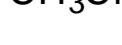


29. 03 炭化水素のハロゲン化誘導体 (Halogenated derivatives of hydrocarbons.)

(A) 非環式炭化水素の塩素化誘導体(飽和のものに限る。)
(Saturated chlorinated derivatives of acyclic hydrocarbons)

(1) クロロメタン (塩化メチル)
(Chloromethane (methyl chloride))



(2) ジクロロメタン (塩化メチレン)
(Dichloromethane (methylene chloride))



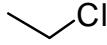
(3) クロロホルム (トリクロロメタン)
(Chloroform (trichloromethane))



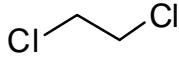
(4) 四塩化炭素
(Carbon tetrachloride)



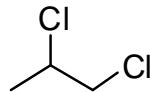
(5) クロロエタン (塩化エチル)
(Chloroethane (ethyl chloride))



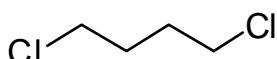
(6) 二塩化エチレン (ISO) (1,2-ジクロロエタン)
(Ethylene dichloride (ISO) (1,2-dichloroethane))



(7) 1,2-ジクロロプロパン (二塩化プロピレン)
(1,2-Dichloropropane (propylene dichloride))

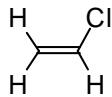


(8) ジクロロブタン
(Dichlorobutanes)
- 1,4-ジクロロブタン
(1,4-Dichlorobutane)

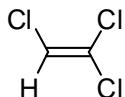


(B) 非環式炭化水素の塩素化誘導体(不飽和のものに限る。)
 (Unsaturated chlorinated derivatives of acyclic hydrocarbons)

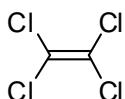
(1) 塩化ビニル (クロロエチレン)
 (Vinyl chloride (chloroethylene))



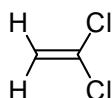
(2) トリクロロエチレン
 (Trichloroethylene)



(3) テトラクロロエチレン (ペルクロロエチレン)
 (Tetrachloroethylene (perchloroethylene))



(4) 塩化ビニリデン
 (Vinylidene chloride)

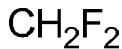


(C) 非環式炭化水素のふつ素化誘導体 (飽和のものに限る。)

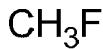
- トリフルオロメタン (HFC-23)
 (Trifluoromethane (HFC-23))



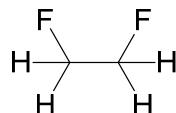
- ジフルオロメタン (HFC-32)
 (Difluoromethane (HFC-32))



- フルオロメタン (HFC-41)
 (Fluoromethane (HFC-41))

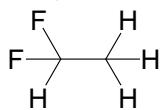


- 1,2-ジフルオロエタン (HFC-152)
 (1,2-Difluoroethane (HFC-152))



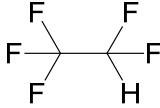
- 1,1-ジフルオロエタン (HFC-152a)

(1,1-Difluoroethane (HFC-152a))



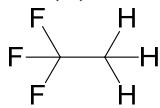
- ペンタフルオロエタン (HFC-125)

(Pentafluoroethane (HFC-125))



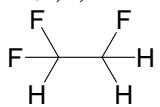
- 1,1,1-トリフルオロエタン (HFC-143a)

(1,1,1-Trifluoroethane (HFC-143a))



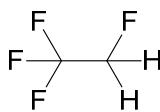
- 1,1,2-トリフルオロエタン (HFC-143)

(1,1,2-Trifluoroethane (HFC-143))



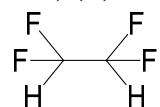
- 1,1,1,2-テトラフルオロエタン (HFC-134a)

(1,1,1,2-Tetrafluoroethane (HFC-134a))



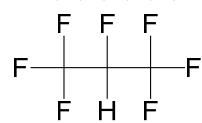
- 1,1,2,2-テトラフルオロエタン (HFC-134)

(1,1,2,2-Tetrafluoroethane (HFC-134))



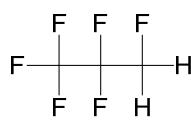
- 1,1,1,2,3,3,3-ヘptaフルオロプロパン (HFC-227ea)

(1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea))



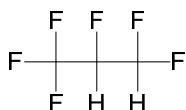
- 1,1,1,2,2,3-ヘキサフルオロプロパン (HFC-236cb)

(1,1,1,2,2,3-Hexafluoropropane (HFC-236cb))



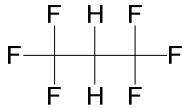
- 1,1,1,2,3,3-ヘキサフルオロプロパン (HFC-236ea)

(1,1,1,2,3,3-Hexafluoropropane (HFC-236ea))



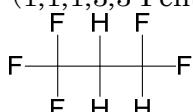
- 1,1,1,3,3,3-ヘキサフルオロプロパン (HFC-236fa)

(1,1,1,3,3,3-Hexafluoropropane (HFC-236fa))



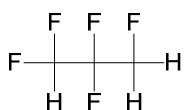
- 1,1,1,3,3-ペンタフルオロプロパン (HFC-245fa)

(1,1,1,3,3-Pentafluoropropane (HFC-245fa))



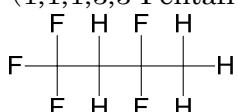
- 1,1,2,2,3-ペンタフルオロプロパン (HFC-245ca)

(1,1,2,2,3-Pentafluoropropane (HFC-245ca))



- 1,1,1,3,3-ペンタフルオロブタン (HFC-365mfc)

(1,1,1,3,3-Pentafluorobutane (HFC-365mfc))



- 1,1,1,2,2,3,4,5,5,5-デカフルオロペンタン (HFC-43-10mee)

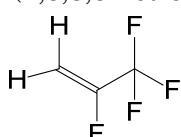
(1,1,1,2,2,3,4,5,5,5-Decafluoropentane (HFC-43-10mee))



(D) 非環式炭化水素のふつ素化誘導体 (不飽和のものに限る。)

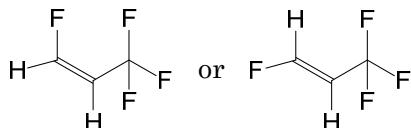
- 2,3,3,3-テトラフルオロプロペン (HFO-1234yf)

(2,3,3,3-Tetrafluoropropene (HFO-1234yf))

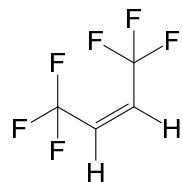


- 1,3,3,3-テトラフルオロプロペン (HFO-1234ze)

(1,3,3,3-Tetrafluoropropene (HFO-1234ze))

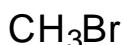


- (Z)-1,1,1,4,4,4-ヘキサフルオロ-2-ブテン (HFO-1336mzz)
(*(Z*)-1,1,1,4,4,4-Hexafluoro-2-butene (HFO-1336mzz))

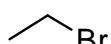


(E) 非環式炭化水素の臭素化誘導体及びよう素化誘導体
(Brominated or iodinated derivatives of acyclic hydrocarbons)

- (1) ブロモメタン (臭化メチル)
(Bromomethane (methyl bromide))



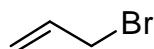
- (2) ブロモエタン (臭化エチル)
(Bromoethane (ethyl bromide))



- (3) ブロモホルム
(Bromoform)



- (4) 臭化アリル
(Allyl bromide)



- (5) ヨードメタン (よう化メチル)
(Iodomethane (methyl iodide))



- ヨードエタン (よう化エチル)
(Iodoethane (ethyl iodide))



- (6) ジヨードメタン (よう化メチレン)
(Di-iodomethane (methylene iodide))

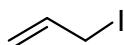


- (7) ヨードホルム
(Iodoform)



(8) よう化アリル (3-ヨードプロペン)

(Allyl iodide (3-iodopropene))



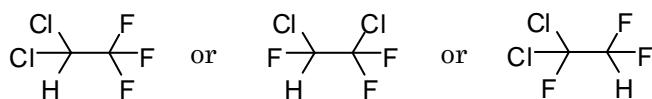
(F) 非環式炭化水素のハロゲン化誘導体 (二以上の異なるハロゲン原子を有するものに限る。)

(Halogenated derivatives of acyclic hydrocarbons containing two or more different halogens)

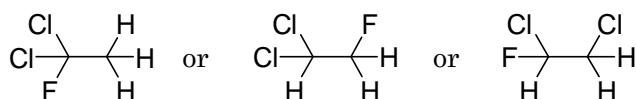
- クロロジフルオロメタン (HCFC-22)
(Chlorodifluoromethane (HCFC-22))



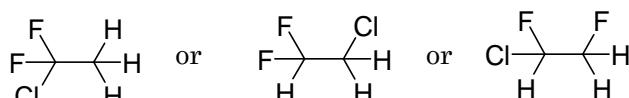
- ジクロロトリフルオロエタン (HCFC-123)
(Dichlorotrifluoroethanes (HCFC-123))



- ジクロロフルオロエタン (HCFC-141,HCFC-141b)
(Dichlorofluoroethanes (HCFC-141,HCFC-141b))

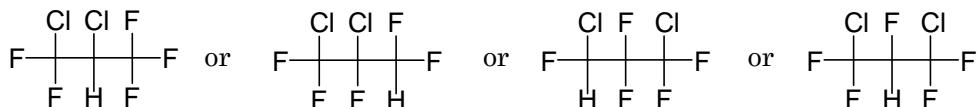
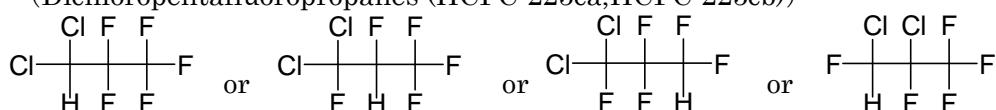


- クロロジフルオロエタン (HCFC-142,HCFC-142b)
(Chlorodifluoroethanes (HCFC-142,HCFC-142b))



- ジクロロペンタフルオロプロパン (HCFC-225ca,HCFC-225cb)

(Dichloropentafluoropropanes (HCFC-225ca,HCFC-225cb))



- ブロモクロロジフルオロメタン (Halon-1211)

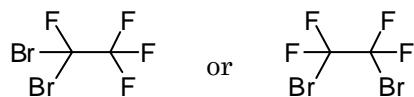
(Bromochlorodifluoromethane (Halon-1211))



- ブロモトリフルオロメタン (Halon-1301)
(Bromotrifluoromethane (Halon-1301))



- ジブロモテトラフルオロエタン (Halon-2402)
(Dibromotetrafluoroethanes (Halon-2402))



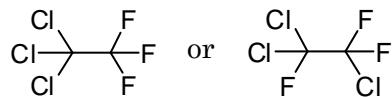
- トリクロロフルオロメタン (CFC-11)
(Trichlorofluoromethane (CFC-11))



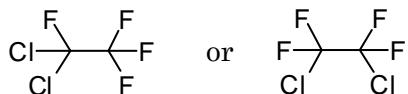
- ジクロロジフルオロメタン (CFC-12)
(Dichlorodifluoromethane (CFC-12))



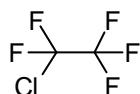
- トリクロロトリフルオロエタン (CFC-113)
(Trichlorotrifluoroethanes (CFC-113))



- ジクロロテトラフルオロエタン (CFC-114)
(Dichlorotetrafluoroethanes (CFC-114))

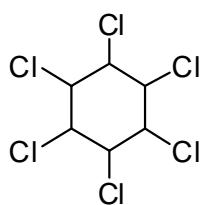


- クロロペンタフルオロエタン (CFC-115)
(Chloropentafluoroethane (CFC-115))



(G) 飽和脂環式炭化水素、不飽和脂環式炭化水素又はシクロテルペニのハロゲン化誘導体
(Halogenated derivatives of cyclanic, cyclenic or cycloterpenic hydrocarbons)

- (1) 1,2,3,4,5,6-ヘキサクロロシクロヘキサン (HCH (ISO))
(1,2,3,4,5,6-Hexachlorocyclohexane (HCH (ISO)))



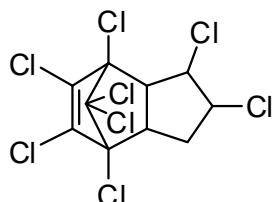
(2) シクロプロパン又はシクロブタンのハロゲン化誘導体

(Halogenated derivatives of cyclopropane or cyclobutane)



(3) オクタクロロテトラヒドロ-4,7-エンドメチレンインダン

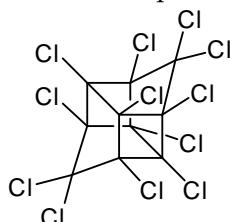
(Octachlorotetrahydro-4,7-endomethyleneindane)



(4) かご型構造の炭化水素のハロゲン化誘導体

(Halogenated derivatives of “cage” structure hydrocarbons)

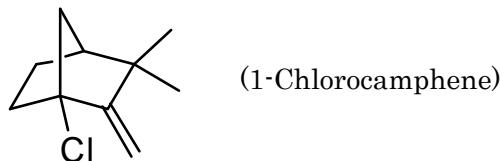
- ドデカクロロペンタシクロ[5.2.1.0^{2,6}.0^{3,9}.0^{5,8}]デカン (マイレックス)
(Dodecachloropentacyclo[5.2.1.0^{2,6}.0^{3,9}.0^{5,8}] decane : Mirex)



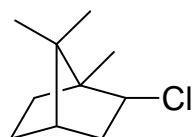
(5) シクロテルペンのハロゲン化誘導体

(Halogenated derivatives of cycloterpenes)

- クロロカンフェン
(Chlorocamphene)

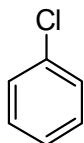


- 塩化ボルニル
(Bornyl chloride)

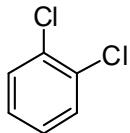


(H) 芳香族炭化水素のハロゲン化誘導体
(Halogenated derivatives of aromatic hydrocarbons)

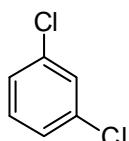
(1) クロロベンゼン
(Chlorobenzene)



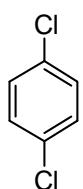
(2) オルト-ジクロロベンゼン
(σ -Dichlorobenzene)



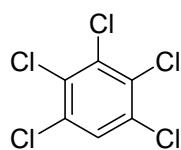
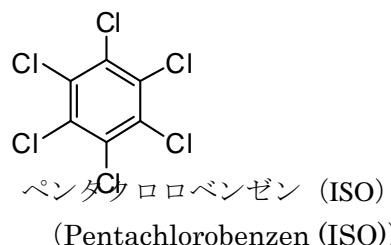
(3) メタ-ジクロロベンゼン
(m -Dichlorobenzene)



(4) パラ-ジクロロベンゼン
(p -Dichlorobenzene)

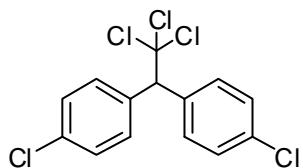


(5) ヘキサクロロベンゼン (ISO)
(Hexachlorobenzene (ISO))



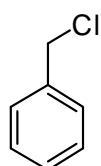
(6) DDT (ISO) (クロフェノタン (INN)、1,1,1-トリクロロ-2,2-ビス(パラ-クロロフェニル)エタン
又はジクロロジフェニルトリクロロエタン)

(DDT (ISO) (clobenotane (INN), 1,1,1-trichloro-2,2-bis(*p*-chlorophenyl)ethane or dichlorodiphenyltrichloroethane))



(7) 塩化ベンジル

(Benzyl chloride)

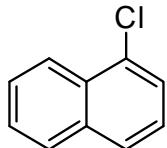


(8) モノクロロナフタレン

(Monochloronaphthalenes)

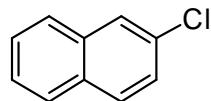
– アルファ-クロロナフタレン

(α -Chloronaphthalene)



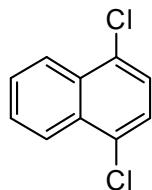
– ベータ-クロロナフタレン

(β -Chloronaphthalene)

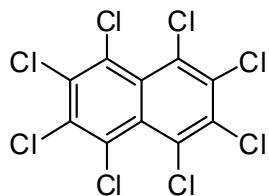


(9) 1,4-ジクロロナフタレン

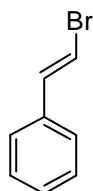
(1,4-Dichloronaphthalene)



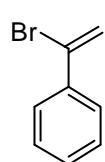
- オクタクロロナフタレン
(Octachloronaphthalene)



- (10) ブロモスチレン
(Bromostyrenes)

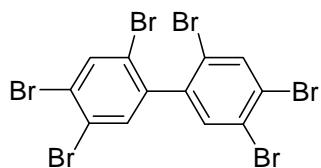


β -Bromostyrene



α -Bromostyrene

- (11) ヘキサブロモビフェニル
(Hexabromobiphenyls)
-2,2',4,4',5,5'-ヘキサブロモビフェニル
(2,2',4,4',5,5'- hexabromobiphenyl)



- 3,3',4,4',5,5'-ヘキサブロモビフェニル
(3,3',4,4',5,5'- hexabromobiphenyl)

