3D printed models of chemical molecules representing different point groups of symmetry

KEY: Match the models with correct point groups

https://www.shapeways.com/shops/point-group-symmetry

POINT GROUP SYMMETRY

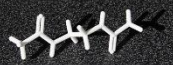
#1

C_1
1

bromofluoroacetic acid

#2

C_i=S_2
$\bar{1}$



N,N`-(1,2-ethanediyl) bis(acetamide)

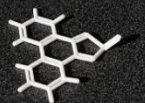
#3

C_2
2

dibromo-octamethyl-biphenyl

#4

C_s
m



phenanthro(9,10-c)-1,2,5-thiadiazole-1-oxide

#5

C_{2h}
2/m

tetra-aqua-bis(9-methyladenine)-copper(II)

#6

D_2
222

trans-bis(ethylenediamine)-dichloro-cobalt(III)

#7

C_{2v}
mm2

1,2-dibromobenzene

#8

D_{2h}
mmm

naphtalene

#9

C_4
4

tetrakis (μ2-cyclohexane-carbodithioato-S,S')-di-platinum(II)

#10

S_4=C_{4i}
$\bar{4}$

1,3,5,7-tetramethyl-cyclo-octa-cis,cis,cis,cis-1,3,5,7-tetraene

#11

C_{4h}
4/m

tetraazidocopper(II)

#12

D_4
422

tetrathiacyclododecane

#13

C_{4v}
4mm

pentaborane(9)

#14

D_{2d}
$\bar{4}$2m

trans-dinitrato-tetrachloro-cerium(IV)

#15

D_{4h}
4/mmm

octachloro-di-rhenium

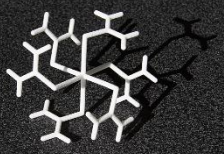
#16

C_3
3

triphenylphosphine

#17

C_{3i}=S_6
$\bar{3}$



hexakis(thiourea) bismuth(III)

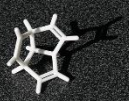
#18

D_3
32

tris(ethylenediamine)-cobalt(III)

#19

C_{3v}
3m



triquinacene

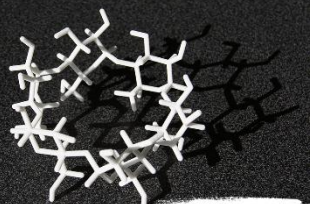
#20

D_{3d}
$\bar{3}$m

4,4`-di-iodobicubyl

#21

C_6
6



alpha-cyclodextrin

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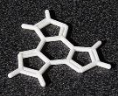
POINT GROUP SYMMETRY

#22

C_{3h}
$\bar{6}$



triimidazo-triazine

#23

C_{6h}
$6/m$

(1,2,3,4,5,6)cyclophane

#24

D_6
622

hexanitrobenzene

#25

C_{6v}
$6mm$

(η^6-hexamethylbenzene)-gallium(I)

#26

D_{3h}
$\bar{6}2m$

cyclopropane

#27

D_{6h}
$6/mmm$

benzene

#28

T
23

hexakis(tetrahydrofuran)-calcium

#29

T_h
$m\bar{3}$

hexa-aqua-cobalt(II)

#30

O
432

$[V_6P_8O_{30}]$ core in octakis(μ3-t-butylphosphonato)-hexaoxo-penta-vanadium(V)-vanadium(IV)

#31

T_d
$\bar{4}3m$

adamantane

#32

O_h
$m\bar{3}m$

cubane

#33

D_{4d}
$\bar{8}2m$

sulfur S_8

#34

C_5
5

1,2,3,4,5-pentamethyl-1',2',3',4',5'-pentaphosphaferrocene

#35

C_{5v}
$5m$

nitrosyl-(pentamethyl-cyclopentadienyl)-nickel

#36

C_{5h}
$\bar{10}$

pentamethylcyclopentadienyl

#37

D_5
52

trans-bis(iodo)-pentakis(tetrahydrofuran-O)-ytterbium(III)

#38

D_{5d}
$\bar{5}m$

ferrocene (staggered)

#39

D_{5h}
$\bar{10}m2$

ruthenocene (eclipsed)

#40

D_{6d}
$\bar{12}2m$

bis(η^6-benzene)-chromium(I) (staggered)

#41

I
235

snub dodecahedron

#42

I_h
$m\bar{3}\bar{5}$

buckminsterfullerene