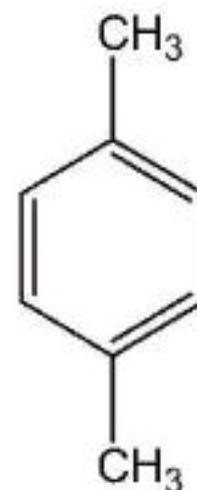
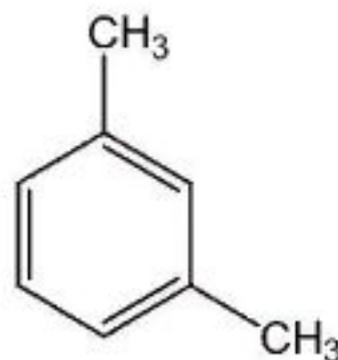
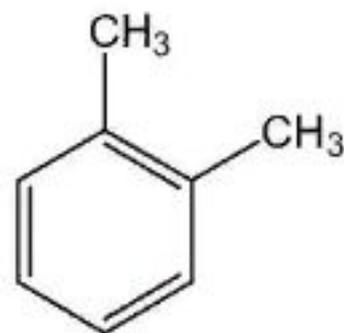
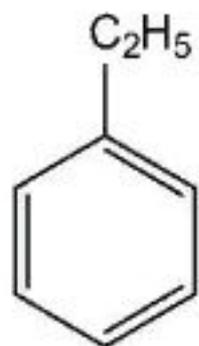


# **НОМЕНКЛАТУРА И ИЗОМЕРИЯ АРЕНОВ**

## Изомерия аренов

3) Изомерия заместителей. **Например:** этилбензол и диметилбензолы имеют одинаковую молекулярную формулу:  $C_8H_{10}$



Этилбензол

о-ксилол

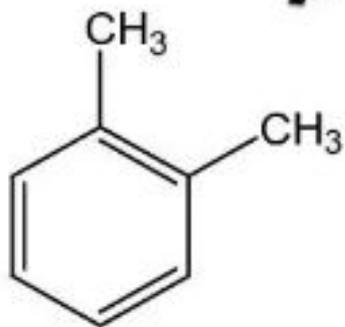
м-ксилол

п-ксилол

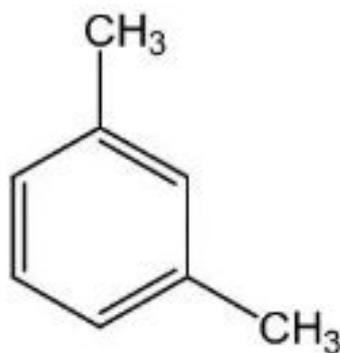
# Изомерия аренов

Для аренов характерна структурная изомерия:

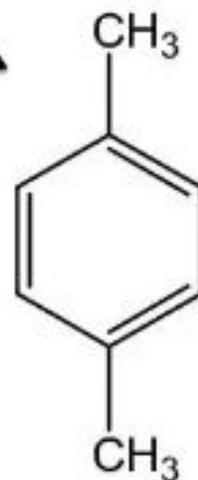
1) Изомерия положения заместителей. **Например:**



О-КСИЛОЛ



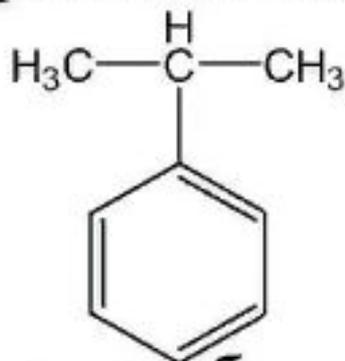
М-КСИЛОЛ



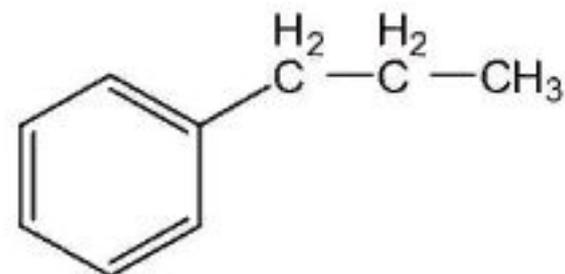
П-КСИЛОЛ

## Изомерия аренов

2) Изомерия углеродного скелета в боковой цепи, содержащей не менее 3-х атомов углерода.



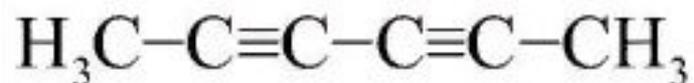
Изопропилбензол  
(кумол)



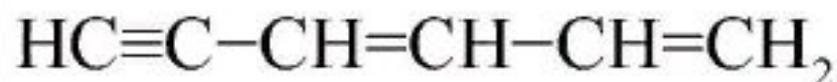
пропилбензол

## Изомерия аренов

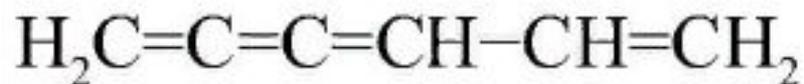
4) Межклассовая изомерия. **Например:** бензол является изомером гексадиина, гексадиенина, гексатетраена, и т. д



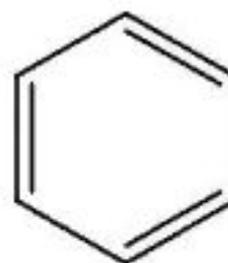
гексадиин



гексадиенина

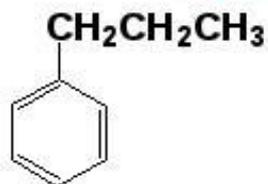


гексатетраена

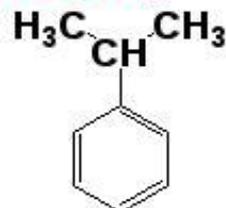


бензол

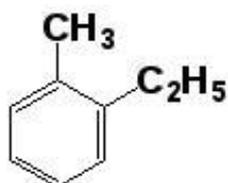
## Изомеры $C_9H_{12}$



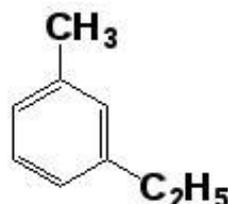
пропилбензол



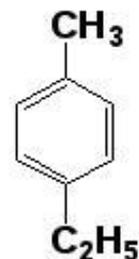
изопропилбензол  
кумол



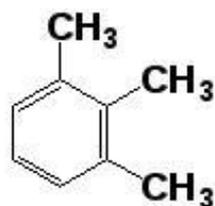
o-метилэтилбензол  
2-этилтолуол



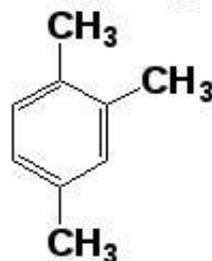
m-метилэтилбензол  
3-этилтолуол



p-метилэтилбензол  
4-этилтолуол



1,2,3-триметилбензол

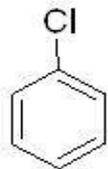


1,2,4-триметилбензол  
псевдокумол

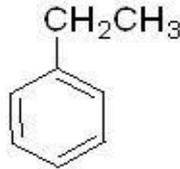


1,3,5-триметилбензол  
мезитилен

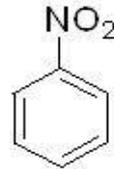
## Номенклатура производных бензола



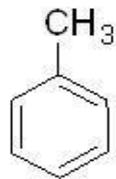
хлорбензол



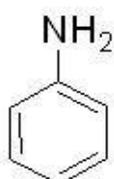
этилбензол



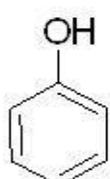
нитробензол



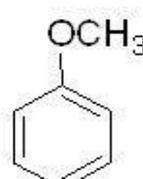
толуол



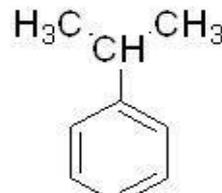
анилин



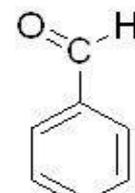
фенол



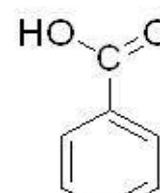
анизол



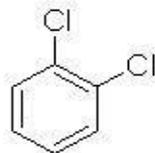
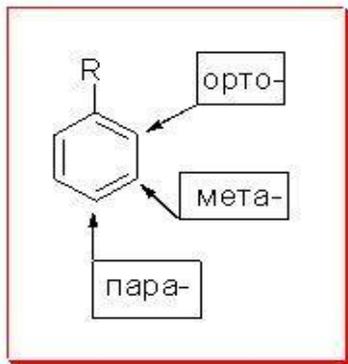
кумол



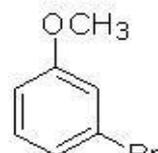
бензальдегид



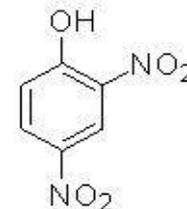
бензойная кислота



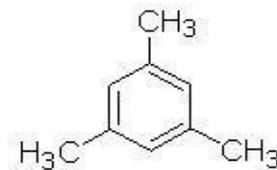
орто-дихлорбензол  
(о-дихлорбензол)



м-броманизол



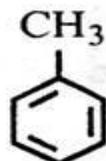
2,4-динитрофенол



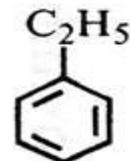
1,3,5-триметилбензол  
(мезитилен)



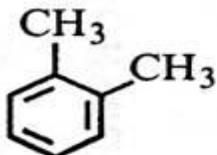
Бензол



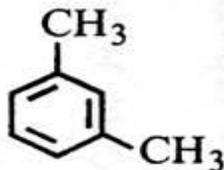
Толуол



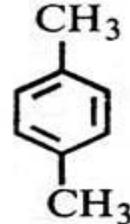
Этилбензол



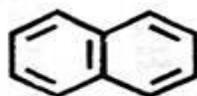
*o*-Ксилол



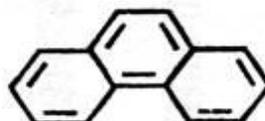
*м*-Ксилол



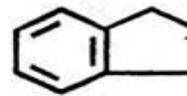
*п*-Ксилол



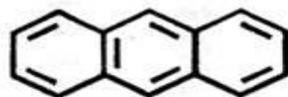
Нафталин



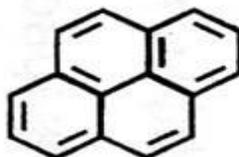
Фенантрен



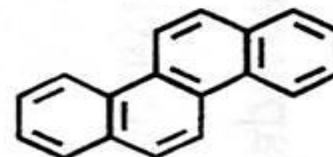
Индан



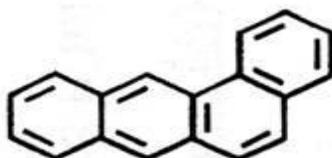
Антрацен



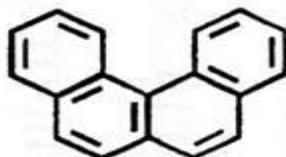
Пирен



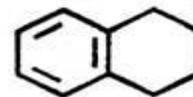
Хризен



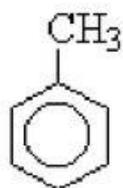
Бензантрацен



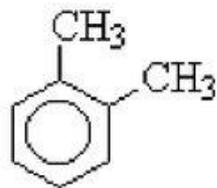
Бензфенантрен



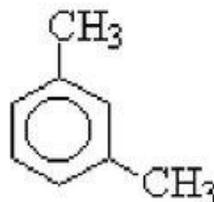
Тетралин



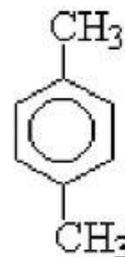
метилбензол  
(толуол)



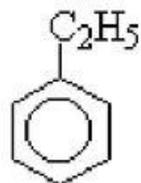
1,2-диметилбензол  
(о-ксилол)



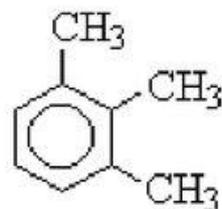
1,3-диметилбензол  
(м-ксилол)



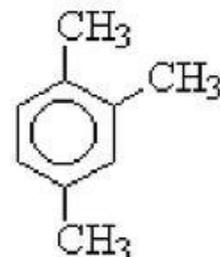
1,4-диметилбензол  
(п-ксилол)



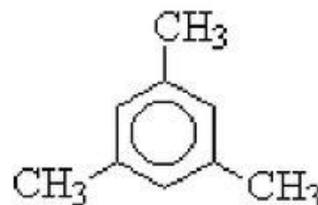
этилбензол



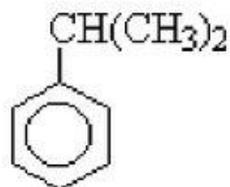
1,2,3-триметилбензол



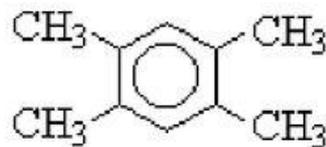
1,2,4-триметилбензол  
(псевдокумол)



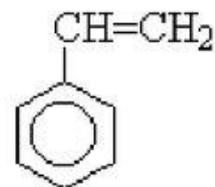
1,3,5-триметилбензол  
(мезитилен)



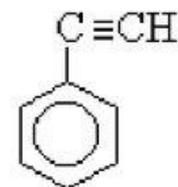
изопропилбензол  
(кумол)



1,2,4,5-тетраметилбензол  
(дурол)



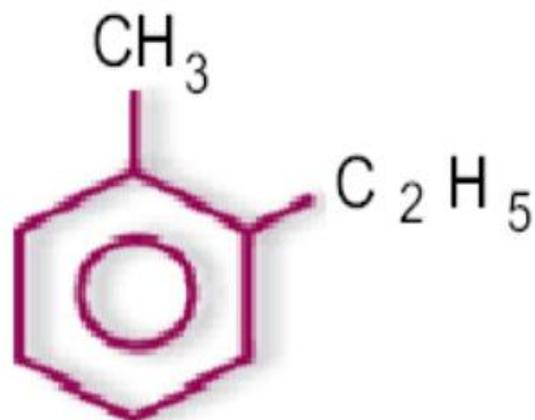
винилбензол  
(стирол)



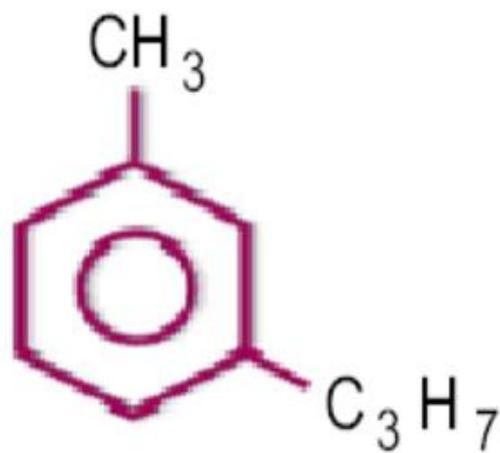
этинилбензол  
(фенилацетилен)

Назвать по систематической номенклатуре вещества:

1



2



3

