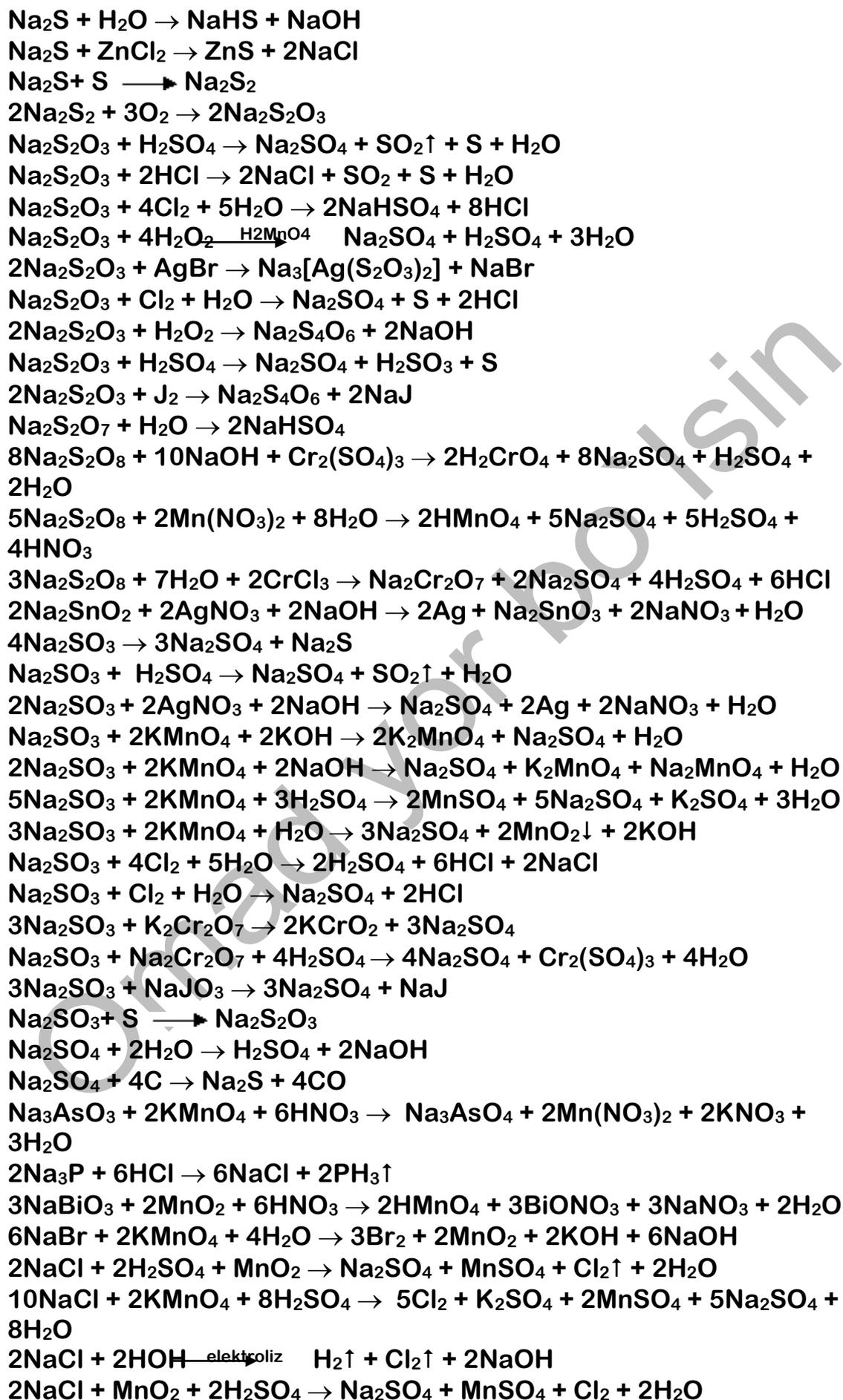
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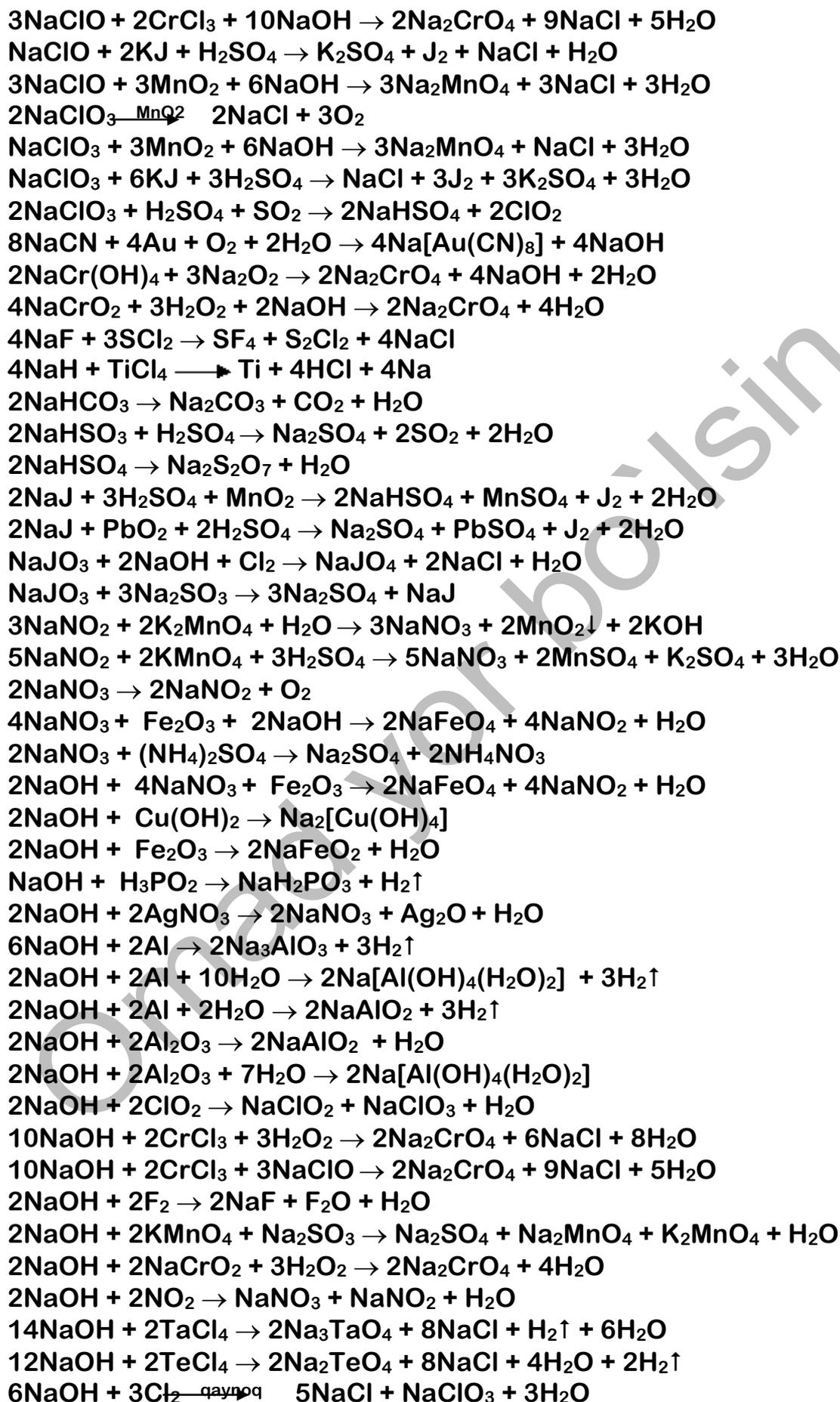


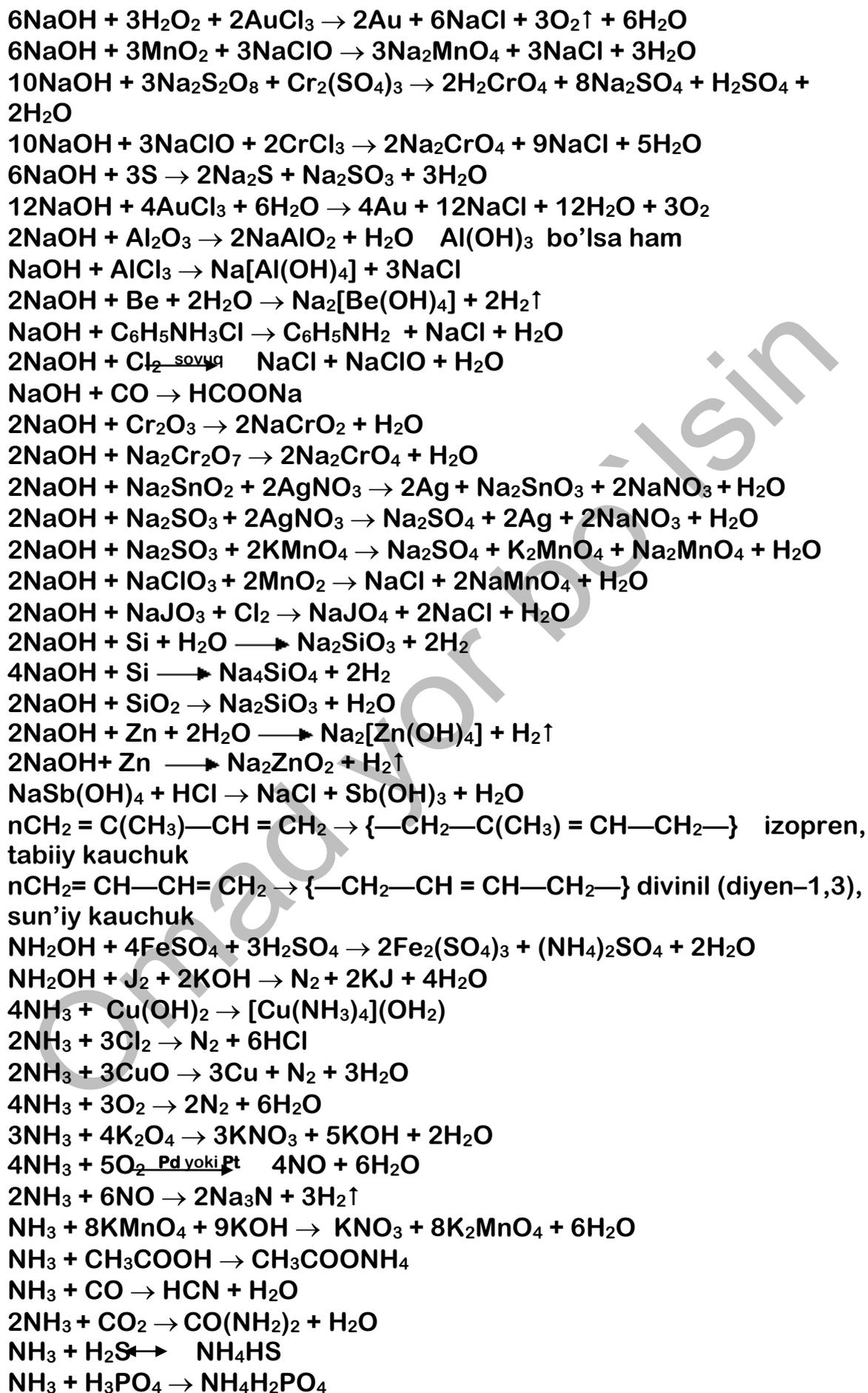


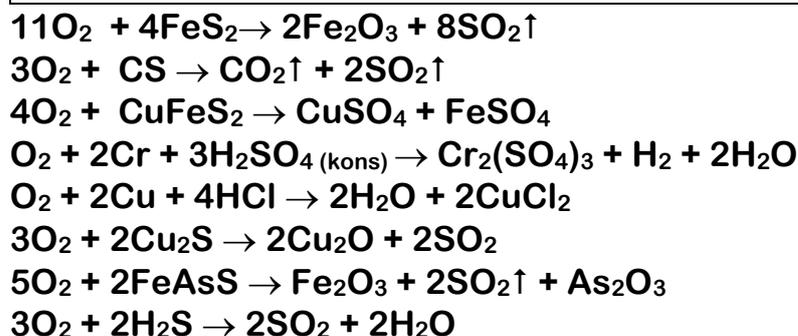
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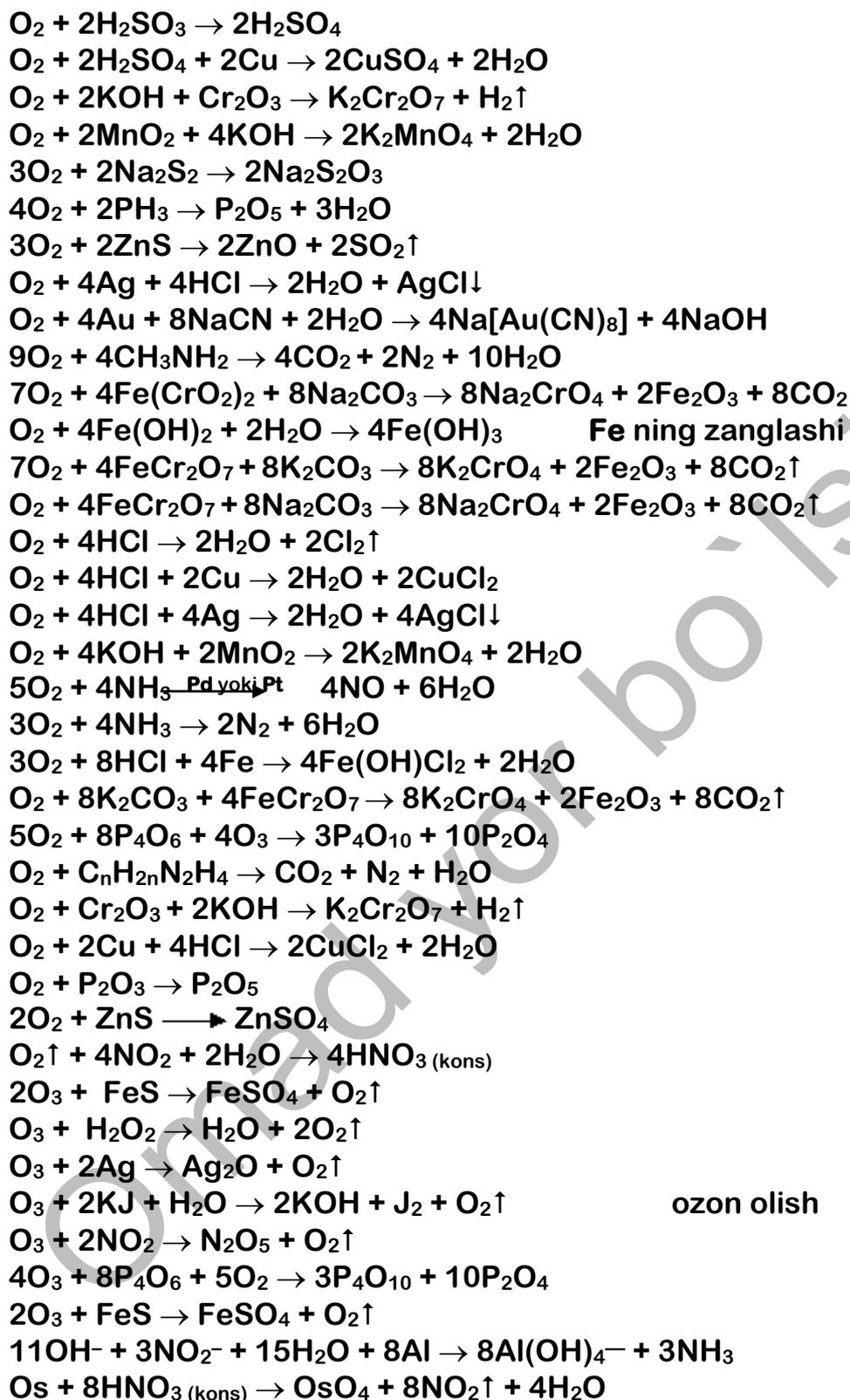




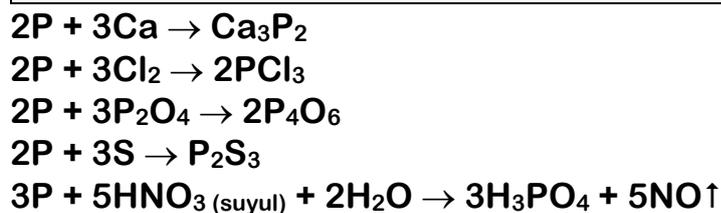


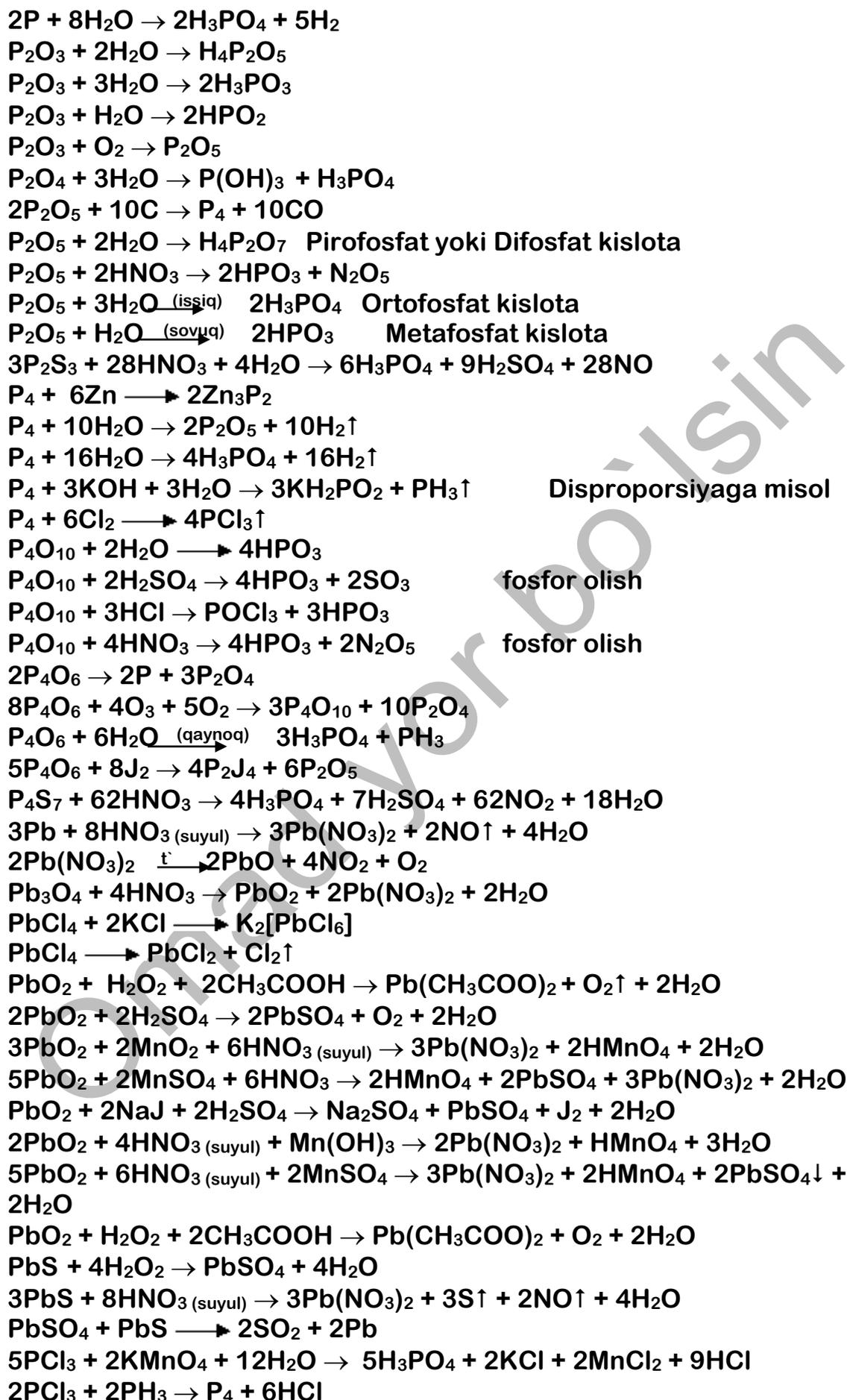


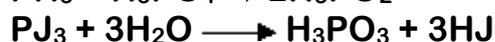
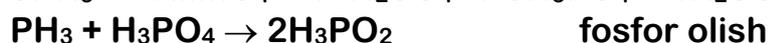
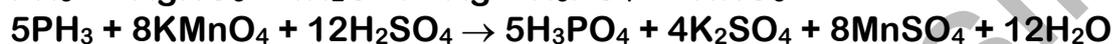
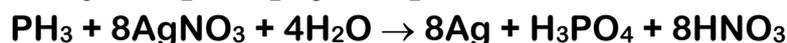
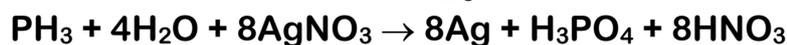
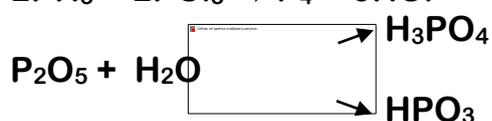
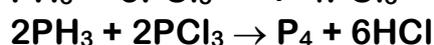
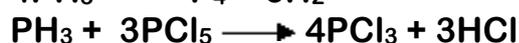
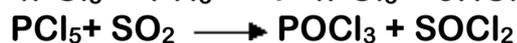




**P**

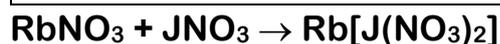




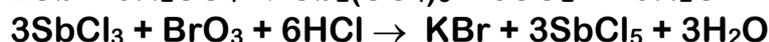
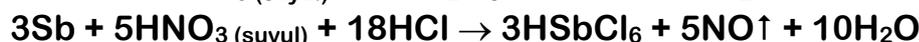
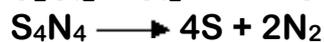
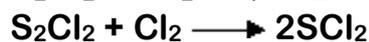
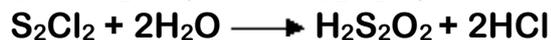
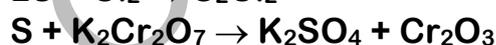
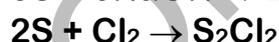
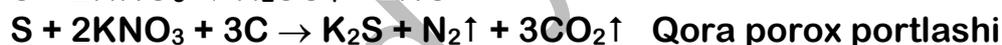
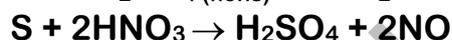


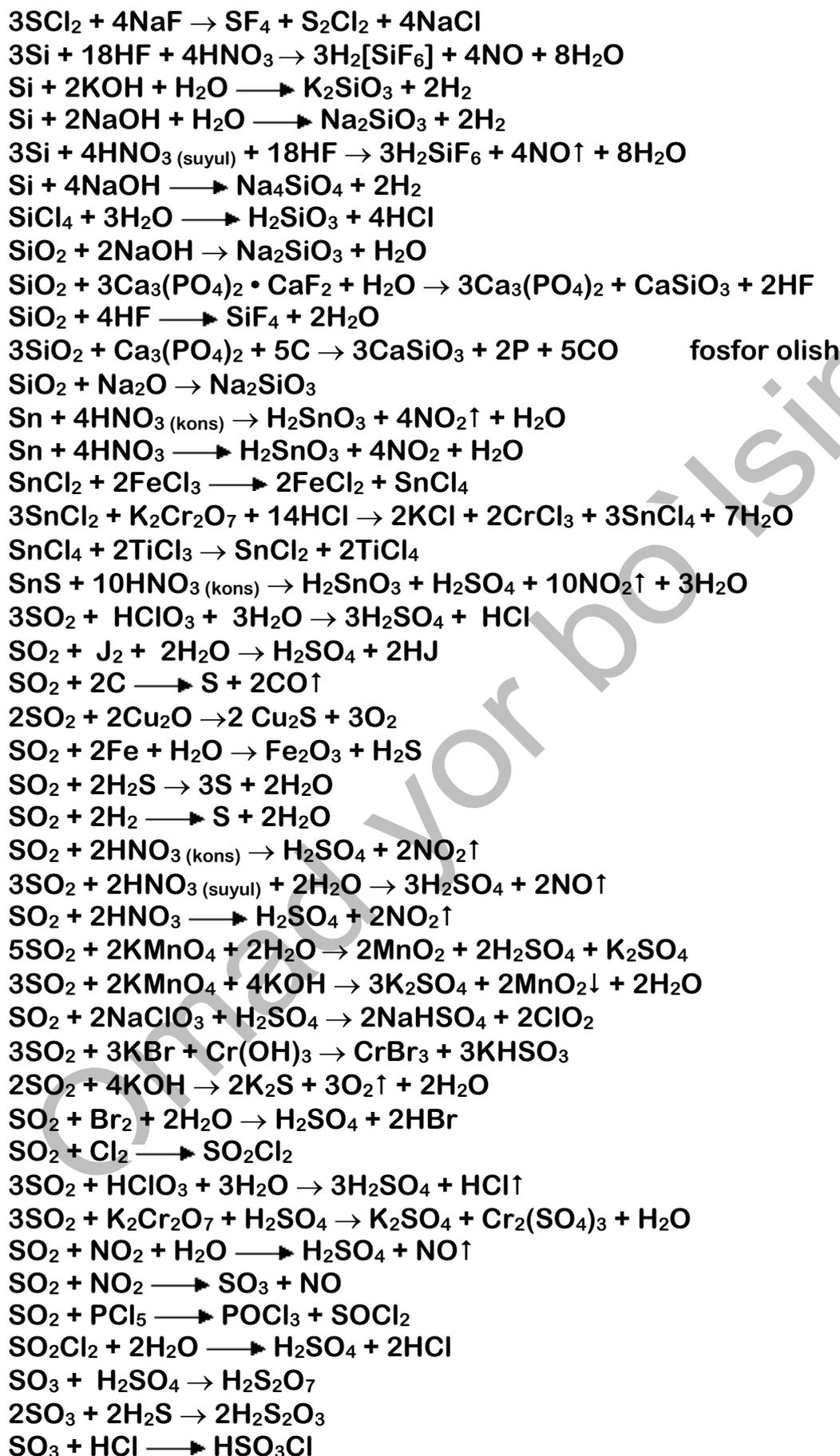
$\beta^+$

**R**

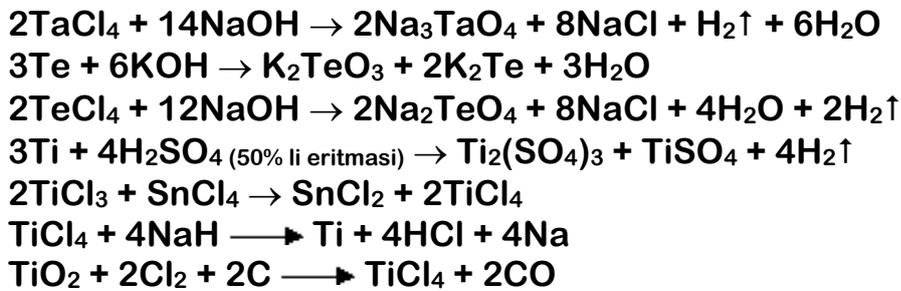


**S**

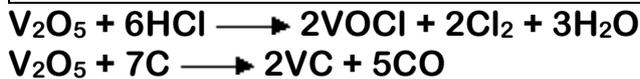




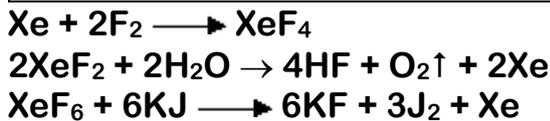
T



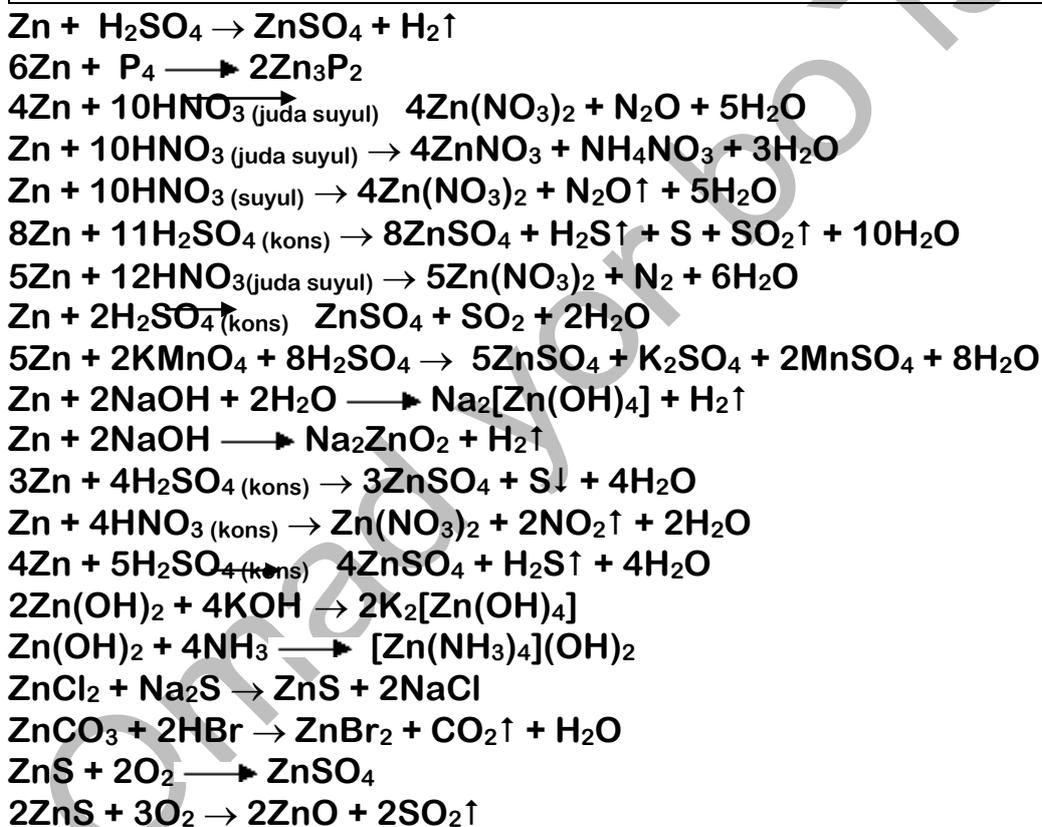
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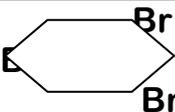


**X**



**Z**



Anilin $\xrightarrow{\text{HCl}}$ $\text{C}_2\text{H}_2\text{NH}_3\text{Cl}$ $\xrightarrow{\text{NaOH}}$ Anilin $\xrightarrow{\text{Br}_2, \text{H}_2\text{O}}$ 2,4,6 Trinitrobrom
$\text{Al}_2\text{O}_3 \xrightarrow{\text{H}_2\text{O}} \text{A} \xrightarrow{\text{Ar}} \text{B} \xrightarrow{\text{KOH}, \text{H}_2\text{O}} \text{C}$ $\text{CaCH}_3 \xrightarrow{\text{H}_2\text{O}} \text{X} \xrightarrow{\text{H}_2} \text{Y} \xrightarrow{[\text{O}]} \text{t}$ <div style="text-align: right; margin-right: 50px;"><b>X = Metilatsetat</b></div>
Anilin $\xrightarrow{\text{HCl}}$ X $\xrightarrow{\text{NaOH}}$ Y $\xrightarrow{\text{Br}_2}$ Z $\rightarrow$  $\text{NH}_3$
Al $\xrightarrow{\text{O}_2}$ $\text{Al}_2\text{O}_3$ $\xrightarrow{\text{HCl}}$ $\text{AlCl}_3$ $\xrightarrow{\text{NaOH}}$ $\text{Al}(\text{OH})_3$ $\xrightarrow{\text{HNO}_3}$ $\text{Al}(\text{NO}_3)_3$
Butanol $\xrightarrow[\text{H}_2\text{SO}_4]{140^\circ}$ Buten-2 $\xrightarrow[\text{H}_2\text{SO}_4]{\text{H}_2\text{O}}$ Prapanol-2 $\xrightarrow{\text{CH}_3\text{COOH}}$ 2

<b>Metilatsetat</b>		
Butanol -1	$\xrightarrow{H_2SO_4, 140^\circ}$	Buten -1 $\rightarrow H_2O + H_2SO_4$ Butanol -2 $CH_3COOH$
<b>Izobutilatsetat</b>		
Butan	$\xrightarrow{Br_2, h\nu}$ A $\xrightarrow{KOH + SPIRT}$ B (POLIMER)	X $[-CH(CH_3)CH(CH_3)-]_n$
Buten -2	$\xrightarrow{Br_2}$ A $\xrightarrow{t^+C (KOH + SPIRT)}$	X Butin -2
Boksid	$\rightarrow$ Eritma	III Cho'kma III $Al_2O_3$ I $CO_2$ oqish; II qizg'ish; III (KOH)NaOH $H^+O^C$
Izobutan	$\xrightarrow{HBr}$	2 Metil 1- Br Propan Na 2,5 Dimetilgeksan
Izobutil Spirt	$\xrightarrow{HBr}$	2 Metil 1- Br Propan Na 2,5 Dimetilgeptan
Izobutan	$\xrightarrow{Br_2, h\nu}$ A $\xrightarrow{KOH + SPIRT}$ B (POLIMER)	X $[-C(CH_3)_2-CH_2-]_n$
Izopentan	$\xrightarrow{Br_2, h\nu}$ X $\xrightarrow{KOH + SPIRT}$ Y $\xrightarrow{PIROLIZ}$ Z	Z $[-C(CH_3)_2C(CH_3)_2-]_n$
K $\xrightarrow{O_2}$	$\rightarrow K_2O \xrightarrow{H_2O} KOH \xrightarrow{CuCl_2} Cu(OH)_2 \xrightarrow{t^+} CuO + H_2O$	
K $\xrightarrow{O_2}$	$\rightarrow K_2O \xrightarrow{H_2O} KOH \xrightarrow{SO_2} KHSO_3 \rightarrow KOH \xrightarrow{K_2CO_3} HBr \xrightarrow{KCl}$	
Kraxmat	$\xrightarrow{H_2O}$	Propan kislota + Sirka anhidrid $CH_4; C_2H_6$
K	$\xrightarrow{H_2O} KOH \xrightarrow{CO_2} K_2CO_3 \xrightarrow{BaCl_2} KCl \xrightarrow{AgNO_3} KNO_3$	
Kraxmat	$\xrightarrow{H_2O}$ X <sub>1</sub> $\xrightarrow{Bijg'ish}$ X <sub>2</sub> $\xrightarrow{t^+} 140^\circ C$	A Dimetilefir
K $\xrightarrow{O_2}$	A $\xrightarrow{H_2O}$ B $\xrightarrow{CuOH_2}$ C $\xrightarrow{t^+}$	$CuOH + H_2O$
Propanol -1		Propanol $\rightarrow$ 2 Xlorpropan
Propil spirt	$\xrightarrow{[O]}$ Propanol $\xrightarrow{Ag_2O}$	Propan kislota $CH_3-CH_2-C(=O)-OH$
Propil benzoil	$\xrightarrow{KMnO_4} C_6H_5COOH \xrightarrow{C_6H_5COOH} C_6H_5COOC_2H_5$	
Pentanol -1	$\xrightarrow{H_2SO_4, 130^\circ}$ M <sub>1</sub> $\xrightarrow{2HBr}$ M <sub>2</sub> $\xrightarrow{3Na}$ M <sub>3</sub>	M <sub>3</sub> 1,5 Dimetilgeksan
Propin -2	$\xrightarrow{H_2O}$ X <sub>1</sub> $\xrightarrow{H_2O}$ X <sub>2</sub> $\rightarrow$	A Atseton
Zn	$\xrightarrow{+H_2SO_4} ZnSO_4 \xrightarrow{+NaOH} Zn(OH)_2 + NaOH \xrightarrow{Cu(OH)_2} Na_2ZnO_2$	
(CH <sub>3</sub> ) <sub>2</sub> CH-CH <sub>2</sub> -J	$\xrightarrow{KOH}$	2 Metilpropilen $\xrightarrow{HBr}$ 2 Br 2 Metilpropan
C <sub>2</sub> H <sub>6</sub>	$\xrightarrow{Br_2}$ CH <sub>2</sub> -CH <sub>2</sub> Br $\xrightarrow{KOH, H_2O}$	CH <sub>3</sub> CH <sub>2</sub> OH Etilatsetat
CH <sub>4</sub>	$\xrightarrow{t^+} C_2H_4 \xrightarrow{H_2O} CH_3-C(=O)-H$ [O] $CH_3-C(=O)-OH$ Br <sub>2</sub> $CH_3(CH_2)COOH$	NH <sub>3</sub> CH <sub>3</sub> COOH
C <sub>6</sub> H <sub>6</sub>	$\xrightarrow{Cl_2, h\nu} C_6H_5Cl \xrightarrow{KOH} C_2H_4 \xrightarrow{KOH, H_2SO_4} C_2H_5OH \xrightarrow{Zn, NaOH} -CH_2=CH_2$	H <sub>2</sub> O Hg CH <sub>3</sub> -C-H
C <sub>2</sub> H <sub>6</sub>	$\xrightarrow{Br_2} C_2H_5Br \xrightarrow{NaOH} C_2H_5OH \xrightarrow{H_2O, H_2SO_4} (C_2H_5)_2O$	
CH <sub>3</sub> -CH <sub>3</sub>	$\xrightarrow{Br_2} CHBr-CHBr \xrightarrow{+H_2O, +H_2O} CH_3-CH_2OH$ [O] $CH_3-C(=O)-H + H_2O$ Ag <sub>2</sub> O $CH_3-CH_2-C(=O)-OH$	
C <sub>3</sub> H <sub>6</sub> + Cl <sub>2</sub>	$\xrightarrow{500-6500^\circ} -H$ 3 Xlorpenten B Geksadiyen 1,5	
C <sub>n</sub> H <sub>2n+2</sub>	$\rightarrow$ X <sub>1</sub> $\rightarrow CH\equiv CH \xrightarrow{H_2, H_2O} X_2 \rightarrow$ Atsetildegid X <sub>3</sub> $\rightarrow C_2H_5OH$ [O] X <sub>4</sub> CH <sub>3</sub> OH X <sub>5</sub> $\rightarrow$ Etan kislota	
C <sub>2</sub> H <sub>4</sub> O	$\xrightarrow{H, Ni} X_1 \xrightarrow{H_2SO_4 (suyul), 140^\circ C} X_2 \xrightarrow{HBr} X_3 \xrightarrow{Na} X_4 \xrightarrow{Pt (katalizator)} X_5 \rightarrow$	$CH_2=CH-CH=CH_2$
CH <sub>3</sub> CH <sub>2</sub> COOH	$\xrightarrow{Br_2} \dots \xrightarrow{NaOH, H_2O} \dots \xrightarrow{CH_2OH-H} X$	$\rightarrow$ Sut kislota metil efiri
CH <sub>3</sub> CH <sub>2</sub> COOH	$\xrightarrow{Br_2} \dots \xrightarrow{NaOH} \dots \xrightarrow{H_2O} X$	$\rightarrow$ Sut kislota

$\text{CH}_3\text{CH}_2\text{COOH} \xrightarrow{\text{Br}_2} \dots \xrightarrow{\text{NaOH}} \dots \xrightarrow{\text{HBr}} \dots \xrightarrow{\text{NH}_3} \text{X} \rightarrow \text{Anilin}$
$\text{CH}_3\text{COONa} \xrightarrow{\text{NaOH}} \text{X}_1 \xrightarrow{1500^\circ\text{C}} \text{X}_2 \xrightarrow{\text{Ti (katalizator)}} \text{X}_3 \xrightarrow{\text{CH}_3, \text{AlCl}_3} \text{X}_4 \xrightarrow{\text{HNO}_3} \text{X}_5 \rightarrow \text{Trinitrotoluol}$
$\text{CO} + 2\text{H}_2 \xrightarrow{\text{Pb (katalizator)}} \text{X}_1 \xrightarrow{\text{HCl}} \text{X}_2 \xrightarrow{\text{Ni}} \text{X}_3 \xrightarrow{\text{Cl}_2} \text{X}_4 \xrightarrow{\text{NaOH, H}_2\text{O}} \text{X}_5 \rightarrow \text{Etanol}$
$\text{C}_2\text{H}_4 \xrightarrow{\text{HCl}} \text{X} \rightarrow \text{Xloretan} \xrightarrow{\text{H}_2\text{O, KOH}} \text{C}_2\text{H}_5\text{OH} \xrightarrow{\text{H}_2\text{SO}_4} \text{Y} \xrightarrow{\text{H}_2\text{O}} \text{Z} \rightarrow \text{Etanol}$
$\text{CH}_4 \xrightarrow{\text{Br}_2} \text{X}_1 \xrightarrow{\text{Na}} \text{X}_2 \xrightarrow{\text{Br}_2} \text{X}_3 \xrightarrow{\text{NaOH}} \text{H}_2 \xrightarrow{\text{X}_4} \text{CuO} \rightarrow \text{A} \rightarrow \text{CH}_3\text{—}\overset{\text{O}}{\parallel}\text{C—H}$
$\text{CH}_4 \xrightarrow{\text{t}} \text{X}_1 \xrightarrow{\text{H}_2\text{O}} \text{X}_2 \xrightarrow{[\text{O}]} \text{X}_3 \xrightarrow{\text{Cl}_2} \text{X}_4 \xrightarrow{\text{NH}_3} \text{A} \rightarrow \text{Dirol}$
$\text{C}_2\text{H}_2 \xrightarrow{\text{H}_2\text{O}} \text{CH}_3\text{COH} \xrightarrow{\text{H}_2} \text{C}_2\text{H}_5\text{OH} \xrightarrow{\text{HBr}} \text{C}_2\text{H}_7\text{Br}$
$(\text{CH}_3)_2\text{CHCH}_3 + \text{Zn} \xrightarrow{\text{KOH, P}} \text{X} \xrightarrow{\text{HBr}} \text{Y} \rightarrow \text{Uchlamchi butil amid}$
$\text{C}_3\text{H}_8 \times 2,3 \text{ Dimetil buten reagent } 3)\text{Br } 4)h\nu 5)(\text{NO})$
$\text{C}_2\text{H}_2 \xrightarrow{\text{H}_2\text{O, Hg}} \text{A} \xrightarrow{\text{H}_2} \text{B} \xrightarrow{\text{Na}} \text{C} \rightarrow \text{Na etilat}$
$\text{C—C}_2\text{H}_2 \xrightarrow{\text{H}_2} \text{A} \xrightarrow{\text{H}_2\text{O, KMnO}_4} \text{B} \xrightarrow{[\text{O}]} \text{E} \rightarrow \begin{matrix} \text{COOH} \\   \\ \text{COOH} \end{matrix}$
$\text{CH}_2\text{CH}_2\text{CH}_3 \xrightarrow{\text{HNO}_3} \text{X} \xrightarrow{\text{Qaytarilish}} \text{Y} \rightarrow \text{Aminopropan}$
$\text{Ca} \xrightarrow{\text{H}_2} \text{CaH}_2 \xrightarrow{\text{H}_2\text{O, SPIRT}} \text{Ca(OH)}_2 \xrightarrow{\text{CO}_2} \text{CaCO}_3 \xrightarrow{\text{H}_2\text{CO}_3} \text{Ca(HCO}_3)_2$
$\text{X} \xrightarrow{\text{H}_2\text{O, KOH}} \dots \xrightarrow{\text{KCl, Na}} \text{Buten} \quad \text{X} \rightarrow \text{Etanol}$
$\text{X} + \text{NaOH} \longrightarrow (\text{CH}_3\text{—CH}_2)_2\text{CHCH}_3 + \text{Na}_2\text{CO}_3$ $\text{X} = (\text{CH}_3\text{CH}_2)_2\text{CHCH}_2\text{COONa, CH}_3\text{—CH}_2\text{—CH(CH}_3\text{)CH}_2\text{COONa, (CH}_2\text{—CH}_2\text{)CHCH}_2\text{—COOH}$
$\text{X} \xrightarrow{2\text{HCl}} \text{Y} \xrightarrow{\text{NaOH, H}_2\text{O}} \text{Metil izobutil keton} \quad \text{X} - 4 \text{ metil } 1 \text{ pentan}$
$\text{Siklopropan} \xrightarrow{\text{HBr}} \begin{matrix} \text{Br} \\   \\ \text{C—C—C} \\   \quad   \quad   \\ \text{Na} \quad \text{C}_6\text{H}_{14} \text{ (Geksan)} \end{matrix}$
$\text{Siklopropan} \xrightarrow{\text{Br}_2} \begin{matrix} \text{Br} & & \text{Br} \\   & &   \\ \text{C—C—C} \\   & &   \\ \text{OH} & & \text{OH} \end{matrix} \xrightarrow{\text{KOH (H}_2\text{O)}} \begin{matrix} \text{C—C—C} \\   \quad   \quad   \\ \text{OH} \quad \text{OH} \end{matrix}$
$\text{Siklogeksan} \xrightarrow{\text{H}_2} \text{C}_6\text{H}_6 \xrightarrow{\text{Cl}_2} \text{C}_6\text{H}_5\text{Cl} \xrightarrow{\text{KOH}} \text{C}_6\text{H}_5\text{OH} \xrightarrow{\text{CH}_3\text{Cl}} \text{C}_6\text{H}_5\text{CH}_3 \xrightarrow{[\text{O}]} \text{C}_6\text{H}_5\text{COOH}$
$\text{Selluloza} \xrightarrow{\text{H}_2\text{O} + \text{H}_2\text{SO}_4} \text{Glyukoza} \xrightarrow{(\text{CH}_3\text{CO})_2\text{O}} \text{Glyukozaning } 5\text{a}'\text{zoli sirka efiri}$
<b>Siklobutan + HBr + O<sub>2</sub> + Br<sub>2</sub> bilan reaksiyaga kirishadi !!!</b>
$1,3 \text{ dixlorbutan} \xrightarrow{\text{Zn}} \text{A metiksiklopropan} \xrightarrow{\text{HBr}} \text{B } 2\text{-brombutan} \xrightarrow{\text{KOH}} \text{C butanol -2}$
$1 \text{ brom } 2\text{metilbutan} \xrightarrow{\text{KOH}} \text{SPIRT} \rightarrow \text{X}_1 \xrightarrow{\text{HBr}} \text{X}_2 \xrightarrow{\text{KOH} + \text{SPIRT}} \text{X}_3 \xrightarrow{\text{HCl, H}_2\text{O}} \text{X}_4 \xrightarrow{\text{Na}} \text{X}_5 \rightarrow 2,3,4,5 \text{ tetrametilgeptan}$
$2 \text{ metilpropan kislota} \xrightarrow{\text{Br}_2} \dots \xrightarrow{\text{NaOH(O)}} \dots \xrightarrow{\text{CH}_3\text{OH}} \text{Metilmetakrilat}$
$\begin{matrix} \text{CH}_2 \\ / \quad \backslash \\ \text{H}_2\text{C} \quad \text{CH}_2 \end{matrix} \xrightarrow{\text{Br}_2, h\nu} \text{X} \xrightarrow{\text{Na}} \text{Y izopropilen bromid} \xrightarrow{\text{Na}} \text{Z} \rightarrow 2,3$
$\begin{matrix} \text{CH}_2 \\ / \quad \backslash \\ \text{H}_2\text{C} \quad \text{CH}_2 \end{matrix} \xrightarrow{\text{Br}_2} \text{X} \xrightarrow{\text{KOH, H}_2\text{O}} \text{Y propandiol } 1,3$
$\begin{matrix} \text{CH}_2 \\ / \quad \backslash \\ \text{H}_2\text{C} \quad \text{CH}_2 \end{matrix} \xrightarrow{\text{H}_2} \text{X}_1 \xrightarrow{\text{Cl}_2} \text{X}_2 \xrightarrow{\text{CH}_3\text{Cl, Na}} \text{X}_3 \xrightarrow{[\text{O}]} \text{A}$ Benzoyl kislota

$\begin{array}{c} \text{H}_2\text{C} \quad \text{CH}_2 \\   \quad   \\ \text{CH}_2 \end{array}$	
Etanol	$\xrightarrow{\text{H}_2 \text{ (katalizator)}}$ Etanol $\xrightarrow{\text{HCl}}$ Etilklor $\xrightarrow{\text{Na}}$ Butan
Etanol	$\xrightarrow{\text{H}_2\text{N}}$ X <sub>1</sub> $\xrightarrow{\text{H}_2\text{SO}_4}$ KOH $\xrightarrow{\text{X}_2}$ HBr $\xrightarrow{\text{X}_3}$ Na $\xrightarrow{\text{X}_4}$ Al (katalizator) X <sub>5</sub> Butadiyen 1,3
Etan	$\xrightarrow{\text{Cl}_2 \text{ } h\nu}$ X $\xrightarrow{\text{KOH} + \text{SPIRT}}$ Y $\xrightarrow{\text{H}_2\text{O}}$ H <sub>2</sub> SO <sub>4</sub> $\xrightarrow{\text{Z}}$ J <sub>2</sub> $\xrightarrow{\text{NaOH t'}}$ Q Yodoform
$\begin{array}{c} \text{C} \\ / \quad \backslash \\ \text{CH}_3\text{CH}(\text{OH})\text{CH}_2\text{CH}_2\text{OH} \end{array}$	$\xrightarrow{\text{Br}_2}$ 1,4-Dibrombutan <span style="float: right;">NaOH</span>
$\begin{array}{c} \text{C} \quad \text{C}-\text{CH}_3 \\   \quad   \\ \text{C} \quad \text{C} \\   \quad   \\ \text{H}_2\text{O} \quad \text{C} \end{array}$	$\xrightarrow{\text{Br}_2}$ $\begin{array}{c} \text{C}-\text{C}-\text{C} \\   \quad   \\ \text{Br} \quad \text{Br} \end{array}$ $\xrightarrow{\text{KOH} + \text{SPIRT}}$ C = C - C = C + 2KBr +
$\begin{array}{c} \text{C} \quad \text{C} \\   \quad   \\ \text{CH}-\text{CH}_2 \end{array})_n$	$\xrightarrow{\text{Br}_2}$ A $\xrightarrow{\text{KOH} + \text{SPIRT}}$ B polimer C = (-CH <sub>2</sub> -CH-
$\begin{array}{c} \text{C} \quad \text{C} \\   \quad   \\ \text{C} \quad \text{C} \\   \quad   \\ \text{C} \quad \text{C} \end{array}$	$\xrightarrow{\text{Br}_2}$ X $\begin{array}{c} \text{C} \\   \\ \text{Br} \end{array}$ $\begin{array}{c} \text{C} \\   \\ \text{Br} \end{array}$
$\begin{array}{c} \text{C} \quad \text{C} \\   \quad   \\ \text{C} \quad \text{C} \\   \quad   \\ \text{C} \quad \text{C} \end{array}$	$\xrightarrow{+ \text{X}}$ $\begin{array}{c} \text{Br} \\   \\ \text{C} \\   \\ \text{NO}_2 \end{array}$ $\begin{array}{c} \text{Br} \\   \\ \text{C} \\   \\ \text{NO}_2 \end{array}$ NO <sub>2</sub>
CaC <sub>2</sub>	$\xrightarrow{\text{H}_2\text{O}}$ C <sub>2</sub> H <sub>2</sub> $\xrightarrow{\text{H}_2\text{O}}$ H <sub>2</sub> SO <sub>4</sub> $\xrightarrow{\text{H}_2}$ CH <sub>3</sub> COOH $\xrightarrow{\text{Zn}}$ NaOH $\xrightarrow{\text{NaOH}}$ Trinitro anilin
Ca	$\xrightarrow{\text{H}_2}$ CaH <sub>2</sub> $\xrightarrow{\text{H}_2\text{O}}$ Ca(OH) <sub>2</sub> $\xrightarrow{\text{CO}_2}$ CaCO <sub>3</sub> $\xrightarrow{\text{CO}_2; \text{H}_2\text{O}}$ Ca(HCO <sub>3</sub> ) <sub>2</sub>
CaCl <sub>2</sub>	$\xrightarrow{\text{Na}_2\text{CO}_3}$ CaCO <sub>3</sub> $\xrightarrow{\text{t'}}$ CaO $\xrightarrow{\text{H}_2\text{O}}$ Ca(OH) <sub>2</sub> $\xrightarrow{\text{CO}_2}$ CaCO <sub>3</sub> $\xrightarrow{\text{H}_2\text{O}; \text{CO}_2}$ Ca(HCO <sub>3</sub> ) <sub>2</sub>
CH <sub>3</sub> COOH	$\xrightarrow{\text{H}_2 \text{ (katalizator)}}$ X <sub>1</sub> $\xrightarrow{\text{H}_2\text{SO}_4 < 140^\circ\text{C}}$ X <sub>2</sub> $\xrightarrow{\text{HCl}}$ X <sub>3</sub> $\xrightarrow{\text{Na}}$ X <sub>4</sub> $\xrightarrow{\text{t' AlCl}_3}$ Buten - 1
Fe	$\xrightarrow{\text{CuSO}_4}$ FeSO <sub>4</sub> $\xrightarrow{\text{NaOH}}$ Fe(OH) <sub>2</sub> $\xrightarrow{\text{H}_2\text{O}}$ Fe(OH) <sub>2</sub> $\xrightarrow{\text{HCl}}$ FeCl <sub>3</sub>
Fe <sub>3</sub> O <sub>4</sub>	$\xrightarrow{\text{CO}}$ Fe $\xrightarrow{\text{HCl}}$ FeCl <sub>2</sub> $\xrightarrow{\text{NaOH}}$ Fe(OH) <sub>2</sub> $\xrightarrow{\text{H}_2\text{O} + \text{O}_2}$ Fe(OH) <sub>3</sub>
Fe	$\xrightarrow{\text{Cl}_2}$ FeCl <sub>3</sub> $\xrightarrow{\text{NaOH}}$ Fe(OH) <sub>3</sub> $\xrightarrow{\text{t'}}$ Fe <sub>2</sub> O <sub>3</sub> $\xrightarrow{\text{H}_2\text{SO}_4}$ Fe <sub>2</sub> (SO <sub>4</sub> ) <sub>3</sub>
CH <sub>3</sub> -CH <sub>2</sub> -CH <sub>2</sub>	$\xrightarrow{\text{H}_2\text{O}}$ A $\xrightarrow{\text{O}_2}$ B Atseton + C Vodorod
C <sub>2</sub> H <sub>2</sub>	$\xrightarrow{\text{HCl}}$ X <sub>1</sub> $\xrightarrow{\text{Na}}$ X <sub>2</sub> $\xrightarrow{\text{AlCl}_3}$ X <sub>3</sub> $\xrightarrow{\text{Ni}}$ X <sub>4</sub> $\xrightarrow{\text{HBr}}$ X <sub>5</sub> $\rightarrow$ 2 Br 2 metilpropan
CH <sub>3</sub> CH <sub>2</sub> OH	$\xrightarrow{\text{H}_2 \text{ (katalizator)}}$ X <sub>1</sub> $\xrightarrow{\text{H}_2\text{SO}_4 < 140^\circ\text{C}}$ X <sub>2</sub> $\xrightarrow{\text{HCl}}$ X <sub>3</sub> $\xrightarrow{\text{Na}}$ X <sub>4</sub> $\xrightarrow{\text{AlCl}_3}$ X <sub>5</sub> Izobutan
C + H <sub>2</sub>	$\xrightarrow{\text{Pt (katalizator)}}$ X <sub>1</sub> $\xrightarrow{\text{Cl}_2 \text{ } h\nu}$ X <sub>2</sub> $\xrightarrow{\text{H}_2\text{O}}$ NaOH $\xrightarrow{\text{X}_3}$ HBr $\xrightarrow{\text{X}_4}$ Na $\xrightarrow{\text{X}_5}$ Etan
CH <sub>3</sub> CH(CH <sub>3</sub> )CH <sub>2</sub> COONa	$\xrightarrow{\text{NaOH}}$ X <sub>1</sub> $\xrightarrow{\text{Cl}_2 \text{ } h\nu}$ X <sub>2</sub> $\xrightarrow{\text{KOH} + \text{SPIRT}}$ X <sub>3</sub> $\xrightarrow{\text{HBr}}$ X <sub>4</sub> $\xrightarrow{\text{NaOH H}_2\text{O}}$ X <sub>5</sub> 2 metilpropanol

$C_2H_2 \xrightarrow{N_2H_2} HCN \xrightarrow{H_2} NH_4CN \xrightarrow{NH_3} Ca(NH_2)_2 \xrightarrow{O_2} NH_4CNO \xrightarrow{t} O_2$
$CH_3CH_2CH \xrightarrow{HNO_3} X \xrightarrow{\text{Qaytanuvchi}} Y \rightarrow 2 \text{ Metilpropan aminopropan}$
$CH_4 \xrightarrow{1500^\circ C} X_1 \xrightarrow{Al(\text{katalizator})} X_2 \xrightarrow{Cl_2} X_3 \xrightarrow{[O]} X_4 \xrightarrow{[O]} X_5 \xrightarrow{[O]} X_6$
$C_2H_6 \xrightarrow{Br_2} X_1 \xrightarrow{H_2O} X_2 \xrightarrow{[O]} X_3 \xrightarrow{Ag_2O(NH_3)} A \rightarrow \text{Karbon kislota}$
$C_2H_6 \xrightarrow{Br_2} C_2H_5Br \xrightarrow{NaOH} C_2H_5OH \xrightarrow{H_2SO_4(\text{katalizator})} (C_2H_5)_2C$
$CH_3COOH \xrightarrow{Na} CH_2(Na)-COOH \xrightarrow{NH_3} CH_2NH_2COOH$
$CH_4 \xrightarrow{\text{Piroliz}} CH \equiv CH \xrightarrow{H_2O} CH_2 = \overset{O}{\underset{  }{C}} - H \xrightarrow{[O]} CH_3COOH \xrightarrow{Cl_2} CH_2Cl-COOH$ $NH_3 \rightarrow CH_2NH_2COOH$
$CH_3-CH_2-CH_3 \xrightarrow{Br_2} 2 \text{ Metil brombutan} \xrightarrow{NaOH, H_2O} 2 \text{ Metil butanol 2}$
$C_6H_6 \xrightarrow{Br_2} C_2H_5Br \xrightarrow{H_2O} C_2H_5OH \xrightarrow{[O]} CH_3COH \xrightarrow{Ag_2O, NH_3} CH_3COOH$
$C \xrightarrow{H_2} C_2H_2 \xrightarrow{H_2} C_2H_4 \xrightarrow{H_2, KMnO_4} C_2H_4(OH)_2 \xrightarrow{[O]} C_2H_2O_4$
$CH_4 \xrightarrow{1500^\circ C} C_2H_2 \xrightarrow{C} C_6H_6 \xrightarrow{Cl_2} C_6H_5Cl \xrightarrow{H_2O} C_6H_5OH$
$CH_4 \xrightarrow{[O]} CH_3OH \xrightarrow{[O]} H - \overset{O}{\underset{  }{C}} - H$
$C_2H_4 \xrightarrow{HCl} C_2H_5Cl \xrightarrow{H_2O, KOH} C_2H_5OH \xrightarrow{H_2SO_4} C_2H_4 \xrightarrow{H_2O} C_2H_5O$
$C_2H_2 \xrightarrow{CH_3-COH} \begin{cases} CH_3CH_2-OH \\ CH_3CH_2-OH \end{cases} \text{ Etilatsetat}$
$C_2H_2 \xrightarrow{H_2O} CH_3COH \xrightarrow{H_2} C_2H_5OH \xrightarrow{HBr} C_2H_5Br$
$CH_2-C(CH_3)_3 \xrightarrow{KMnO_4} C_6H_5COOH \xrightarrow{\text{Propanol}} \text{Izopropilbenzol}$
$Mg_3N_2 \xrightarrow{D_2O} X \xrightarrow{D_2SO_4} Y = 210g$
$\text{Maltoza} \xrightarrow{I, H_2O, OH} \text{Glyukoza} \xrightarrow{II, Ag(NH_2)OH} \text{Gkyukon kislota}$
$\text{Nitrobenzol} \xrightarrow{(NH_4)_2S} \text{Anilin} \xrightarrow{HBr} \text{Fenil ammoniy}$
$Na_2O \xrightarrow{H_2O} NaOH \xrightarrow{CO_2} NaHCO_3 \xrightarrow{NaOH} Na_2CO_3 \xrightarrow{HNO_3} NaNO_3 \xrightarrow{t} NaNO_2$
$N_2 \xrightarrow{H_2} NH_3 \xrightarrow{HCl} NH_4Cl \xrightarrow{Ag_2SO_4} (NH_4)_2SO_4 \xrightarrow{NaOH} NH_3 \xrightarrow{O_2} N_2$
$H - \text{Butil bromid} \xrightarrow{KOH + SPIRT} \text{Butanol} \xrightarrow{+ HBr} CuHgOBr$
$HCl + KOH + K_2Cr_2O_7 \rightarrow X + KCl + H_2O + Cl_2 \quad X + KOH + Y + Cr(OH)_3$
$\text{Butan bromit} \xrightarrow{KOH + SPIRT} X_1 \rightarrow X_2 \rightarrow X_3 \rightarrow X_4 \quad X_5 \text{ 2 Metilpropan}$
$H - \text{Butan bromit} \xrightarrow{KOH + SPIRT} X \text{ Buten-1} \xrightarrow{HBr} 25g \text{ Butan}$
$\text{Vinilpropionat} \xrightarrow{H_2O} \text{Propan kislota} + \text{Sirka anhidrid} \quad CH_4; C_2H_6$
$\text{Vinilatsetat} \xrightarrow{H_2O} \text{Sirka kislota} + \text{Sirka anhidrid} \xrightarrow{Ag_2O} \text{Etilatsetat} + H_2O$
$\text{Vinilatsetat} \xrightarrow{H_2O} CH_3COOH + CH_3-COH \xrightarrow{BaCl_2} CH_3COOH \xrightarrow{Ag_2O} CH_4$
$\text{Vinilatsetat} \xrightarrow{H_2O} CH_3COOH + CH_3-COH \xrightarrow{Ag_2O} CH_3COOH \xrightarrow{C_2H_5OH} CH_3-CH_3 \xrightarrow{Br_2} CH_3-CH_2Br \xrightarrow{NaOH} CH_3CH_2OH \xrightarrow{CH_3COOH} \text{Etilatsetat}$
$\text{Vinilatsetilen} \xrightarrow{H_2O} X + Y \xrightarrow{Ca(OH)_2, t^\circ C} Z \xrightarrow{NaOH, t^\circ C} \text{Metan}$
$D_2O \xrightarrow{CaC_2} X \xrightarrow{D_2O, D_2SO_4} Y \xrightarrow{H_2} Z = 67,5$
$D_2O \xrightarrow{Na} X \xrightarrow{\text{Benzol}} Y = 421,5$
$Z \xrightarrow{H_2SO_4} H \xrightarrow{NaOH} X \text{ Natriy zinkat}$
$\text{Etanal} \xrightarrow{H_2(Ni)} X_1 \xrightarrow{t^\circ > 140^\circ (H_2SO_4)} X_2 \xrightarrow{HBr} X_3 + Na \quad X_4 \text{ Butan}$
$\text{Propan} \xrightarrow{Cl_2, hv} A \xrightarrow{H_2O, KOH} B \xrightarrow{(H_2SO_4), t^\circ > 140^\circ C} C \xrightarrow{HCl} D \text{ Na} \quad E \text{ 2,3 dimetil butan}$

$\text{CH}_4 \xrightarrow{1500^\circ\text{C}} \text{X}_1 \xrightarrow{\text{HOH, Hg}^{2+}} \text{X}_2 \xrightarrow{[\text{O}]} \text{X}_3 \xrightarrow{\text{Cl}_2} \text{X}_4 \xrightarrow{\text{NH}_3} \text{X}_5$	Aminosirka kislota
Eten $\xrightarrow{\text{KMnO}_4 / \text{H}_2\text{O}} \text{A} \xrightarrow{\text{HCl}} \text{B} \xrightarrow{\text{HCl}} \text{C}$	A – etilenglikol, B – 2-xloretanol, C – 1,2 dixloretan
Izopentan $\xrightarrow{\text{Br}_2, h\nu} \text{X} \xrightarrow{\text{KOH}} \text{spirt} \xrightarrow{\text{Y}} \text{HBr} \text{ Z}$	2 brom 2 metil butan
$\text{CH}_3\text{CHCHCH}_3 \xrightarrow{\text{Br}_2} \text{A} \xrightarrow{\text{Zn}} \text{B} \xrightarrow{\text{HCl}} \text{C} \xrightarrow{\text{KOH/spirt}} \text{D}$	B – buten 2, D – buten 2
1,1 dimetilsiklopropan $\xrightarrow{+\text{H}_2} \text{A} \xrightarrow{+\text{Cl}_2} \text{B} \xrightarrow{+\text{Na}, +\text{CH}_3\text{Cl}} \text{C}$	A – dimetiletimetan, B – 2-metil 2-xlorbutan, C – 2,2 dimetilbutan
$\text{X}_1 \xrightarrow{1500^\circ\text{C}} \text{X}_2 \xrightarrow{450^\circ} \text{C}_6\text{H}_6$	$\text{X}_1$ – metan, $\text{X}_2$ – atsetilen,
$\text{CH}_2(\text{Br})\text{CH}(\text{Br})\text{CH}_2\text{CH}_3 \xrightarrow{\text{Zn}} \text{A} \xrightarrow{\text{HBr}} \text{B} \xrightarrow{\text{KOH/spirt}} \text{B}$	ikkilamchibutilbromid
$\text{C}_2\text{H}_4 \xrightarrow{\text{KMnO}_4 / \text{H}_2\text{O}} \text{A} \xrightarrow{\text{HCl}} \text{B} \xrightarrow{\text{HCl}} \text{C}$	A – $\text{CH}_2\text{OHCH}_2\text{OH}$ , B – $\text{CH}_2\text{OHCH}_2\text{Cl}$ C – $\text{CH}_2\text{ClCH}_2\text{Cl}$
2 brom 2,3,3 trimetilbutan $\xrightarrow{\text{KOH(sp)}} \text{X}_1 \xrightarrow{\text{HBr}} \text{X}_2 \xrightarrow{\text{Na}} \text{X}_3$	2,2,3,3,4,4,5,5 oktametilgeksan
$\text{CH}_3 - \text{CH}(\text{CH}_3) - \text{CH}_2 - \text{COONa} \xrightarrow{\text{NaOH, t}^\circ} \text{X}_1 \xrightarrow{\text{Br}_2} \text{X}_2 \xrightarrow{+\text{Na}} \text{A}$	2,2,3,3 tetrametil butan
$\text{CH}_3\text{COOH} \xrightarrow{\text{O}_2} \text{X} \xrightarrow{\text{NH}_3} \text{Y}$	glukol
1,3 dibromopropan $\xrightarrow{\text{Na}} \text{(1)A} \xrightarrow{\text{H}_2 / \text{Pt}} \text{(2)B} \xrightarrow{\text{Br}_2 / h\nu} \text{(3)C} \xrightarrow{\text{NaOH(sp)}} \text{(4)D} \xrightarrow{\text{HCl}} \text{(5)E} \xrightarrow{\text{Na}} \text{(6)F}$	(4) – propen-1
Benzol $\xrightarrow{\text{HNO}_3 / \text{H}_2\text{SO}_4} \text{X} \xrightarrow{\text{Fe} + \text{HCl (me'l)}} \text{Y} \xrightarrow{\text{NaOH}} \text{Z}$	X – nitrobenzol, Y – fenilammoniy xlorid, Z – anilin
1,4 dixlorbutan $\xrightarrow{\text{Zn}} \text{A} \xrightarrow{\text{Br}_2} \text{B} \xrightarrow{\text{KOH/sp}} \text{C}$	A – siklobutan, B – 1,4 dibrombutan, C – butadiyen 1,3
$\text{K} \xrightarrow{\text{H}_2\text{O}} \text{KOH} \xrightarrow{\text{HCl}} \text{X} \xrightarrow{\text{Y}} \text{Y} \xrightarrow{\text{KNO}_2} \text{X} - \text{KCl}, \text{Y} - \text{KNO}_3$	
1,6 dibromgeksan $\xrightarrow{2\text{Na}} \text{A} \xrightarrow{\text{Pd} / 300^\circ\text{C}} \text{B} \xrightarrow{\text{HNO}_3 / \text{H}_2\text{SO}_4} \text{C}$	A – siklogeksan, B – benzol, C – nitrobenzol
Izopentan $\xrightarrow{\text{Cl}_2, h\nu} \text{(1)A} \xrightarrow{\text{KOH/sp}} \text{(2)B} \xrightarrow{\text{Br}_2} \text{(3)C} \xrightarrow{\text{Zn}} \text{(4)D}$	t-magan ugv: (2) – 2 metil buten-2, (4) - 2 metil buten-2
$\text{Al}_2(\text{SO}_4)_3 \xrightarrow{\text{NaOH}} \text{X} \xrightarrow{\text{t}^\circ} \text{Y} \xrightarrow{\text{Na}} \text{NaOH}$	X – $\text{Al}(\text{OH})_3$ , Y – $\text{H}_2\text{O}$
$\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CH}_2 - \text{I} \xrightarrow{\text{KOH/spirt}} \text{A} \xrightarrow{\text{H}_2\text{O} / \text{H}_2\text{SO}_4} \text{B} \xrightarrow{\text{t}^\circ > 140^\circ} \text{C}, \text{H}_2\text{SO}_4$	A – buten-1, B – butanol-2, C – buten-2
$\text{CH}_4 \xrightarrow{1500^\circ\text{C}} \text{X}_1 \xrightarrow{\text{H}_2\text{O}} \text{X}_2 \xrightarrow{[\text{O}]} \text{X}_3 \xrightarrow{\text{Cl}_2} \text{X}_4 \xrightarrow{\text{NH}_3} \text{X}_5$	Glitsin
$\text{CaC}_2 \xrightarrow{2\text{H}_2\text{O}} \text{A} \xrightarrow{\text{C}, (450 - 500)} \text{B} \xrightarrow{\text{HNO}_3 / \text{H}_2\text{SO}_4} \text{C} \xrightarrow{(\text{NH}_4)_2\text{S}} \text{D} \xrightarrow{3\text{Br}_2} \text{E}$	2,4,6 tribromanilin
Buten-1 $\xrightarrow{\text{HBr}} \text{X}_1 \xrightarrow{\text{NaOH}(\text{H}_2\text{O})} \text{X}_2 \xrightarrow{\text{t}^\circ > 140^\circ} \text{X}_3$	Buten-2
1,3 dixloropropan $\xrightarrow{\text{Zn}} \text{A} \xrightarrow{\text{H}_2 / \text{Pt}} \text{B} \xrightarrow{\text{Cl}_2 / h\nu} \text{C} \xrightarrow{\text{KOH(sp)}} \text{D} \xrightarrow{\text{HBr}} \text{E} \xrightarrow{\text{Na}} \text{F}$	2,3 dimetilbutan
1,6 dibrom 2-metilgeksan $\xrightarrow{\text{Zn}} \text{A} \xrightarrow{\text{Pd} / 300^\circ} \text{B} \xrightarrow{\text{Br}_2} \text{C}$	A – metilsiklogeksan, B – metilbenzol, C – 2,4,6 bromtoluol

Omad yor bo'lsin

### 112 talik 8-betlik

112,1,110,3,108,5,106,7,104,9,102,11,100,13,98,15,96,17,94,19,92,21,90,23,88,25,86,27,84,29,82,31,80,33,78,35,76,37,74,39,72,41,70,43,68,45,66,47,64,49,62,51,60,53,58,55
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52,61,50,63,56,57,54,59,44,69,42,71,48,65,46,67,36,77,34,79,40,73,38,75,28,85,26,87,32,81,30,83,20,93,18,95,24,89,22,91,12,101,10,103,16,97,14,99,4,109,2,111,8,105,6,107
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### 112ta bet 4 betlik

112,1,110,3,108,5,106,7,104,9,102,11,100,13,98,15,96,17,94,19,92,21,90,23,88,25,86,27,84,29,82,31,80,33,78,35,76,37,74,39,72,41,70,43,68,45,66,47,64,49,62,51,60,53,58,55
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54,59,56,57,50,63,52,61,46,67,48,65,42,71,44,69,38,75,40,73,34,79,36,77,30,83,32,81,26,87,28,85,22,91,24,89,18,95,20,93,14,99,16,97,10,103,12,101,6,107,8,105,2,111,4,109
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