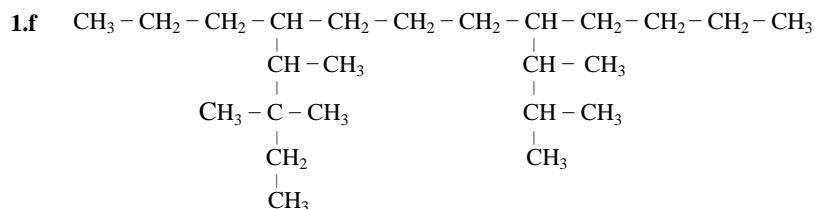
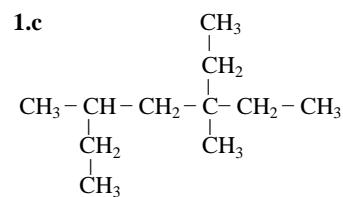
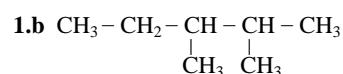
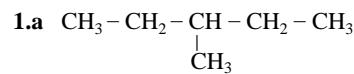
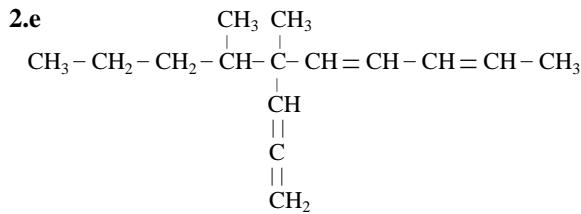
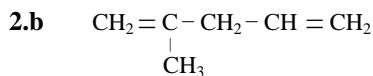


EJERCICIOS SOBRE FORMULACIÓN DE QUÍMICA ORGÁNICA

- 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

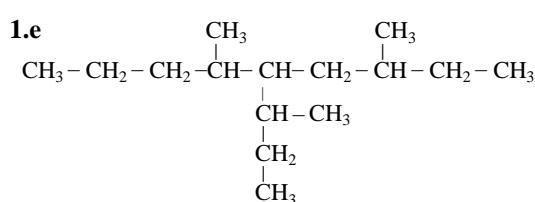
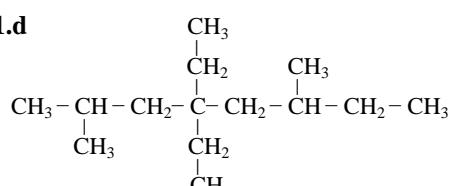


- 2.1** 1-hexeno
 - 2.2** 2,5-dimetil-1-hexeno
 - 2.3** 1,3,5-hexatrieno



- 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

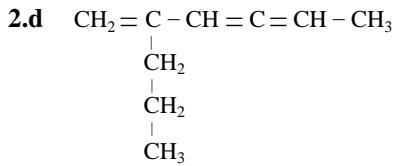
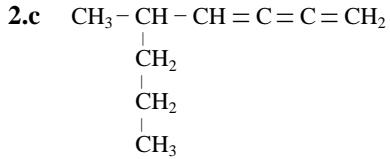


- I₂ – CH₂ – CH₃

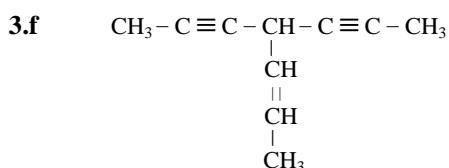
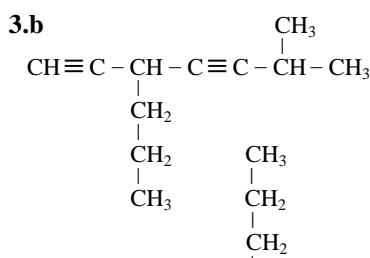
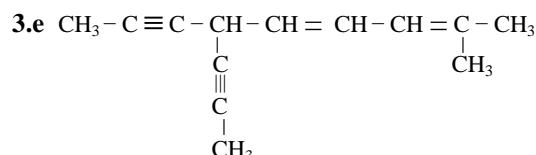
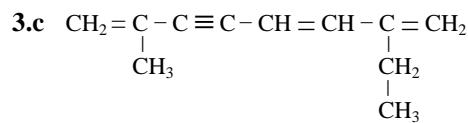
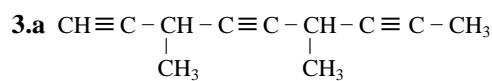
2.4 2,4,6-trimetil-3-propil-1,3,6-heptatrieno

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

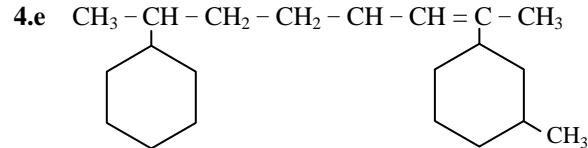
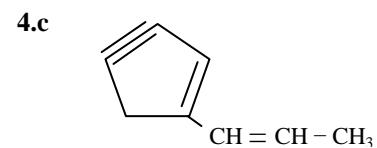
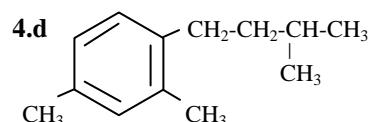
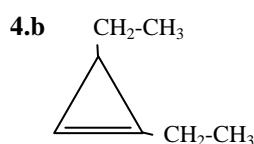
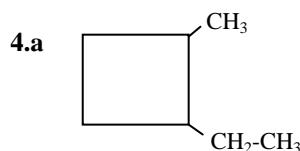
4.3 1-metil-1,3-clohexadien-5-ino

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

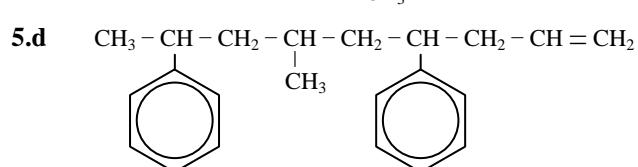
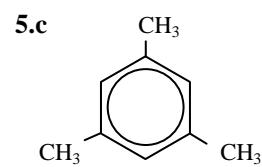
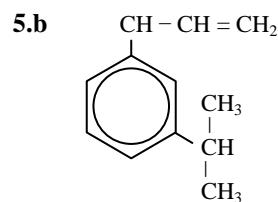
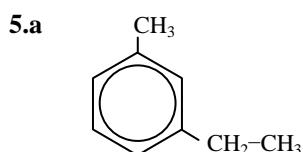
5.3 1-isopropil-3-ethylbenceno

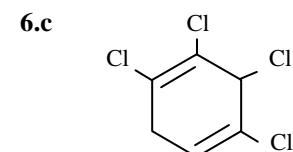
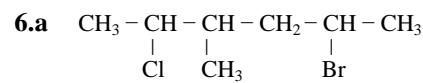
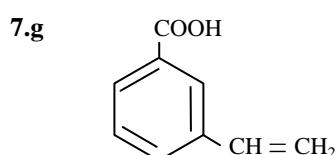
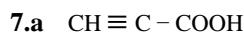
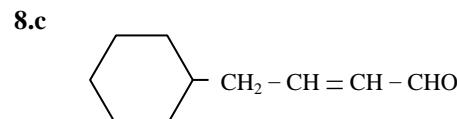
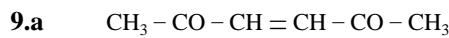
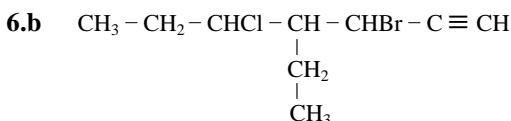
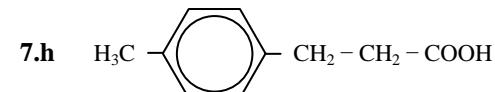
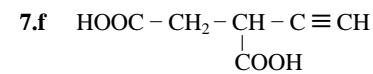
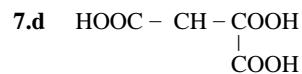
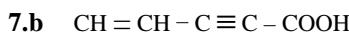
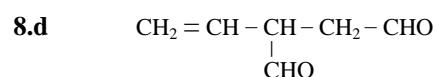
5.5 2-butenilbenceno

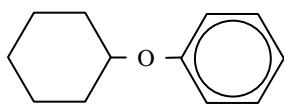
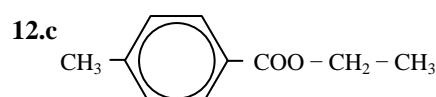
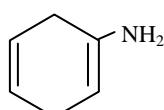
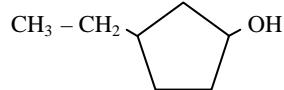
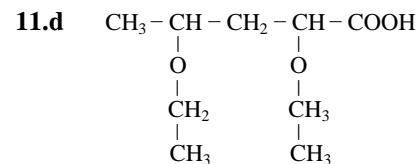
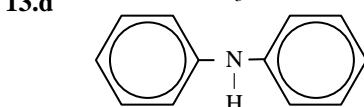
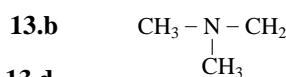
5.2 1-etil-4-metil-2-propilbenceno

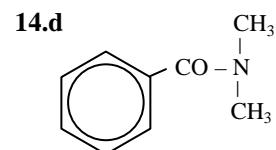
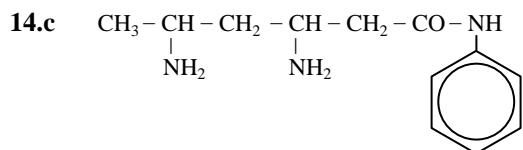
5.4 p-dimetilbenceno

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**7.1** Ácido 2-cloropropanoico**7.3** Ácido 2-fenil-2-propenoico**7.5** Ácido 2-penten-4-inoico**7.7** Ác. p-bencenodicarboxílico (tereftálico)**8.1** 3-metil-2-butenal**8.3** 4-ciclopropil-2-butinal**9.1** 4,4-dimetil-2-pantanona**9.3** Dioxobutanodial**6.2** Diclorodifluormetano**6.4** 1,3,5-tribromobenceno**6.6** 1,2-dicloropropilciclohexano**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-etyl-3-metilciclohexanocarboxílico**8.2** 4-fenil-2-pentenodial**8.4** Ác. 2-formilbutanodioico**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-butenoato de 2-butenilo**12.a** $\text{HCOO} - \text{CH}_2 - \text{CH}_3$ **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** $\text{CH}_3 - \text{O} - \text{CH}_3$ **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.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



15.1 Butanonitrilo

15.3 Cianuro de isopropilo

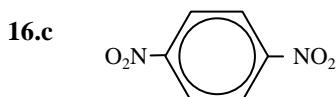
15.a $\text{CH}_2 = \text{CH} - \text{CH}_2 - \text{CH}_2 - \text{CN}$

15.c $\text{NC} - \text{CH}_2 - \text{CN}$

16.1 Nitrobenceno

16.3 2,4,6-trinitrofenol (ác. Pírico)

16.a $\text{CH} \equiv \text{C} - \text{CH}_2 - \text{NO}_2$



15.2 4-cloro-2-hexinonitrilo

15.4 Ác. 3-cianociclopentanocarboxílico

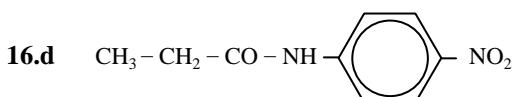
15.b $\text{CH}_2\text{OH} - \text{CH}_2 - \text{C} \equiv \text{N}$

15.d $\text{HOOC} - \text{CH}_2 - \underset{\text{CN}}{\text{CH}} - \text{CH}_2 - \text{COOH}$

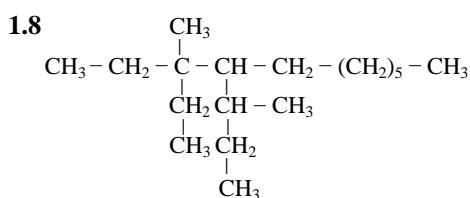
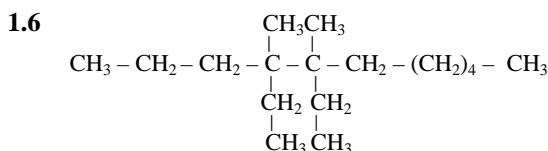
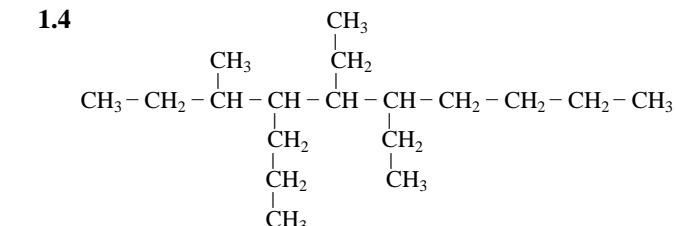
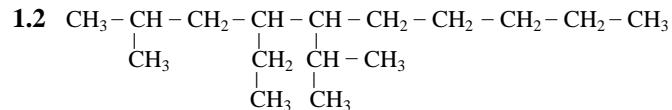
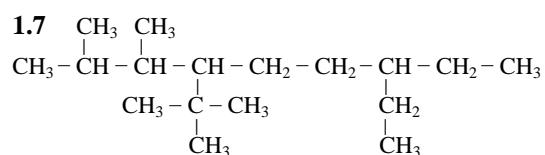
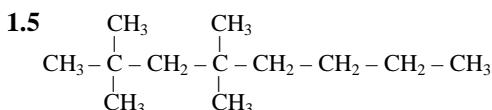
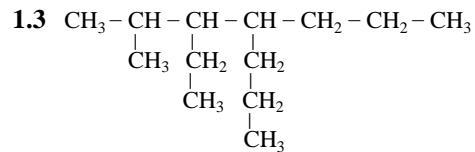
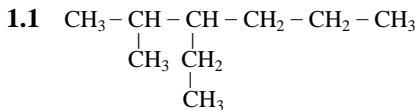
16.2 2-metil-1,3-dinitropropano

16.4 p-nitrobenzoato de vinilo

16.b $\begin{array}{ccccc} \text{CH}_3 & - \underset{\text{NO}_2}{\text{CH}} & - \text{CH}_2 & - \underset{\text{NO}_2}{\text{CH}} & - \text{CH}_3 \\ & | & & | & \\ & \text{NO}_2 & & \text{NO}_2 & \end{array}$



SOLUCIONES A LOS EJERCICIOS



1.a 3-metilpentano

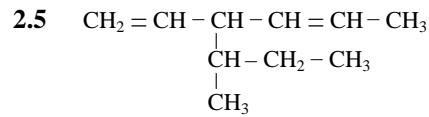
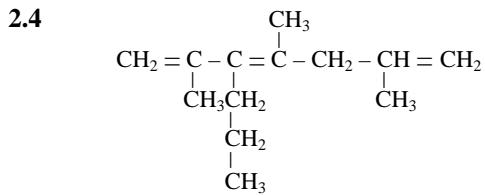
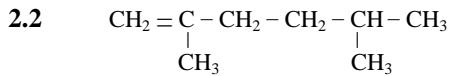
1.d 4,4-dietil-2,6-dimetiloctano

1.b 2,3-dimetilpentano

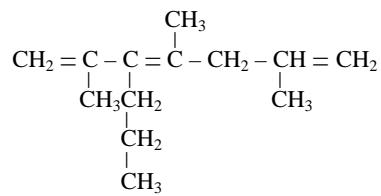
1.e 3,6-dimetil-5-(1-metilpropil)nonano

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

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



2.a 1-buteno

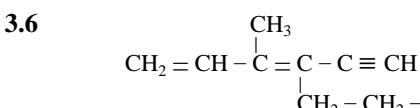
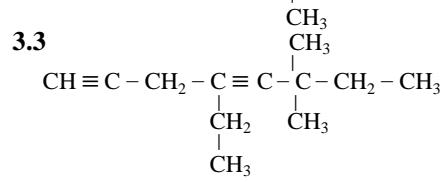
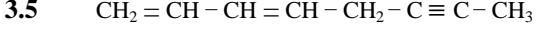
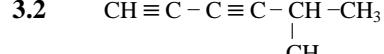
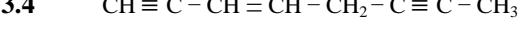
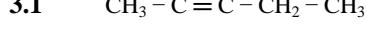


2.b 2-metil-1,4-pentadieno

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

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

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

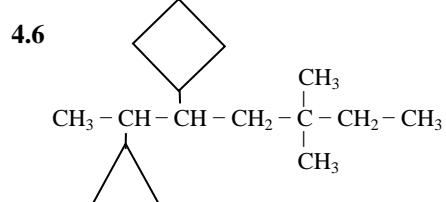
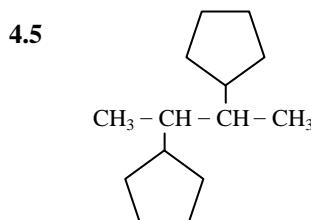
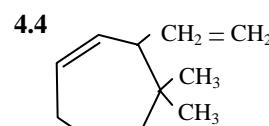
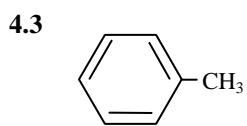
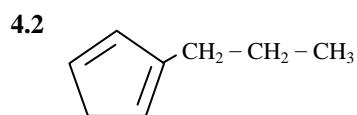
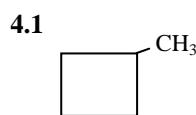
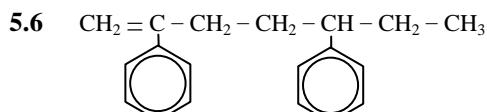
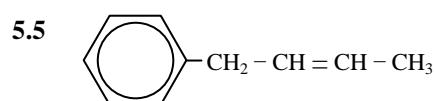
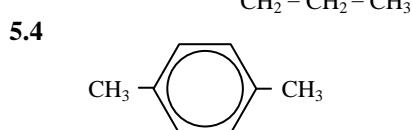
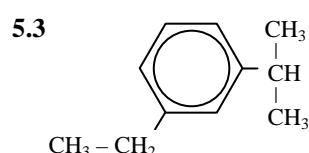
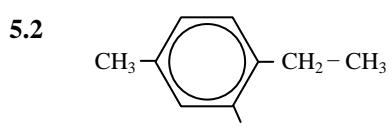
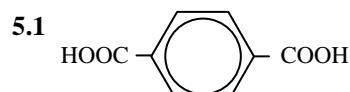
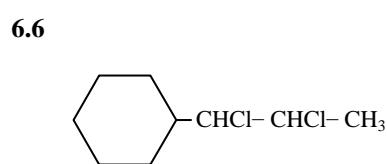
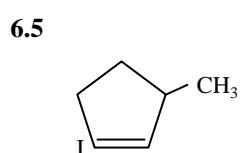
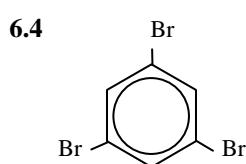


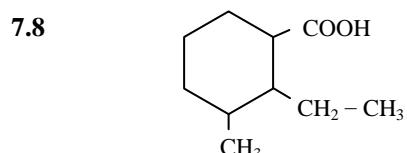
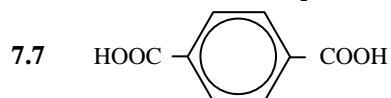
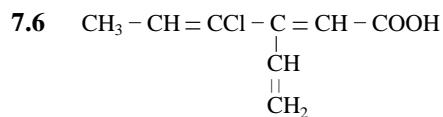
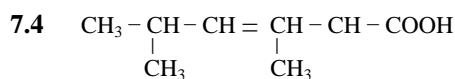
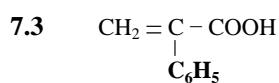
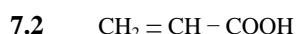
3.a 3,6-dimetil-1,4,7-nonatrieno

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-propenil)-2-hepten-5-ino**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.a** m-etilmetylbenzeno**5.c** 1,3,5-trimetilbenzeno**5.b** m-alilisopropilbenzeno**5.d** 4,8-difenil-6-metil-1-noneno**6.1** $\text{CH}_2\text{Cl}-\text{CHCl}-\text{CH}_3$ **6.2** $\text{Cl}_2\text{F}_2\text{C}$ **6.3** $\text{CHI}_2-\text{CCl}_2-\text{CHI}_2$ **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** Triyodometylbenzeno



7.a Ácido propinoico

7.b Ácido 4-penten-2-inoico

7.c Ácido Butenodioico (malélico)

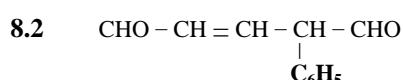
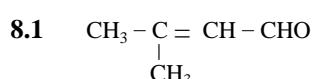
7.d Ác. Carboxipropanodioico (metanotricarboxílico)

7.e Ácido 3,5-diyodo-2-vinil-4-pentenoico

7.f Ácido 2-etinilbutanodioico

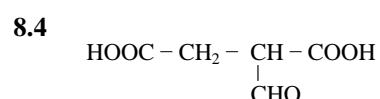
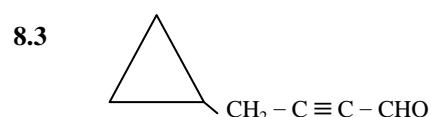
7.g Ác. 5-vinil-1,3,5-ciclohexatriencarboxílico

7.h Ácido 3-(4-metilfenil)propanoico



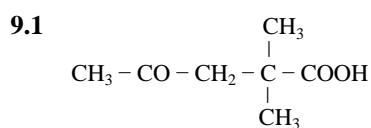
8.a Etanodial

8.b 2-hexen-4-inal



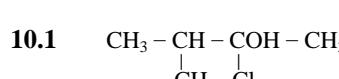
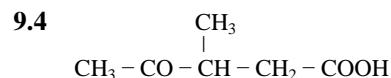
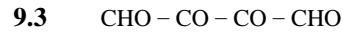
8.c 4-ciclohexil-2-butenal

8.d 2-vinilbutanodial



9.a 3-hexen-2,5-diona

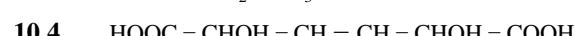
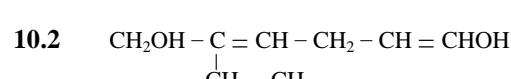
9.b 3-hidroxi-2-butanona



10.a 3-bromo-3-penten-1-ol

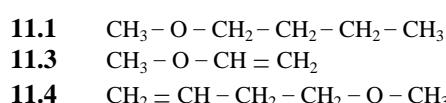
10.b 2-penten-4-in-1-ol

10.c 3,5-dimetil-2,5-heptadien-1-ol

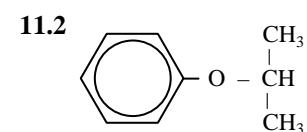


10.d 3-etil-ciclopentanol

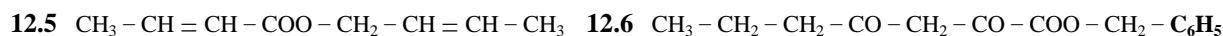
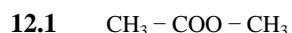
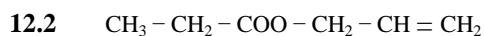
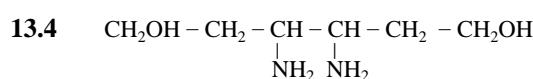
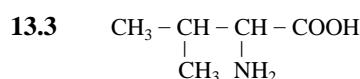
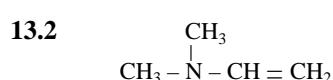
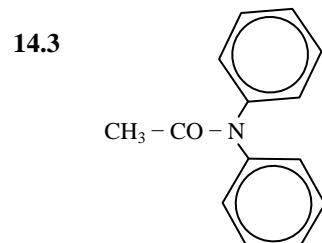
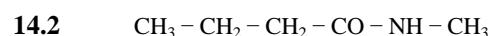
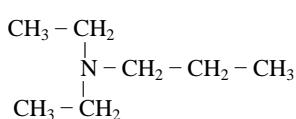
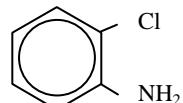
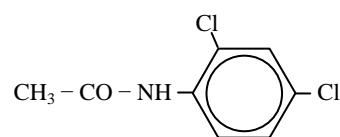
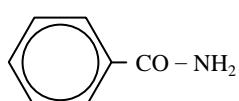
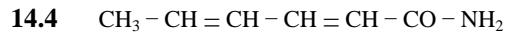
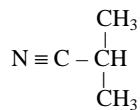
10.e 4-metil-2,5-decadien-7-in-1,3,5-triol

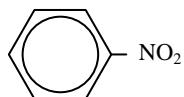
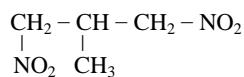
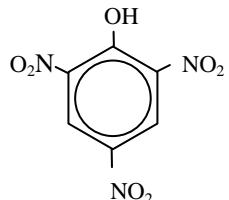


11.a Metoxipropano, metilpropiléter



11.c Ciclohexilfeniléter, ciclohexoxibenceno?

11.b Metoximetano, dimetiléter**11.d** Ácido 2,4-dietoxipentanoico**12.a** Formiato (metanoato) de etilo**12.b** Propenoato de propilo**12.c** p-metilbenzoato de etilo**12.d** 2-hidroxipropionato de 2-oxobutilo**13.a** Metilpropilamina**13.b** Trimetilamina**13.c** 1,4-ciclohexadienamina**14.a** 3-hidroxibutanamida**14.b** N-metil-3-cloropropanamida**15.3****14.c** N-fenil-3,5-diaminohexanamida**14.d** N,N-dimetilbenzamida**15.4**

15.a 4-pentenonitrilo**15.b** 3-hidroxipropanonitrilo**16.1****16.2****16.a** 3-nitro-1-propino**16.b** 2,4-dinitropentano**15.c** Propanodinitrilo**15.d** Ac. 3-cianopentanodioico**16.3****16.4****16.c** p-dinitrobenceno**16.d** N-(4-nitrofenil)propanamida