

EJERCICIOS SOBRE FORMULACIÓN DE QUÍMICA ORGÁNICA

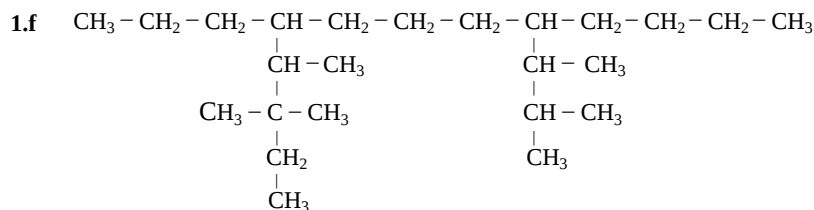
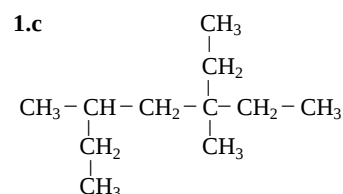
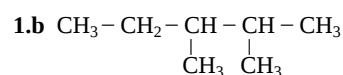
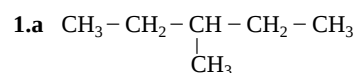
1.1 3-etil-2-metilhexano

1.2 4-etil-5-isopropil-2-metildecano

1.3 3-etil-2-metil-4-propilheptano

1.4 5,6-dietil-3-metil-4-propildecano

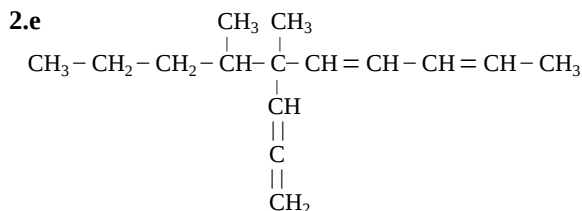
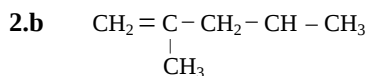
1.5 2,2,4,4-tetrametiloctano



2.1 1-hexeno

2.2 2,5-dimetil-1-hexeno

2.3 1,3,5-hexatrieno



3.1 2-pentino

3.2 5-metil-1,3-hexadiíno

3.3 4-etil-7,7-dimetil-1,5-nonadiíno

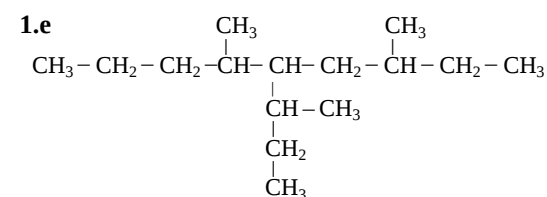
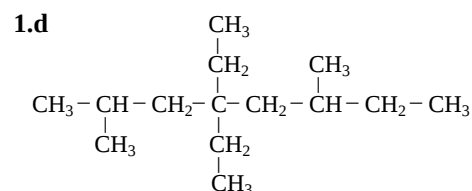
1.6 4,5-dietil-4,5-dimetilundecano

1.7 2,3-dimetil-4-tercbutil-7-etilnonano

1.8 3-etil-3-metil-4-(1-metilpropil)undecano

1.9 5,7,8-trietil-2,5-dimetil-4-propildecano

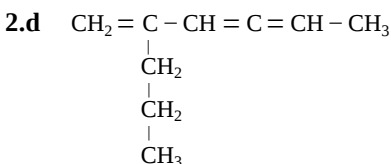
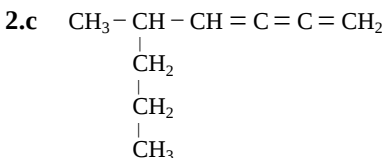
1.10 5-(2-etil-3-metilbutil)-2,4,7,8-tetrametildecano



2.4 2,4,6-trimetil-3-propil-1,3,6-heptatrieno

2.5 3-(1-metilpropil)-1,4-hexadieno

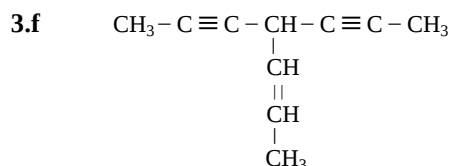
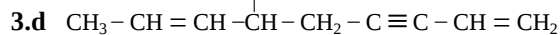
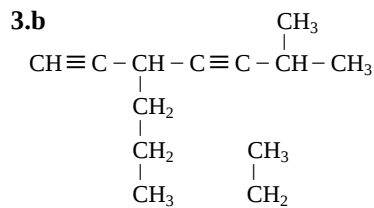
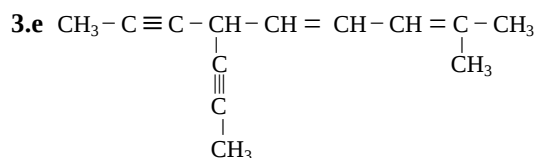
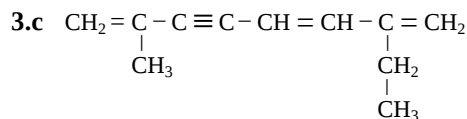
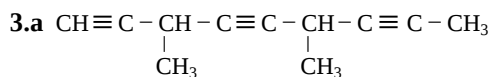
2.6 4-etil-6-metil-1,3-octadieno



3.4 3-octen-1,6-diíno

3.5 1,3-octadien-6-ino

3.6 4-butil-3-metil-1,3-hexadien-5-ino



4.1 Metilciclobutano

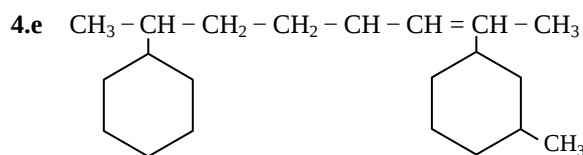
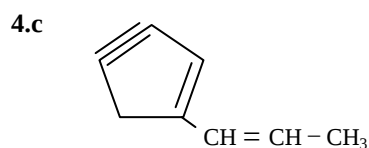
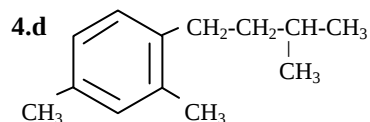
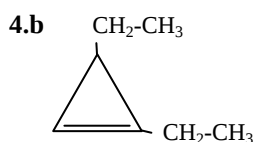
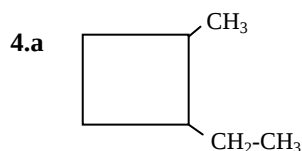
4.3 1-metil-1,3-ciclohexadien-5-ino

4.5 2,3-diciclopentilbutano

4.2 2-propil-1,3-ciclopentadieno

4.4 4,4-dimetil-3-vinilciclohepteno

4.6 3-ciclobutil-2-ciclopropil-5,5-dimetilheptano



5.1 1,4-dipropilbenceno

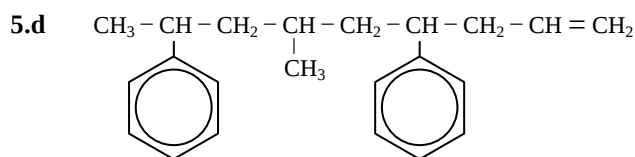
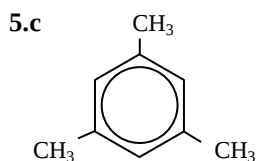
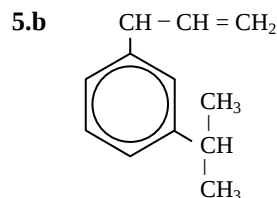
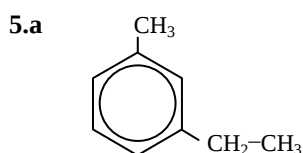
5.3 1-isopropil-3-etilbenceno

5.5 2-butenilbenceno

5.2 1-etil-4-metil-2-propilbenceno

5.4 p-dimetilbenceno

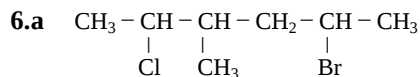
5.6 2,5-difenil-1-hepteno



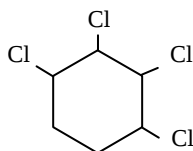
6.1 1,2-dicloropropano

6.3 1,1,3,3-tetraiodo-2,2-dicloropropano

6.5 1-iodo-3-metilciclopenteno



6.c

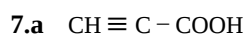


7.1 Ácido 2-cloropropanoico

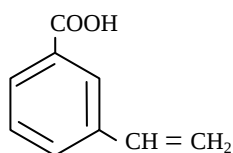
7.3 Ácido 2-fenil-2-propenoico

7.5 Ácido 2-penten-4-inoico

7.7 Ác. p-benzenodicarboxílico (tereftálico)



7.g

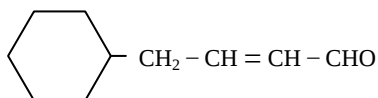


8.1 3-metil-2-butenal

8.3 4-ciclopropil-2-butenal

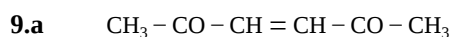


8.c



9.1 4,4-dimetil-2-pentanona

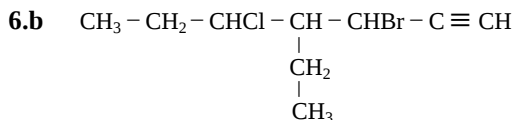
9.3 Dioxobutanodial



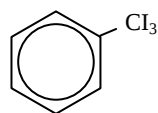
6.2 Diclorodifluormetano

6.4 1,3,5-tribromobenceno

6.6 1,2-dicloropropilciclohexano



6.d

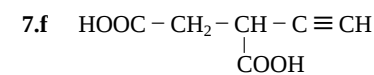
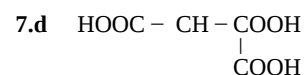
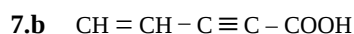


7.2 Ácido Propenoico (acrílico)

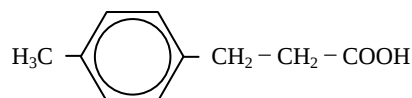
7.4 Ácido 2,5-dimetil-3-hexenoico

7.6 Ácido 4-cloro-3-vinil-2,4-hexadienoico

7.8 Ác. 2-etil-3-metilciclohexanocarboxílico



7.h

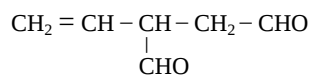


8.2 4-fenil-2-pentenodial

8.4 Ác. 2-formilbutanodioico



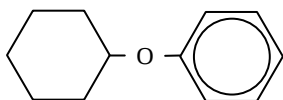
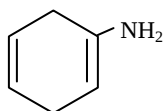
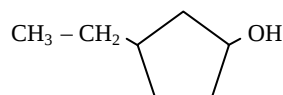
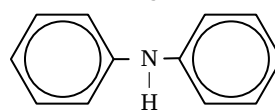
8.d

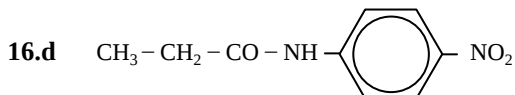
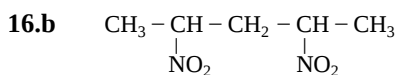
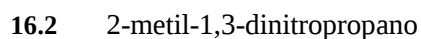
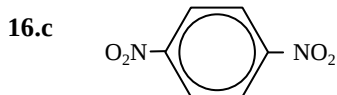
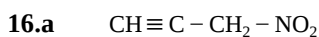
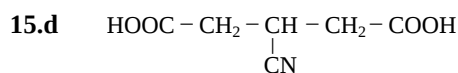
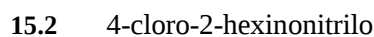
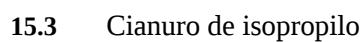
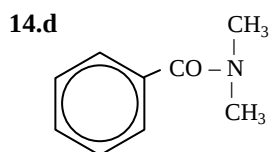
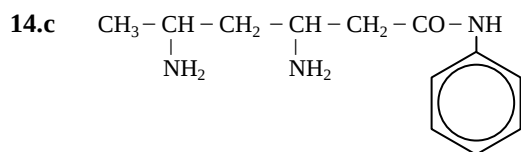
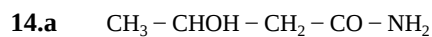


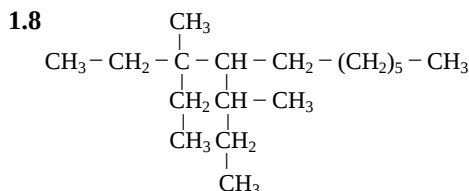
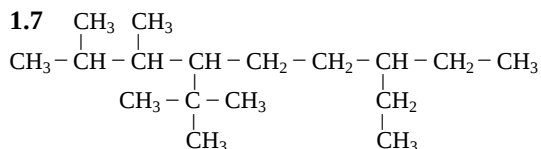
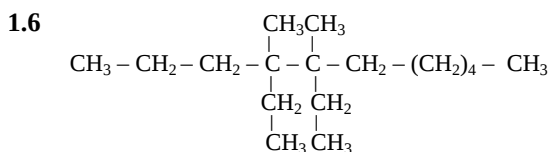
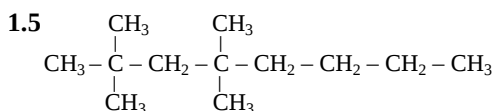
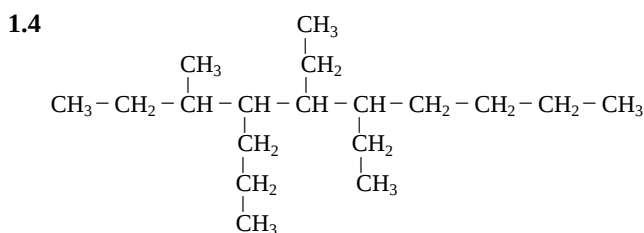
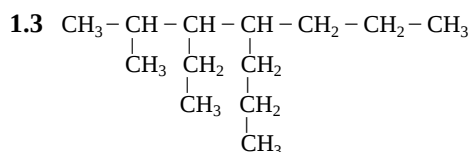
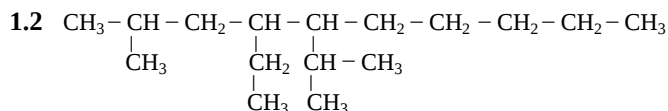
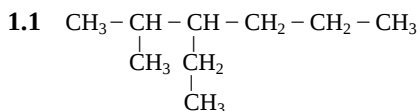
9.2 2,3-hexanodiona

9.4 Ácido 3-formil-4-oxopentanoico



10.1 2-cloro-3-metil-2-butanol**10.2** 2-etil-2,5-hexadien-1,6-diol**10.a** $\text{CH}_3 - \text{CH} = \text{CBr} - \text{CH}_2 - \text{CH}_2\text{OH}$ **10.c** $\text{CH}_3 - \text{CH} = \underset{\text{CH}_3}{\text{C}} - \text{CH} = \underset{\text{CH}_3}{\text{C}} - \text{CH} - \text{CH}_2\text{OH}$ **10.e** $\text{CH}_3 - \text{CH}_2 - \text{C} \equiv \text{C} - \text{CH} = \text{COH} - \underset{\text{CH}_3}{\text{CH}} - \text{COH} = \text{CH} - \text{CH}_2\text{OH}$ **11.1** Metoxibutano**11.2** Isopropoxibenceno**11.a** $\text{CH}_3 - \text{O} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$ **11.c****12.1** Acetato de metilo**12.3** Benzoato de isopropilo**12.5** 2-butenato de 2-butenilo**12.a** $\text{HCOO} - \text{CH}_2 - \text{CH}_3$ **12.c** **13.1** Etilpropilamina**13.3** Ác. 2-amino-3-metilbutanoico
(Aminoácido valina)**13.5** o-cloroanilina**13.a** $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{NH} - \text{CH}_3$ **13.c****13.e** $\text{NH}_2 - \text{CH}_2 - \text{CH} = \text{CH} - \text{COOH}$ **14.1** Acetamida**14.3** N,N-difenilacetamida**14.5** Benzamida**10.3** 3-hidroxipropanal**10.4** Ác. 2,5-dihidroxi-3-hexendioico**10.5** Ác. Salicílico (o-hidroxibenzoico)**10.b** $\text{CH} \equiv \text{C} - \text{CH} = \text{CH} - \text{CH}_2\text{OH}$ **10.d****11.3** Metilvinileter**11.4** 4-metoxi-1-buteno**11.b** $\text{CH}_3 - \text{O} - \text{CH}_3$ **11.d** $\text{CH}_3 - \underset{\text{O}}{\underset{\text{CH}_2}{\underset{\text{CH}_3}{\text{CH}}}} - \text{CH}_2 - \underset{\text{O}}{\underset{\text{CH}_3}{\underset{\text{CH}_3}{\text{CH}}}} - \text{COOH}$ **12.2** Propionato de alilo**12.4** 3-bromopentanoato de fenilo**12.6** 2,4-dioxoheptanoato de bencilo**12.b** $\text{CH}_2 = \text{CH} - \text{COO} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$ **12.d** $\text{CH}_3 - \text{CHOH} - \text{COO} - \text{CH}_2 - \text{CO} - \text{CH}_2 - \text{CH}_3$ **13.2** Dimetilvinilamina**13.4** 3,4-diamino-1,6-hexanodiol**13.6** N,N-dietilpropilamina**13.b** $\text{CH}_3 - \underset{\text{CH}_3}{\text{N}} - \text{CH}_2$ **13.d****13.f** $\text{CH}_3 - \text{NH} - \text{CH}_2 - \text{CH}_2 - \text{CHO}$ **14.2** N-metilbutanamida**14.4** 2,4-hexadienamida**14.6** N-(2,4-diclorofenil)etanamida



SOLUCIONES A LOS EJERCICIOS

1.a 3-metilpentano

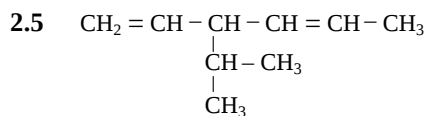
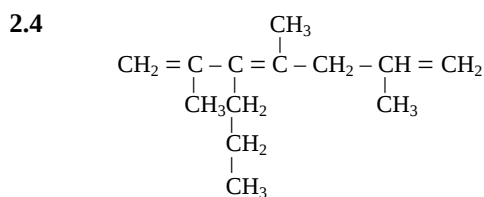
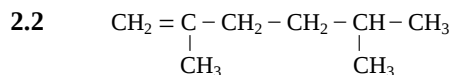
1.b 2,3-dimetilpentano

1.c 3-etil-3,5-dimetilheptano

1.d 4,6-dietil-3,4-dimetiloctano

1.e 3,6-dimetil-5-(1-metilpropil)nonano

1.f 2,3,3,4-tetrametil-5-propil-9-(1,2-dimetilpropil)tridecano



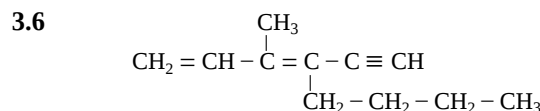
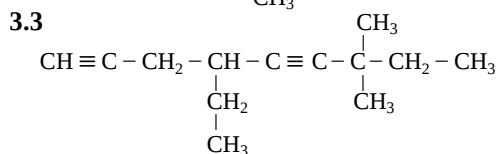
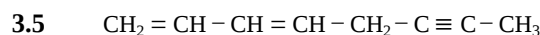
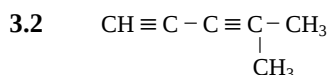
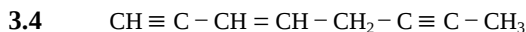
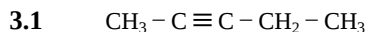
2.a 1-penteno

2.b 2-metil-1,4-pentadieno

2.c 5-metil-1,2,3-octatrieno

2.d 2-propil-1,3,4-hexatrieno

2.e 4-metil-4-(1-metilbutil)-1,2,5,7-nonatetraeno

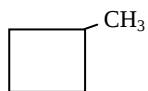
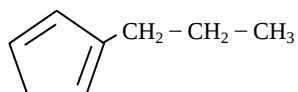
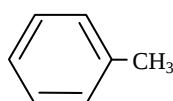
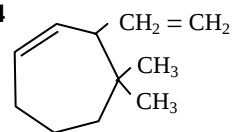
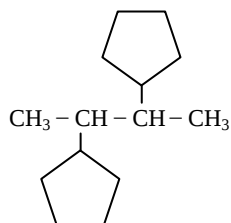
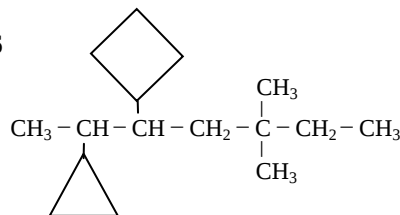
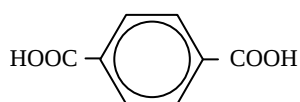
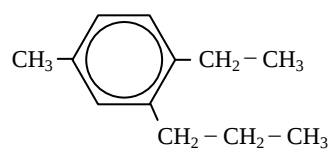
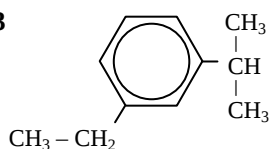
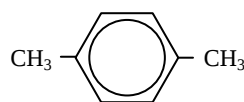
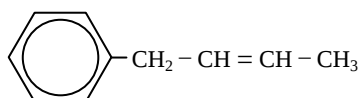
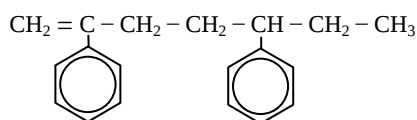
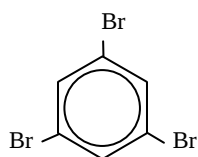
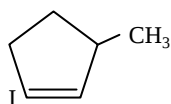
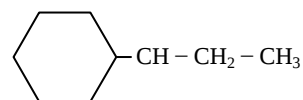


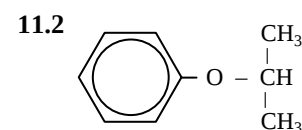
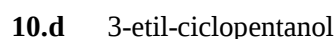
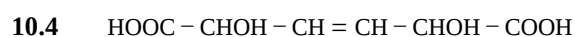
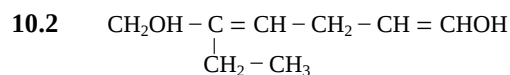
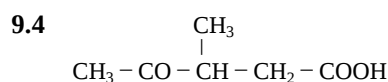
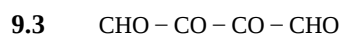
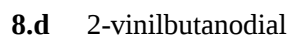
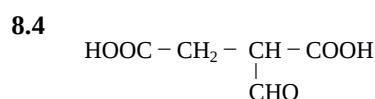
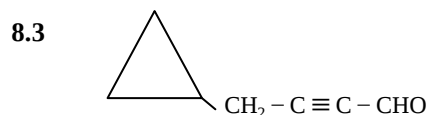
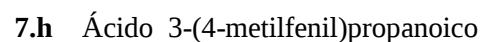
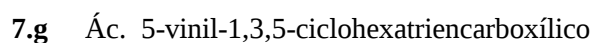
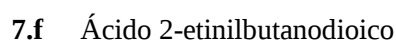
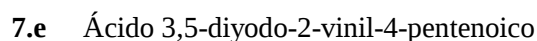
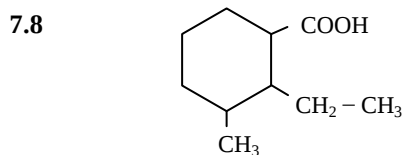
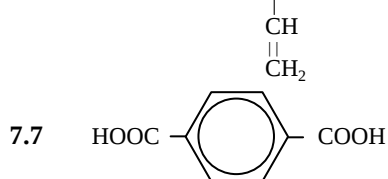
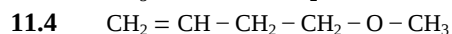
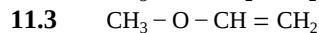
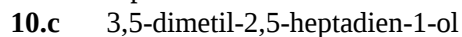
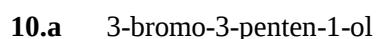
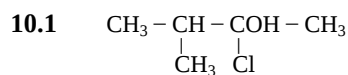
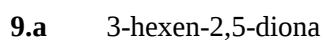
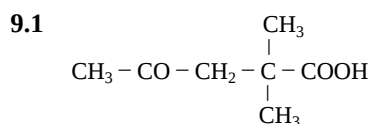
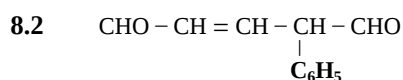
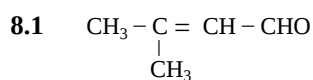
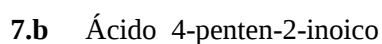
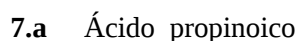
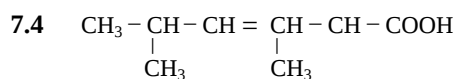
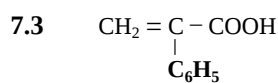
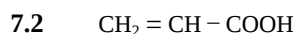
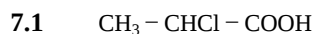
3.a 3,6-dimetil-1,4,7-nonatrieno

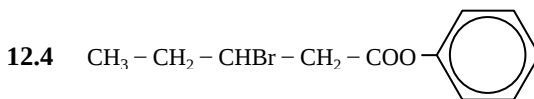
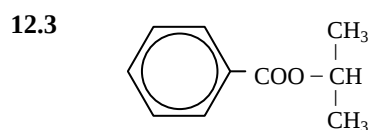
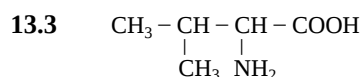
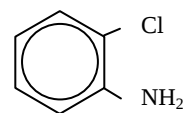
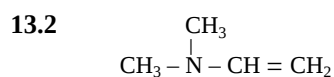
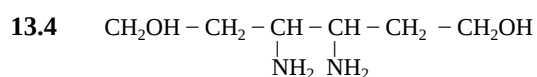
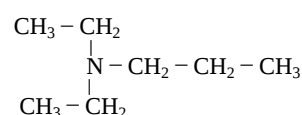
3.d 6-propil-1,7-nonadien-3-ino

3.b 6-metil-3-propil-1,4-heptadieno

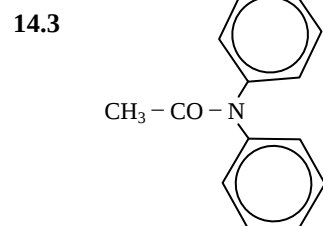
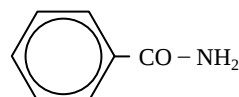
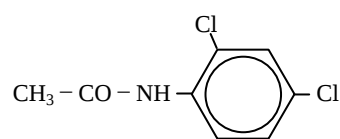
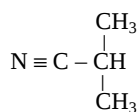
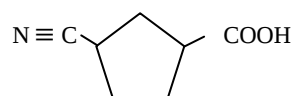
3.e 2-metil-6-(1-propinil)-2,4-nonadien-7-ino

3.c 2-etil-7-metil-1,3,7-octatrien-5-ino**3.f** 4-(1-propinil)-2-hepten-5-ino**4.1****4.2****4.3****4.4****4.5****4.6****4.a** 1-etil-2-metilciclobutano**4.b** 1,3-dietilciclopropeno**4.c** 1-(1-propenil)-1-ciclopenten-3-ino**4.d** 1-(3-metilbutil)-2,4-dimetil-1,3,5-ciclohexatrieno**4.e** 7-ciclohexil-4-(3-metilciclohexil)-2-octeno**5.1****5.2****5.3****5.4****5.5****5.6****5.a** m-etilmetilbenceno**5.c** 1,3,5-trimetilbenceno**5.b** m-alilisopropilbenceno**5.d** 4,8-difenil-6-metil-1-noneno**6.1****6.2****6.3****6.4****6.5****6.6****6.a** 5-bromo-2-cloro-3-metilhexano**6.c** 1,2,3,4-tetracloro-1,4-ciclohexadieno**6.b** 3-bromo-5-cloro-4-etil-1-heptino**6.d** Triyodometilbenceno



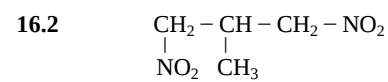
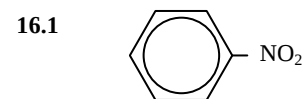
11.b Metoximetano, dimetiléter**11.d** Ácido 2,4-dietoxipentanoico**12.1** $\text{CH}_3 - \text{COO} - \text{CH}_3$ **12.2** $\text{CH}_3 - \text{CH}_2 - \text{COO} - \text{CH}_2 - \text{CH} = \text{CH}_2$ **12.5** $\text{CH}_3 - \text{CH} = \text{CH} - \text{COO} - \text{CH}_2 - \text{CH} = \text{CH} - \text{CH}_3$ **12.6** $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CO} - \text{CH}_2 - \text{CO} - \text{COO} - \text{CH}_2 - \text{C}_6\text{H}_5$ **12.a** Formiato (metanoato) de etilo**12.c** p-metilbenzoato de etilo**12.b** Propenoato de propilo**12.d** 2-hidroxipropionato de 2-oxobutilo**13.1** $\text{CH}_3 - \text{CH}_2 - \text{NH} - \text{CH}_2 - \text{CH}_2 - \text{CH}_3$ **13.5****13.6****13.a**

Metilpropilamina

13.d Difenilamina**13.b** Trimetilamina**13.e** Ácido 4-amino-2-butenico**13.c** 1,4-ciclohexadienamina**13.f** 3-N-metilaminopropanal**14.1** $\text{CH}_3 - \text{CO} - \text{NH}_2$ **14.4** $\text{CH}_3 - \text{CH} = \text{CH} - \text{CH} = \text{CH} - \text{CO} - \text{NH}_2$ **14.2** $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{CO} - \text{NH} - \text{CH}_3$ **14.5****14.6****14.a** 3-hidroxibutanamida**14.c** N-fenil-3,5-diaminohexanamida**14.b** N-metil-3-cloropropanamida**14.d** N,N-dimetilbenzamida**15.1** $\text{CH}_3 - \text{CH}_2 - \text{CH}_2 - \text{C} \equiv \text{N}$ **15.2** $\text{CH}_3 - \text{CH}_2 - \text{CHCl} - \text{C} \equiv \text{C} - \text{C} \equiv \text{N}$ **15.3****15.4**

15.a 4-pentenitrilo

15.b 3-hidroxipropanonitrilo

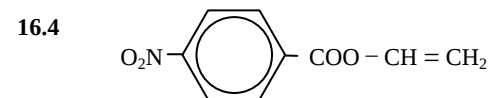
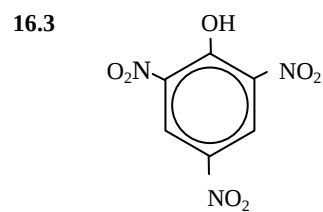


16.a 3-nitro-1-propino

16.b 2,4-dinitropentano

15.c Propanodinitrilo

15.d Ác. 3-cianopentanodioico



16.c p-dinitrobenceno

16.d N-(4-nitrofenil)propanamida