



Al' degidi

Mundarija

- **Molekulasining tuzilishi**
- **Izomeriyasi va nomlanishi**
- **Fizikaviy xossalari**
- **Olinishi**
- **Kimyoviy xossalari**
- **Qo'llanilishi**
- **Nazorat savollari**

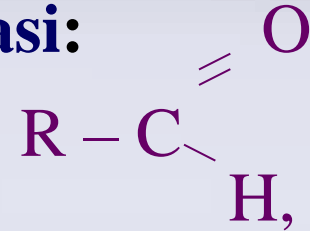


Al'degidlar – tarkibida

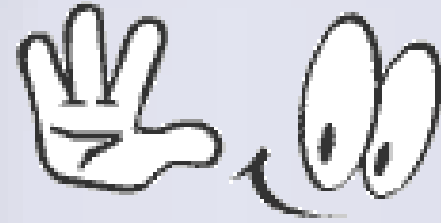
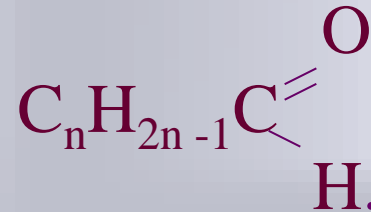


Funksional guruhini tutuvchi organik moddalardir.

Umumiy formulasi:

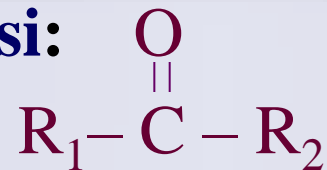


yoki to'yingan al'degidlar uchun –

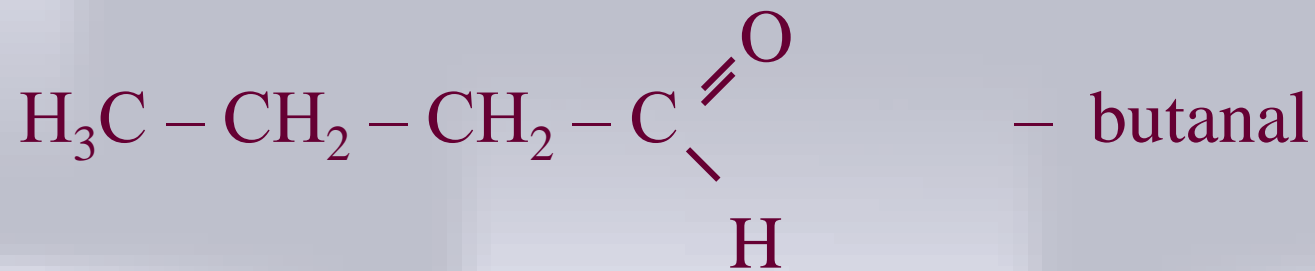


Tarkibida ikki uglerod bilan bog'langan karbonil guruhini tutuvchi organik moddalar ketonlar deb yuritiladi.

Umumiy formulasi:



Izomeriyasi va nomlanishi



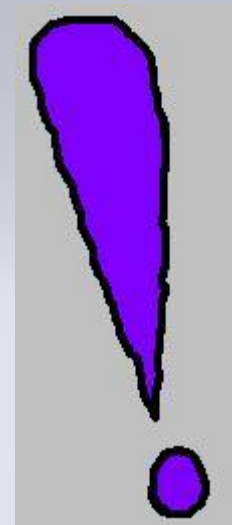
$\hat{\text{an}} \rightarrow \hat{\text{al}}$

$\hat{\text{an}} \rightarrow \hat{\text{ol}}$

Izomeriyasi: 1. Strukturali

2. Fazoviy

3. Qo'sh bog'li



Fizikaviy xossalari



Metanal – o'tkir hidli, rangsiz gaz.

Formulasi /Nomi (xalqaro)	Tarixiy(Trivial) nomi	Qaynash harorati
HCHO – metanal	Chumoli al'degid, formal'degid, formalin (40%)	-21
CH ₃ CHO – etanal	Sirka al'degid	20
CH ₃ CH ₂ CHO – propanal	Propion al'degid	48
CH ₂ =CHCHO – 2-propenal	Akrolen	53
CH ₃ CH ₂ CH ₂ CHO – butinal	Moy al'degid	74
CH ₃ (CH ₂) ₃ CHO – pentanal	Valerian al'degid	103
C ₆ H ₅ CHO – benzal'degid	–	179

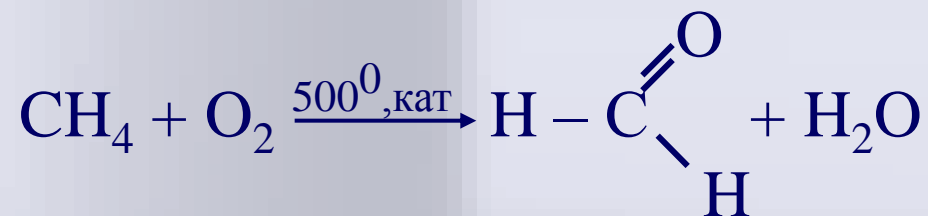
Olinishi



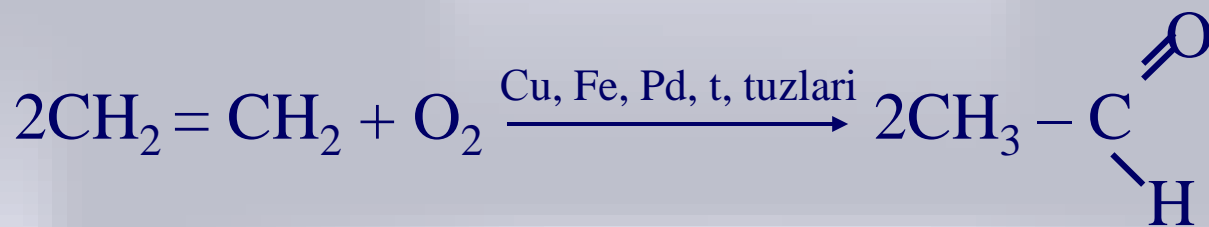
a) spirtning oksidlanishi yoki dehidratlanishi



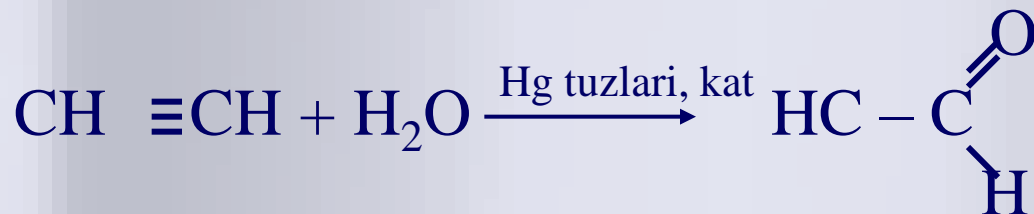
b) alkanlarning oksidlanishi



v) alekenlarning oksidlanishi



g) alkinlarning gidratatsiyasi

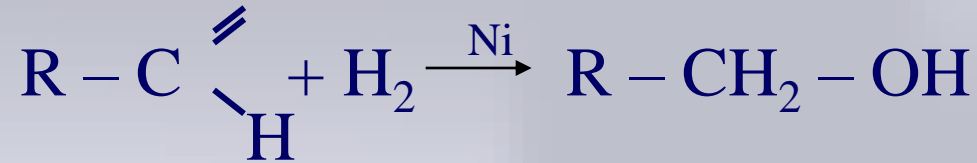


Kucherov reaksiyasi



Al'degidlarni kimyoviy xossalari

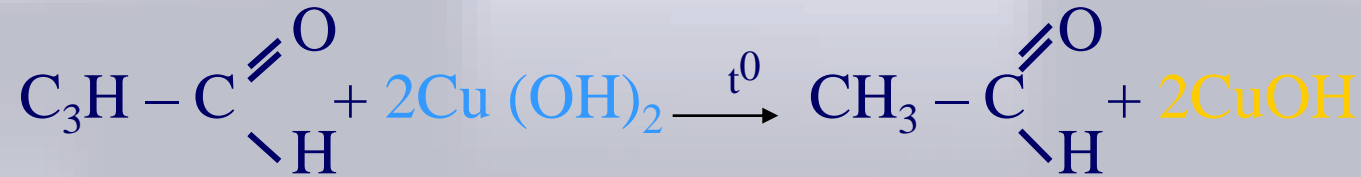
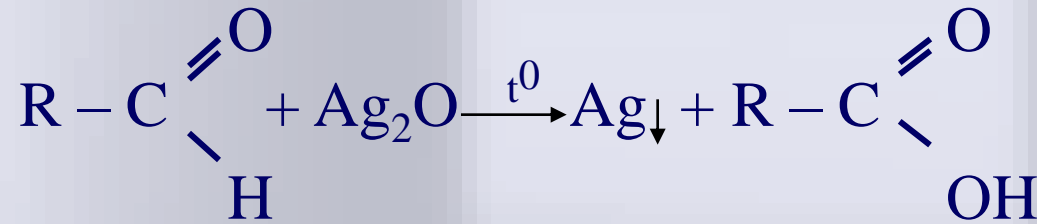
a) gidrogenlash r-yalari O



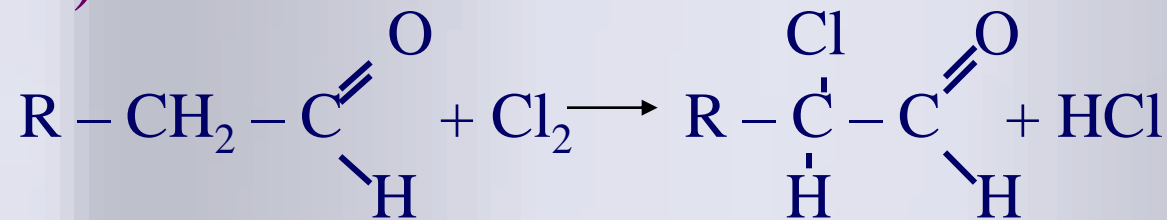
b) oksidlanish

kumush ko'zgi

$\text{Cu}(\text{OH})_2$



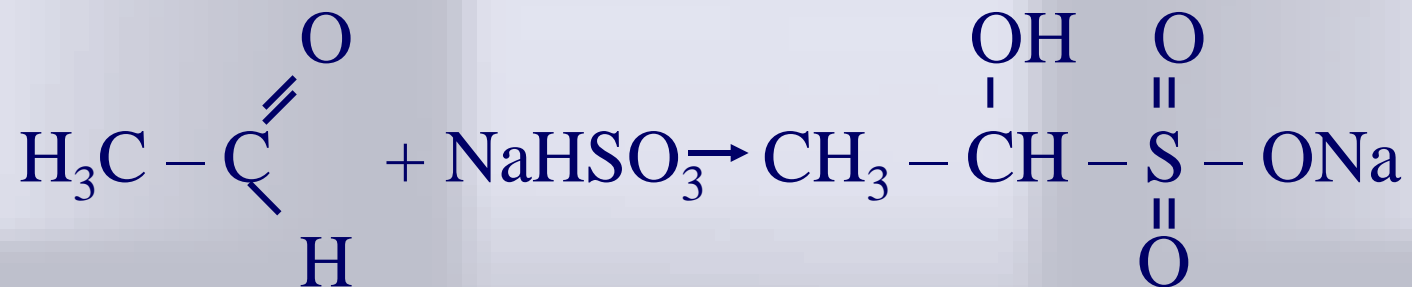
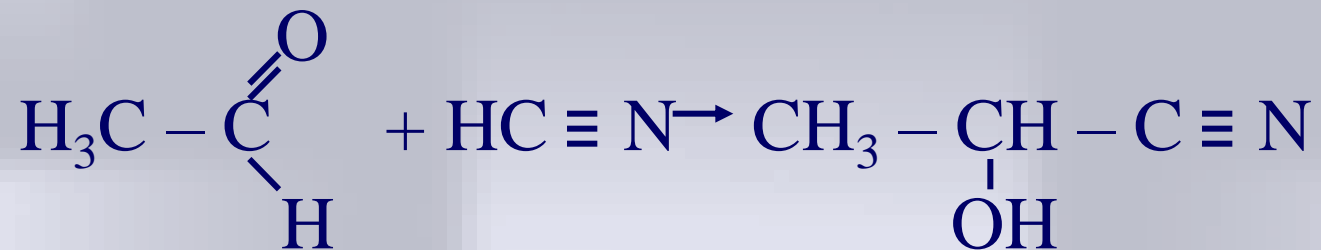
v) o'rin olish



Kimyoviy xossalari



g) nukleofil birikish



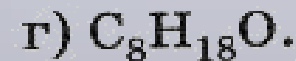
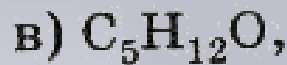
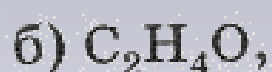
d) polikondensatsiya



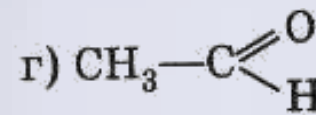
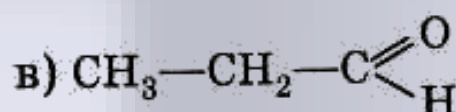
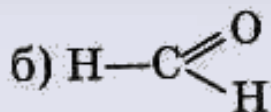
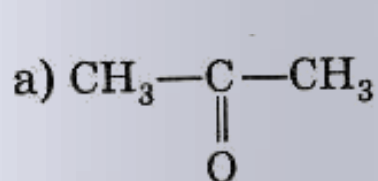
Nazorat savollari



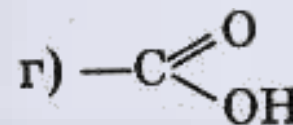
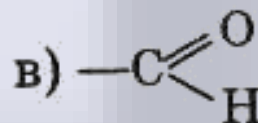
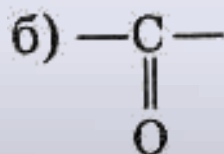
1. Al'degidning formulasini toping:



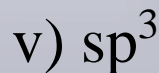
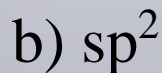
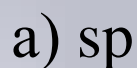
2. Qatordagi al'degid bo'lmagan moddani aniqlang:



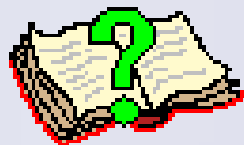
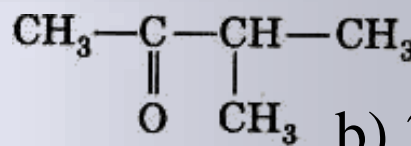
3. Qaysi funktsional guruhi, karbonil guruhi deb nomlanadi?



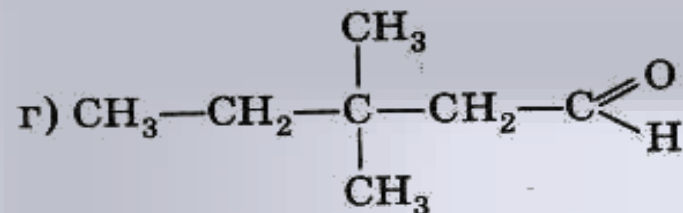
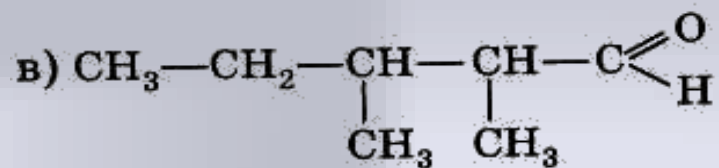
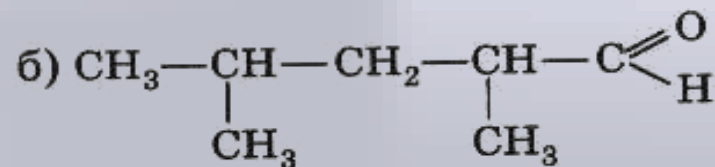
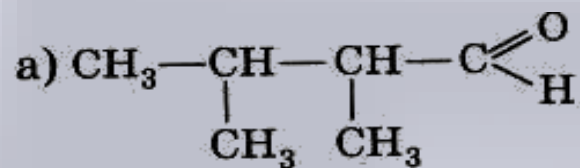
4. Al'degid guruhidagi uglerod atomi qanday gibridlanish holatida:



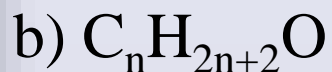
5. Quyidagi formulaga ega moddani _____ moddani nomlang.



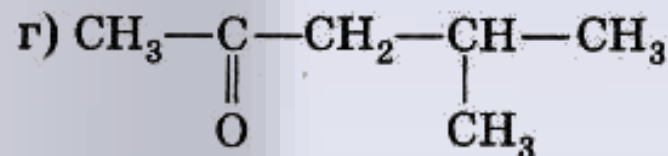
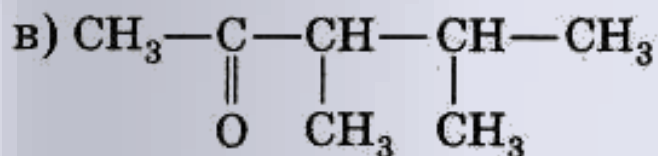
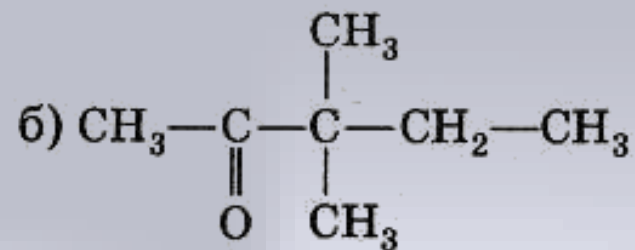
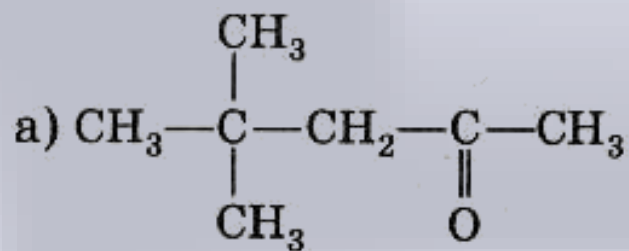
6. 2,3-dimetilpentanalning formulasini ko'rsating:



7. To'yingan aldegidlarning gamologik qatorining umumiy formulasi:



8. 4,4-dimetilpentanon -2 ning formulasini ko'rsating:



9. Qaysi bir alkinni gidratlash yo'li bilan alkin olish mumkin?
Reaksiya tenglamasini yozing, uni olib borish sharoitini ko'rsating.

a) butanol - 2

b) 3 - metilbutanol - 2

v) 2 – metilbutanol - 2

g) 2 – metilbutanol - 1

10. Kal'tsiy atsetat tuzini qizdirish natijasida qanday moddani olish mumkin:

a) metanal b) etanal v) propanal g) propion

11. Metanalning fizikaviy xossalarini quyida keltirilgan qanday belgilar to'g'ri ko'rsatadi: 1) pangsiz suyuqlik, 2) gazsimon modda, 3) o'ziga xos hidga ega, 4) suvda yomon eriydi, 5) qutbli molekula.

a) 1, 3, 4

b) 2, 3, 5

v) 3, 4, 5

g) 2, 4, 5

12. Quyidagi qaysi reaktsiya M.G. Kucherov nomiga qo'yilgan.

a) atsetilenni gidratlanishi

b) atsetilening trimerlanishi

v) atsetilenni gidrogenlanishi

g) atsetilenni bromlanishi



Javoblar

1) b

2) a

3) b

4) b

5) b

6) v

7) a

8) a

9) a

10) g

11) b

12) a

