

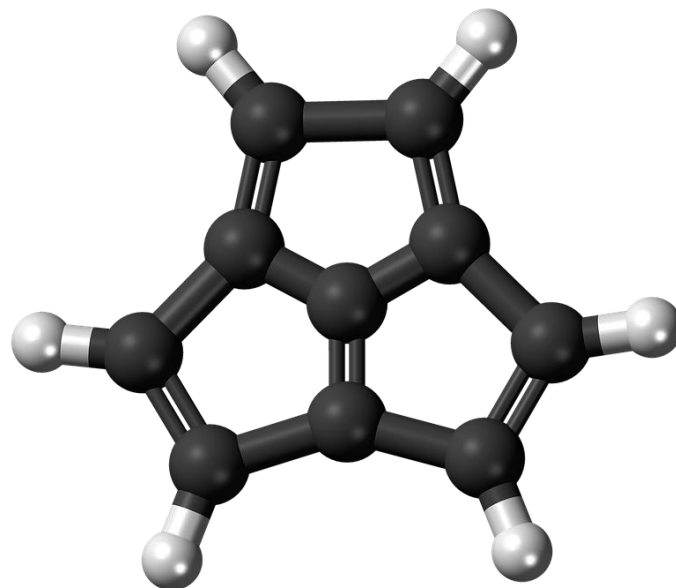
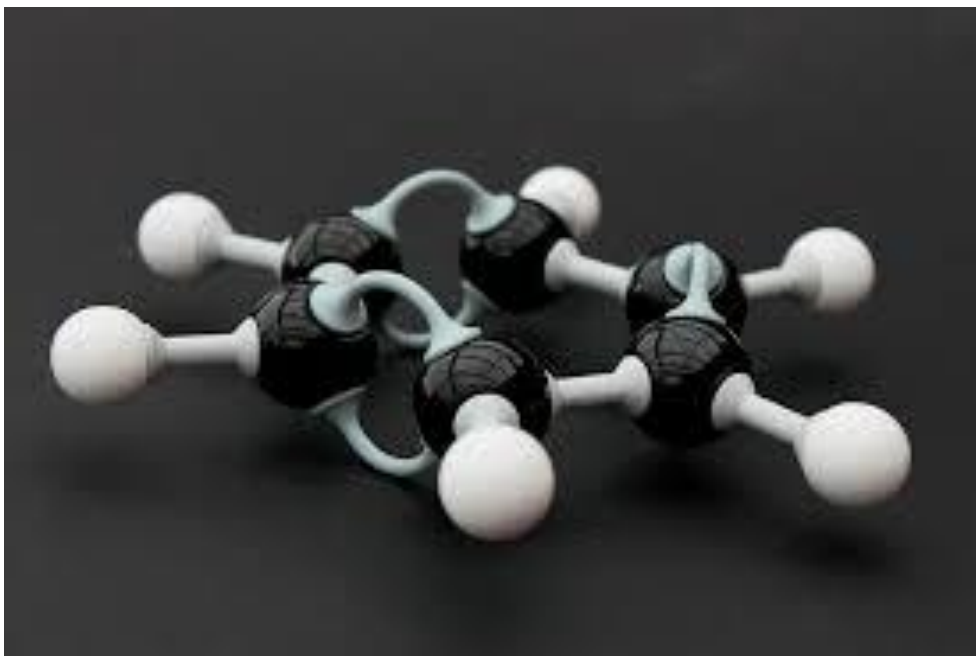
FENOLLAR VA AROMATIK SPIRTLAR. OLINISHI VA XOSSALARI



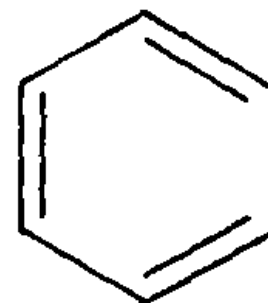
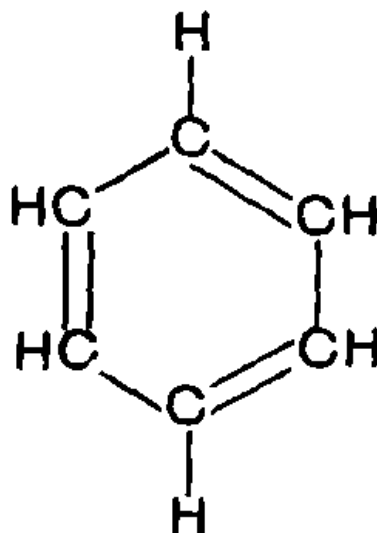
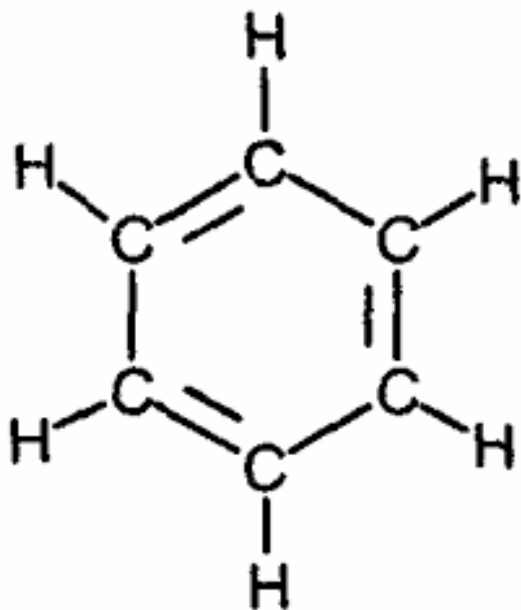
*10-sinf Kimyo fani darsligi
asosida 23-mavzu*



Ochiq zanjirli uglevodorodlar kabi aromatik uglevodorodlarni ham gidroksilli hosilalari bor.

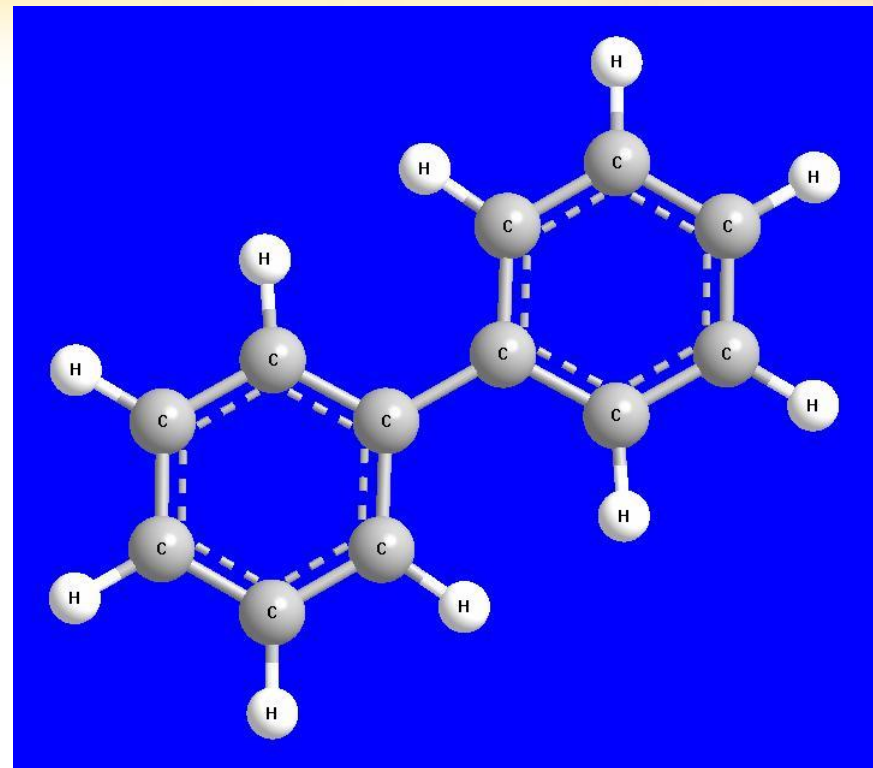


Bu birikmalarda gidroksil guruhlar yon zanjirdagi uglerod atomlariga yoki benzol halqasidagi uglerod atomlariga birikkan bo'lishi mumkin.





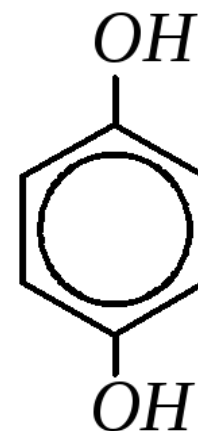
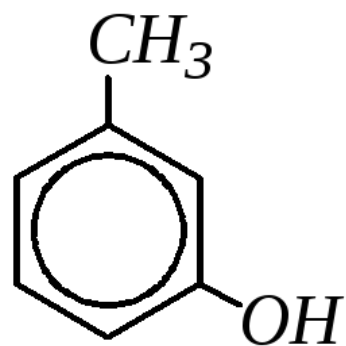
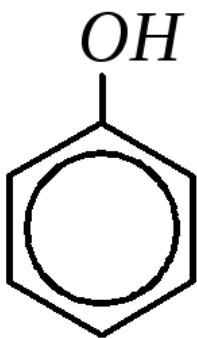
***Tarkibida OH guruh bor
bo'lgan aromatik
halqali birikmalarni ikki
guruhga ajratish
mumkin.***



1. Hidroksil guruhi benzol halqasidagi uglerodga bevosita birikkan birikmalarni *fenollar* deyiladi.



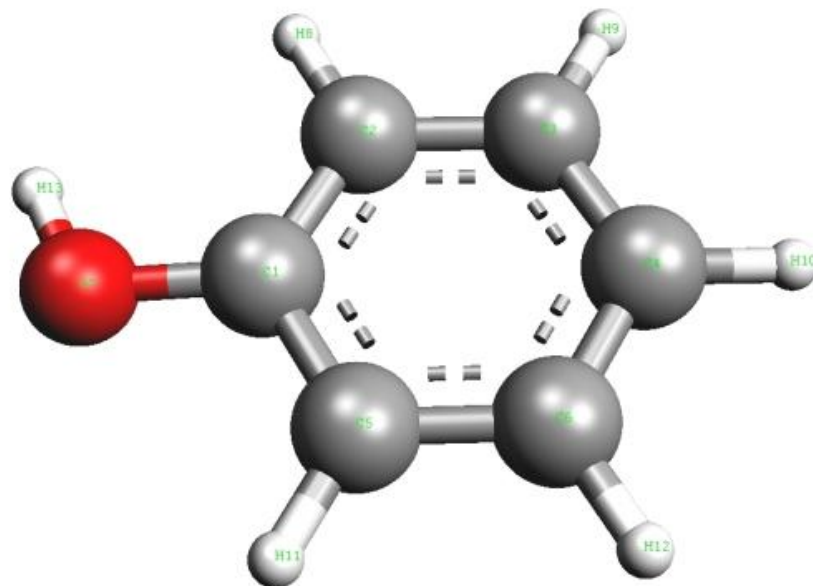
2. Hidroksil guruh benzol halqasining yon zanjiridagi uglerodga birikishidan hosil bo'lgan birikmalarga *aromatik spirtlar* deyiladi.





FENOLLAR

Tarkibidagi OH soniga qarab bir atomli, va ko'p atomli fenollar bo'lishi mumkin.



OH guruhning benzol yonaki zanjiridagi uglerod atomiga bog'lanishi natijasida hosil bo'lgan moddalarni aromatik spirtlar deyiladi. Masalan, benzyl spirt, 2 – fenil etanol.



OLINISHI.



*1. Sanoatda fenol
xlorbenzolni katalizator
ishtirokida o'yuvchi
natriyni eritmasi ta'sirida
gidrolizlab olinadi.*



FIZIK XOSSALARI.

Fenol o'tkir hidli suvda yomon eriydigan, rangsiz kristall modda.



Fenol kristallari



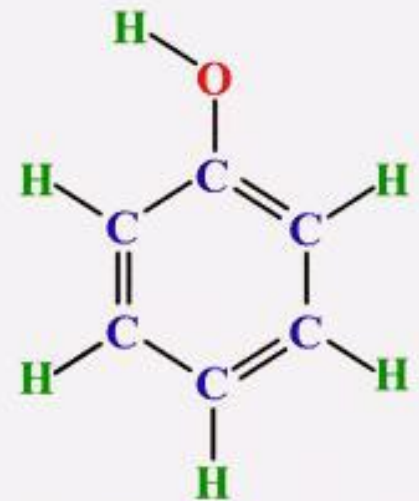
Fenol eritmasi



*Fenol temir (III) xlorid bilan binafsharang
moddani hosil qiladi, shuning uchun
bu reaksiya fenolga sifat reaksiyasi hisoblanadi.*



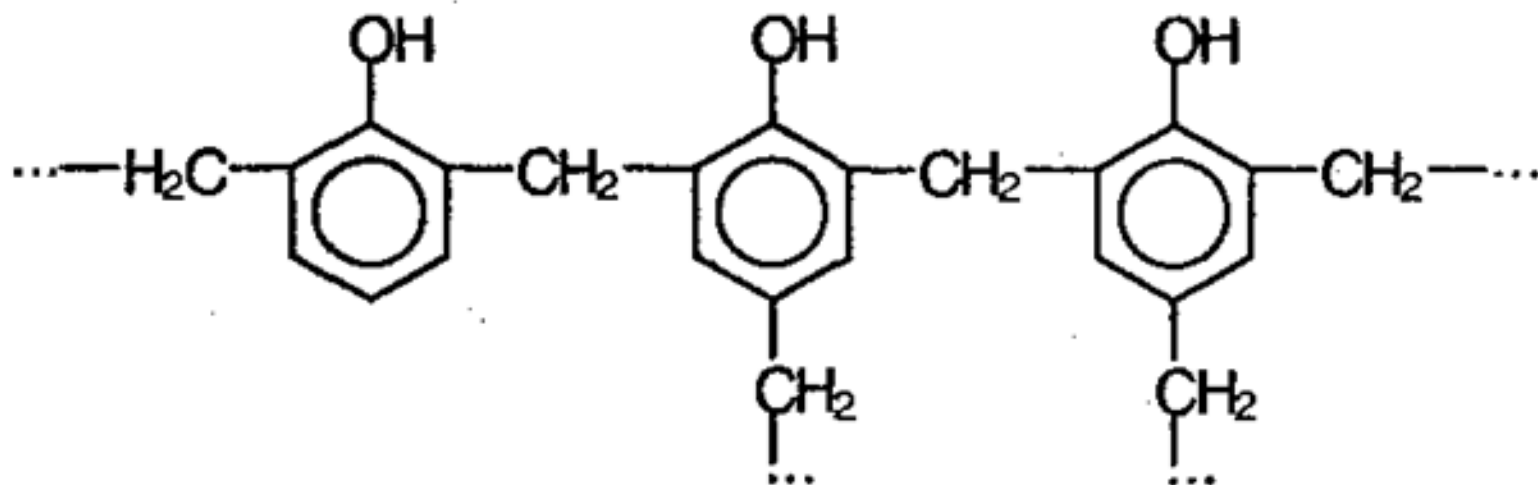
phenol
 C_6H_5OH



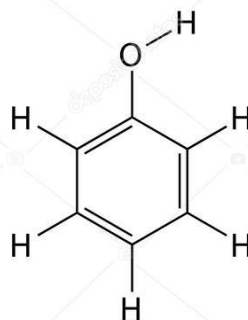
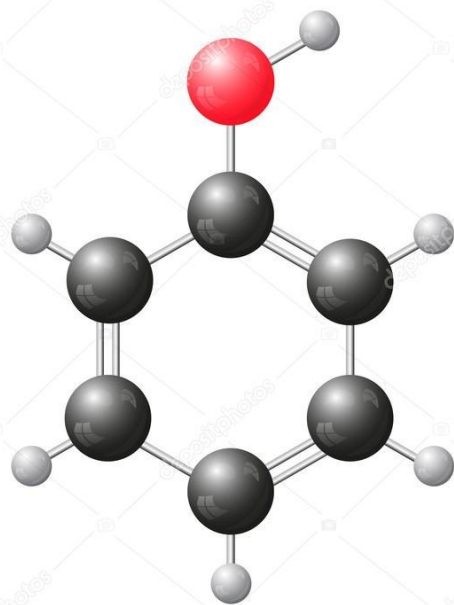


Kimyoviy xossalari.

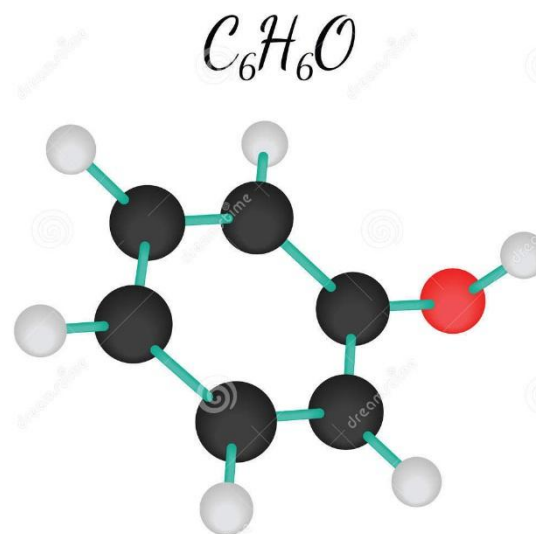
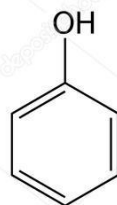
Fenolda gidroksil guruh benzol yadrosi bilan bevosita bog'langanligi uchun undagi elektron zichligi benzoldagi kabi teng taqsimlanmaganligi sababli fenollar benzolga qaraganda reaksiyaga oson kirishadi.



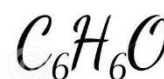
1. Fenollar spirtlar kabi natriy metalli bilan ta'sirlashganda, fenolyatlarni hosil qiladi va vodorodni ajratib chiqaradi.



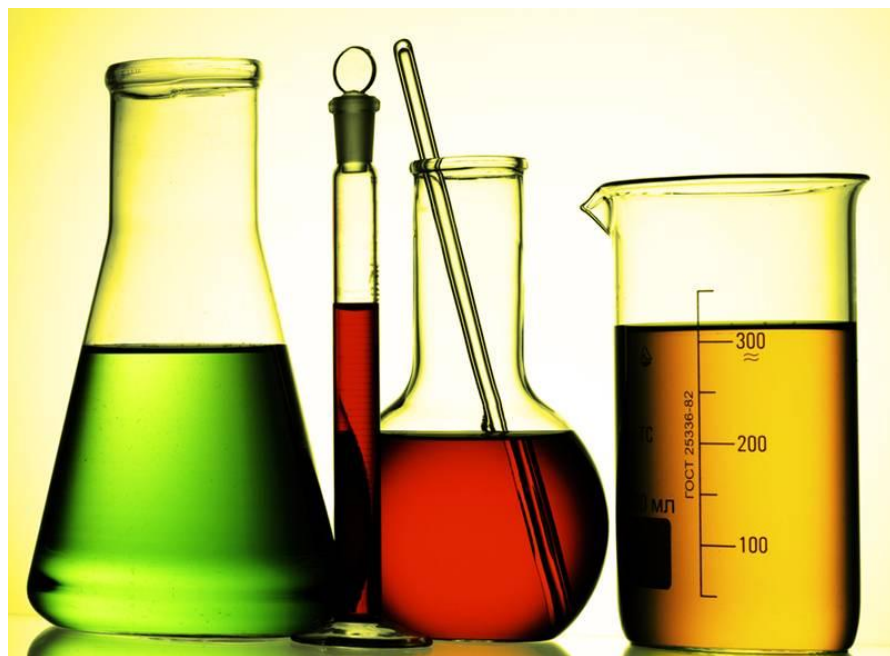
Phenol



Phenol

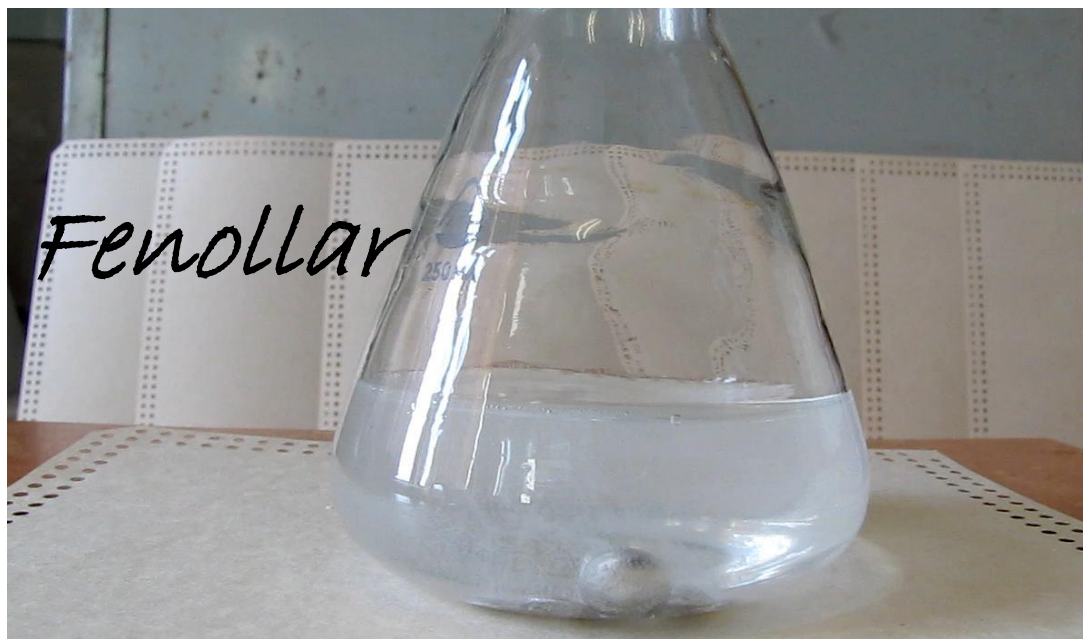


2. Spirtlardan farqli ravishda fenollar ishqorlar bilan ham reaksiyaga kirishadi. Bu fenolni kuchsiz kislotali xususiyatga ega ekanligini ko'rsatadi:





3. Fenollar bromli suv bilan ta'sirlashib 2,4,6-tribrom fenol (oq rangli cho'kma) hosil bo'ladi.





Pikrin kislota

***4. Fenollar yetarli
miqdorda nitrat kislota
bilan reaksiyaga kirishib
2,4,6-trinitrofenol
(pikrin kislota) hosil
bo'ladi.***