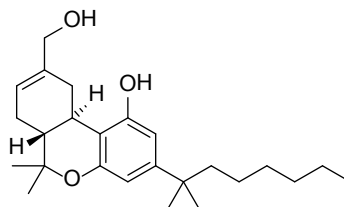


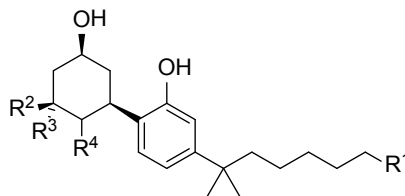
## Synthetic cannabinoids (60 substances)

### a) Classical cannabinoid



Common name	Chemical name	CAS number	Molecular Formula
HU-210 <i>Synonym:</i> 11-Hydroxy-Δ-8-THC-DMH	3-(1,1'-dimethylheptyl)-6 <i>aR</i> ,7,10,10 <i>aR</i> -tetrahydro-1-hydroxy-6,6-dimethyl-6 <i>H</i> -dibenzo[ <i>b,d</i> ]pyran-9-methanol	112830-95-2	C <sub>25</sub> H <sub>38</sub> O <sub>3</sub>

### b) Nonclassical cannabinoids

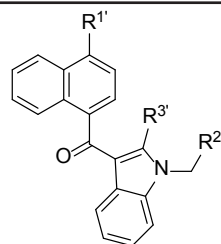


Common name	Chemical name	CAS number	Molecular Formula	R <sup>1</sup>	R <sup>2</sup>	R <sup>3</sup>	R <sup>4</sup>
CP-47,497	<i>rel</i> -2[(1 <i>S</i> ,3 <i>R</i> )-3-hydroxycyclohexyl]-5-(2-methyloctan-2-yl) phenol	70434-82-1	C <sub>21</sub> H <sub>34</sub> O <sub>2</sub>	CH <sub>3</sub>	H	H	H
CP-47,497-C6	<i>rel</i> -2[(1 <i>S</i> ,3 <i>R</i> )-3-hydroxycyclohexyl]-5-(2-methylheptan-2-yl) phenol	-	C <sub>20</sub> H <sub>32</sub> O <sub>2</sub>	H	H	H	H
CP-47,497-C8 <i>Synonym:</i> Cannabicyclohexanol	<i>rel</i> -2-[(1 <i>S</i> ,3 <i>R</i> )-3-hydroxycyclohexyl]-5-(2-methylnonan-2-yl) phenol	70434-92-3	C <sub>22</sub> H <sub>36</sub> O <sub>2</sub>	C <sub>2</sub> H <sub>5</sub>	H	H	H

Common name	Chemical name	CAS number	Molecular Formula	R <sup>1</sup>	R <sup>2</sup>	R <sup>3</sup>	R <sup>4</sup>
CP-47,497-C9	<i>rel</i> -2-[(1 <i>S</i> ,3 <i>R</i> )-3-hydroxycyclohexyl]-5-(2-methyldecan-2-yl)phenol	-	C <sub>23</sub> H <sub>38</sub> O <sub>2</sub>	C <sub>3</sub> H <sub>7</sub>	H	H	H
CP-55,940	<i>rel</i> -2-((1 <i>R</i> ,2 <i>R</i> ,5 <i>R</i> )-5-hydroxy-2-(3-hydroxypropyl)cyclohexyl)-5-(2-methyloctan-2-yl)phenol	83003-12-7	C <sub>24</sub> H <sub>40</sub> O <sub>3</sub>	CH <sub>3</sub>	H	H	3-hydroxypropyl
Dimethyl CP-47,497-C8	<i>rel</i> -2-[(1 <i>S</i> ,3 <i>R</i> )-3-hydroxy-5,5-dimethylcyclohexyl]-5-(2-methylnonan-2-yl)phenol	-	C <sub>24</sub> H <sub>40</sub> O <sub>2</sub>	C <sub>2</sub> H <sub>5</sub>	CH <sub>3</sub>	CH <sub>3</sub>	H

### c) Aminoalkylindoles

#### i) Naphthoylindoles

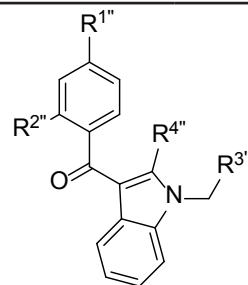


Common name	Chemical name	CAS number	Molecular Formula	R <sup>1'</sup>	R <sup>2'</sup>	R <sup>3'</sup>
AM-1220	[1-[(1-methyl-2-piperidinyl)methyl]-1 <i>H</i> -indol-3-yl]-1-naphthalenyl-methanone	137642-54-7	C <sub>26</sub> H <sub>26</sub> N <sub>2</sub> O	H	1-methyl-2-piperidinyl	H
AM-1220 azepane isomer	[1-(1-methylazepan-3-yl)]-1 <i>H</i> -indol-3-yl]-1-naphthalenyl-methanone	-	C <sub>26</sub> H <sub>26</sub> N <sub>2</sub> O	-	-	-
AM-2201	[1-(5-fluoropentyl)-1 <i>H</i> -indol-3-yl]-1-naphthalenyl-methanone	335161-24-5	C <sub>24</sub> H <sub>22</sub> FNO	H	4-fluorobutyl	H
AM-2232	3-(1-naphthalenylcarbonyl)-1 <i>H</i> -Indole-1-pentanenitrile	335161-19-8	C <sub>24</sub> H <sub>20</sub> N <sub>2</sub> O	H	butanenitrile	H
JWH-007	(2-methyl-1-pentyl-1 <i>H</i> -indol-3-yl)-1-naphthalenyl-methanone	155471-10-6	C <sub>25</sub> H <sub>25</sub> NO	H	C <sub>4</sub> H <sub>9</sub>	CH <sub>3</sub>
JWH-015	(2-methyl-1-propyl-1 <i>H</i> -indol-3-yl)-1-naphthalenyl-methanone	155471-08-2	C <sub>23</sub> H <sub>21</sub> NO	H	C <sub>2</sub> H <sub>5</sub>	CH <sub>3</sub>
JWH-018 <i>Synonym</i> : AM678	(1-pentyl-1 <i>H</i> -indol-3-yl)-1-naphthalenyl-methanone	209414-07-3	C <sub>24</sub> H <sub>23</sub> NO	H	C <sub>4</sub> H <sub>9</sub>	H

Common name	Chemical name	CAS number	Molecular Formula	R <sup>1</sup>	R <sup>2</sup>	R <sup>3</sup>
JWH-018 <i>N</i> -(5-chloropentyl)	(1-(5-chloropentyl)-1 <i>H</i> -indol-3-yl)(naphthalen-1-yl)methanone	-	C <sub>24</sub> H <sub>22</sub> ClNO	H	4-chlorobutyl	H
JWH-018 <i>N</i> -(5-hydroxypentyl)	(1-(5-hydroxypentyl)-1 <i>H</i> -indol-3-yl)(naphthalen-1-yl)-methanone	-	C <sub>24</sub> H <sub>25</sub> NO <sub>2</sub>	H	4-hydroxybutyl	H
JWH-019	(1-hexyl-1 <i>H</i> -indol-3-yl)-1-naphthalenyl-methanone	209414-08-4	C <sub>25</sub> H <sub>25</sub> NO	H	C <sub>3</sub> H <sub>11</sub>	H
JWH-022	[1-(4-penten-1-yl)-1 <i>H</i> -indol-3-yl]-1-naphthalenyl-methanone	209414-16-4	C <sub>24</sub> H <sub>21</sub> NO	H	3-buten-1-yl	H
JWH-073	(1-butyl-1 <i>H</i> -indol-3-yl)-1-naphthalenyl-methanone	208987-48-8	C <sub>23</sub> H <sub>21</sub> NO	H	C <sub>3</sub> H <sub>7</sub>	H
JWH-073 (4-methylnaphthyl) <i>Synonym</i> : JWH 122 <i>N</i> -butyl analog	(1-butyl-1 <i>H</i> -indol-3-yl)(4-methylnaphthalen-1-yl)-methanone	-	C <sub>24</sub> H <sub>23</sub> NO	CH <sub>3</sub>	C <sub>3</sub> H <sub>7</sub>	H
JWH-081	(4-methoxy-1-naphthalenyl)(1-pentyl-1 <i>H</i> -indol-3-yl)-methanone	210179-46-7	C <sub>25</sub> H <sub>25</sub> NO <sub>2</sub>	CH <sub>3</sub> O	C <sub>4</sub> H <sub>9</sub>	H
JWH-122	(4-methyl-1-naphthalenyl)(1-pentyl-1 <i>H</i> -indol-3-yl)-methanone	619294-47-2	C <sub>25</sub> H <sub>25</sub> NO	CH <sub>3</sub>	C <sub>4</sub> H <sub>9</sub>	H
JWH-122 (5-fluoropentyl) <i>Synonyms</i> : MAM2201; AM2201 4-methylnaphthyl analog	[1-(5-fluoropentyl)-1 <i>H</i> -indol-3-yl](4-methyl-1-naphthalenyl)-methanone	1354631-24-5	C <sub>25</sub> H <sub>24</sub> FNO	CH <sub>3</sub>	4-fluorobutyl	H
JWH-122 <i>N</i> -(5-hydroxypentyl)	(1-(5-hydroxypentyl)-1 <i>H</i> -indol-3-yl)(4-methylnaphthalen-1-yl)-methanone	-	C <sub>25</sub> H <sub>25</sub> NO <sub>2</sub>	CH <sub>3</sub>	4-hydroxybutyl	H
JWH-200 <i>Synonym</i> : WIN 55,225	[1-[2-(4-morpholinyl)ethyl]-1 <i>H</i> -indol-3-yl]-1-naphthalenyl-methanone	103610-04-4	C <sub>25</sub> H <sub>24</sub> N <sub>2</sub> O <sub>2</sub>	H	4-morpholinyl methyl	H
JWH-210	(4-ethyl-1-naphthalenyl)(1-pentyl-1 <i>H</i> -indol-3-yl)-methanone	824959-81-1	C <sub>26</sub> H <sub>27</sub> NO	C <sub>2</sub> H <sub>5</sub>	C <sub>4</sub> H <sub>9</sub>	H
JWH-387	(4-bromonaphthalen-1-yl)(1-pentyl-1 <i>H</i> -indole-3-yl)-methanone	207227-49-4	C <sub>24</sub> H <sub>22</sub> BrNO	Br	C <sub>4</sub> H <sub>9</sub>	H
JWH-398	(4-chloronaphthalen-1-yl)(1-pentyl-1 <i>H</i> -indole-3-yl)-methanone	1292765-18-4	C <sub>24</sub> H <sub>22</sub> ClNO	Cl	C <sub>4</sub> H <sub>9</sub>	H
JWH-412	(4-fluoronaphthalen-1-yl)(1-pentyl-1 <i>H</i> -indole-3-yl)-methanone	-	C <sub>24</sub> H <sub>22</sub> FNO	F	C <sub>4</sub> H <sub>9</sub>	H

c) Aminoalkylindoles

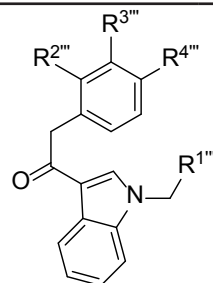
ii) Benzoylindoles



Common name	Chemical name	CAS number	Molecular Formula	R <sup>1''</sup>	R <sup>2''</sup>	R <sup>3''</sup>	R <sup>4''</sup>
AM-694	[1-(5-fluoropentyl)-1 <i>H</i> -indol-3-yl](2-iodophenyl)-methanone	335161-03-0	C <sub>20</sub> H <sub>19</sub> FINO	H	I	4-fluorobutyl	H
AM-694 (chloro)	[1-(5-chloropentyl)-1 <i>H</i> -indol-3-yl](2-iodophenyl)-methanone	-	C <sub>20</sub> H <sub>19</sub> ClINO	H	I	4-chlorobutyl	H
AM-2233	(2-iodophenyl)[1-[(1-methyl-2-piperidinyl)methyl]-1 <i>H</i> -indol-3-yl]-methanone	444912-75-8	C <sub>22</sub> H <sub>23</sub> IN <sub>2</sub> O	H	I	1-methyl-2-piperidinyl	H
RCS-4 <i>Synonyms:</i> SR-19; OBT-199; BTM-4; E-4	(4-methoxyphenyl)(1-pentyl-1 <i>H</i> -indol-3-yl)-methanone	1345966-78-0	C <sub>21</sub> H <sub>23</sub> NO <sub>2</sub>	CH <sub>3</sub> O	H	C <sub>4</sub> H <sub>9</sub>	H
RCS-4 ortho isomer <i>Synonym:</i> RCS-4 2-methoxy isomer	(2-methoxyphenyl)(1-pentyl-1 <i>H</i> -indol-3-yl)-methanone	-	C <sub>21</sub> H <sub>23</sub> NO <sub>2</sub>	H	CH <sub>3</sub> O	C <sub>4</sub> H <sub>9</sub>	H
RCS-4 butyl homologue	(4-methoxyphenyl)(1-butyl-1 <i>H</i> -indol-3-yl)-methanone	-	C <sub>20</sub> H <sub>21</sub> NO <sub>2</sub>	CH <sub>3</sub> O	H	C <sub>3</sub> H <sub>7</sub>	H
WIN 48,098 <i>Synonym:</i> Pravadoline	(4-methoxyphenyl)[(2-methyl-1-[2-(4-morpholinyl)ethyl]-1 <i>H</i> -indol-3-yl)-methanone	92623-83-1	C <sub>23</sub> H <sub>26</sub> N <sub>2</sub> O <sub>3</sub>	CH <sub>3</sub> O	H	4-morpholinyl methyl	CH <sub>3</sub>

c) **Aminoalkylindoles**

iii) **Phenylacetylindoles**



Common name	Chemical name	CAS number	Molecular Formula	R <sup>1'''</sup>	R <sup>2'''</sup>	R <sup>3'''</sup>	R <sup>4'''</sup>
JWH-201	2-(4-methoxyphenyl)-1-(1-pentyl-1 <i>H</i> -indol-3-yl)-ethanone	864445-47-6	C <sub>22</sub> H <sub>25</sub> NO <sub>2</sub>	C <sub>4</sub> H <sub>9</sub>	H	H	CH <sub>3</sub> O
JWH-203	2-(2-chlorophenyl)-1-(1-pentyl-1 <i>H</i> -indol-3-yl)-ethanone	864445-54-5	C <sub>21</sub> H <sub>22</sub> ClNO	C <sub>4</sub> H <sub>9</sub>	Cl	H	H
JWH-250	1-(1-pentyl-1 <i>H</i> -indol-3-yl)-2-(2-methoxyphenyl)-ethanone	864445-43-2	C <sub>22</sub> H <sub>25</sub> NO <sub>2</sub>	C <sub>4</sub> H <sub>9</sub>	CH <sub>3</sub> O	H	H
JWH-250 derivative <i>Synonym:</i> Cannabipiperidiethanone	2-(2-methoxyphenyl)-1-[1-[(1-methyl-2-piperidinyl)methyl]-1 <i>H</i> -indol-3-yl]-ethanone	1345970-43-5	C <sub>24</sub> H <sub>28</sub> N <sub>2</sub> O <sub>2</sub>	1-methyl-2-piperidinyl	CH <sub>3</sub> O	H	H
JWH-251	2-(2-methylphenyl)-1-(1-pentyl-1 <i>H</i> -indol-3-yl)-ethanone	864445-39-6	C <sub>22</sub> H <sub>25</sub> NO	C <sub>4</sub> H <sub>9</sub>	CH <sub>3</sub>	H	H
JWH-302	2-(3-methoxyphenyl)-1-(1-pentyl-1 <i>H</i> -indol-3-yl)-ethanone	864445-45-4	C <sub>22</sub> H <sub>25</sub> NO <sub>2</sub>	C <sub>4</sub> H <sub>9</sub>	H	CH <sub>3</sub> O	H
RCS-8 <i>Synonyms:</i> SR-18; BTM-8	1-(1-(2-cyclohexylethyl)-1 <i>H</i> -indol-3-yl)-2-(2-methoxyphenyl)-ethanone	1345970-42-4	C <sub>25</sub> H <sub>29</sub> NO <sub>2</sub>	cyclohexyl methyl	CH <sub>3</sub> O	H	H

#### d) Others

Common name	Chemical name	CAS number	Molecular Formula
AB-001 <i>Synonym:</i> JWH-018 (adamantyl)	1-adamantyl (1-pentyl-1 <i>H</i> -indol-3-yl)methanone	-	C <sub>23</sub> H <sub>31</sub> NO
AKB48 <i>Synonym:</i> APINACA	1-pentyl- <i>N</i> -tricyclo[3.3.1.1 <sup>3,7</sup> ]dec-1-yl-1 <i>H</i> -indazole-3-carboxamide	1345973-53-6	C <sub>23</sub> H <sub>31</sub> N <sub>3</sub> O
AM-356 <i>Synonym:</i> R-1 Methanandamide; ( <i>R</i> )-(+)-Arachidonyl-1'-Hydroxy-2'-Propylamide	<i>N</i> -(2-hydroxy-1 <i>R</i> -methylethyl)-5 <i>Z</i> ,8 <i>Z</i> ,11 <i>Z</i> ,14 <i>Z</i> -eicosatetraenamide	157182-49-5	C <sub>23</sub> H <sub>39</sub> N <sub>2</sub> O <sub>2</sub>
AM-1248	[1-[(1-methyl-2-piperidinyl)methyl]-1 <i>H</i> -indol-3-yl]tricyclo[3.3.1.1 <sup>3,7</sup> ]dec-1-yl-methanone	335160-66-2	C <sub>26</sub> H <sub>34</sub> N <sub>2</sub> O
CRA-13 <i>Synonyms:</i> CB-13; SAB-378	1-naphthalenyl[4-(pentylox)-1-naphthalenyl]-methanone	432047-72-8	C <sub>26</sub> H <sub>24</sub> O <sub>2</sub>
HU-308	4-[4-(1,1-dimethylheptyl)-2,6-dimethoxyphenyl]-6,6-dimethyl-bicyclo[3.1.1]hept-2-ene-2-methanol	256934-39-1	C <sub>27</sub> H <sub>42</sub> O <sub>3</sub>
JWH-175	3-(1-naphthalenylmethyl)-1-pentyl-1 <i>H</i> -indole	619294-35-8	C <sub>24</sub> H <sub>25</sub> N
JWH-307	(5-(2-fluorophenyl)-1-pentylpyrrol-3-yl)-naphthalen-1-yl-methanone	914458-26-7	C <sub>26</sub> H <sub>24</sub> FN <sub>2</sub> O
JWH-370	[5-(2-methylphenyl)-1-pentyl-1 <i>H</i> -pyrrol-3-yl]-1-naphthalenyl-methanone	914458-22-3	C <sub>27</sub> H <sub>27</sub> NO
Org 27569	5-chloro-3-ethyl-1 <i>H</i> -indole-2-carboxylic acid [2-(4-piperidin-1-yl-phenyl)-ethyl]-amide	-	C <sub>24</sub> H <sub>28</sub> ClN <sub>3</sub> O
Org 27759	5-fluoro-3-ethyl-1 <i>H</i> -indole-2-carboxylic acid [2-(4-dimethylamino-phenyl)-ethyl]-amide	-	C <sub>21</sub> H <sub>24</sub> FN <sub>3</sub> O
Org 29647	5-chloro-3-ethyl-1 <i>H</i> -indole-2-carboxylic acid (1-benzyl-pyrrolidin-3-yl)-amide	-	C <sub>22</sub> H <sub>24</sub> ClN <sub>3</sub> O
STS-135 <i>Synonym:</i> <i>N</i> -adamantyl-1-fluoropentylindole-3-Carboxamide	1-(5-fluoropentyl)- <i>N</i> -tricyclo[3.3.1.1 <sup>3,7</sup> ]dec-1-yl-1 <i>H</i> -indole-3-carboxamide	1354631-26-7	C <sub>24</sub> H <sub>31</sub> FN <sub>2</sub> O
UR-144 <i>Synonym:</i> KM-X1	(1-pentyl-1 <i>H</i> -indol-3-yl)(2,2,3,3-tetramethylcyclopropyl)-methanone	1199943-44-6	C <sub>21</sub> H <sub>29</sub> NO
UR-144 <i>N</i> -(5-chloropentyl)	(1-(5-chloropentyl)-1 <i>H</i> -indol-3-yl)(2,2,3,3-tetramethylcyclopropyl)methanone	-	C <sub>21</sub> H <sub>28</sub> ClNO
URB597	(3'-(aminocarbonyl)[1,1'-biphenyl]-3-yl)-cyclohexylcarbamate	546141-08-6	C <sub>20</sub> H <sub>22</sub> N <sub>2</sub> O <sub>3</sub>
XLR11 <i>Synonym:</i> 5-fluoro UR-144	(1-(5-fluoropentyl)-1 <i>H</i> -indol-3-yl)(2,2,3,3-tetramethylcyclopropyl)-methanone	1364933-54-9	C <sub>21</sub> H <sub>28</sub> FN <sub>2</sub> O