

QOG – Anotações Slide 2

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Nomenclatura: Alcanos

1 Prefixo

Relacionado ao numero de carbonos

1. met

6. hex

11. undec

16. hexadec

2. et

7. hep

12. dodec

17. heptadec

3. prop

8. oct

13. tridec

18. octadec

4. but

9. non

14. tetradec

19. nonadec

5. pen

10. dec

15. pentadec

20. icos

30. tria

2 Intermediários

referencia as ligações (suprime o “an”, ex: etano→etino)

an Somente ligações simples

en 1 ligação dupla

dien 2 ligações duplas

in 1 ligação tripla

diin 2 ligações triplas

enin 1 dupla e 1 tripla

3 Sufixos 1

o: Hidrocarboneto —CH_2

ol: Álcool e enol —OH

al: Aldeído $\text{—C}\begin{smallmatrix} \nearrow \text{O} \\ \searrow \text{H} \end{smallmatrix}$

ona: Cetona =O

óico: Ácido Carboxilo $\text{—C}\begin{smallmatrix} \nearrow \text{O} \\ \searrow \text{OH} \end{smallmatrix}$

amina: —NH_2

amida: $\text{R—C}\begin{smallmatrix} \nearrow \text{H} \\ \searrow \text{N} \end{smallmatrix}\begin{smallmatrix} \nearrow \text{R} \\ \searrow \text{R}' \end{smallmatrix}$

sulfônico: Ácido Sulfônico $\text{R—S}\begin{smallmatrix} \uparrow \text{O} \\ \downarrow \text{O} \\ \nearrow \text{OH} \end{smallmatrix}$

óxi: Éter $\text{R}_1\text{—O—R}_2$

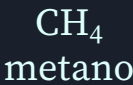
ato ... ila: Éster $\text{R}_1\text{—C}\begin{smallmatrix} \nearrow \text{O} \\ \searrow \text{O} \end{smallmatrix}\text{—R}_2$

ato de ...: Sal Orgânico $\text{R}_1\text{—C}\begin{smallmatrix} \nearrow \text{O} \\ \searrow \text{O} \end{smallmatrix}\text{—Metal}$

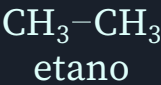
Exemplo 1

Hidrocarbonetos

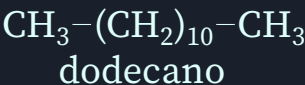
E1 a)



E1 b)

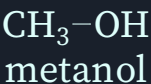


E1 c)

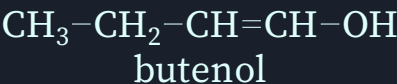


Álcools e Enols

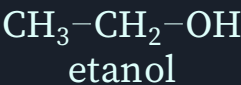
E1 d)



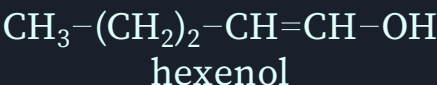
E1 f)



E1 e)

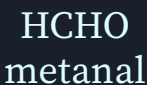


E1 g)

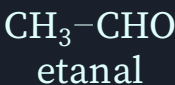


Aldeídos

E1 h)

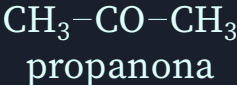


E1 i)

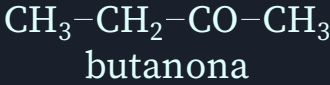


Cetona

E1 j)

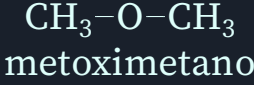


E1 k)

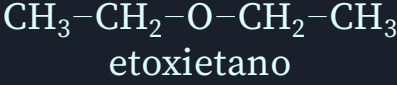


Eter

E1 l)



E1 m)

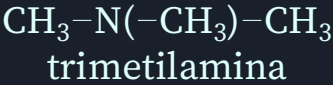


Amina

E1 n)



E1 o)

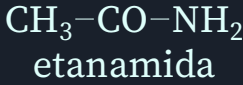


Amida

E1 p)



E1 q)

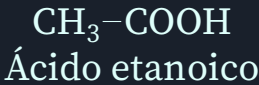


Ácido Carboxílico

E1 r)

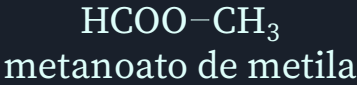


E1 s)

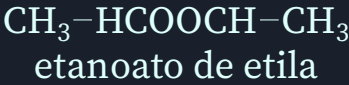


Éster

E1 t)



E1 u)

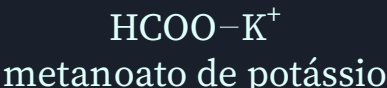


Sal Orgânico

E1 v)

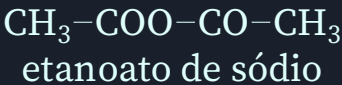


E1 w)

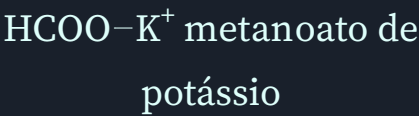


Anidrido de Ácido

E1 x)



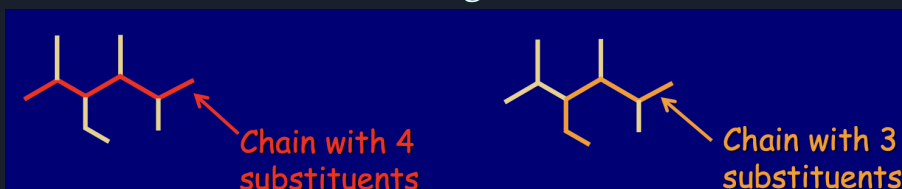
E1 y)



4 Radicais Substituintes

Quando há ramificações, para poder nomear precisa seguir o passo a passo

4.1 Identificar a cadeia mais longa



em empate escolhe a que tem mais substituintes

4.2 Nomear os substituintes

halogenio recebe o nome do halogenio Br,F,Cl,I

Cadeia org simples recebe prefixo “il”

Canonicos: Estruturas canonicas que devemos conhecer

Multiplos substituintes identicos se juntam recebendo um prefixo numérico

Exemplo



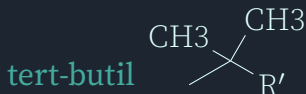
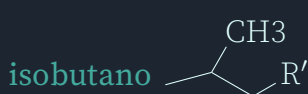
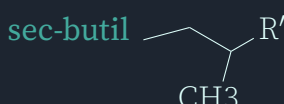
Complexidade da cadeia simples usa o prefixo numérico comum, complexa (multiplas bifurcações) usa os prefixos:

2. bis

3. tris

4. tetrakis

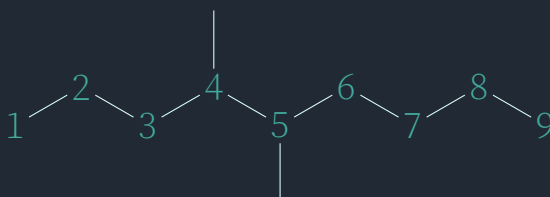
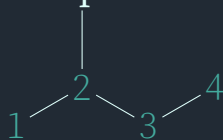
Estruturas Canonicas



4.3 Numerar a cadeia

Se nomeia da extremidade mais próxima aos substituintes

Exemplo

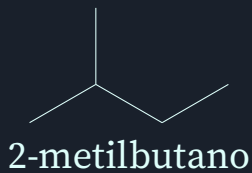


4.4 Nomear em ordem alfabética

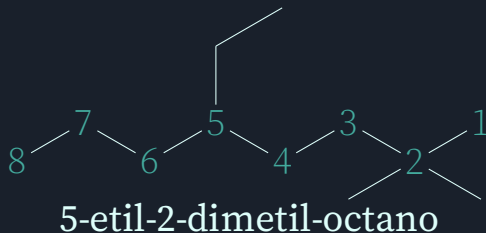
Não leva em conta o prefixo numérico de multiplas ramificações exceto quando as ramificações são complexas

Exemplo 2

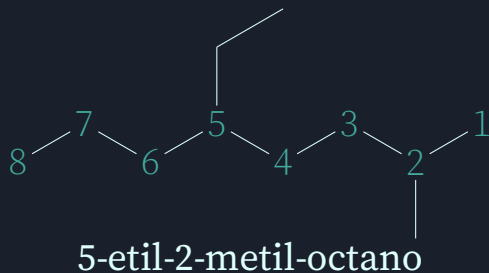
E2 a)



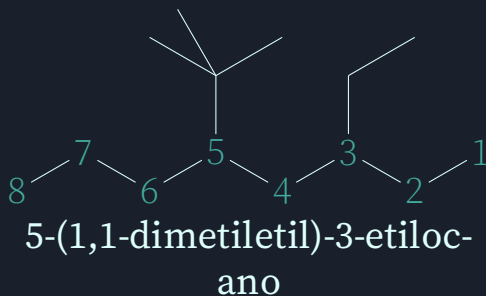
E2 c)



E2 b)



E2 d)



E2 e)

