

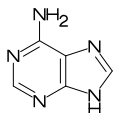
Molecular Coding Format examples

Author : Akira Yamaji Date : May 15, 2023
Located at : <http://www.ctan.org/pkg/mcf2graph>

*use 'mcf2graph.mp' ver 5.01 *typeset with LuaLaTeX *use molecular library file 'main_lib.mcf'
* FM(fm):molecular formula (calculated) * MW(mw):molecular weight (calculated)

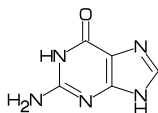
Adenine

MW:135.13 / fm:C5H5N5
mw:135.1267 / [1]



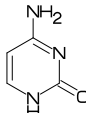
Guanine

MW:151.13 / fm:C5H5N5O
mw:151.1261 / [2]



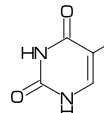
Cytosine

MW:111.10 / fm:C4H5N3O
mw:111.1019 / [3]



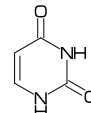
Thymine

MW:126.11 / fm:C5H6N2O2
mw:126.1133 / [4]



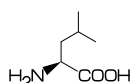
Uracil

MW:112.09 / fm:C4H4N2O2
mw:112.0867 / [5]



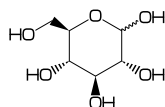
L-Leucine

MW:131.16 / fm:C6H13NO2
mw:131.1729 / [6]



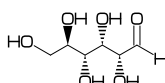
Glucose 1

MW:180.16 / fm:C6H12O6
mw:180.1558 / [7]



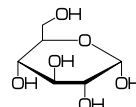
Glucose 2

MW:180.16 / fm:C6H12O6
mw:180.1558 / [8]



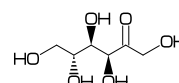
D-Glucose

MW:180.16 / fm:C6H12O6
mw:180.1558 / [9]



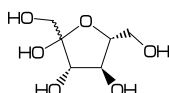
Fructose 1

MW:180.16 / fm:C6H12O6
mw:180.1558 / [10]



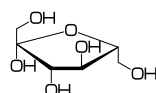
Fructose 2

MW:180.16 / fm:C6H12O6
mw:180.1558 / [11]



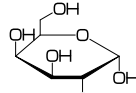
D-Fluctose

MW:180.16 / fm:C6H12O6
mw:180.1558 / [12]



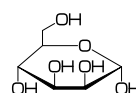
D-Galactose

MW:180.16 / fm:C6H12O6
mw:180.1558 / [13]



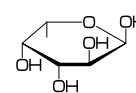
D-Mannose

MW:180.16 / fm:C6H12O6
mw:180.1558 / [14]



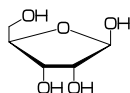
L-Fucose

MW:164.16 / fm:C6H12O5
mw:164.1564 / [15]



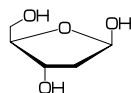
D-Ribose

MW:150.13 / fm:C5H10O5
mw:150.1299 / [16]



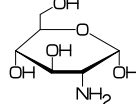
D-Deoxyribose

MW:134.13 / fm:C5H10O4
mw:134.1305 / [17]



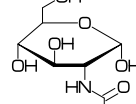
D-Glucosamine

MW:179.17 / fm:C6H13NO5
mw:179.1711 / [18]



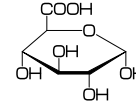
N-acetyl-Glucosamine

MW:221.21 / fm:C8H15NO6
mw:221.2077 / [19]



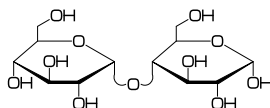
Glucuronic acid

MW:194.14 / fm:C6H10O7
mw:194.1393 / [20]



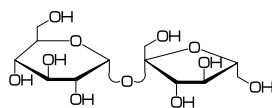
Maltose

MW:342.3 / fm:C12H22O11
mw:342.2964 / [21]



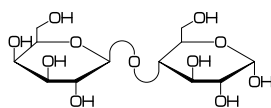
Sucrose

MW:342.3 / fm:C12H22O11
mw:342.2964 / [22]



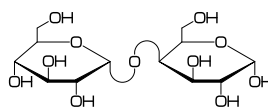
Lactose

MW:342.3 / fm:C12H22O11
mw:342.2964 / [23]



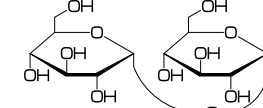
Cellobiose

MW:342.3 / fm:C12H22O11
mw:342.2964 / [24]



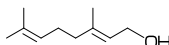
Trehalose

MW:342.3 / fm:C12H22O11
mw:342.2964 / [25]



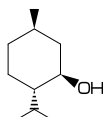
Geraniol

MW:154.25 / fm:C10H18O
mw:154.2493 / [26]



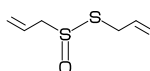
l-Menthol

MW:156.27 / fm:C10H20O
mw:156.2652 / [27]



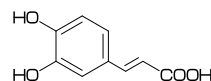
Allicin

MW:162.28 / fm:C6H10OS2
mw:162.2729 / [28]



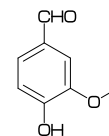
Caffeic acid

MW:180.16 / fm:C9H8O4
mw:180.1574 / [29]



Vanillin

MW:152.15 / fm:C8H8O3
mw:152.1473 / [30]



Stearic acid

MW:284.48 / fm:C18H36O2
mw:284.4772 / [31]



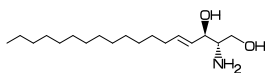
Linoleic acid

MW:280.45 / fm:C18H32O2
mw:280.4454 / [32]



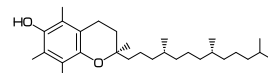
Sphingosine

MW:299.50 / fm:C18H37NO2
mw:299.4918 / [33]



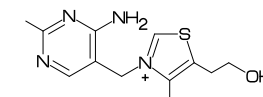
Tocopherol

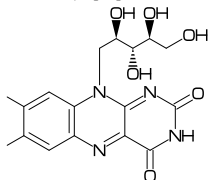
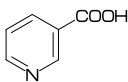
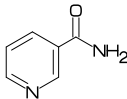
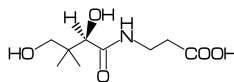
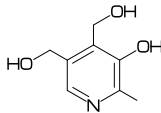
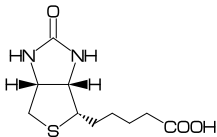
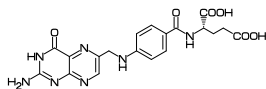
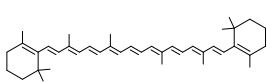
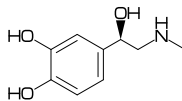
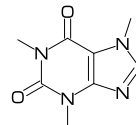
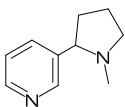
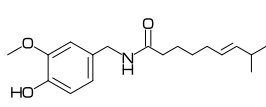
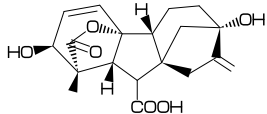
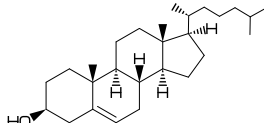
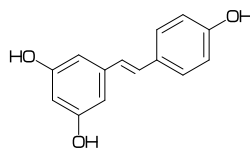
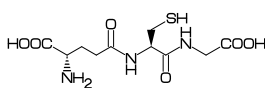
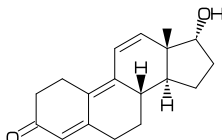
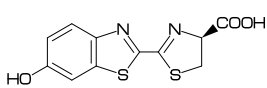
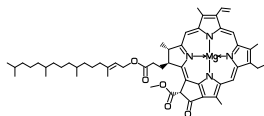
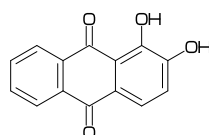
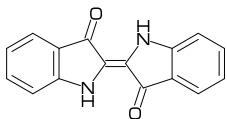
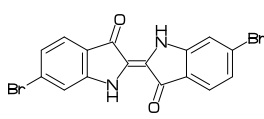
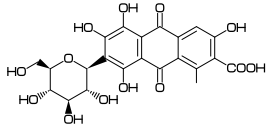
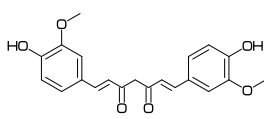
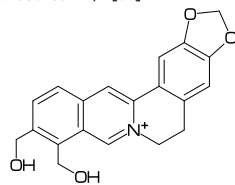
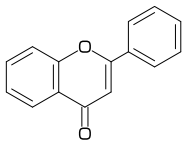
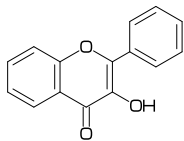
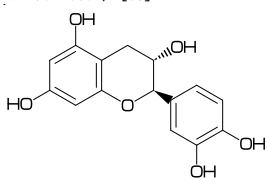
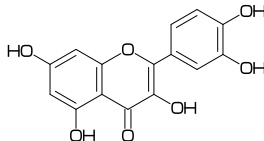
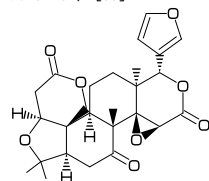
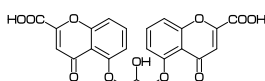
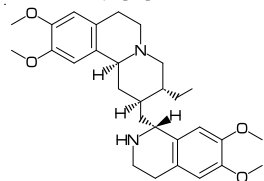
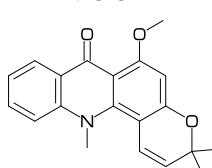
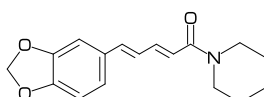
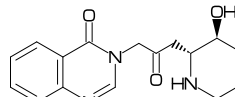
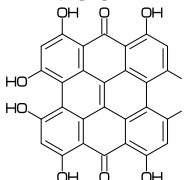
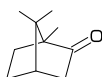
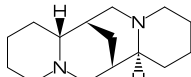
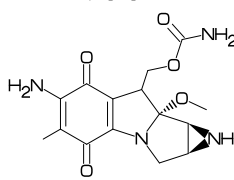
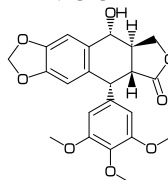
MW:430.717 / fm:C29H50O2
mw:430.7060 / [34]

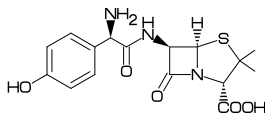
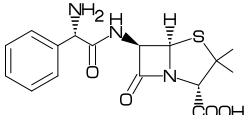
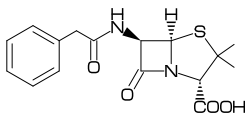
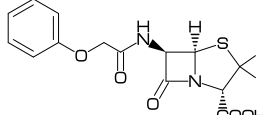
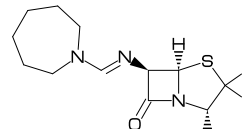
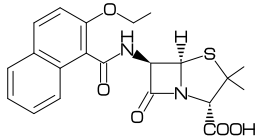
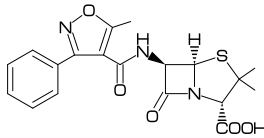
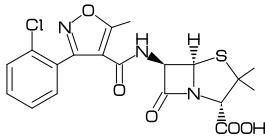
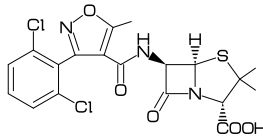
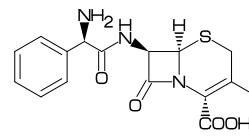
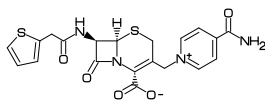
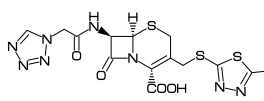
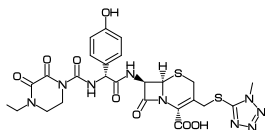
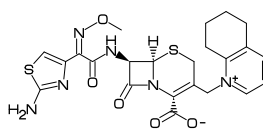
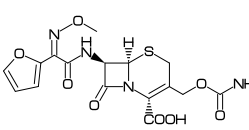
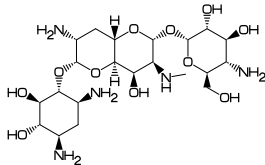
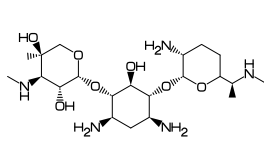
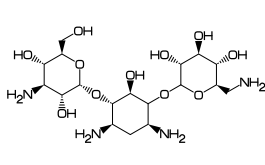
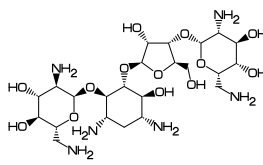
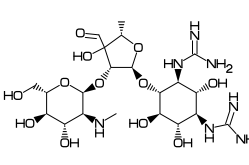
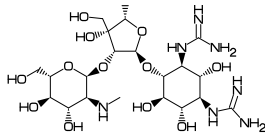
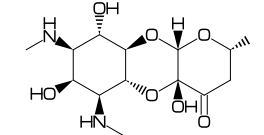
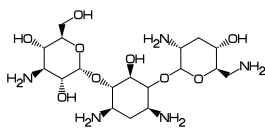
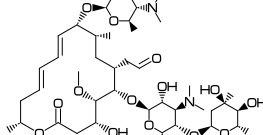
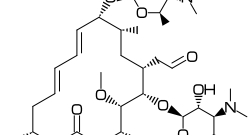
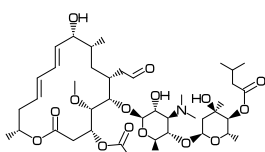
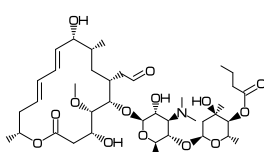
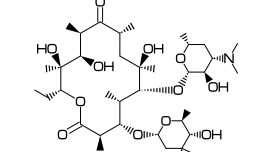
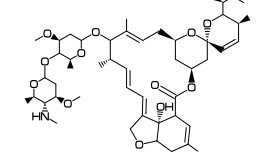
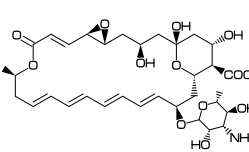
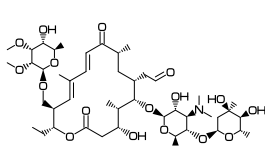
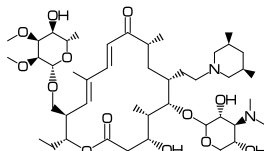
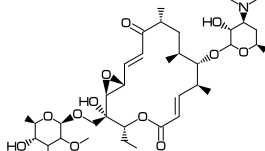
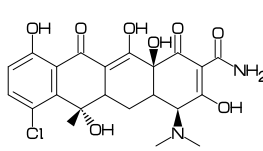
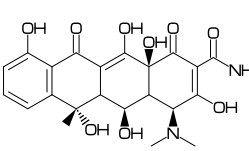
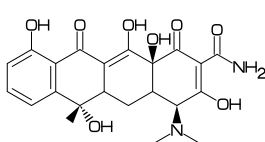
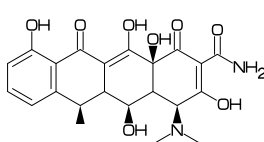
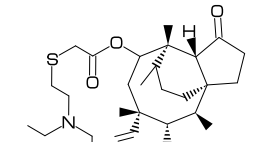
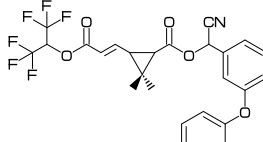
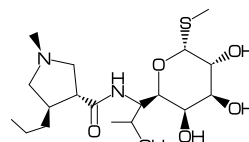


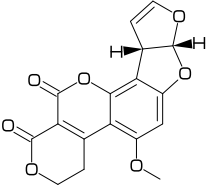
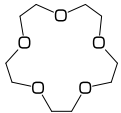
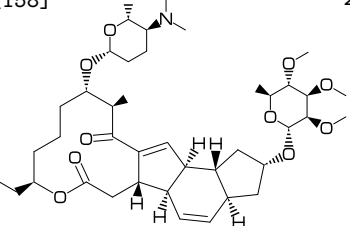
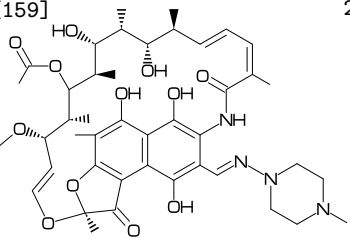
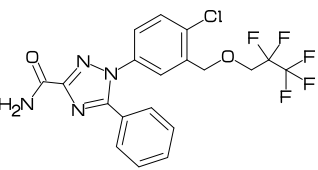
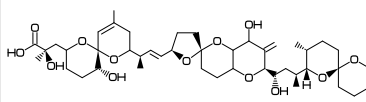
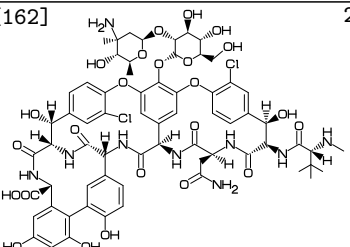
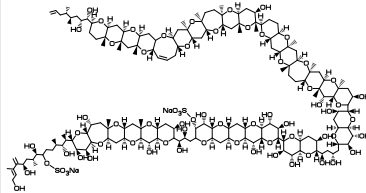
Thiamine

MW:265.35 / fm:C12H17N4OS
mw:265.3545 / [35]



RiboflavinMW:376.37 / fm:C17H20N4O6
mw:376.3638 / [36]**Nicotinic acid**MW:123.11 / fm:C6H5NO2
mw:123.1093 / [37]**Nicotinamide**MW:122.12 / fm:C6H6N2O
mw:122.1246 / [38]**Pantothenic acid**MW:219.23 / fm:C9H17NO5
mw:219.2349 / [39]**Pyridoxine**MW:169.18 / fm:C8H11NO3
mw:169.1778 / [40]**Biotin**MW:244.31 / fm:C10H16N2O3S
mw:244.3106 / [41]**Folic acid**MW:441.3975 / fm:C19H19N7O6
mw:441.3974 / [42]**Carotene**MW:536.8726 / fm:C40H56
mw:536.8726 / [43]**Adrenalin**MW:183.21 / fm:C9H13NO3
mw:183.2044 / [44]**Caffeine**MW:194.194 / fm:C8H10N4O2
mw:194.1905 / [45]**Nicotine**MW:162.23 / fm:C10H14N2
mw:162.2315 / [46]**Capsaicin**MW:305.418 / fm:C18H27NO3
mw:305.4118 / [47]**Gibberellin A3**MW:346.379 / fm:C19H22O6
mw:346.3743 / [48]**Cholesterol**MW:386.664 / fm:C27H46O
mw:386.6535 / [49]**Resveratrol**MW:228.24 / fm:C14H12O3
mw:228.2432 / [50]**Glutathione**MW:307.33 / fm:C10H17N3O6S
mw:307.3234 / [51]**Trenbolone**MW:270.37 / fm:C18H22O2
mw:270.3660 / [52]**Luciferin**MW:280.33 / fm:C11H8N2O3S2
mw:280.3228 / [53]**Chlorophyll a**MW:893.509 / fm:C55H72MgN4O5
mw:893.4889 / [54]**Alizarin**MW:240.21 / fm:C14H8O4
mw:240.2109 / [55]**Indigo**MW:262.26 / fm:C16H10N2O2
mw:262.2627 / [56]**6,6'-dibromoindigo**MW:420.0549 / fm:C16H8Br2N2O2
mw:420.0549 / [57]**Carminic Acid**MW:492.39 / fm:C22H20O13
mw:492.3863 / [58]**Curcumin**MW:368.38 / fm:C21H20O6
mw:368.3798 / [59]**Berberine**MW:336.36 / fm:C20H18NO4
mw:336.3612 / [60]**Flavone**MW:222.24 / fm:C15H10O2
mw:222.2386 / [61]**Flavonol**MW:238.24 / fm:C15H10O3
mw:238.2381 / [62]**Cianidanol**MW:290.27 / fm:C15H14O6
mw:290.2680 / [63]**Quercetin**MW:302.24 / fm:C15H10O7
mw:302.2357 / [64]**Limonin**MW:470.518 / fm:C26H30O8
mw:470.5115 / [65]**Cromolyn**MW:468.37 / fm:C23H16O11
mw:468.3665 / [66]**Emetine**MW:480.649 / fm:C29H40N2O4
mw:480.6388 / [67]**Acronycine**MW:321.376 / fm:C20H19NO3
mw:321.3697 / [68]**Piperine**MW:285.343 / fm:C17H19NO3
mw:285.3376 / [69]**Febrifugine**MW:301.34 / fm:C16H19N3O3
mw:301.3403 / [70]**Hypericin**MW:504.44 / fm:C30H16O8
mw:504.4432 / [71]**Camphor**MW:152.23 / fm:C10H16O
mw:152.2334 / [72]**Sparteine**MW:234.3803 / fm:C15H26N2
mw:234.3803 / [73]**Mitomycine C**MW:334.332 / fm:C15H18N4O5
mw:334.3272 / [74]**Podophyllotoxin**MW:414.41 / fm:C22H22O8
mw:414.4052 / [75]

AmoxicillinMW:365.4042 / fm:C16H19N3O5S
mw:365.4041 / [116]**Ampicillin**MW:349.405 / fm:C16H19N3O4S
mw:349.4047 / [117]**Penicillin G**MW:334.4 / fm:C16H18N2O4S
mw:334.3901 / [118]**Penicillin V**MW:350.3895 / fm:C16H18N2O5S
mw:350.3895 / [119]**Mecillinam**MW:325.4264 / fm:C15H23N3O3S
mw:325.4264 / [120]**Nafcillin**MW:414.4748 / fm:C21H22N2O5S
mw:414.4747 / [121]**Oxacillin**MW:401.4363 / fm:C19H19N3O5S
mw:401.4362 / [122]**Cloxacillin**MW:435.8813 / fm:C19H18ClN3O5S
mw:435.8813 / [123]**Dicloxacillin**MW:470.3264 / fm:C19H17Cl2N3O5S
mw:470.3263 / [124]**Cefalexin**MW:347.3889 / fm:C16H17N3O4S
mw:347.3888 / [125]**Cefalonium**MW:458.5107 / fm:C20H18N4O5S2
mw:458.5107 / [126]**Cefazolin**MW:454.51 / fm:C14H14N4O4S3
mw:454.5071 / [127]**Cefoperazone**MW:645.67 / fm:C25H27N9O8S2
mw:645.6673 / [128]**Cefquinome**MW:528.6 / fm:C23H24N6O5S2
mw:528.6038 / [129]**Cefuroxime**MW:424.3852 / fm:C16H16N4O8S
mw:424.3852 / [130]**Apramycin**MW:539.58 / fm:C21H41N5O11
mw:539.5771 / [131]**Gentamycin**MW:477.596 / fm:C21H43N5O7
mw:477.5954 / [132]**Kanamycin**MW:484.499 / fm:C18H36N4O11
mw:484.4986 / [133]**Neomycin**MW:614.644 / fm:C23H46N6O13
mw:614.6437 / [134]**Streptomycin**MW:581.574 / fm:C21H39N7O12
mw:581.5740 / [135]**dihydro-Streptomycin**MW:583.574 / fm:C21H41N7O12
mw:583.5899 / [136]**Spectinomycin**MW:332.35 / fm:C14H24N2O7
mw:332.3495 / [137]**Tobramycin**MW:467.51 / fm:C18H37N5O9
mw:467.5144 / [138]**Spiramycin**MW:843.1 / fm:C43H74N2O14
mw:843.0526 / [139]**Neospiramycin**MW:698.9 / fm:C36H62N2O11
mw:698.8842 / [140]**Josamycin**MW:827.995 / fm:C42H69N2O15
mw:827.9949 / [141]**Leucomycin A5**MW:771.942 / fm:C39H65N2O14
mw:771.9317 / [142]**Erythromycin**MW:733.93 / fm:C37H67N2O13
mw:733.9267 / [143]**Emamectine**MW:886.133 / fm:C49H75N2O13
mw:886.1187 / [144]**Natamycin**MW:665.733 / fm:C33H47N2O13
mw:665.7251 / [145]**Tylocin**MW:916.10 / fm:C46H77N2O17
mw:916.1000 / [146]**Tilmicosin**MW:869.133 / fm:C46H80N2O13
mw:869.1330 / [147]**Mirosamicin**MW:727.8791 / fm:C37H61N2O13
mw:727.8791 / [148]**Chlortetracycline**MW:478.88 / fm:C22H23ClN2O8
mw:478.8796 / [149]**Oxytetracycline**MW:460.434 / fm:C22H24N2O9
mw:460.4339 / [150]**Tetracycline**MW:444.435 / fm:C22H24N2O8
mw:444.4345 / [151]**Doxycycline**MW:444.43 / fm:C22H24N2O8
mw:444.4345 / [152]**Tiamulin**MW:493.74 / fm:C28H47N4O4S
mw:493.7420 / [153]**Acrinathrin**MW:541.45 / fm:C26H21F6N2O5
mw:541.4390 / [154]**Lincomycin**MW:406.54 / fm:C18H34N2O6S
mw:406.5373 / [155]

[156]	2	Aflatoxin ₁ G ₁	biological	328.27	328.2729	C17H12O7
		<chem><30,Ph,6=?6,-2=?6,4=?5,-2=?5,{-2,10}=d1,{7,12,15,18}:0,2:/O!,{8,11}:/O,{16^54,17^54}:*/H</chem>				
[157]	2	15-Crown-5	synthetic	220.26	220.2628	C10H20O5
		<chem><-180,0,48,60,60,0,-48,60,60,0,-48,60,60,0,-48,60,60,0,-48,60,&1</chem>				
[158]	2	Spinosad	antibiotics	731.968	731.9555	C41H65N ₁₀ O
		<chem><30,#1,<-120,60,60,-60,60,60,60,-60,60,60,60,-60,&1,##,5=?5,-1=d1,{-2^60,3^35}:/*H,-3=?6,-4=d1,{-1^35,-2'^60}:*/H,-2=?5,2:0,{3^25,7^25}:/O,1:*/!,@-2,*,0,66^zb,?6'.7,-1:0,#.5,-2:*/_{-3',-4,-5}:*/O!,8:*/_{5^65}:*/H,##,@9,*,0,!^zb,l,?6'.7,6:0,#.5,5:*/_{4:*/N?!</chem>				
[159]	2	Rifampicin	antibiotics	822.94	822.9402	C43H58N ₄ O ₁₂
		<chem><30,Ph,6:/_30,5:/OH,-6=?5,-3:0,-8=?6,{-2,-4}=d1,{-1,-4}:/OH,#1,@-2,\,NH,60,-60,60^d1,60,60^d1,-60,60,-60,60,60,-60,60,-53,66,-53^d1,66'1.2,0,##,&\$8, ,{9,15}:/O,16:/_{20,24^30}:*/_{21,23}:/*OH,{8^60,22,26^30}:/*_{-4:/*O!,@-6,-30,0,!//O,!,@\$11,\,!!N,! ,?6,1:N,4:N!</chem>				
[160]	2	Flupoxam	pesticide	460.8	460.7850	C19H14ClF ₅ N ₄ O ₂
		<chem><30,Ph,4:/Cl,@1,\,?5,{-2,-4}=db,{-2,-4,-5}:N,-1:/Ph,@-3,\,//O,!NH2,@3,\,!0,!2,/F^35,/F^35,!CF3</chem>				
[161]	2	Okadaic ₁ acid	biological	805.00	805.0029	C44H68O ₁₃
		<chem><30,?6,@4,?6,@-4,\,!3,<-12,?5,@-3,<-12,?6,-3=?6,@-3,*\,!3,?6,@-4,?6,@6,\,!/*_{^40,*/OH^20,!//O,!1,OH,3=wb,11=d1,15=dr,17=wf,19=wf,38=wb,{5,7,16,24,25,33,42}:0,32:*/H^60,10:/_{12,31,37'}:*/_{27:/_28:/OH,{3,29}:/*OH</chem>				
[162]	2	Vancomycin	antibiotics	1449.25	1449.253	C66H75Cl ₁₂ N ₉ O ₂₄
		<chem><-30,#1,!12,{1,3,12}=zf,7=wf,60,60,Ph,@-3,\,0,!Ph,@-4,\,0,!Ph,@-3,\,&1,@7,&26,@\$1,60,60,NH,60,-60,Ph,@-1,\,Ph,@-2,&4,##,{36,3^40,6,9,12}:/O,{2,5,8,11}:NH,{1,4^180,7'^60,10'^60,14'^60,35^60}:*/H,{41,43,46}:/OH,{14,35'}:*/OH,{17,34^15}:/Cl,38^180:*/COOH,@10,*\^60,60,//O,!NH2,@13,*\,NH,!//O,!/??!/*H^60,!^zf,NH,!,@23,\,0,!^zf,l,?6'.7,2:0,3^10:*/!OH,{4',5}:*/OH,@-1,*,0,!^wb,l,?6'.7,6:0,{3'^35,5}:*/_{3^35:NH2,4:/*OH,</chem>				
[163]	2	Maitotoxin	biological	3425.86	3425.856	C164H256Na ₂₀ S ₂
		<chem><55.8,?6,-4=?7_{\,{-4,-3,-3}=?6,@-3,\,!3,?6,{-4,-3,-3}=?6,@-3,\,?6,-3=?6,@-3,\,!3,60,<-30,?6,-3=?6,@-3,30,<30,?6,{-3,-3}=?6,=?7,{-4,-3,-3}=?6,@-2,\,?6,-3=?6,-3=?7,{-3,-3}=?6,-3=?8,-3=d1,{-5,-3,-3}=?6,{5,7,15,16,23,24,32,40,41,48,49,58,59,72,73,82,83,90,91,99,100,107,113,114,122,123,130,131,140,141,148,149}:0,{1^60,2,26,28,29,51,54,61,63,68,75^60,78,109}:*/OH,{11,20,35,45,52,55,65,69,86}:/*OH,{3,8,13,17,21,33,38,42,56,70,84,92,101,106,111,128,138,142,146,150}:/*H^-60,{4,14,22,34,39,43,47',57',71',81,89,98,102,116,121,125,129,133}:*/H^60,{6,46,50,53,60,67,74}:*/H^-60,{9,18,85,93,112,139,143,147}:*/_{^60'1,{80,88,97,108',115,120,124}:/*_{^60'1,@\$6,\,l,!11,60^dr,-60,60,OH,{2',7,10}:*/OH,{1,3,8'}:*/_{11:/_12:/_,@6,\,0,30,S03Na,@\$36,-45^zf,0,30,S03Na,@\$150,\,l,17,{1,2}:/*OH,4:*/_{5:/*_{7=d1</chem>				