



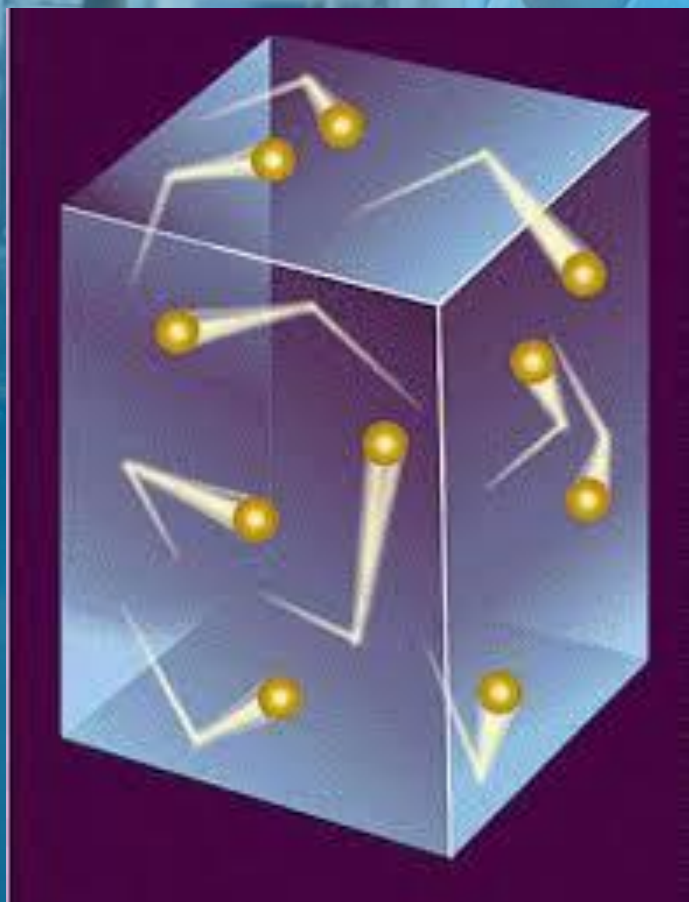
Ketonlar. Olinishi va xossalari

*10-sinf Kimyo fani darsligi
asosida 25-mavzu*

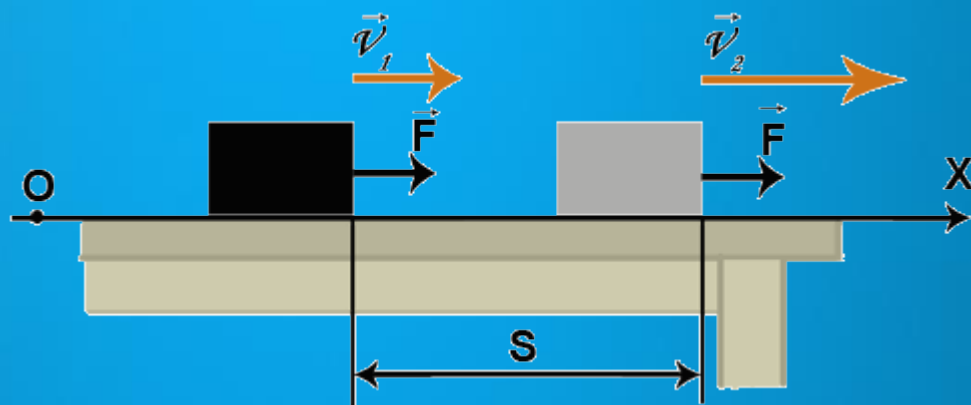


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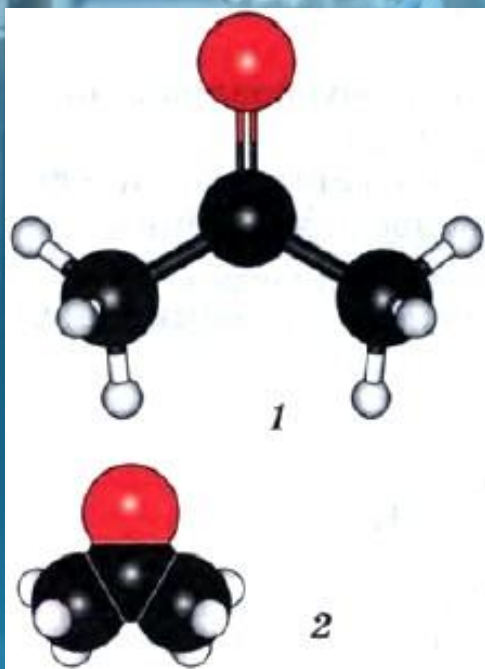
*Karbonil guruhini ikkita
uglevodorod radikali
bilan bog'lanishidan
hosil bo'ladigan
birikmalar **ketonlar**
deyiladi.*



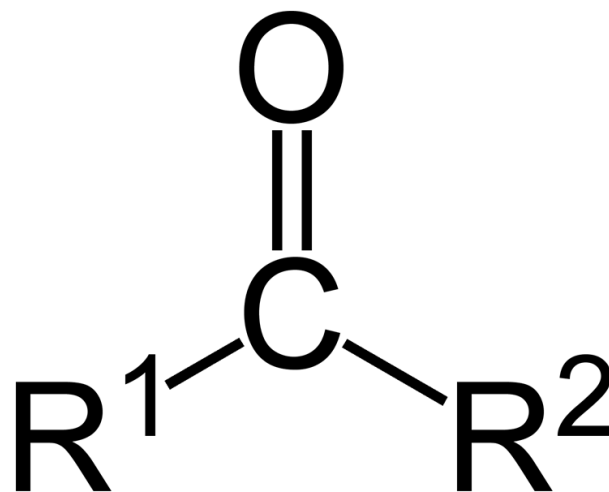
Ketonlarning umumiy formulasi $C_nH_{2n}O$, ya'ni bir xil uglerod atomlariga ega bo'lgan aldegid va ketonlar bir-biriga nisbatan izomer moddalardir.

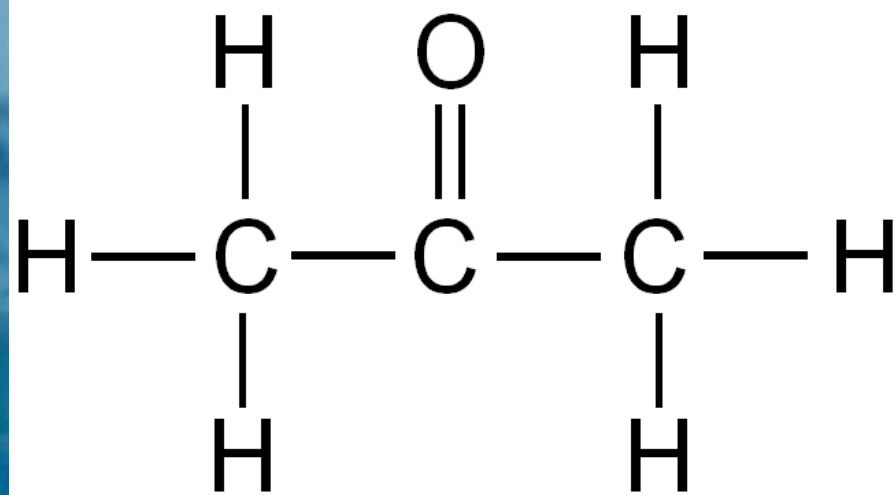


NOMENKLATURASI.

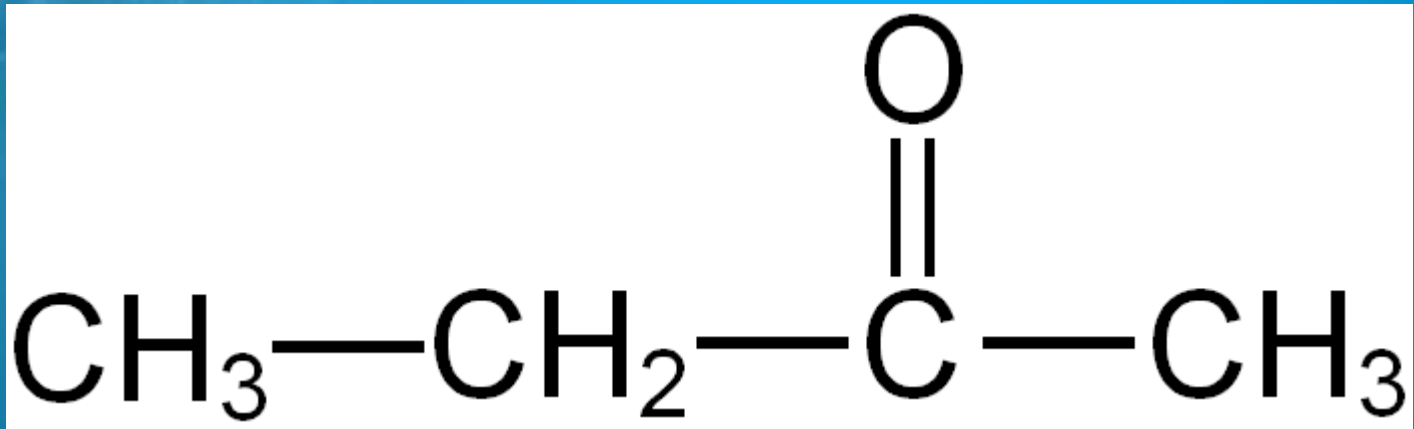


Oddiy ketonlarning nomlari karbonil guruh bilan bog'langan radikallar nomiga "keton" so'zini qo'shish bilan hosil qilinadi.



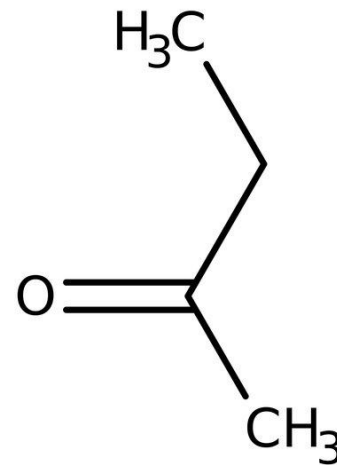
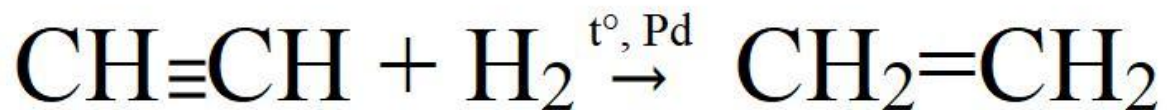
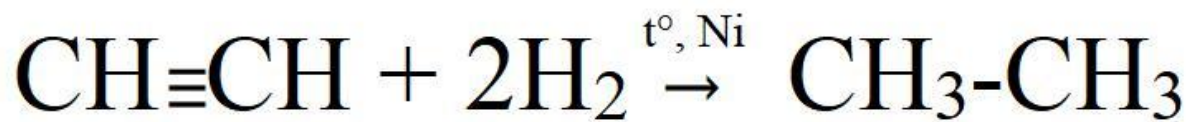


*Ketonlarning izomeriyasi
yon radikallardagi
uglerodlar soni o'zgarishi
bilan boradi.*



Olinishi:
Alkinlarni gidratlanishi.

1. *Alkinlarning (asetilendan tashqari) gidratlanishidan ketonlar olinadi.*





***2. Bitta uglerodi ikkita
galogen tutgan digaloid
alkanlarni (galogenlar chetki
uglerod atomlarida
bo'lmagan birikmalar)
gidrolizlash yo'li bilan ham
olinadi:***





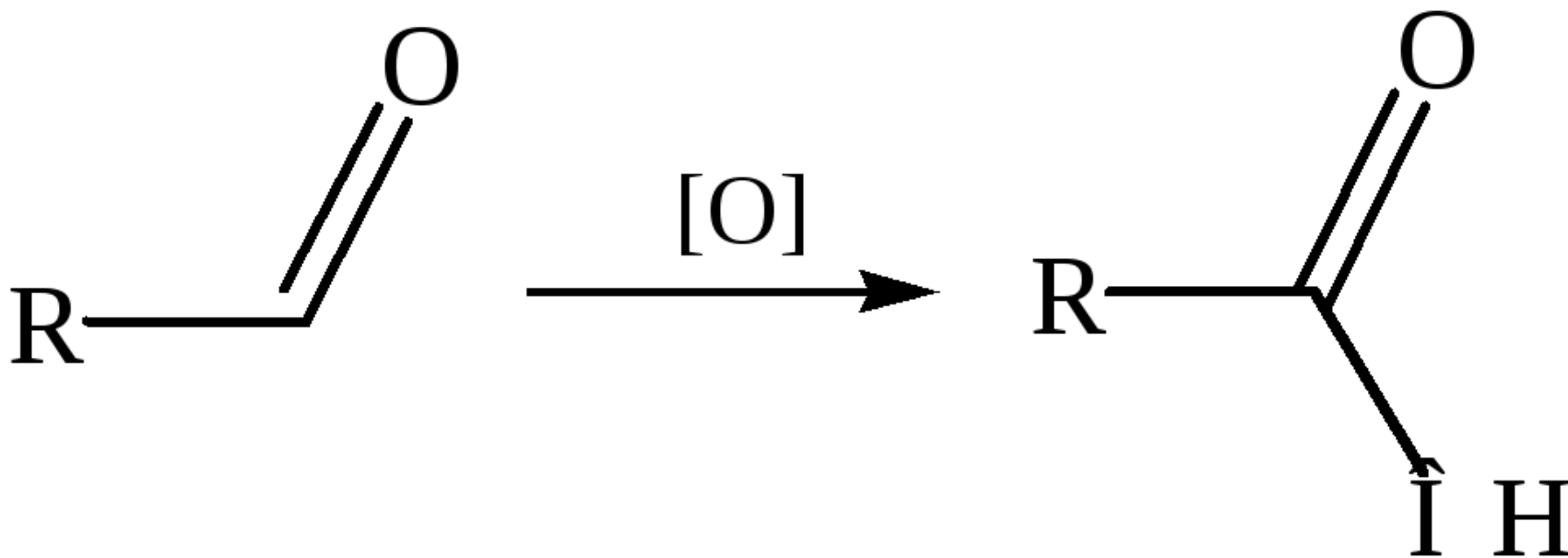
Fizik xossalari.



Ketonlarning quyi vakillari aldegidlar kabi suvda yaxshi eriydi va o'ziga xos yoqimsiz hidga ega bo'ladi.



Ketonlar ham aldegidlar kabi birikish, oksidlanish reaksiyalariga kirishadi. Reaksiyaga kirish qobiliyati aldegidlarga nisbatan sustroq.

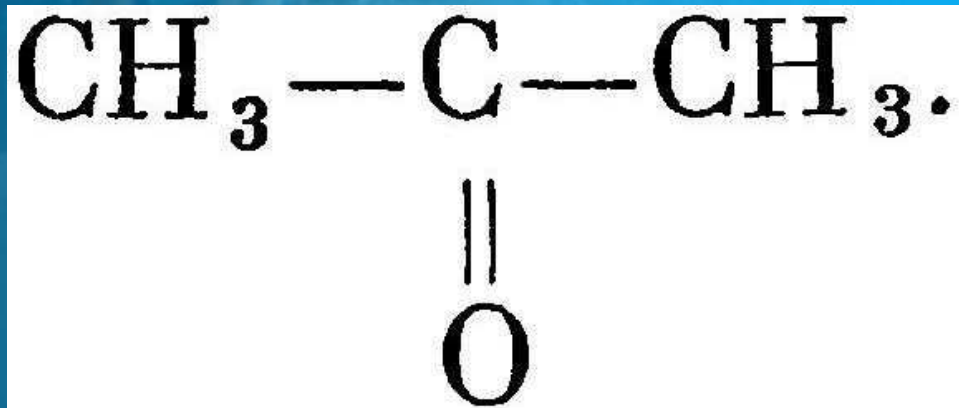




Aseton(dimetilketon) CH_3COCH_3 $56,5^\circ\text{C}$ da
qaynaydigan, o'ziga xos
hidli, rangsiz suyuqlik.

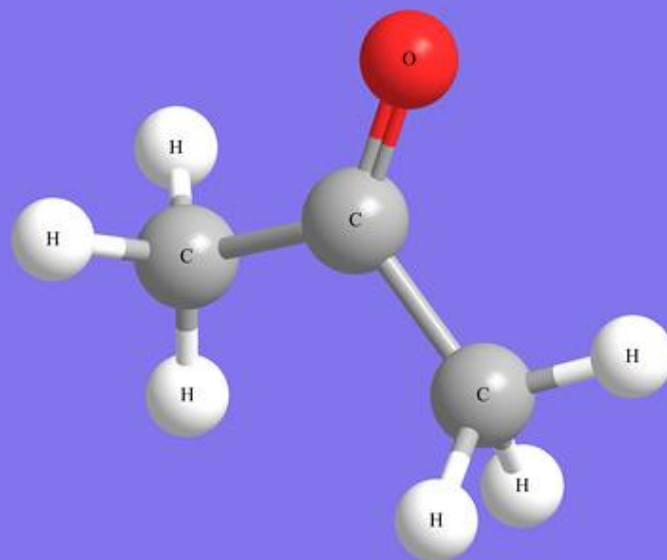


Aseton yog'ochni quruq haydashdan hosil bo'lgan sirka kislotaning kalsiyli tuzidan olinadi.





Ilgari bu usul aseton olishda yagona hisoblanar edi. Hozirda sanoatda aseton olishning bir necha samarali usullari kashf qilingan.





Masalan, asetonni to'g'ridan to'g'ri sirka kislotaning o'zidan ham olish mumkin. Buning uchun CH_3COOH bug'lari (Al_2O_3) katalizatorlar ustidan o'tkaziladi.





Aseton sanoatda keng qo'llaniladi. Undan xloroform va yodoform olishda, kislotalar, asetat ipagi ishlab chiqarishda erituvchi sifatida ko'p miqdorda foydalaniladi.

