

## Determination of 465 psychoactive substances, drugs and their metabolites in urine by LC-MS/MS

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Table S1. Summary of operating parameters LC-MS/MS and MRM pairs for each compound studied.

ANALYTE (CAS number)	Precursor Ion (Q1)	Product Ion (Q3)	DP	EP	CE for 1stMRM / 2nd MRM	CXP for 1stMRM / 2nd MRM	ANALYTE (CAS number)	Precursor Ion (Q1)	Product Ion (Q3)	DP	EP	CE for 1stMRM / 2nd MRM	CXP for 1stMRM / 2 MRM
4-CHLORO-ALPHA-PVP (5881-77-6)	266.300	125.1; 126.1	101	10	33/37	10/18	bk-2C-B (2303508-66-7)	274.896	163.0; 178.1	81	10	39/21	39/21
1-(2-METHOXYPHENYL)PIPERAZINE (38869-49-7)	193.263	120.1; 150.1	106	10	43/25	8/18	bk-MDA (80535-73-5)	194.195	146.0; 118.1	56	10	19/31	14/14
1-(3-TRIFLUOROMETHYLPHENYL)PIPERAZINE (TFMPP) (1605-69-3)	231.278	188; 118.0	141	10	31/51	22/16	BMPEA (20388-87-8)	136.133	91.0; 119.1	46	10	25/11	10/16
1-(4-CHLOROPHENYL)PIPERAZINE (pCPP) (38212-33-8)	197.469	119.1; 118.1	121	10	33/45	14/16	BROMO-DRAGON-FLY (219986-78-4)	293.977	276.9	71	10	15	42
1,4-DIBENZYLPIPERAZINE (2289-55-7)	267.107	91.0; 65.1	111	10	47/91	12/10		296.128	278.9	81	10	17	12
1-AMINOINDAN (34698-41-4)	134.019	117.1; 115.1	56	10	15/33	14/14	BUPRENORPHINE (53152-21-9)	468.189	55.0; 152.0	116	10	95/117	12/10
1-METHYL-4-BENZYLPIPERAZINE (374898-00-7)	191.061	91.0; 65.0	86	10	31/63	12/10	BUPROPION (31677-93-7)	239.672	184.0; 131.1	66	10	17/37	24/16
1-METHYLAMINO-1-(3,4-METHYLENEDIOXYPHENYL)PROPANE (127292-43-7)	194.261	163.0; 105.1	61	10	13/33	22/16	BUTYLONE (17763-12-1)	222.185	174.1; 204.1	66	10	25/17	20/10
2,3-DICHLOROPHENYLPIPERAZINE (119532-26-2)	230.937	188; 152.0	91	10	27/45	24/20	CAMFETAMINE (92499-19-9)	202.289	91.0; 67.0	76	10	43/25	14/14

2,3-DIMETHYLETHCATHINONE (2705531-06-0)	206.062	188.1; 158.1	91	10	17/39	24/20	CANNABIDIOL (13956-29-1)	315.323	193.0; 123.0	121	10	29/43	10/16
2,3-DIMETHYLMETHCATHINONE (1797981-99-7)	192.202	174.0; 159.1	66	10	17/27	20/20	CARBAMAZEPINE (298-46-4)	237.209	194.1; 192.1	111	10	27/45	24/24
2,3-ETHYLONE ISOMER (2749504-06-9)	222.247	174.1; 146.1	86	10	23/35	8/8	CATHINE (492-39-7)	152.256	134.1; 117.1	51	10	13/23	22/14
2,3-MDMA (168968-01-2)	194.351	135.0; 77.0	91	10	25/53	18/12	CATHINONE (71031-15-7)	150.030	132.1; 117.1	56	10	17/31	18/14
2,3-MDPV (24622-62-6)	276.236	135.0; 126.1	91	10	31/37	16/14	CB-13 (432047-72-8)	369.100	127.0; 170.7	151	10	61/39	20/24
2,4,5-TRIMETHOXYAMPHETAMINE (15995-72-9)	226.297	209.1; 179.1	76	10	15/35	10/10	CBL-018 (2365471-54-9)	358.214	214.1; 144.1	76	10	21/49	10/20
2,4-DIMETHYLMETHCATHINONE (2412098-39-4))	192.190	174.1; 159.0	76	10	17/27	20/18	CI2201 (1391486-12-6)	394.203	188.9	151	10	37/35	24/24
2,4-DMEC (2702352-15-4)	206.063	188.1; 158.1	41	10	17/47	12/20		396.214	191.0				
2,5-DMMA (54687-43-3)	210.264	151.1; 121.1	56	10	23/35	20/16	CLOBAZAM (22316-47-8)	301.995	260.0; 225.0	151	10	29/45	12/26
25B-NBF (1539266-17-5)	368.124	243.0	106	10	27	12	CLOMIPRAMINE (17321-77-6)	315.043	86.1; 58.0	106	10	23/65	12/8
	370.116	245.0	131	10	27	12	CLONAZEPAM (1622-61-3)	316.097	270.1; 214.3	151	10	35/45	12/22
25C-NBF (1539266-21-1)	324.164	199.0; 184.0	111	10	25/37	10/10	COCAETHYLENE (529-38-4)	318.094	196.1; 82.0	101	10	27/39	24/12
25C-NBOH (1539266-20-0)	322.138	199.0; 77.0	101	10	27/85	24/12	COCAINE (50-36-2)	304.198	182.1; 77.1	106	10	27/79	22/12
25C-NBOMe (1539266-19-7)	336.160	121.1; 91.1	96	10	25/59	14/12	CODEINE (76-57-3)	300.058	152.0; 115.1	136	10	85/95	18/16
25D-NBOMe (1539266-35-7)	316.169	91.0; 121.0	81	10	57/25	12/16	CUMYL-PICA (1400742-32-6)	349.217	231.1; 91.0	86	10	21/73	12/12
25E-NBOMe (1539266-39-1)	330.231	91.0; 121.1	106	10	61/27	12/16	D2PM (172152-19-1)	254.299	236.2; 130.1	81	10	19/39	12/8
25G-NBOMe (1797132-54-7)	330.142	91.0; 121.1	81	10	61/27	12/14	DEMOPXEPAM (963-39-3)	286.956	179.9; 269.0	131	10	31/37	22/12
25H-NBOMe (1566571-52-5)	302.346	91.0; 121.1	81	10	55/23	12/18	DESALKYLFLURAZEPAM (2886-65-9)	289.917	140.0; 141.0	116	10	39/39	18/18
25-I-NB2OMe (1943868-97-8)	428.183	91.0; 121.0	121	10	75/27	12/16	DESCHLOROETIZOLAM (40054-73-7)	310.255	281.0; 356.0	151	10	33/31	12/12
25I-NB3OMe (1566571-40-1)	428.176	121.1; 91.1	131	10	33/75	14/12	DESCHLORO-N-ETHYL-KETAMINE (4551-92-2)	218.287	91.0; 145.1	96	10	39/23	10/8
25I-NB4OMe (1566571-64-9)	428.177	121.1; 78.0	91	10	21/113	16/10	DESIPRAMINE (50-47-4)	267.085	72.1; 44.1	71	10	21/63	10/8
25I-NBF (1539266-13-1)	416.016	290.8; 276.0	121	10	29/43	12/14	DESMETHYLDIAZEPAM (1088-11-5)	271.978	209.1; 140.0	141	10	39/39	26/18
25I-NBMD (1539266-14-2)	442.154	135.1; 77.0	116	10	31/93	16/12	DESMETHYLFLUNITRAZEPAM (2558-30-7)	299.977	254.1; 198.0	116	10	35/53	12/24
25I-NBOH (1539266-12-0)	414.121	291.0;	101	10	31/23	12/14	DESOMORPHINE (427-00-9)	272.254	167.1;	126	10	49/73	20/18

		307.9								152.1				
25N-NBOMe (1566571-65-0)	347.200	91.0; 121.1	86	10	59/23	12/16	DESOXY-D2PM (188398-87-0)	238.301	91.0; 117.1	101	10	33/23	12/8	
25T2-NBOMe (1539266-51-7)	362.264	91.0; 121.1	121	10	59/27	10/14	DESOXYPIPRADROL (5807-81-8)	252.331	91.1; 65.0	91	10	49/85	12/10	
25T-NBOMe (1539266-47-1)	348.035	91.1; 121.1	96	10	63/27	14/16	DEXTROMETHORPHAN (125-71-3)	272.289	128.1; 171.0	126	10	81/51	16/20	
2-AMINO-1-PHENYLBUTANE (20735-15-3)	150.209	91.0; 65.0	61	10	23/49	12/10	DIAZEPAM (439-14-5)	285.397	154.0; 193.0	166	10	37/43	20/24	
2-AMINOINDANE (2338-18-3)	134.257	117.1; 115.1	51	10	19/33	14/14	DICLAZEPAM (2894-68-0)	320.306	228.0; 89.0	166	10	43/103	28/12	
2-BROMOAMPHETAMINE (861006-36-2)	214.186	169.0	61	10	27	8	DICLOFENSINE (34041-84-4)	322.115	121.1; 279.0	151	10	33/29	16/14	
	216.192	170.9	56	10	27	20	DIETHYLCATHINONE (134-80-5)	206.061	105.1; 100.1	81	10	31/29	12/14	
2-BROMOMETHAMPHETAMINE (23695-11-6)	228.188	169.0	71	10	29/27	20/10	DIHYDROCODEINE (125-28-0)	302.062	199.0; 128.1	121	10	43/81	26/16	
	230.177	171.0					DIMETHOCAINE (553-63-9)	279.175	120.1; 65.0					106
2C-B (56281-37-9)	259.957	243.0; 227.9	51	10	17/29	12/10	DIMETHYLONE (109367-07-9)	222.209	72.2; 91.0	86	10	25/49	10/12	
2C-B_FLY (178557-21-6)	283.976	267.0; 188.1	106	10	21/33	12/24	DIPHENHYDRAMINE (147-24-0)	256.071	167.1; 165.1	56	10	17/57	22/22	
2C-C (88441-15-0)	216.441	199.0; 184.0	76	10	15/27	24/22	DIPHENIDINE (28383-15-5)	266.099	181.1; 103.1	76	10	25/47	22/12	
2C-D (25505-65-1)	195.583	179.0; 164.1	71	10	15/25	24/20	DiPT (14780-24-6)	244.891	114.2; 144.1	81	10	21/31	14/20	
2C-G (327175-14-4)	210.052	178.0; 163.0	76	10	23/37	22/20	DL-4662 (1674389-55-9)	266.292	248.1; 188.0	86	10	19/35	12/22	
2-CHLOROAMPHETAMINE (35334-29-3)	170.196	125.0; 89.0	61	10	25/51	16/14	DOI (42203-78-1)	322.068	304.9; 277.0	61	10	17/27	12/12	
2C-I (64584-32-3)	307.947	291.0; 276.0	66	10	19/31	12/12	DOTHIEPIN (113-53-1)	296.089	202.0; 220.9	86	10	75/61	26/28	
2C-P (1359704-27-0)	224.065	207.1; 192.1	66	10	15/25	10/24	DOXEPIN (1229-29-4)	279.918	107.1; 77.0	101	10	31/73	14/10	
2C-T-7 (850140-15-7)	256.022	239.1; 91.1	71	10	17/63	10/12	DOXYLAMINE (469-21-6)	271.067	167.1; 182.0	61	10	49/23	22/22	
2C-TFM (159277-13-1)	250.269	233.1; 218.0	91	10	17/29	10/12	EAM-2201 (1364933-60-7)	388.297	183.1; 153.0	81	10	35/65	10/20	
2-FEC (2446466-63-1)	196.255	148.1; 135.1	76	10	41/37	18/10	EDDP (31161-17-8)	278.507	234.2; 249.1	86	10	41/33	10/10	
2-FIC (1909305-71-0)	168.199	123.1; 103.1	61	10	21/33	14/14	EG-2201 (2365471-72-1)	410.225	155.0; 127.1	181	10	33/71	22/16	
2-FLUOROAMPHETAMINE (1626-69-3)	154.130	109.0; 137.1	61	10	23/13	14/16	ERGOMETRINE (60-79-7)	326.400	223.1; 208.1	116	10	31/39	10/10	
2-FLUOROMETHAMPHETAMINE (1780004-19-4)	168.247	109.1; 83.1	61	10	25/53	12/12	ESTAZOLAM (29975-16-4)	295.921	268.0; 206.0	101	10	33/55	12/24	

2-FLUOROMETHCATHINONE (1346599-37-8)	182.187	164.1; 149.0	81	10	19/29	22/16	ETAQUALONE (7432-25-9)	264.918	146.1; 77.0	116	10	37/89	18/12
2-IODOAMPHETAMINE (22080-10-0)	262.178	216.9; 90.0	81	10	27/47	12/12	ETHCATHINONE METABOLITE (63401-08-1)	180.064	162.1; 115.1	76	10	17/39	20/14
2-MAPB (100389-74-0)	190.239	58.0; 91.1	51	10	19/47	8/14	ETHYLONE (1454266-19-3)	222.228	174.1; 204.1	71	10	25/19	20/10
2-MeOMC	194.219	176.1; 161.1	61	10	17/27	10/16	ETHYLPHENIDATE (214149-46-9)	248.328	84.1; 56.0	111	10	25/69	12/8
2-METHOXY-2-PHENYLETHYLAMINE (62064-68-0)	152.214	120.1; 77.0	61	10	15/45	14/12	ETIZOLAM (40054-69-1)	343.910	315.0; 224.1	121	10	35/65	14/10
2-METHOXYAMPHETAMINE (72739-03-8)	166.068	121.1; 149.0	56	10	21/13	16/18	EUTYLONE (17764-18-0)	236.294	188.1; 189.1	96	10	25/29	24/22
2-METHOXYMETHAMPHETAMINE (5588-10-3)	180.322	120.9; 91.1	66	10	23/39	14/8	FENFLURAMINE (404-82-0)	232.018	159.0; 109.0	86	10	31/57	20/14
2-METHYLAMINO-1-PHENYLBUTANE (84952-63-6)	164.237	91.0; 65.0	71	10	25/55	14/8	FENTANYL (437-38-7)	337.171	188.0; 105.0	131	10	29/57	10/12
2-METHYLMETHCATHINONE (1246815-51-9)	178.060	160.1; 145.1	76	10	17/27	22/18	FLUBROMAZEPAM (2647-50-9)	334.716	226.1; 186.0	161	10	39/41	10/22
2-METHYL-PBP (22198-75-0)	232.265	105.1; 91.0	116	10	33/53	12/12	FLUDIAZEPAM (3900-31-0)	303.922	212.0; 89.0	141	10	43/93	26/12
2-METHYL-PPP (2749897-10-5)	218.291	98.1; 119.1	116	10	31/31	16/8	FLUMAZENIL (78755-81-4)	303.986	258.1; 217.0	81	10	23/35	12/26
3,4-DICHLOROMETHYLPHENIDATE (214149-42-5)	303.454	84.1; 56.0	121	10	27/77	12/8	FLUNITRAZEPAM (1622-62-4)	313.814	268.0; 239.0	136	10	35/47	12/12
3,4-DIMETHOXY-ALPHA-PVP (850351-99-4)	292.246	151.0; 126.1	116	10	35/33	22/12	FLUOXETINE (56296-78-7)	310.021	44.1; 148.1	51	10	43/11	8/18
3,4-DIMETHYLMETHCATHINONE (1081772-06-6)	192.031	174.1; 159.2	81	10	17/27	20/18	FLURAZEPAM (17617-23-1)	388.023	315.0; 107.0	91	10	31/111	14/14
3,4-DMEC (2748561-69-3)	206.146	158.1; 115.1	86	10	43/67	14/6	FUB-144 (2185863-15-2)	350.227	109.1; 125.1	111	10	61/29	14/14
3,4-DMMA (70932-18-2)	210.063	179.1; 151.1	61	10	17/29	22/20	FUB-JWH-018 (2365471-45-8)	380.203	155.1; 109.0	176	10	33/63	8/18
3,4-EDMA (2748304-41-6)	208.248	177.1; 149.1	61	10	19/29	10/20	FUB-NPB-22 (2244864-90-0)	398.186	253.0; 109.1	86	10	23/47	12/8
3,4-EDMC (30253-44-2)	222.191	204.0; 189.1	61	10	19/29	10/10	FURANYLFENTANYL (101365-56-4)	375.290	105.1; 188.1	136	10	55/29	14/20
3,4-MDMA (64057-70-1)	194.025	163.1; 105.1	76	10	17/33	20/14	GHB (502-85-2)	102.935	85.0; 57.0	-75	-10	-10/-10	-12/-18
3,4-MDPA (74341-77-8)	222.051	163.0; 105.1	81	10	19/35	20/14	HARMALINE (302-21-2)	215.051	174.0; 171.9	61	10	29/37	10/18
3,4-MDPPH (24622-61-5)	290.285	135.1; 140.2	131	10	35/35	16/18	HARMINE (442-51-3)	212.795	170.1; 198.0	121	10	41/31	20/26
3,4-METHYLENEDIOXYPYROVALERONE (24622-62-6)	276.144	126.1;13 5.1	76	10	31/41	12/8	HYDROCODONE (125-29-1)	300.050	199.0; 128.1	131	10	39/77	24/16
3,4-METHYLENEDIOXY_PV9 (24646-40-0)	318.230	135.1; 168.2	166	10	35/39	8/20	IBOGAINE (5934-55-4)	312.288	122.1; 77.0	281	10	43/119	14/12

30C-NBOMe (2749391-65-7)	396.257	181.1; 148.1	61	10	23/59	10/18	IMIPRAMINE (113-52-0)	281.078	86.1; 58.1	66	10	21/59	12/8
3-BROMOAMPHETAMINE (1210708-61-4)	214.192	168.9	46	10	25/25	20/14	ISOPENTEDRONE (1429402-13-0)	192.055	91.0; 161.0	71	10	33/17	12/22
	216.189	171.1					JWH 018 BENZIMIDAZOLE ANALOG (2316839-70-8)	343.221	126.6; 155.1	121	10	109/41	16/20
3-BROMOMETHAMPHETAMINE (28100-41-6)	228.180	169.0	86	10	27/27	22/20	JWH-011 (155471-13-9)	384.202	155.1; 127.1	151	10	37/71	16/14
	230.202	170.9					JWH-018 ADAMANTYL CARBOXAMIDE (1345973-50-3)	365.291	135.1; 77.0	156	10	37/109	20/12
3-BROMOMETHCATHINONE (676487-42-6)	244.143	145.0	86	10	23/25	20/22	JWH-022 (209414-16-4)	340.223	155.1; 127.1	136	10	31/61	8/16
	242.128	145.1					JWH-031 (162934-74-9)	306.155	127.1; 76.9	131	10	51/95	8/6
3-CAF (2219324-25-9)	383.161	239.0; 210.0	101	10	19/65	12/24	JWH-071 (209414-05-1)	300.220	127.1; 155.1	111	10	57/29	16/8
3C-B-FLY (178557-19-2)	298.069	280.9	66	10	21	12	JWH-080 (210179-44-5)	358.107	185.0; 127.1	61	10	33/69	24/16
	300.079	283.0	46	10	17	16	JWH-116 (619294-64-3)	370.219	155.2; 127.1	121	10	33/69	16/6
3-CHLOROAMPHETAMINE (35378-15-5)	170.206	125.1; 89.0	66	10	25/53	14/12	JWH-145 (914458-19-8)	367.929	154.8; 127.1	91	10	35/69	22/18
3-CHLOROMETHCATHINONE (1607439-32-6)	198.231	145.1; 144.1	76	10	25/41	18/18	JWH-146 (914458-21-2)	396.312	155.1; 127.0	141	10	27/71	18/22
3-CHLOROPHENYLPIPERAZINE (13078-15-4)	197.249	154.1; 118.1	101	10	27/47	18/14	JWH-149 (548461-82-1)	370.172	169.1; 115.2	156	10	35/95	26/14
3C-P (2749897-26-3)	254.286	195.1; 107.1	56	10	19/35	10/14	JWH-167 (864445-37-4)	306.156	91.1; 214.2	86	10	31/35	12/30
3-DESOXY-3,4-MDPV (2117405-33-9)	274.249	126.1; 133.1	126	10	31/37	18/16	JWH-175 (619294-35-8)	328.281	141.1; 115.1	106	10	29/83	18/14
3-ETHYLMETHCATHINONE (2446466-60-8)	192.220	174.1; 144.1	66	10	17/43	22/18	JWH-182 (824960-02-3)	384.268	197.0; 141.0	196	10	33/61	10/14
3-FEC (2446466-64-2)	196.262	135.1; 148.1	81	10	39/41	18/18	JWH-193 (133438-58-1)	399.123	169.1; 115.0	116	10	31/97	10/6
3-FLUORO-ALFA-PPP (1214940-15-4)	222.280	123.1; 98.1	86	10	31/33	12/14	JWH-198 (166599-76-4)	415.117	185.1; 114.2	181	10	33/35	22/10
3-FLUOROAMPHETAMINE (1716-59-2)	154.134	109.0; 137.1	76	10	25/13	14/16	JWH-201 (864445-47-6)	336.263	121.1; 77.0	151	10	35/77	16/10
3-FLUOROMETHAMPHETAMINE (1324717-74-9)	168.223	109.1; 83.1	76	10	27/53	18/10	JWH-213 (824959-83-3)	384.326	183.1; 153.1	181	10	35/61	22/18
3-FLUOROMETHCATHINONE (246600-40-5)	182.014	164.1; 149.1	81	10	19/27	20/18	JWH-307 (914458-26-7)	386.153	155.0; 127.1	66	10	27/81	24/16
3-HYDROXYBROMAZEPAM (13132-73-5)	331.895	286.9; 314.9	106	10	27/21	12/14	JWH-309 (914458-42-7)	418.325	155.0; 127.1	141	10	29/77	20/16
3-HYDROXYFLUNITRAZEPAM (67739-71-3)	330.031	238.0; 284.0	96	10	43/27	12/12	JWH-368 (914458-31-4)	386.132	155.1; 127.0	106	10	29/69	20/16

3-IODOAMPHETAMINE (20110-56-9)	262.179	217.0;117.1	66	10	25/43	10/14	JWH-369 (914458-27-8)	402.279	155.1;127.0	126	10	29/65	20/18
3-MEC (2493976-59-1)	192.185	144.2;91.1	86	10	39/47	16/14	JWH-412 (1364933-59-4)	360.213	173.0;145.1	161	10	33/63	10/18
3-MeOMC (1435933-70-2)	194.225	161.1;118.1	81	10	25/47	20/12	JWH-424 (1366068-04-3)	422.179	235.0	131	10	37	12
3-METHOXYAMPHETAMINE (35294-10-1)	166.070	121.1;91.0	41	10	21/37	16/14		420.174	233.0	111	10	37	12
3-METHOXYPHENCYCLIDINE (72242-03-6)	274.190	86.1;121.1	46	10	17/37	10/14	KETAMINE (1867-66-9)	238.083	125.0;89.0	61	10	37/73	16/12
3-METHYLMETHCATHINONE (1246816-62-5)	178.046	160.1;145.1	86	10	17/27	20/18	LAMPA (40158-98-3)	324.164	223.0;208.0	116	10	33/41	28/26
3-METHYL-PBP	232.266	105.1;91.0	106	10	31/55	14/12	LIDOCAINE (137-58-6)	235.081	86.1; 58.1	126	10	23/51	10/10
3-METHYL-PPP (2749302-38-1)	218.209	119.3;91.0	116	10	31/49	6/8	LOPRAZOLAM (61197-73-7)	464.983	252.0;111.1	126	10	57/35	12/14
4,4'-DMAR (1445569-01-6)	191.255	148.1;91.0	61	10	17/39	18/12	LORAZEPAM (846-49-1)	321.924	275.9;303.9	111	10	29/21	12/14
4-AcO-DET (1135424-15-5)	275.216	86.0;160.0	81	10	23/35	12/20	LORMETAZEPAM (848-75-9)	335.939	289.9;177.9	86	10	29/45	14/12
4-AcO-DMT (2748484-99-1)	247.314	58.1;160.1	81	10	21/33	6/16	LSD (50-37-3)	324.277	223.0;207.0	101	10	33/57	28/26
4-AcO-MET (2748591-02-6)	261.300	72.0;160.0	76	10	21/35	10/22	MAPROTILINE (10347-81-6)	278.114	191.0;189.0	116	10	47/83	24/22
4-APB (286834-82-0)	176.148	131.1;91.0	66	10	25/39	16/12	MBDB (128767-12-4)	208.040	135.0;77.0	51	10	27/55	18/10
4-APDB (1203342-42-0)	178.238	161.1;133.1	71	10	13/25	22/16	MDAT (101625-35-8)	192.204	175.1;117.1	66	10	15/35	10/8
4-BROMO-2,5-DMMA (155638-80-5)	288.233	257.0	61	10	19	12	MDBP (38063-96-6)	221.272	135.0;77.0	61	10	23/53	10/12
	290.240	259.0	56	10	19	12	MDEA (82801-81-8)	208.054	163.0;105.0	66	10	19/35	20/14
4-BROMOAMPHETAMINE (58400-88-7)	214.182	169.0	76	10	25	20	MDMB-CHMINACA (1971007-95-0)	386.303	241.1;145.0	156	10	33/57	12/18
	216.181	170.9	56	10	25	22	MDPBP (784985-33-7)	262.024	161.0;112.1	86	10	31/35	20/14
4-BROMOMETHAMPHETAMINE (30651-67-3)	228.205	168.9	91	10	29/27	20/20	MECLONAZEPAM (58662-84-3)	329.969	284.0;238.0	91	10	37/57	14/12
	230.200	170.9					MEDAZEPAM (2898-12-6)	271.019	206.9;165.1	126	10	37/61	26/20
4-BROMOMETHCATHINONE (135333-27-6)	243.495	145.1;144.1	101	10	23/45	18/18	MEMANITINE (41100-52-1)	180.261	163.2;107.2	56	10	19/33	8/10
4-CAB (23292-08-2)	184.174	125.1;89.0	46	10	25/57	16/14	MEPERIDINE (50-13-5)	248.140	220.1;91.1	121	10	31/59	20/8
4-CEC (22198-75-0)	212.210	159.3;144.1	66	10	25/39	8/18	MEPHTETRAMINE (2749302-69-8)	190.139	44.0;147.1	101	10	31/13	8/18
4-CHLORO-ALPHA-PPP (28117-79-5)	238.267	139.1;	111	10	33/33	16/12	MEPIRAPIM (2365542-30-7)	314.241	214.1;	66	10	21/47	10/8

		98.1							144.1				
4-CHLOROAMPHETAMINE (3706-38-5)	170.197	125.0; 89.0	51	10	25/53	12/12	MEPROBAMATE (57-53-4)	219.029	158.1; 55.1	66	10	11/31	20/8
4-CHLOROMETHCATHINONE (2319878-22-1)	198.000	145.1; 144.1	76	10	25/41	18/18	MESCALINE (832-92-8)	212.183	195.1; 77.0	76	10	13/63	24/12
4-CMA (30572-91-9)	184.235	125.1; 89.0	81	10	29/57	14/12	METHADONE (1095-90-5)	310.094	265.1; 105.0	66	10	21/35	12/14
4-EAPB (2514946-32-6)	204.264	131.1; 91.0	76	10	29/45	10/12	METHAMPHETAMINE (826-10-8)	150.063	91.0; 119.1	51	10	25/15	12/16
4-ETHYL-N,N-DMC (2702382-98-5)	206.207	133.2; 105.2	61	10	27/35	14/18	METHANDIENONE (72-63-9)	301.060	121.2; 149.1	131	10	35/21	14/18
4-FEC (2705473-25-0)	196.260	148.1; 135.1	71	10	41/37	18/16	METHAQUALONE (72-44-6)	251.007	132.1; 91.0	131	10	37/57	18/12
4-FLUORO BUPHEDRONE (2624137-27-3)	196.234	149.1; 148.1	76	10	31/47	18/18	METHCATHINONE (49656-78-2)	164.056	131.1; 130.1	61	10	27/41	18/16
4-FLUORO PENTEDRONE (2469350-88-5)	210.264	109.0; 74.0	86	10	33/111	14/10	METHEDRONE (879665-92-6)	193.998	176.0; 161.0	56	10	15/31	10/6
4-FLUORO PV8 (2748485-01-8)	278.165	109.0; 95.1	126	10	33/71	16/12	METHOHEXITAL (151-83-7)	263.072	221.0; 77.1	116	10	19/67	10/10
4-FLUORO PV9 (2117405-40-8)	292.257	109.1; 95.0	116	10	35/71	14/14	METHOXETAMINE (1239908-48-5)	248.059	121.1; 203.0	76	10	37/19	16/26
4-FLUORO-ALFA-PPP (274859-18-1)	222.267	123.1; 98.1	86	10	31/33	8/14	METHOXPHENIDINE (2055777-48-3)	297.324	129.1; 117.1	101	10	27/31	16/14
4-FLUOROMETHAMPHETAMINE (52063-62-4)	168.214	109.1; 137.0	81	10	27/15	12/18	METHYLHEXANAMINE (13803-74-2)	116.066	57.0; 41.1	71	10	17/31	8/6
4-FLUOROMETHCATHINONE (7589-35-7)	182.011	164.1; 149.0	71	10	19/29	22/20	METHYLONE (b186028-80-8)	208.272	160.0; 132.1	86	10	25/37	20/14
4F-PVP (850352-31-7)	250.250	109.0; 126.1	91	10	31/35	12/16	METHYLPHENIDATE (113-45-1)	234.300	84.1; 56.0	71	10	23/65	10/8
4-HYDROXY DiPT (63065-90-7)	262.005	161.1; 114.1	171	10	31/21	20/14	MEXEDRONE (2166915-02-0)	208.300	91.0; 119.0	76	10	47/29	16/6
4-HYDROXYMIDAZOLAM (59468-85-8)	341.932	325.0; 297.0	121	10	31/41	14/14	MIANSERIN (24219-97-4)	265.493	208.1; 58.1	146	10	29/45	24/10
4-iodoamphetamine (21894-58-6)	262.177	245.0; 216.9	56	10	15/27	12/12	MIDAZOLAM (59467-70-8)	326.065	291.1; 248.9	136	10	37/51	12/30
4-MAPB	190.254	131.1; 91.0	76	10	27/41	18/10	MITRAGYNINE (4098-40-2)	399.094	174.0; 159.1	136	10	41/63	22/20
4-MEAP (18297-05-7)	220.297	144.1; 105.1	66	10	43/29	18/12	MMAI (132980-17-7)	178.131	161.0; 103.0	61	10	15/53	22/14
4-MEO-ALPHA-PVP (5537-19-9)	262.212	121.1; 191.2	91	10	33/25	12/18	MMB018 (1971007-97-2)	345.251	214.1; 144.0	66	10	19/51	10/20
4-MeOPBP (2749897-35-4)	248.282	112.1; 121.1	101	10	31/37	14/16	MMB2201 (1971007-87-0)	363.251	232.1; 144.1	81	10	21/53	10/16
4-METHOXY PHENCYCLIDINE (2185-93-5)	274.176	121.1; 189.1	61	10	39/17	14/10	MN-25 (501926-82-5)	440.336	114.1; 261.1	141	10	41/33	12/12
4-METHOXY PV8 (2749302-60-9)	290.295	121.1; 154.2	126	10	35/33	16/8	MN-25-2-METHYL DERIVATIVE (501927-29-3)	454.347	114.1; 275.1	151	10	41/31	18/14

4-METHOXY PV9 (2748590-60-3)	304.286	121.1; 168.2	101	10	35/35	14/8	MO-CHMINACA (2365471-04-9)	387.261	241.1; 145.1	121	10	27/47	22/8
4-METHOXYMETHAMPHETAMINE (3398-68-3)	180.289	149.0; 121.1	66	10	15/27	20/14	MORPHINE (57-27-2)	286.043	152.1; 128.1	176	10	79/77	20/16
4-METHYL PENTEDRONE (1373918-61-6)	206.274	144.1; 105.1	86	10	47/29	18/14	MPBP (1214-15-9)	232.059	105.1; 91.1	116	10	33/57	14/12
4-METHYL-ALPHA-ETHYLAMINOBUTIOPHENONE (18268-19-4)	206.110	188.3; 144.2	56	10	19/43	22/10	MT-45 (57314-55-3)	349.380	181.0; 77.0	176	10	37/93	24/12
4-METHYLAMPHETAMINE (41632-56-8)	150.227	105.1; 133.1	56	10	23/11	16/8	N-(3-METHYLBENZYL)PIPERAZINE (5321-48-2)	191.273	105.1; 77.0	81	10	27/55	14/10
4-METHYLCATHINONE (31952-47-3)	164.232	146.1; 131.0	71	10	15/27	18/16	N,N-DIETHYLPHENETHYLAMINE (5300-21-0)	178.273	105.1; 77.0	101	10	25/55	10/12
4-METHYLMETHAMPHETAMINE (161697-16-1)	164.250	105.1; 133.1	66	10	25/15	14/16	N,N-DIMETHYLPENTYLONE (17763-13-2)	250.302	100.1; 135.0	101	10	27/31	12/14
4-METHYLMETHCATHINONE (1189726-22-4)	178.066	160.1; 145.1	71	10	17/27	20/18	N,N-DMT (61-50-7)	189.572	58.0; 144.1	116	10	19/23	8/18
4-METHYL-N,N-DMC (1448845-14-4)	192.249	119.1; 72.1	101	10	27/33	16/12	N-ACETYL-3,4-MDMC (1227293-15-3)	250.245	208.1; 160.1	76	10	19/35	22/18
4-METHYL-N-METHYLBUPHEDRONE (2748589-93-5)	206.209	105.0; 90.9	51	10	29/47	16/12	NAPHYRONE (850352-11-3)	282.065	140.9; 17.0	51	10	37/59	10/24
4-METHYL-N-METHYLHEXANOPHENONE (2168553-84-0)	220.287	144.1; 105.1	86	10	47/29	16/14	NAPHYRONE-1-NAPHTYL ISOMER (1349245-31-3)	282.125	127.0; 141.0	51	10	57/37	22/10
4-METHYL-PBP (1214-15-9)	232.310	105.1; 91.0	81	10	33/55	14/12	N-BENZYLNORBUTYLONE (1823865-05-9)	298.241	91.1; 65.0	96	10	41/91	14/16
4-METHYL-PHP (1391052-36-0)	260.347	105.1; 91.1	131	10	33/63	14/10	N-ETHYL-4-METHOXYAMPHETAMINE (93963-24-7)	194.253	121.0; 91.0	66	10	29/45	16/14
4-METHYL- $\alpha$ -ETHYLTRYPTAMINE (28289-30-7)	203.040	144.1; 186.0	56	10	29/13	20/24	N-ETHYLBUPHEDRONE (2731709-73-0)	192.296	130.1; 91.0	66	10	39/35	10/14
5-APB (286834-80-8)	176.082	44.0; 91.0	46	10	23/47	8/10	N-ETHYL-N-METHYLCATHINONE (1157739-24-6)	192.099	105.0; 77.2	76	10	29/57	6/14
5-APDB (152623-94-4)	178.290	161.0; 133.1	56	10	13/27	22/18	N-ETHYLNORDAZEPAM (5571-65-3)	299.364	165.1; 77.0	216	10	59/89	20/10
5-APDI (152623-95-5)	176.173	159.2; 131.2	71	10	13/27	22/10	N-ETHYLNORKETAMINE (2525095-53-6)	252.180	125.0;89.1	71	10	41/75	16/14
5-CHLORO AB-PINACA (1801552-02-2)	365.216	320.1	91	10	21	14	N-ETHYLOXAZEPAM (62659-64-7)	315.994	270.0; 242.0	116	10	29/47	12/12
	367.248	322.2	86	10	21	14	N-ETHYLPENTYLONE (17763-02-9)	250.269	232.2; 202.0	71	10	21/27	22/12
5-CHLORO-NNEI (1800101-23-8)	391.226	247.9; 144.1	86	10	31/55	12/8	NIMETAZEPAM (2011-67-8)	296.187	250.1; 221.0	171	10	35/45	12/26
5-EAPB (1823776-22-2)	204.961	132.1; 131.6	86	10	29/29	16/16	NITRACAINE (1648893-21-3)	309.822	92.0; 76.0	216	10	57/91	12/12



5F-ABICA (1801338-26-0)	348.070	232.1; 144.1	71	10	29/53	12/18	NITRAZEPAM (146-22-5)	281.974	236.0; 180.1	141	10	33/51	30/24
5-F-JWH-018 ADAMANTYL ANALOG (1364933-62-9)	368.294	135.1; 77.0	171	10	39/113	10/12	NM2201 (2042201-16-9)	376.276	232.0; 144.1	131	10	21/51	12/18
5-FLUORO THJ (2180934-72-7)	377.255	233.1; 145.1	91	10	29/53	12/14	N-METHYL-2AI (10408-85-2)	148.043	117.1; 115.1	81	10	23/37	14/14
5-FLUORO-2-ADB-PINACA_ISOMER_2 (2365471-68-5)	363.254	145.1; 318.1	116	10	47/29	10/14	N-METHYL-PEA (589-08-2)	136.182	105.1; 77.0	51	10	19/43	18/12
5-FLUORO-CUMYL-PICA (1400742-18-8)	367.233	249.1; 91.0	96	10	21/77	12/14	N-METHYLTRYPTAMINE (61-49-4)	175.508	144.1; 117.1	66	10	17/37	18/14
5-FLUORO-SDB-006 (1776086-02-2)	339.222	91.0; 232.0	141	10	63/31	14/10	NN-DMC (10105-90-5)	178.233	105.0; 72.1	91	10	29/29	14/10
5-F-PENTYL-3-PYRIDINOYLINDOLE	311.223	144.1; 89.0	136	10	51/99	18/12	NORCLOBAZAM (22316-55-8)	286.954	245.1; 210.0	141	10	27/43	12/26
5F-SDB-005 (2185863-14-1)	377.212	233.1; 145.1	121	10	15/51	10/10	NORCLOMIPRAMINE (29854-14-6)	301.026	72.1; 44.1	101	10	21/65	10/8
5-HYDROXY DMT (55206-22-9)	205.058	58.1; 160.1	81	10	17/25	8/20	NORKETAMINE (79499-59-5)	224.176	125.1; 207.2	51	10	13/21	12/12
5-IT (3784-30-3)	175.275	158.1; 130.1	61	10	13/31	18/18	NORTRIPTYLIN (894-71-3)	264.066	91.1; 105.1	81	10	29/27	12/14
5-MAPB (1823925-53-6)	190.252	159.1; 131.1	56	10	15/29	16/20	N-PROPYLAMPHETAMINE (59877-57-5)	178.103	119.1; 65.0	86	10	17/61	16/10
5-MAPDB (2748590-04-5)	192.202	161.1; 133.1	56	10	17/31	18/14	NRG-3 (2701928-05-2)	242.250	181.1; 180.1	81	10	35/53	8/16
5-MeO-ALPHA-ET (4765-10-0)	219.295	160.1; 117.1	71	10	27/55	18/14	α-CPP (41202-32-8)	197.229	154.1; 118.1	121	10	27/45	20/8
5-MeO-DALT (928822-98-4)	271.063	110.1; 174.1	86	10	21/27	14/22	OCTACAINE (93940-32-0)	235.279	100.1; 72.1	81	10	23/51	14/10
5-METHOXY AMT (1137-04-8)	205.050	188.0; 147.1	56	10	15/27	24/20	ORG-28611 (784138-08-5)	384.309	270.2; 174.0	71	10	25/47	12/22
5-METHOXY DiPT (4021-34-5)	275.078	114.2; 174.1	91	10	21/29	14/22	OXAZEPAM (604-75-1)	288.031	242.1; 269.9	91	10	31/21	12/12
5-METHOXY DMT (1019-45-0)	219.968	58.1; 175.0	146	10	21/21	8/22	OXYMORPHONE (76-41-5)	302.251	284.0; 227.1	151	10	25/37	14/12
5-METHOXY METHYLONE (2702151-27-5)	238.277	190.1; 147.1	96	10	21/37	24/16	PARACETAMOL (103-90-2)	152.016	110.0; 65.0	81	10	21/39	14/10
5-METHOXY MiPT (96096-55-8)	247.988	86.1; 87.1	156	10	19/19	10/10	PAROXETINE (78246-49-8)	330.014	70.0; 44.1	111	10	49/71	10/8
6-APB (286834-84-2)	176.049	159.1; 131.1	66	10	13/25	20/18	PCEEA (1798021-89-2)	248.346	91.0; 90.1	56	10	45/13	12/12
6-APDB (1281872-58-9)	178.157	161.0; 132.9	36	10	15/29	22/8	PCMPA (1934-63-0)	248.342	91.0; 90.1	66	10	43/15	14/12
6-BROMO-MDMA (87913-26-6)	272.170	240.9	86	10	19	12	PCPr (1934-55-0)	218.345	91.0; 159.1	46	10	39/15	6/22
	274.156	242.8	76	10	19	12	PENTEDRONE (879669-95-1)	192.062	91.0; 132.1	81	10	31/25	12/16
6-CHLORO-MDMA (319920-71-3)	228.238	169.0;	61	10	29/53	12/12	PENTEDRONE METABOLITE	194.308	176.1;	81	10	17/43	22/12

		77.0					(1422513-91-4)		91.0				
6-EAPB (1823318-37-1)	204.150	131.1; 159.1	56	10	29/17	16/8	PENTYLONE (17763-01-8)	235.658	188.1; 218.1	136	10	25/19	24/10
6-IT (21005-63-0)	175.258	158.1; 130.1	51	10	15/31	8/18	PHENAZEPAM (51753-57-2)	350.845	206.0; 179.0	131	10	49/63	26/22
6-MAM (2784-73-8)	328.010	165.0;43 .0	141	10	51/95	20/8	PHENCYCLIDINE (956-90-1)	244.103	86.1; 91.0	56	10	17/43	12/12
6-MAPB (2731011-08-6)	190.239	131.1; 91.0	71	10	27/43	10/10	PHENOBARBITAL (50-06-6)	231.014	42.0; 188.0	-100	-10	-10/-10	-44/-14
7-AMINOCLONAZEPAM (4959-17-5)	286.241	121.1; 222.1	111	10	39/33	14/26	PHENTERMINE (1197-21-3)	150.067	91.0; 133.1	41	10	27/13	12/16
7-AMINODESMETHYLFLUNITRAZEPAM (894-76-8)	270.396	121.1; 77.0	146	10	37/75	14/10	PHENYTOIN (57-41-0)	253.004	182.1; 104.1	116	10	25/45	24/12
7-AMINOFLUNITRAZEPAM (34084-50-9)	283.767	135.1; 77.1	121	10	37/87	18/12	PRAVADOLINE (92623-83-1)	379.060	135.1; 77.1	76	10	23/89	14/12
7-AMINONITRAZEPAM (4928-02-3)	252.005	121.1; 77.1	111	10	35/73	16/10	PRAZEPAM (2955-38-6)	325.365	271.0; 140.0	126	10	31/49	12/18
7-APB (286834-86-4)	176.239	131.1; 77.0	46	10	25/53	14/10	PREGABALIN (148553-50-8)	160.078	142.1; 55.0	116	10	15/29	18/8
7-APDB (1337821-68-7)	178.233	161.1; 133.1	61	10	15/25	10/18	PROCAINE (51-05-8)	237.063	100.1; 120.1	81	10	21/37	12/14
A-834735 (895155-57-4)	340.308	125.1; 55.0	156	10	29/61	16/10	PROLINTANE (1211-28-5)	218.162	91.1; 72.1	86	10	33/23	12/10
A-836339 (959746-77-1)	311.150	187.1; 125.2	101	10	23/33	12/10	PROMETHAZINE (58-33-3)	285.029	86.1; 71.1	76	10	21/63	12/10
AB-FUBINACA (1185282-01-2)	369.130	352.0; 109.1	81	10	13/47	14/14	PROPAFENONE (34183-22-7)	342.045	116.1; 72.1	86	10	29/47	14/10
AB-FUBINACA 2-FLUOROBENZYL ISOMER (1185282-16-9)	369.269	253.0; 324.2	86	10	33/19	12/14	PROPRANOLOL (318-98-9)	260.069	56.0; 58.1	86	10	45/45	8/10
AB-FUBINACA 3-FLUOROBENZYL ISOMER (185282-19-2)	369.241	253.0; 324.1	66	10	35/21	12/14	PROPYLHEXEDRINE (1007-33-6)	155.882	69.1; 55.0	81	10	23/37	10/8
ADB-PINACA ISOMER_1	345.335	215.1; 300.2	86	10	33/21	10/14	PSB-SB-1202 (1399049-60-5)	367.248	259.1; 121.1	121	10	23/23	12/8
ADB-PINACA ISOMER_2	345.304	215.1; 300.1	71	10	35/19	10/14	PTI-1 (1400742-46-2)	356.299	283.0; 213.1	106	10	29/47	14/10
ADB-PINACA ISOMER_3	345.292	215.1; 300.2	71	10	33/19	10/14	PTI-2 (1400742-45-1)	400.341	283.0; 213.1	116	10	31/51	14/10
ADB-PINACA ISOMER_4	345.305	215.1; 300.1	81	10	33/19	10/14	PV-8 (13415-55-9)	260.116	91.1; 77.1	96	10	33/73	12/10
AH-7921 (55154-30-8)	329.174	284.0; 173.0	91	10	23/35	12/18	PV9 (2749897-19-4)	274.307	91.0; 77.0	126	10	33/73	12/12
AKB48_N-(4-FLUOROBENZYL)_ANALOG (2180933-90-6)	404.265	135.1; 77.0	136	10	29/121	16/14	PX-2 (2365471-47-0)	397.253	233.0; 352.2	86	10	33/21	12/14
ALFA-ETHYLAMINOPENTIOPHENONE (18268-16-1)	206.323	188.1; 91.0	86	10	17/39	22/12	PYRAZOLAM (39243-02-2)	353.943	167.1; 206.0	151	10	47/41	20/26
ALFA-PROPYLAMINOPENTIOPHENONE (18268-15-0)	220.315	202.1; 91.1	91	10	19/33	10/10	QUETIAPINE (111974-72-2)	384.090	253.1; 221.0	116	10	31/51	12/28

ALLYLESCALINE (39201-76-8)	238.321	221.1; 77.0	51	10	13/67	10/12	RH-34 (1028307-48-3)	326.300	121.1; 91.1	91	10	25/57	14/10
ALPHA-DIMETHYLAMINOPENTIPHENONE (2168229-67-0)	206.291	91.1; 77.1	101	10	27/57	14/12	R-MMC (1246816-2-5)	236.144	188.2;218.1	61	10	25/17	10/18
ALPHA-ETHYLAMINOHEXANOPHENONE (18410-62-3)	220.312	91.0; 130.1	106	10	33/47	12/14	SCOPOLAMINE (114-49-8)	303.805	138.1; 156.1	96	10	29/23	18/20
ALPHA-ETHYLTRYPTAMINE (2235-90-7)	188.767	130.1; 172.1	76	10	27.1is	16/20	SDB-005 (2180934-13-6)	359.177	215.2; 145.0	51	10	21/45	10/20
ALPHA-HYDROXYMIDAZOLAM (59468-90-5)	341.989	324.0; 203.0	121	10	29/37	14/26	SDB-006 (695213-59-3)	321.153	91.0; 214.1	171	10	61/39	12/10
ALPHA-METHYLTRYPTAMINE (299-26-3)	175.029	158.1; 143.1	56	10	15/35	20/16	SERTRALINE (79559-97-0)	306.988	276.0; 159.0	66	10	17/37	12/20
ALPHA-PHP (13415-59-3)	246.318	91.0; 77.0	76	10	33/65	10/10	SILDENAFIL (139755-83-2)	475.047	58.1;100.1	91	10	103/35	10/12
ALPHA-PHTALIMIDOPROPIOPHENONE (19437-20-8)	280.193	105.1; 77.0	116	10	31/79	14/12	STANOZOLOL (10418-03-8)	329.138	81.1; 95.1	241	10	79/51	12/12
ALPHA-PIBP (92728-82-0)	232.294	91.1; 77.0	106	10	33/61	8/10	TAPENTADOL (175591-09-0)	222.343	107.1; 77.0	86	10	35/63	14/12
ALPHA-PPP (92040-10-3)	204.261	105.1; 98.1	71	10	31/33	14/8	TEMAZEPAM (846-50-4)	301.993	256.0; 284.1	116	10	31/19	12/12
ALPHA-PVP (5485-65-4)	232.243	91.1; 126.1	71	10	39/57	8/6	TETRACAINE (92-24-6)	265.226	176.1; 72.0	96	10	21/37	18/10
ALPHA-PVT (2748622-52-6)	238.017	126.2; 97.0	91	10	29/31	16/12	THIOPROPAMINE (53632-92-1)	142.098	125.0; 97.0	51	10	13/25	8/12
ALPHA-PYRROLIDINOBUTHIOPHENONE (13415-54-8)	224.190	112.2; 97.0	81	10	29/39	12/12	THJ (2180931-94-4)	359.247	215.2;145.0	121	10	29/49	10/16
ALPRAZOLAM (28981-97-7)	309.934	282.0; 206.0	171	10	37/57	12/26	TILETAMINE (14176-50-2)	224.246	179.0; 151.1	51	10	13/23	10/18
AM1220 (137642-54-7)	383.315	98.0; 112.1	101	10	49/27	14/12	TRAMADOL (36282-47-2)	264.304	58.1; 42.1	96	10	47/113	8/8
AM2201 8-QUINOLINYL CARBOXAMIDE (2365471-42-5)	376.237	232.1; 144.1	86	10	23/55	12/16	TRAZODONE (25332-39-2)	372.082	176.0; 148.0	126	10	33/45	24/20
AM2201 BENZIMIDAZOLE ANALOG (1984789-90-3)	361.184	127.1; 155.1	131	10	73/41	16/20	TRIAZOLAM (28911-01-5)	343.990	309.1; 239.9	106	10	37/57	14/30
AM2232 (335161-19-8)	353.245	155.1; 127.0	131	10	31/63	18/14	TRIMIPRAMINE (521-78-8)	294.788	100.2; 58.1	81	10	23/61	12/8
AMITRIPTYLINE (549-18-8)	278.073	91.0; 105.1	101	10	33/31	12/14	U-47700 (82657-23-6)	329.037	284.0	56	10	25	14
AMPHETAMINE (2706-50-5)	136.030	91.0; 119.1	51	10	23/11	12/16		331.017	286.0	96	10	25	14
ATENOLOL (29122-68-7)	267.122	145.1; 56.1	101	10	35/43	20/8	W-15 (93100-99-3)	377.154	105.1	141	10	33	16
ATRAZYNA (1912-24-9)	216.245	174.0; 104.0	126	10	23/39	24/14		379.165	105.2	166	10	33	12
AZACYCLONOL (115-46-8)	268.279	250.1; 91.0	81	10	17/51	20/14	WIN 54,461 (166599-63-9)	457.176	135.1; 77.0	126	10	29/95	12/12
BB-22 (1400742-42-8)	385.123	240.1;	101	10	19/51	16/18	WIN 55,212-2 (131543-23-2)	427.117	155.1;27.2	161	10	33/75	18/12

		144.0											
BDB (42542-07-4)	194.030	135.0; 177.0	56	10	25/11	18/24	XLR12 (895155-78-9)	352.216	125.1; 254.0	141	10	31/35	8/12
BENOCYCLIDINE (112726-66-6)	300.293	215.1; 147.0	66	10	17/39	10/18	YANGONIN (500-62-9)	259.148	161.0; 89.0	121	10	29/93	22/10
BENZEDRONE (1797979-43-1)	254.273	91.1; 65.1	111	10	31/77	12/10	ZALEPLON (151319-34-5)	305.911	264.0; 236.1	141	10	31/37	12/10
BENZOCAINE (94-09-7)	166.030	120.0; 94.0	71	10	25/23	16/12	ZOLPIDEM (82626-48-0)	308.323	235.1; 236.0	111	10	47/37	10/30
BENZOYLECGONINE (519-09-5)	290.034	168.1; 77.0	91	10	27/77	20/10	ZOPICLONE (43200-80-2)	389.014	244.9;112. 0	81	10	23/79	12/16
BENZYDAMINE (642-72-8)	310.213	86.1; 58.1	106	10	23/71	10/10	ZUCLOPENTHIXOL (53772-83-1)	401.024	221.0; 231.0	101	10	73/49	26/28

Table S2. The results of concentration, precision, BIAS, and limit of detection (LOD) and quantification (LOQ) for validated compounds (where: C – concentration; R<sub>av</sub> - Average recovery; RA - Range analysis)

Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )	Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )
1-(2-METHOXYPHENYL)PIPERAZINE (38869-49-7)	10	5.34	119.9	4.39	19.9	10-100	3	10	AMITRIPTYLINE (549-18-8)	100	10.93	98.64	4.23	-1.36	100-5000	0.5	100
	100		102.0	14.1	2.03					1000		108.5	5.53	8.51			
	1000		52.73	6.37	-47.3					5000		106.0	3.28	6.03			
	2000		48.49	6.68	-51.5					100		98.95	15.1	-1.05			
	5000		60.06	5.68	-39.9					1000		83.17	11.7	-16.8			
1-(3-TRIFLUOROMETHYLPHENYL)PIPERAZINE (TFMPP) (1605-69-3)	100	7.99	108.8	11.6	8.80	100-5000	30	100	AMPHETAMINE (2706-50-5)	5000	90.43	10.9	-9.57	100-5000	30	100	
	1000		107.6	3.39	7.61					100	106.2	6.69	6.15				
	5000		105.0	8.67	5.00					5000	104.2	5.83	4.15				
1-(4-CHLOROPHENYL)PIPERAZINE (pCPP) (38212-33-8)	100	6.79	96.84	14.8	-3.16	100-5000	30	100	ATENOLOL (29122-68-7)	1000	106.2	6.69	6.15	100-5000	0.5	100	
	1000		92.65	7.70	-7.35					5000	92.26	6.26	-7.74				
	5000		108.7	8.18	8.74					10	100.4	13.3	0.37				
1-(4-FLUOROPHENYL)PIPERAZINE (64090-19-3)	100	4.74	93.23	2.42	-6.77	100-5000	30	100	AZACYCLONOL (115-46-8)	100	115.1	7.26	15.1	10-5000	0.5	10	
	1000		97.85	7.74	-2.15					1000	115.0	1.54	15.0				
	5000		103.7	2.87	3.74					2000	108.2	6.59	8.17				
1,4-DIBENZYLPIPERAZINE (2289-55-7)	100	7.83	106.2	7.31	6.18	100-5000	30	100	BB-22 (1400742-42-8)	5000	99.82	2.60	-0.18	10-1000	3	10	
	1000		107.4	6.49	7.41					100	86.48	15.4	-13.5				
	5000		110.9	3.75	10.9					1000	110.6	10.4	10.6				
1-AMINOINDAN (34698-41-4)	100	4.12	112.0	5.24	12.0	100-5000	30	100	BDB (42542-07-4)	100	110.6	12.3	10.6	100-5000	30	100	
	1000		107.3	1.98	7.31					1000	111.4	6.19	11.4				
	5000		97.14	10.5	-2.86					5000	99.73	4.21	-0.27				
1-METHYL-4-BENZYLPIPERAZINE (374898-00-7)	100	3.30	91.13	6.37	-8.87	100-5000	30	100	BENOCYCLIDINE (112726-66-6)	10	98.09	7.77	-1.92	10-5000	3	10	
	1000		82.95	3.70	-17.1					100	101.5	8.04	1.48				
	5000		80.51	3.92	-19.5					1000	108.0	4.80	7.95				
1-METHYLAMINO-1-(3,4-METHYLENEDIOXYPHENYL)PROPANE (127292-43-7)	10	6.07	93.73	13.1	-6.27	10-5000	3	10	BENZEDRONE (1797979-43-1)	2000	97.98	6.24	-2.02	10-5000	3	10	
	100		92.45	10.5	-7.55					5000	97.75	6.30	-2.25				
	1000		116.7	6.57	16.7					10	83.91	16.2	-16.1				
	2000		106.1	3.11	6.05					100	113.8	2.83	13.8				
	5000		116.9	4.03	16.9					1000	114.5	2.89	14.5				
2,3-DICHLOROPHENYLPIPERAZINE (DCPP) (119532-26-2)	100	8.58	114.8	18.7	14.8	100-5000	30	100		2000	115.9	2.18	15.9	10-5000	3	10	
	1000		115.1	6.67	15.1					5000	102.2	4.50	2.15				

Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )	Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )
2,3-DIMETHYLETHCATHINONE (2,3-DMEC) (2705531-06-0)	5000	7.52	85.69	6.80	-14.3	100-5000	30	100	BENZOCAINE (94-09-7)	100	8.95	101.1	3.38	1.05	100-5000	30	100
	100		106.0	5.28	5.95					1000		114.8	6.60	14.8			
	1000		117.2	6.21	17.2					5000		98.12	4.28	-1.88			
	5000		105.3	2.37	5.26					100		105.5	10.34	5.46			
2,3-DIMETHYLMETHCATHINONE (2,3-DMMC) (1797981-99-7)	100	7.08	103.1	5.28	3.10	100-5000	30	100	BENZOYLECGONINE (519-09-5)	1000	6.71	88.48	6.78	-11.5	100-5000	30	100
	1000		-							5000		105.9	2.82	5.89			
	5000		99.52	8.09	0.480					100		108.1	6.18	8.14			
2,3-ETHYLONE ISOMER (2749504-06-9)	10	5.47	106.8	11.3	6.83	10-5000	3	10	BENZYLAMINE (642-72-8)	1000	10.29	111.0	4.18	11.0	100-5000	30	100
	100		118.5	1.56	18.5					5000		102.2	2.61	2.18			
	1000		79.04	1.53	-21.0					100		113.7	14.7	13.7			
	2000		72.26	5.20	-27.7					1000		103.5	14.5	3.45			
	5000		85.22	3.65	-14.8					5000		99.14	7.83	-0.860			
2,3-MDMA (168968-01-2)	100	5.79	112.1	11.3	12.1	100-5000	30	100	bk-2C-B (2303508-66-7)	10	7.04	112.7	8.59	12.7	100-5000	30	100
	1000		93.06	9.09	-6.94					100		101.3	8.67	1.31			
	5000		81.07	5.19	-18.9					1000		44.41	3.04	-55.6			
2,3-MDPV (24622-62-6)	10	7.59	81.31	8.23	-18.7	10-5000	3	10	bk-MDA (80535-73-5)	2000	4.27	33.89	4.75	-66.1	10-100	3	10
	100		98.21	4.46	-1.79					5000		37.22	6.56	-62.8			
	1000		98.53	4.65	-1.47					10		100.3	11.1	0.33			
	2000		98.08	6.32	-1.92					100		113.9	6.51	13.9			
	5000		90.21	4.52	-9.79					1000		100.5	3.88	0.51			
2,4,5-TRIMETHOXYAMPHETAMINE (15995-72-9)	10	5.54	87.01	12.7	-13.0	10-5000	3	10	BMPEA (20388-87-8)	2000	4.88	89.63	3.24	-10.4	10-5000	3	10
	100		91.64	10.4	-8.36					5000		81.84	1.96	-18.2			
	1000		112.2	2.96	12.2					10		96.19	8.22	-3.81			
	2000		88.03	5.42	-12.0					100		105.3	8.65	5.29			
	5000		80.73	2.18	-19.3					1000		114.47	6.09	14.5			
2,4-DIMETHYLMETHCATHINONE (2,4-DMMC) (2412098-39-4)	100	7.53	112.9	3.70	12.9	100-5000	30	100	BROMO-DRAGON-FLY (219986-78-4)	2000	10.05	107.4	2.43	7.41	10-5000	3	10
	1000		109.7	13.0	9.74					5000		100.1	4.79	0.08			
	5000		115.6	4.95	15.6					10		105.7	6.31	5.66			
	10		83.20	18.3	-16.8					100		105.7	13.1	5.73			
2,4-DMEC (2702352-15-4)	100	8.3	108.6	6.17	8.59	10-5000	3	10	BUPRENORPHINE (53152-21-9)	1000	9.64	104.7	7.01	4.70	10-5000	3	10
	1000		99.83	5.64	-0.17					2000		93.86	4.61	-6.14			
	2000		104.0	12.5	4.00					5000		88.99	4.70	-11.0			
	5000		94.67	11.5	-5.33					100		106.5	4.96	6.54			
	10		86.04	11.6	-14.0					1000		114.5	4.02	14.5			
2,5-DMMA (54687-43-3)	100	6.73	94.94	6.06	-5.06	10-5000	3	10	BUPROPION (31677-93-7)	5000	8.09	109.4	2.10	9.42	100-5000	30	100
	1000		92.75	6.45	-7.25					100		115.8	5.86	15.8			
	1000		92.75	6.45	-7.25					1000		105.4	11.5	5.38			
	2000		87.73	4.67	-12.3					1000		105.4	11.5	5.38			
									BUTYLONE (bk-MBDB) (17763-12-1)								

Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )	Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )
25B-NBF (1539266-17-5)	5000	10.16	83.93	4.49	-16.1	10-5000	3	10	CAMFETAMINE (92499-19-9)	5000	8.23	92.96	9.04	-7.04	10-5000	3	10
	10		95.48	7.30	-4.52					10		104.5	19.1	4.53			
	100		103.7	8.19	3.74					100		104.5	11.6	4.45			
	1000		108.3	3.99	8.32					1000		111.9	9.29	11.9			
	2000		103.2	4.78	3.24					2000		105.9	4.67	5.89			
5000	90.45	4.65	-9.55	5000	101.3	15.2	1.28										
25C-NBF (1539266-21-1)	10	9.9	21.43	38.5	-78.6	100-5000	30	100	CANNABIDIOL (13956-29-1)	10	15.07	85.00	14.4	-15.0	10-1000	3	10
	100		117.6	8.08	17.6					100		100.4	14.8	0.36			
	1000		115.8	2.02	15.8					1000		113.5	2.39	13.5			
	2000		108.4	4.94	8.40					2000		114.5	2.67	14.5			
25C-NBOH (1539266-20-0)	5000	9.79	96.07	4.18	-3.93	100-5000	30	100	CARBAMAZEPINE (298-46-4)	1000	10.57	119.5	5.29	19.5	100-5000	30	100
	100		108.5	3.93	8.48					5000		92.85	3.74	-7.15			
	1000		98.02	2.95	-1.98					100		96.88	6.85	-3.12			
25C-NBOMe (1539266-19-7)	5000	10.33	105.9	5.38	5.92	100-5000	30	100	CATHINE (492-39-7)	1000	3.68	90.58	6.42	-9.42	100-5000	30	100
	100		109.2	6.39	9.24					5000		109.4	5.61	9.41			
	1000		112.2	4.26	12.2					100		102.3	6.61	2.31			
25D-NBOMe (1539266-35-7)	5000	10.52	97.32	4.23	-2.68	100-5000	30	100	CATHINONE (71031-15-7)	1000	3.75	105.6	2.76	5.61	100-5000	30	100
	100		117.8	8.22	17.8					5000		96.55	5.00	-3.45			
	1000		115.5	4.01	15.5					10		48.58	13.5	-51.4			
25E-NBOMe (1539266-39-1)	5000	11.33	93.89	2.90	-6.11	100-5000	30	100	CB-13 (432047-72-8)	100	16.51	23.41	44.9	-76.6	-	3	-
	100		111.3	4.42	11.3					1000		166.9	4.63	66.9			
	1000		118.4	3.86	18.4					10		13.76	78.2	-86.2			
25G-NBOMe (1797132-54-7)	5000	11.05	93.39	2.98	-6.61	100-5000	30	100	CBL-018 (2365471-54-9)	100	15.82	64.57	18.0	-35.4	-	3	-
	10		85.40	9.76	-14.6					1000		166.6	5.54	66.6			
	100		100.5	4.49	0.53					10		29.91	44.7	-70.1			
	1000		106.6	6.88	6.64					100		93.04	13.0	-6.96			
	2000		95.22	3.94	-4.78					1000		118.2	2.33	18.2			
25H-NBOMe (1566571-52-5)	5000	9.50	78.31	2.90	-21.7	100-5000	30	100	CI2201 (1391486-12-6)	2000	14.96	115.4	2.57	15.4	100-5000	30	100
	100		113.8	7.58	13.8					5000		115.0	6.16	15.0			
	1000		117.6	5.70	17.6					100		97.22	10.7	-2.78			
	5000		99.66	5.70	-0.34					1000		110.2	8.63	10.2			
25I-NB2OMe (1943868-97-8)	10	10.89	103.3	8.89	3.28	10-5000	3	10	CLOBAZAM (22316-47-8)	5000	11.17	110.2	7.60	10.2	100-5000	30	100
	100		103.6	5.51	3.62					100		117.1	4.83	17.1			
	1000		110.3	4.13	10.3					1000		114.5	7.56	14.5			
	2000		103.7	2.35	3.65					5000		96.33	4.30	-3.67			
	5000		93.23	4.42	-6.77					100		90.50	6.69	-9.50			
25I-NB3OMe (1566571-40-1)	10	10.88	102.9	17.9	2.87	10-5000	3	10	CLONAZEPAM (1622-61-3)	1000	10.80	119.1	7.62	19.1	100-5000	30	100

Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )	Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )
	100		109.2	4.44	9.15				COCAETHYLENE (529-38-4)	5000	8.16	103.2	6.12	3.21	100-5000	30	100
	1000		110.4	5.05	10.4					100		100.2	3.87	0.190			
	2000		102.9	4.45	2.89					1000		117.0	4.39	17.0			
	5000		96.93	3.14	-3.07					5000		109.5	8.13	9.47			
25I-NB4OMe (1566571-64-9)	10	10.81	113.1	6.73	13.1	10-5000	3	10	COCAINE (50-36-2)	100	7.22	108.7	2.51	8.70	100-5000	30	100
	100		107.9	4.15	7.92					1000		114.3	7.29	14.3			
	1000		107.7	2.75	7.67					5000		106.2	4.31	6.19			
	2000		96.87	5.34	-3.13					100		115.2	8.09	15.2			
25I-NBF (1539266-13-1)	10	10.60	96.61	12.0	-3.39	10-5000	3	10	CODEINE (76-57-3)	1000	4.47	85.49	3.42	-14.5	100-5000	30	100
	100		102.9	6.83	2.89					5000		85.97	4.74	-14.0			
	1000		102.4	4.63	2.35					10		115.8	6.91	15.8			
	2000		96.11	3.28	-3.89					100		99.62	6.46	-0.38			
25I-NBMD (1539266-14-2)	10	10.72	91.17	3.58	-8.83	10-5000	3	10	CUMYL-PICA (1400742-32-6)	1000	14.69	97.18	3.58	-2.82	10-1000	3	10
	100		91.29	12.1	-8.71					10		92.04	9.47	-7.96			
	1000		114.3	2.46	14.3					100		110.0	7.18	9.97			
	2000		116.9	3.82	16.9					1000		116.2	1.96	16.2			
25I-NBOH (1539266-12-0)	1000	10.49	111.1	2.94	11.1	10-5000	3	10	D2PM (172152-19-1)	2000	7.97	102.1	10.1	2.07	10-5000	3	10
	5000		107.0	2.69	7.04					5000		101.8	3.74	1.81			
	100		107.5	7.04	7.53					100		100.9	6.55	0.86			
	1000		114.5	5.90	14.5					1000		116.3	3.41	16.3			
25N-NBOMe (1566571-65-0)	5000	9.15	100.9	5.62	0.880	100-5000	30	100	DEMOXEPAM (963-39-3)	5000	10.27	106.1	3.67	6.05	100-5000	30	100
	100		111.4	4.60	11.4					100		80.14	12.0	-19.9			
	1000		116.9	4.19	16.9					1000		114.3	8.30	14.3			
25T2-NBOMe (1539266-51-7)	5000	10.79	97.82	6.75	-2.18	100-5000	30	100	DESALKYLFLURAZEPAM (2886-65-9)	5000	11.63	93.57	4.98	-6.43	100-5000	30	100
	10		102.6	7.01	2.56					100		99.31	10.9	-0.69			
	100		100.5	5.06	0.52					1000		115.4	6.53	15.4			
	1000		106.0	3.75	6.04					5000		112.7	6.36	12.7			
25T-NBOMe (1539266-47-1)	2000	10.14	92.21	5.54	-7.79	10-2000	3	10	DESCHLOROETIZOLAM (40054-73-7)	10	11.53	103.2	10.5	3.20	10-5000	3	10
	5000		67.64	1.36	-32.4					100		97.61	9.87	-2.39			
	100		106.4	5.11	6.43					1000		84.23	8.78	-15.8			
	1000		112.6	6.59	12.6					2000		86.79	7.80	-13.2			
2-AMINO-1-PHENYLBUTANE (20735-15-3)	5000	6.10	102.6	3.84	2.64	100-5000	30	100	DESCHLORO-N-ETHYL- KETAMINE (4551-92-2)	5000	6.23	86.65	6.28	-13.4	10-5000	30	100
	10		107.8	9.65	7.75					100		117.4	8.93	17.4			
	100		108.9	6.56	8.92					1000		116.1	4.69	16.1			
	1000		86.99	5.03	-13.0					5000		93.31	3.78	-6.69			
2-AMINO-1-PHENYLBUTANE (20735-15-3)	2000	6.10	82.47	6.63	-17.5	10-5000	3	10	DESIPRAMINE (50-47-4)	100	10.75	102.1	11.0	2.06	100-5000	30	100
	5000		85.94	4.59	-14.1					1000		119.0	5.31	19.0			
	1000		86.99	5.03	-13.0					5000		103.6	8.96	3.58			
	2000		82.47	6.63	-17.5					100		102.1	11.0	2.06			
2-AMINO-1-PHENYLBUTANE (20735-15-3)	5000	6.10	85.94	4.59	-14.1	10-5000	3	10	DESMETHYLDIAZEPAM (1088-11-5)	1000	11.96	119.0	5.31	19.0	100-5000	30	100
	1000		82.47	6.63	-17.5					1000		119.0	5.31	19.0			
	2000		82.47	6.63	-17.5					5000		103.6	8.96	3.58			
	5000		85.94	4.59	-14.1					1000		119.0	5.31	19.0			



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2-AMINOINDANE (2338-18-3)	100	3.89	109.0	3.91	9.04	100-5000	30	100	DESMETHYLFLUNITRAZEPAM (2558-30-7)	100	10.38	88.28	7.70	-11.7	100-5000	30	100
	1000		95.58	4.00	-4.42					1000		119.3	2.69	19.3			
	5000		87.01	4.24	-13.0					5000		117.2	4.07	17.2			
2-BROMOAMPHETAMINE (861006-36-2)	10	7.05	29.96	101	-70.0	100-5000	30	100	DESOMORPHINE (427-00-9)	100	5.22	113.4	9.50	13.4	100-5000	30	100
	100		96.46	13.1	-3.54					1000		95.28	4.11	-4.72			
	1000		98.05	4.54	-1.95					5000		92.80	7.15	-7.20			
	2000		91.30	6.33	-8.70					10		91.80	10.2	-8.20			
	5000		90.86	5.09	-9.14					100		106.5	8.11	6.49			
2-BROMOMETHAMPHETAMINE (23695-11-6)	100	7.21	110.1	8.04	10.1	100-5000	30	100	DESOXY-D2PM (188398-87-0)	100	8.69	99.68	13.8	-0.320	10-5000	3	10
	1000		111.1	6.29	11.1					1000		100.9	7.53	0.880			
	5000		86.42	12.6	-13.6					5000		92.24	3.36	-7.76			
2C-B (56281-37-9)	100	7.75	106.1	4.88	6.11	100-5000	30	100	DESOXYPIPRADROL (5807-81-8)	100	9.10	113.1	3.17	13.1	100-5000	30	100
	1000		118.8	7.10	18.8					1000		114.7	6.12	14.7			
	5000		104.7	5.22	4.67					5000		100.7	5.51	0.740			
2C-B FLY (178557-21-6)	100	8.06	102.0	6.88	1.98	100-5000	30	100	DEXTRMETHORPHAN (125-71-3)	100	9.33	101.0	7.20	1.02	100-5000	30	100
	1000		112.8	8.10	12.8					1000		110.1	4.82	10.1			
	5000		104.5	2.27	4.47					5000		105.6	2.27	5.59			
2C-C (88441-15-0)	100	7.31	111.7	11.5	11.7	100-5000	30	100	DIAZEPAM (439-14-5)	100	12.37	89.73	9.18	-10.3	100-5000	30	100
	1000		91.32	16.0	-8.68					1000		116.8	7.59	16.8			
	5000		104.1	8.79	4.11					5000		101.3	7.20	1.30			
2C-D (25505-65-1)	100	7.56	107.5	7.33	7.50	100-5000	30	100	DICLAZEPAM (2894-68-0)	100	12.40	99.30	9.45	-0.700	100-5000	30	100
	1000		105.1	6.89	5.12					1000		114.9	4.15	14.9			
	5000		113.4	3.51	13.4					5000		106.3	3.69	6.28			
2C-G (327175-14-4)	100	8.59	114.0	7.51	14.0	100-5000	30	100	DICLOFENSINE (34041-84-4)	10	11.04	93.94	10.9	-6.07	10-5000	3	10
	1000		117.0	4.40	17.0					100		104.6	4.37	4.57			
	5000		98.13	7.63	-1.87					1000		106.4	5.65	6.41			
2-CHLOROAMPHETAMINE (35334-29-3)	10	6.59	91.69	14.0	-8.31	10-5000	3	10	DIETHYLCATHINONE (134-80-5)	100	5.41	97.16	7.02	-2.84	100-5000	30	100
	100		92.00	7.10	-8.00					1000		88.88	5.41	-11.1			
	1000		97.52	8.73	-2.48					5000		100.0	3.93	0.00			
	2000		93.44	7.93	-6.56					100		100.7	4.15	0.700			
2C-I (64584-32-3)	100	8.45	117.6	7.52	17.6	100-1000	30	100	DIHYDROCODEINE (125-28-0)	100	4.41	108.7	8.13	8.69	100-5000	30	100
	1000		114.8	5.88	14.8					1000		86.85	4.66	-13.2			
	100		93.63	9.71	-6.37					5000		81.87	8.46	-18.1			
2C-P (1359704-27-0)	100	10.14	109.8	11.3	9.77	100-5000	30	100	DIMETHOCAINE (553-63-9)	100	6.36	100.7	4.15	0.700	100-5000	30	100
	1000		101.6	6.85	1.56					1000		115.6	8.12	15.6			
	5000		107.6	3.91	7.60					5000		107.1	3.09	7.11			
2C-T-7 (850140-15-7)	1000	9.64	99.12	43.4	-	100-5000	30	100	DIMETHYLONE	100	4.93	92.36	7.36	-7.64	100-	30	100

Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )	Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )
					0.880												
	5000		103.9	5.47	3.93				(109367-07-9)	1000		92.61	7.95	-7.39	5000		
	10		109.1	4.77	9.14					5000		94.79	3.83	-5.21			
	100		117.6	6.32	17.6					100		106.2	3.51	6.22			
2C-TFM (159277-13-1)	1000	8.68	108.4	3.04	8.41	10-5000	3	10	DIPHENHYDRAMINE (147-24-0)	1000	9.34	109.9	6.35	9.92	100-5000	30	100
	2000		-	-	-					5000		101.5	3.38	1.49			
	5000		99.09	6.64	0.910					100		108.5	6.36	8.46			
	10		80.30	4.58	-19.7				DIPHENIDINE (28383-15-5)	1000	8.81	105.2	8.65	5.24	100-5000	30	100
	100		104.1	9.05	4.08					5000		90.35	4.71	-9.65			
2-FEC (2446466-63-1)	1000	4.99	90.54	3.90	-9.46	10-5000	3	10	DiPT (14780-24-6)	100	7.79	107.7	4.15	7.69	100-5000	30	100
	2000		84.46	3.12	-15.5					1000		118.8	4.92	18.8			
	5000		92.11	3.99	-7.89					5000		107.8	5.14	7.84			
	10		94.79	11.8	-5.21					10		101.4	7.29	1.43			
2-FIC (1909305-71-0)	100	3.21	101.9	5.02	1.92	10-100	3	10	DL-4662 (1674389-55-9)	100	7.34	113.6	9.75	13.6	10-5000	3	10
	1000		33.13	3.65	-66.9					1000		108.4	3.34	8.39			
	2000		28.23	1.65	-71.8					2000		97.71	6.02	-2.29			
	5000		27.82	4.75	-72.2					5000		89.19	3.62	-10.81			
	100		111.3	7.36	11.3					100		104.8	8.77	4.78			
2-FLUOROAMPHETAMINE (1626-69-3)	1000	5.14	110.3	6.43	10.3	100-5000	30	100	DOI (42203-78-1)	1000	8.98	112.3	7.85	12.3	100-5000	30	100
	5000		100.4	6.05	0.400					5000		99.72	3.71	-0.280			
	100		116.8	4.71	16.8					100		107.9	7.14	7.85			
2-FLUOROMETHAMPHETAMINE (2-FMA) (1780004-19-4)	1000	5.39	90.19	9.59	-9.81	100-5000	30	100	DOTHIEPIN (113-53-1)	1000	10.24	107.7	4.58	7.72	100-5000	30	100
	5000		80.53	12.2	-19.5					5000		99.38	5.27	-0.620			
	100		90.71	10.2	-9.29					100		105.5	3.67	5.52			
2-FLUOROMETHCATHINONE (2-FMC) (1346599-37-8)	1000	4.10	93.91	7.54	-6.09	100-5000	30	100	DOXEPIN (1229-29-4)	1000	9.59	106.0	6.90	6.02	100-5000	30	100
	5000		89.74	8.07	-10.3					5000		102.3	4.64	2.31			
	10		119.1	8.38	19.1					100		84.21	13.8	-15.8			
2-IODOAMPHETAMINE (22080-10-0)	100	7.77	104.3	3.46	4.32	10-5000	3	10	DOXYLAMINE (469-21-6)	1000	6.08	115.7	4.86	15.7	100-5000	30	100
	1000		101.2	9.53	1.21					5000		117.9	5.72	17.9			
	2000		96.55	11.7	-3.45					10		84.10	11.5	-15.9			
	5000		99.19	7.92	-0.81				EAM-2201 (1364933-60-7)	100	14.95	105.7	11.1	5.68	10-1000	3	10
	10		94.83	7.33	-5.17					1000		115.9	5.23	15.9			
	100		94.95	3.87	-5.05					100		91.82	3.80	-8.18			
2-MAPB (100389-74-0)	1000	7.07	108.2	6.50	8.23	10-2000	3	10	EDDP (31161-17-8)	1000	9.4	105.8	5.30	5.84	100-5000	30	100
	2000		91.76	24.4	-8.24					5000		95.99	9.00	-4.01			
	5000		74.33	38.2	-25.7					10	15.66	83.81	14.5	-16.2	10-1000	3	10
2-MeOMC	10	5.33	95.75	14.11	-4.25	10-5000	3	10	EG-2201 (2365471-72-1)	100		45.03	9.25	-55.0			

Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )	Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )
	100		116.4	6.12	16.4					1000		115.1	2.87	15.1			
	1000		75.34	5.13	-24.7					10		83.38	16.9	-16.6			
	2000		73.62	5.14	-26.4					100		108.9	13.0	8.91			
	5000		87.74	5.14	-12.3					1000		42.38	6.47	-57.6			
2-METHOXY-2-PHENYLETHYLAMINE (62064-68-0)	10	4.98	91.37	10.4	-8.63	10-100	3	10	ERGOMETRINE (60-79-7)	1000	5.33	115.1	2.87	15.1	10-100	3	10
	100		107.7	11.04	7.71					10		83.38	16.9	-16.6			
	1000		43.29	4.52	-56.7					1000		108.9	13.0	8.91			
	2000		38.60	4.77	-61.4					1000		42.38	6.47	-57.6			
2-METHOXYAMPHETAMINE (2-MA) (72739-03-8)	100	6.21	106.4	8.52	6.43	100-5000	30	100	ETAQUALONE (7432-25-9)	1000	11.99	108.6	5.15	8.55	100-5000	30	100
	1000		117.9	5.95	17.9					1000		113.6	6.40	13.6			
	5000		105.6	3.29	5.57					5000		99.44	6.41	-0.560			
	100		106.4	8.52	6.43					100		108.6	5.15	8.55			
2-METHOXYMETHAMPHETAMINE (2-MeOMA) (5588-10-3)	100	6.42	105.9	9.88	5.85	100-5000	30	100	ETHCATHINONE METABOLITE (63401-08-1)	100	4.77	104.0	8.12	3.95	100-5000	30	100
	1000		110.8	7.07	10.8					1000		91.30	4.54	-8.70			
	5000		108.3	3.95	8.34					5000		86.00	8.69	-14.0			
2-METHYLAMINO-1-PHENYLBUTANE (84952-63-6)	10	6.23	89.60	9.93	-10.4	10-5000	3	10	ETHYLONE (1454266-19-3)	100	5.26	104.1	9.49	4.12	100-5000	30	100
	100		91.85	8.60	-8.15					1000		88.29	6.39	-11.7			
	1000		106.3	2.98	6.30					5000		103.4	4.59	3.43			
	2000		88.66	4.49	-11.3					100		113.9	2.97	13.9			
2-METHYLMETHCATHINONE (2-MMC) (1246815-51-9)	10	5.81	109.7	3.13	9.71	100-5000	30	100	ETHYLPHENIDATE (214149-46-9)	1000	8.22	115.0	5.03	15.0	100-5000	30	100
	1000		104.7	3.10	4.71					1000		104.3	3.88	4.29			
	5000		107.2	12.4	7.21					5000		104.3	3.88	4.29			
	100		109.7	3.13	9.71					100		103.1	5.74	3.12			
2-METHYL-PBP (22198-75-0)	10	7.51	94.12	13.9	-5.88	10-5000	3	10	ETIZOLAM (40054-69-1)	1000	11.80	115.1	5.70	15.1	100-5000	30	100
	100		103.2	3.68	3.20					5000		113.6	2.24	13.6			
	1000		103.6	8.90	3.57					100		97.87	6.27	-2.13			
	2000		92.08	9.83	-7.92					1000		103.9	4.95	3.91			
2-METHYL-PPP (2749897-10-5)	10	6.52	114.6	12.1	14.6	10-5000	3	10	EUTYLONE (17764-18-0)	1000	8.38	116.8	4.69	16.8	100-5000	30	100
	100		88.47	9.08	-11.5					5000		94.53	4.55	-5.47			
	1000		98.49	8.69	-1.51					100		83.82	11.85	-16.2			
	2000		102.1	8.15	2.05					100		115.1	5.17	15.1			
3,4-DICHLOROMETHYLPHENIDATE (3,4-CTMP) (214149-42-5)	100	10.02	102.8	5.74	2.75	100-5000	30	100	FENTANYL (437-38-7)	1000	8.82	115.8	2.76	15.8	10-5000	3	10
	1000		108.4	5.49	8.42					1000		107.3	4.86	7.33			
	5000		108.2	6.54	8.22					5000		103.7	3.88	3.69			
3,4-DIMETHOXY-ALPHA-PVP (850351-99-4)	10	7.45	48.86	35.2	-51.1	100-5000	30	100	FLUBROMAZEPAM (2647-50-9)	100	11.84	81.6	16.9	-18.4	100-5000	30	100
	100		117.0	4.30	17.0					5000		108.3	4.43	8.33			

Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )	Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )
	1000		118.4	4.45	18.4												
	2000		106.8	3.01	6.81				FLUDIAZEPAM (3900-31-0)	1000	12.07	119.5	6.89	19.5	100-5000	30	100
	5000		92.69	6.07	-7.31					5000		103.6	5.35	3.56			
3,4-DIMETHYLMETHCATHINONE (3,4-DMMC) (1081772-06-6)	100	7.39	109.0	4.40	9.02	100-5000	30	100	FLUMAZENIL (78755-81-4)	100	9.31	114.3	7.04	14.3	100-5000	30	100
	1000		90.93	15.7	-9.07					1000		117.5	4.09	17.5			
	5000		110.2	2.70	10.2					5000		99.70	4.53	-0.300			
3,4-DMEC (2748561-69-3)	10	7.76	100.6	18.7	0.56	10-5000	3	10	FLUNITRAZEPAM (1622-62-4)	100	10.91	95.19	10.7	-4.81	100-5000	30	100
	100		96.15	5.69	-3.85					1000		116.6	3.20	16.6			
	1000		106.9	5.66	6.92					5000		103.6	5.85	3.63			
	2000		95.63	2.03	-4.37				FLUOXETINE (56296-78-7)	100	11.24	107.8	8.71	7.77	100-5000	0.5	100
	5000		94.43	10.3	-5.57					1000		109.4	5.88	9.39			
										5000		101.9	5.72	1.90			
3,4-DMMA (70932-18-2)	100	5.35	115.8	2.49	15.8	100-5000	30	100	FLURAZEPAM (17617-23-1)	100	9.43	101.1	3.64	1.10	100-5000	30	100
	1000		104.4	6.84	4.37					1000		115.4	5.63	15.4			
	5000		93.68	8.05	-6.32					5000		99.24	6.61	-0.760			
3,4-EDMA (2748304-41-6)	10	5.63	82.93	13.0	-17.1	10-5000	3	10	FUB-144 (2185863-15-2)	10	14.96	80.26	12.3	-19.7	10-1000	3	10
	100		108.3	6.75	8.32					100		89.09	5.61	-10.9			
	1000		81.23	3.82	-18.8					1000		100.4	7.91	0.350			
	2000		76.71	4.94	-23.3												
	5000		84.64	3.99	-15.4				FUB-JWH-018 (2365471-45-8)	10	14.47	105.4	7.96	5.44	10-1000	3	10
										100		93.91	4.83	-6.09			
										1000		118.6	4.32	18.6			
3,4-EDMC (30253-44-2)	10	5.25	91.46	10.1	-8.55	10-5000	3	10	FUB-NPB-22 (2244864-90-0)	10	13.66	96.34	11.0	-3.66	10-1000	3	10
	100		101.6	10.4	1.63					100		87.73	10.1	-12.3			
	1000		78.76	2.46	-21.2					1000		119.0	2.80	19.0			
	2000		70.80	5.05	-29.2												
	5000		88.08	3.96	-11.9												
3,4-MDMA (ECSTAZY) (64057-70-1)	100	5.37	116.1	4.76	16.1	100-5000	30	100	FURANYLFENTANYL (101365-56-4)	100	8.95	107.4	2.38	7.36	100-5000	30	100
	1000		93.67	4.53	-6.33					1000		119.3	8.06	19.3			
	5000		113.8	5.18	13.8					5000		100.6	5.28	0.590			
3,4-MDPA (74341-77-8)	100	6.82	113.8	7.84	13.8	100-5000	30	100	GHB (502-85-2)	100	1.41	119.5	8.68	19.5	100-5000	30	100
	1000		116.4	3.64	16.4					1000		103.6	8.29	3.62			
	5000		106.4	3.90	6.42												
									HARMALINE (302-21-2)	10	7.47	102.1	17.7	2.06			
	10		56.00	20.2	-44.0					100		109.7	9.76	9.72			
	100		94.36	7.95	-5.64					1000		101.9	6.29	1.91	10-5000	3	10
	1000		98.81	3.99	-1.19					2000		91.77	5.09	-8.23			
	2000		93.91	3.77	-6.09					5000		84.46	5.58	-15.5			
	5000		91.41	4.77	-8.59												
3,4-METHYLENEDIOXYPYROVALERONE (24622-62-6)	10	7.53	88.35	6.85	-11.7	10-5000	3	10	HARMINE (442-51-3)	100	8.03	98.51	6.39	-1.49	100-5000	30	100
	100		100.1	4.64	0.060					1000		115.6	4.65	15.6			
	1000		99.40	2.70	-				HYDROCODONE (125-29-1)	5000		102.0	2.60	1.96			
										100	4.99	108.0	6.24	8.04	100-	30	100

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					0.600												
	2000		93.15	4.22	-6.85					1000		103.2	8.40	3.24	5000		
	5000		89.27	3.72	-10.7					5000		92.87	6.59	-7.13			
3,4-METHYLENEDIOXY_PV9 (24646-40-0)	10	10.84	105.6	8.61	5.55	10-5000	3	10	IBOGAINE (5934-55-4)	100	8.05	99.76	7.83	-0.24	100-5000	30	100
	100		101.6	4.31	1.57					1000		106.8	7.59	6.77			
	1000		102.9	4.45	2.88					5000		87.64	6.47	-12.4			
	2000		92.84	3.01	-7.16					100		111.5	5.26	11.5			
	5000		83.66	3.92	-16.3					1000		113.9	6.50	13.9			
30C-NBOMe (2749391-65-7)	10	9.75	24.99	54.5	-75.0	100-5000	30	100	IMIPRAMINE (113-52-0)	5000	10.63	96.80	4.08	-3.20	100-5000	30	100
	100		117.5	16.2	17.5					100		112.4	3.43	124			
	1000		115.3	6.49	15.3					1000		118.5	6.85	18.5			
	2000		109.1	4.36	9.09					5000		109.5	4.85	9.51			
	5000		95.92	7.92	-4.08					100		111.3	13.8	11.3			
3-BROMOAMPHETAMINE (1210708-61-4)	100	7.34	119.2	10.2	19.2	100-5000	30	100	JWH 018 BENZIMIDAZOLE ANALOG (2316839-70-8)	10	15.44	88.44	8.98	-11.6	10-1000	3	10
	1000		104.1	10.9	4.10					1000		84.27	11.1	-15.7			
	5000		104.2	15.3	4.22					10		32.14	46.5	-67.9			
3-BROMOMETHAMPHETAMINE (28100-41-6)	100	7.45	109.9	4.95	9.88	100-5000	30	100	JWH-011 (155471-13-9)	100	15.80	62.86	24.3	-37.1	-	30	-
	1000		107.2	13.4	7.19					1000		173.6	6.83	73.6			
	5000		106.3	8.93	6.26					10		90.56	11.8	-9.44			
3-BROMOMETHCATHINONE (3-BMC) (676487-42-6)	100	6.52	106.2	11.5	6.21	100-5000	30	100	JWH-018 ADAMANTYL CARBOXAMIDE (1345973-50-3)	100	15.72	105.1	16.6	5.14	10-1000	3	10
	1000		88.68	11.7	-11.3					1000		106.4	6.83	6.41			
	5000		84.03	8.80	-16.0					10		91.21	11.2	-8.80			
3-CAF (2219324-25-9)	10	15.30	104.6	11.8	4.58	10-1000	3	10	JWH-022 (209414-16-4)	100	14.75	96.01	8.37	-3.99	10-1000	3	10
	100		110.0	9.14	9.98					1000		102.1	7.52	2.08			
	1000		118.3	8.66	18.3					10		90.67	7.69	-9.33			
3C-B-FLY (178557-19-2)	10	8.55	110.8	6.47	10.8	10-5000	3	10	JWH-031 (162934-74-9)	100	14.85	98.56	5.93	-1.44	10-1000	3	10
	100		114.8	5.41	14.8					1000		105.1	7.72	5.10			
	1000		107.0	7.01	6.96					10		97.53	8.14	-2.47			
	2000		101.0	3.34	1.02					100		104.7	6.56	4.64			
	5000		93.53	4.27	-6.47					1000		98.62	3.52	-1.38			
3-CHLOROAMPHETAMINE (35378-15-5)	10	6.85	119.5	5.84	19.5	10-5000	3	10	JWH-080 (210179-44-5)	10	14.97	86.50	17.6	-13.5	10-1000	3	10
	100		99.61	13.3	-0.39					100		103.9	11.1	3.92			
	1000		109.4	9.80	9.36					1000		111.6	5.78	11.6			
	2000		115.0	6.61	15.0					10		38.22	22.9	-61.8			
	5000		104.6	5.17	4.62					100		80.23	16.5	-19.8			
3-CHLOROMETHCATHINONE (3-CMC) (1607439-32-6)	100	6.02	119.8	7.58	19.8	100-5000	30	100	JWH-116 (619294-64-3)	1000	15.66	116.9	7.78	16.9	100-1000	30	100
	1000		99.08	6.60	0.920					10		22.42	68.9	-77.6			

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3-CHLOROPHENYLPIPERAZINE (mCPP) (13078-15-4)	5000	6.83	84.68	10.2	-15.3	100- 5000	30	100	JWH-146 (914458-21-2)	100	16.21	61.91	13.5	-38.1	10-1000	3	10
	100		115.7	6.40	15.7					1000		142.1	6.75	42.1			
	1000		106.3	10.9	6.31					10		83.40	3.93	-16.6			
	5000		105.7	4.46	5.67					100		18.43	32.1	-81.6			
3C-P (2749897-26-3)	10	8.43	91.34	14.3	-8.66	10-5000	3	10	JWH-149 (548461-82-1)	1000	15.65	113.6	8.53	13.6	10-1000	3	10
	100		108.1	6.63	8.11					10		100.7	5.44	0.650			
	1000		109.0	3.95	8.97					100		77.78	14.2	-22.2			
	2000		100.2	3.92	0.170					1000		116.1	5.43	16.1			
3-DESOXY-3,4-MDPV (2117405-33-9)	10	8.01	113.8	7.90	13.8	10-5000	3	10	JWH-167 (864445-37-4)	10	14.55	94.05	10.9	-5.96	10-1000	3	10
	100		95.65	6.43	-4.35					100		104.3	4.87	4.28			
	1000		96.94	2.71	-3.06					1000		108.7	1.85	8.72			
	2000		90.36	3.58	-9.64					10		89.06	7.91	-10.9			
3-ETHYLMETHCATHINONE (3-EMC) (2446466-60-8)	5000	7.39	86.85	3.22	-13.2	100- 5000	30	100	JWH-175 (619294-35-8)	100	16.76	34.86	25.8	-65.1	10-1000	3	10
	100		101.7	8.23	1.72					100		80.79	5.28	-19.2			
	1000		105.8	8.15	5.76					100		30.80	29.7	-69.2			
	5000		82.18	12.7	-17.8					1000		112.2	6.77	12.2			
3-FEC (2446466-64-2)	10	4.99	86.14	6.65	-13.9	10-5000	3	10	JWH-193 (133438-58-1)	10	11.79	89.68	10.4	-10.3	10-1000	3	10
	100		96.60	7.87	-3.40					100		101.1	6.58	1.08			
	1000		89.43	4.42	-10.6					1000		100.0	4.71	0.030			
	2000		81.25	3.70	-18.8					10		102.9	13.1	2.91			
3-FLUORO-ALFA-PPP (1214940-15-4)	5000	5.36	93.63	6.30	-6.37	10-5000	3	10	JWH-198 (166599-76-4)	100	11.57	97.6	6.85	-2.36	10-1000	3	10
	10		92.87	12.5	-7.13					1000		103.0	2.93	2.99			
	100		100.0	3.74	0.00					10		93.40	12.9	-6.60			
	1000		82.27	4.26	-17.7					100		110.2	7.23	10.2			
3-FLUOROAMPHETAMINE (1716-59-2)	2000	5.13	76.99	4.25	-23.0	100- 5000	30	100	JWH-201 (864445-47-6)	1000	15.92	114.7	6.19	14.7	-	30	-
	5000		82.05	2.61	-18.0					10		33.86	28.8	-66.2			
	100		109.9	9.94	9.90					100		42.39	26.1	-57.6			
	1000		105.6	6.00	5.58					1000		118.5	7.37	18.5			
3-FLUOROMETHAMPHETAMINE (3-FMA) (1324717-74-9)	5000	5.41	94.86	2.73	-5.14	100- 5000	30	100	JWH-307 (914458-26-7)	10	15.50	84.39	8.15	-15.6	10-1000	3	10
	100		107.9	7.44	7.90					100		86.54	18.1	-13.5			
	1000		118.1	3.75	18.1					1000		111.4	7.64	11.4			
	5000		103.4	4.09	3.40					10		36.57	16.6	-63.4			
3-FLUOROMETHCATHINONE (3-FMC) (246600-40-5)	100	4.43	112.3	5.35	12.3	100- 5000	30	100	JWH-309 (914458-42-7)	100	16.09	19.85	43.9	-80.2	-	30	-
	1000		91.06	13.0	-8.94					1000		121.9	8.55	21.9			
	5000		82.11	12.7	-17.9					10		97.28	5.21	-2.72			
	100		87.18	2.08	-12.8					100		113.4	4.21	13.4			
3-HYDROXYBROMAZEPAM (13132-73-5)	1000	9.19	113.8	8.88	13.8	100- 5000	30	100	JWH-368 (914458-31-4)	1000	15.47	117.8	4.35	17.8	10-1000	3	10

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3-HYDROXYFLUNITRAZEPAM (67739-71-3)	5000	10.23	101.3	5.70	1.32	100-5000	30	100	JWH-369 (914458-27-8)	10	15.69	53.82	16.2	-46.2	-	30	-	
	100		96.57	9.55	-3.43					100		43.08	24.9	-56.9				
	1000		118.1	6.44	18.1					1000		127.6	8.93	27.6				
	5000		83.75	5.10	-16.3					10		99.32	15.3	-0.680				
3-IODOAMPHETAMINE (20110-56-9)	10	8.06	103.2	16.3	3.17	10-5000	3	10	JWH-412 (1364933-59-4)	100	15.42	91.01	9.42	-8.99	10-1000	3	10	
	100		104.1	7.50	4.14					1000		118.7	9.67	18.7				
	1000		92.87	9.49	-7.13					10		54.51	20.7	-45.5				
	2000		101.5	12.5	1.48					100		95.08	8.83	-4.92				
	5000		105.0	9.83	5.02					1000		104.4	4.06	4.39				
3-MEC (2493976-59-1)	10	6.47	108.0	15.3	8.01	10-5000	3	10	KETAMINE (1867-66-9)	100	6.51	107.1	6.48	7.09	100-5000	30	100	
	100		95.06	10.8	-4.94					1000		110.5	8.76	10.5				
	1000		92.25	5.45	-7.75					5000		100.6	5.34	0.640				
	2000		89.73	5.00	-10.3					100		86.25	8.89	-13.8				
	5000		84.27	2.99	-15.7					1000		100.4	7.46	0.350				
3-MeOMC (1435933-70-2)	10	5.33	79.96	8.89	-20.0	10-5000	3	10	LIDOCAINE (137-58-6)	5000	8.31	101.4	7.61	1.43	100-5000	30	100	
	100		114.3	4.03	14.3					100		108.6	5.57	8.60				
	1000		72.87	5.13	-27.1					1000		115.8	4.84	15.8				
	2000		68.01	5.96	-32.0					5000		108.7	3.88	8.67				
	5000		82.38	4.99	-17.6					100		108.6	8.05	8.64				
3-METHOXYAMPHETAMINE (3-MA) (35294-10-1)	100	5.67	117.9	5.04	17.9	100-5000	30	100	LOPRAZOLAM (61197-73-7)	1000	9.31	117.9	7.50	17.9	100-5000	30	100	
	1000		101.8	15.9	1.82					5000		105.5	2.94	5.45				
	5000		92.49	10.5	-7.51					100		108.6	15.4	8.57				
3-METHOXYPHENCYCLIDINE (72242-03-6)	10	8.93	86.92	11.4	-13.1	10-5000	3	10	LORAZEPAM (846-49-1)	1000	11.41	108.7	9.60	8.73	100-5000	30	100	
	100		102.1	8.62	2.06					5000		106.4	7.20	6.39				
	1000		107.4	4.73	7.35					100		97.14	4.49	-2.86				
	2000		101.6	5.82	1.59					1000		110.9	7.09	10.9				
	5000		97.5	3.50	-2.51					5000		97.83	5.90	-2.17				
3-METHYLMETHCATHINONE (3-MMC) (1246816-62-5)	100	6.01	110.0	5.98	10.0	100-5000	30	100	LSD (50-37-3)	100	8.15	97.13	8.78	-2.87	100-5000	30	100	
	1000		92.52	4.62	-7.48					1000		113.3	5.29	13.3				
	5000		86.47	9.80	-13.5					5000		104.9	5.65	4.92				
3-METHYL-PBP	10	7.5	97.82	11.3	-2.18	10-5000	3	10	MAPROTILINE (10347-81-6)	1000	10.76	114.6	7.17	14.6	100-5000	30	100	
	100		103.9	8.19	3.93					5000		99.88	4.23	-0.120				
	1000		108.0	9.64	8.04					100		104.9	5.24	4.88				
	2000		90.23	6.73	-9.77					1000		108.6	5.32	8.60				
3-METHYL-PPP (2749302-38-1)	5000	6.67	103.0	7.06	2.95	10-5000	3	10	MBDB (128767-12-4)	5000	6.47	94.17	1.87	-5.83	100-5000	30	100	
	10		97.23	13.5	-2.77					10		5.44	366.9	23.7				266
	100		99.72	8.91	0.280					10		5.44	366.9	23.7				266
									MDAT (101625-35-8)	10	5.44	366.9	23.7	266	100-5000	30	100	

Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )	Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )
	1000		70.20	8.62	-29.8					100		106.8	9.63	6.75			
	2000		102.7	5.53	2.72					1000		83.80	1.56	-16.2			
	5000		106.5	4.12	6.49					2000		82.65	5.71	-17.4			
4,4'-DMAR (1445569-01-6)	100	7.38	103.6	4.23	3.64	100-5000	30	100		5000		82.55	3.36	-17.5			
	1000		101.1	2.90	1.11					10		235.6	1.07	135			
	5000		91.24	1.77	-8.76					100		118.0	4.04	18.0			
4-AcO-DET (1135424-15-5)	10	6.38	103.4	14.6	3.43	10-5000	3	10	MDBP (38063-96-6)	1000	2.47	32.62	1.62	-67.4	-	30	-
	100		108.5	5.96	8.47					2000		28.77	2.76	-71.2			
	1000		101.7	3.19	1.65					5000		30.34	3.45	-69.7			
	2000		95.17	2.67	-4.83					100		112.9	5.34	12.9			
	5000		90.87	4.76	-9.13					1000		110.9	4.39	10.9			
4-AcO-DMT (2748484-99-1)	10	5.47	112.6	4.06	12.6	10-5000	3	10	MDEA (82801-81-8)	5000	5.90	103.2	4.07	3.21	100-5000	30	100
	100		115.2	5.46	15.2					10		89.91	12.9	-10.1			
	1000		96.14	2.46	-3.86					100		99.40	14.8	-0.600			
	2000		86.08	2.79	-13.9					1000		112.1	2.25	12.1			
	5000		93.51	4.88	-6.49					100		93.75	12.6	-6.25			
4-AcO-MET (2748591-02-6)	100	6.07	102.4	12.2	2.41	100-5000	30	100	MDPBP (784985-33-7)	1000	6.47	111.5	7.66	11.5	100-5000	30	100
	1000		81.85	6.60	-18.2					5000		115.7	3.01	15.7			
	5000		103.1	2.60	3.12					10		89.89	18.1	-10.1			
4-APB (286834-82-0)	10	6.71	94.37	13.2	-5.63	10-5000	3	10	MECLONAZEPAM (58662-84-3)	100	11.41	105.2	3.79	5.24	10-5000	3	10
	100		94.44	6.01	-5.56					1000		112.9	2.39	12.9			
	1000		97.26	6.31	-2.74					2000		100.3	5.01	0.32			
	2000		89.83	4.58	-10.2					5000		96.55	6.62	-3.45			
	5000		94.72	4.31	-5.28					100		88.78	7.08	-11.2			
4-APDB (1203342-42-0)	10	5.58	103.0	14.0	3.02	10-5000	3	10	MEDAZEPAM (2898-12-6)	1000	9.48	95.69	2.10	-4.31	100-5000	30	100
	100		110.1	12.5	10.1					5000		117.4	4.46	17.4			
	1000		86.62	8.52	-13.4					10		97.19	13.4	-2.82			
	2000		88.65	7.11	-11.4					100		90.15	9.52	-9.85			
	5000		85.16	5.31	-14.8					1000		98.26	5.81	-1.74			
4-BROMO-2,5-DMMA (155638-80-5)	100	8.39	116.5	3.66	16.5	100-5000	30	100	MEMANITINE (41100-52-1)	2000	9.10	91.27	6.07	-8.73	10-5000	3	10
	1000		108.7	3.08	8.66					5000		88.67	5.49	-11.3			
	5000		86.23	2.67	-13.8					10		87.02	14.1	-13.0			
4-BROMOAMPHETAMINE (58400-88-7)	100	7.47	109.7	10.9	9.70	100-5000	30	100	MEPERIDINE (50-13-5)	100	7.52	108.2	7.26	8.18	10-5000	3	10
	1000		81.86	4.41	-18.1					1000		112.4	3.43	12.4			
	5000		104.5	17.3	4.54					2000		100.3	4.75	0.280			
4-BROMOMETHAMPHETAMINE (30651-67-3)	100	7.43	104.3	6.05	4.26	100-5000	30	100	MEPHTETRAMINE (2749302-69-8)	5000	5.44	97.69	3.14	-2.31	100-5000	30	100
	1000		102.5	17.1	2.48					100		100.1	3.76	0.060			
	5000		106.0	9.92	5.99					1000		109.7	4.08	9.74			



Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )	Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )
4-BROMOMETHCATHINONE (BREFEDRONE) (135333-27-6)	100	6.69	104.1	6.50	4.13	100- 5000	30	100	MEPIRAPIM (2365542-30-7)	5000	10.14	106.2	5.00	6.22	10-1000	3	10
	1000		95.19	10.8	-4.81					10		118.4	4.87	18.4			
	5000		86.23	14.7	-13.8					100		102.6	6.10	2.64			
4-CAB (23292-08-2)	10	8.00	104.4	13.9	4.44	10-5000	3	10	MEPROBAMATE (57-53-4)	1000	8.82	98.27	3.39	-1.73	100- 5000	30	100
	100		102.3	6.50	2.31					100		90.89	14.0	-9.11			
	1000		99.06	10.7	-0.94					1000		93.27	4.21	-6.73			
	2000		96.78	4.61	-3.22					5000		81.96	6.49	-18.0			
	5000		87.43	6.65	-12.6					100		109.9	12.7	9.90			
4-CEC (22198-75-0)	10	6.70	99.15	14.5	-0.85	10-5000	3	10	MESCALINE (832-92-8)	1000	5.23	93.67	13.4	-6.33	100- 5000	30	100
	100		93.48	5.09	-6.52					5000		86.42	4.13	-13.6			
	1000		96.03	5.65	-3.97					100		113.0	7.73	13.0			
	2000		87.53	8.44	-12.5					1000		114.4	8.94	14.4			
	5000		82.41	3.18	-17.6					5000		93.47	2.99	-6.53			
4-CHLORO-ALPHA-PPP (28117-79-5)	10	6.88	92.23	15.5	-7.77	10-5000	3	10	METHAMPHETAMINE (826-10- 8)	100	5.05	96.62	7.15	-3.38	100- 5000	30	100
	100		95.54	11.3	-4.46					1000		96.92	4.22	-3.08			
	1000		93.13	7.65	-6.87					5000		97.65	4.70	-2.35			
	2000		90.29	6.88	-9.71					100		107.0	5.14	7.02			
	5000		88.56	3.21	-11.4					1000		115.1	1.87	15.1			
4-CHLORO-ALPHA-PVP (5881-77-6)	10	8.95	64.80	23.3	-35.2	100- 5000	30	100	METHANDIENONE (72-63-9)	5000	12.51	99.18	5.28	-0.820	100- 5000	30	100
	100		98.42	7.78	-1.58					100		115.6	3.76	15.6			
	1000		107.2	4.10	7.24					1000		105.6	5.75	5.60			
	2000		94.27	5.81	-5.73					5000		90.48	7.08	-9.52			
	5000		88.45	3.31	-11.6					100		117.1	6.16	17.1			
4-CHLOROAMPHETAMINE (3706-38-5)	10	6.96	116.0	5.69	16.0	10-100	3	10	METHCATHINONE (49656-78-2)	1000	4.13	89.73	4.92	-10.3	100- 5000	30	100
	100		101.8	10.1	1.82					5000		86.50	5.66	-13.5			
	1000		42.47	10.6	-57.5					10		89.91	10.8	-10.1			
	2000		59.08	16.7	-40.9					100		98.38	6.55	-1.62			
	5000		44.83	25.6	-55.2					1000		57.10	5.38	-42.9			
4-CHLOROMETHCATHINONE (4-CMC) (2319878-22-1)	100	6.21	108.3	6.23	8.34	100- 5000	30	100	METHEDRONE (879665-92-6)	2000	5.33	52.33	6.00	-47.7	10-100	30.5	10
	1000		93.42	15.1	-6.58					5000		61.27	3.22	-38.7			
	5000		96.25	9.43	-3.75					100		109.1	10.4	9.05			
4-CMA (30572-91-9)	10	7.07	117.9	9.87	17.9	10-5000	3	10	METHOHEXITAL (151-83-7)	1000	11.79	114.0	7.52	14.0	100- 5000	30	100
	100		103.5	10.3	3.46					5000		98.58	6.15	-1.42			
	1000		87.75	9.48	-12.3					100		101.3	5.85	1.25			
	2000		85.68	6.65	-14.3					1000		104.7	12.9	4.73			
	5000		87.71	7.33	-12.3					5000		109.9	3.52	9.89			
4-EAPB (2514946-32-6)	10	7.36	85.96	17.2	-14.1	10-5000	3	10	METHOXPHENIDINE 2055777-48-3)	100	9.36	97.64	10.8	-2.36	100- 5000	30	100
100	115.6		6.95	15.6	1000					110.8		8.34	10.8				

Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )	Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )
4-ETHYL-N,N-DMC (2702382-98-5)	1000	7.52	96.37	7.15	-3.63	10-5000	3	10	METHYLHEXANAMINE (13803-74-2)	5000	5.76	106.8	2.44	6.84	100-5000	30	100
	2000		98.24	9.50	-1.76					100		103.6	9.79	3.55			
	5000		92.52	11.1	-7.48					1000		94.33	9.11	-5.67			
	10		82.63	2.64	-17.4					5000		103.2	11.6	3.15			
	100		98.92	3.92	-1.08					100		101.5	9.11	1.53			
4-FEC (2705473-25-0)	1000	5.01	99.31	10.5	-0.69	10-5000	3	10	METHYLONE (186028-80-8)	1000	4.68	85.14	4.93	-14.9	100-5000	30	100
	2000		95.98	9.81	-4.02					5000		81.90	4.40	-18.1			
	5000		91.28	11.7	-8.72					100		114.7	7.21	14.7			
	10		91.33	10.6	-8.67					1000		119.8	5.38	19.8			
	100		103.2	7.07	3.22					5000		107.4	5.16	7.39			
4-FLUORO BUPHEDRONE (2624137-27-3)	1000	5.77	82.28	11.8	-17.7	10-5000	3	10	METHYLPHENIDATE (113-45-1)	100	7.17	117.0	7.55	17.0	100-5000	30	100
	2000		84.46	5.26	-15.5					100		105.7	12.7	5.69			
	5000		94.91	3.30	-5.09					1000		100.9	4.06	0.890			
	10		99.36	7.52	-0.64					2000		92.12	3.78	-7.88			
	100		91.83	5.58	-8.17					5000		92.90	3.72	-7.10			
4-FLUORO PENTEDRONE (2469350-88-5)	1000	7.2	110.0	13.1	10.0	10-5000	3	10	MIANSERIN (24219-97-4)	100	9.35	107.7	6.60	7.65	100-5000	30	100
	2000		92.34	8.35	-7.66					1000		119.9	3.99	19.9			
	5000		99.45	10.2	-0.55					5000		93.77	7.83	-6.23			
	10		105.7	12.9	5.68					100		97.70	4.36	-2.30			
	100		101.0	11.2	0.98					1000		118.5	4.13	18.5			
4-FLUORO PV8 (2748485-01-8)	1000	10.01	94.61	5.15	-5.39	10-5000	3	10	MIDAZOLAM (59467-70-8)	5000	9.41	106.1	4.95	6.05	100-5000	30	100
	2000		88.64	4.10	-11.4					100		104.0	6.63	3.95			
	5000		83.87	5.48	-16.1					1000		111.3	2.12	11.3			
	10		84.02	7.43	-16.0					5000		106.7	3.05	6.68			
	100		104.6	5.18	4.64					100		105.5	9.12	5.52			
4-FLUORO PV9 (2117405-40-8)	1000	11.04	102.5	4.77	2.51	10-5000	3	10	MITRAGYNINE (4098-40-2)	1000	6.81	99.16	14.4	-0.840	10-5000	3	10
	2000		98.38	6.92	-1.62					1000		103.8	7.81	3.77			
	5000		89.36	4.09	-10.6					2000		82.76	4.58	-17.2			
	10		106.4	7.24	6.39					5000		81.63	8.75	-18.4			
	100		114.8	5.33	14.8					100		111.4	3.57	11.4			
4-FLUORO-ALFA-PPP (274859-18-1)	1000	5.35	117.0	2.17	17.0	10-5000	3	10	MMB018 (1971007-97-2)	100	14.15	95.36	6.98	-4.64	10-1000	3	10
	2000		97.31	3.83	-2.69					1000		89.82	7.95	-10.2			
	5000		88.24	3.06	-11.8					100		93.11	9.13	-6.89			
	10		86.69	6.02	-13.3					100		105.4	12.1	5.42			
	100		100.9	9.69	0.860					1000		106.3	3.40	6.33			
4-FLUORO-ALFA-PPP (274859-18-1)	1000	5.35	83.58	3.27	-16.4	10-5000	3	10	MMB2201 (1971007-87-0)	10	13.10	113.1	15.8	13.1	10-1000	3	10
	2000		74.96	4.51	-25.0					100		106.3	3.40	6.33			
	5000		81.21	2.90	-18.8					100		113.1	15.8	13.1			
									MN-25 (501926-82-5)	1000	12.48	83.67	8.94	-16.3	10-1000	3	10
										1000		109.6	4.25	9.56			

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4-FLUOROMETHAMPHETAMINE (4-FMA) (52063-62-4)	100	5.4	88.42	7.82	-11.6	100- 5000	30	100	MN-25-2-METHYL DERIVATIVE (501927-29-3)	10	13.22	98.36	9.04	-1.64	10-1000	3	10
	1000		87.35	8.46	-12.7					100		102.7	4.34	2.67			
	5000		85.14	8.60	-14.9					1000		97.76	8.97	-2.24			
4-FLUOROMETHCATHINONE (4-FMC) (7589-35-7)	100	4.44	106.6	4.93	6.59	100- 5000	30	100	MO-CHMINACA (2365471-04-9)	10	15.47	89.41	12.4	-10.6	10-1000	3	10
	1000		89.85	8.14	-10.2					100		84.67	18.7	-15.3			
	5000		93.23	4.22	-6.77					1000		112.5	5.71	12.5			
4F-PVP (850352-31-7)	100	7.66	101.4	7.04	1.37	100- 5000	30	100	MORPHINE (57-27-2)	100	2.45	110.1	10.8	10.1	100- 5000	30	100
	1000		101.9	5.81	1.87					1000		101.7	4.07	1.68			
	5000		97.76	3.90	-2.24					5000		96.63	5.04	-3.37			
4-HYDROXY DiPT (63065-90-7)	100	6.47	103.5	4.40	3.53	100- 5000	30	100	MPBP (1214-15-9)	100	7.59	105.1	5.89	5.14	100- 5000	30	100
	1000		109.0	5.43	9.00					1000		107.4	4.33	7.37			
	5000		105.1	2.28	5.12					5000		104.6	4.17	4.64			
4-HYDROXYMIDAZOLAM (59468-85-8)	100	8.89	55.98	25.2	-44.0	-	30	-	MT-45 (57314-55-3)	100	10.85	95.07	8.37	-4.93	100- 5000	30	100
	1000		129.5	5.42	29.5					1000		113.4	7.91	13.4			
	5000		87.53	3.53	-12.5					5000		107.6	2.53	7.62			
4-IODOAMPHETAMINE (21894-58-6)	10	8.22	107.6	11.2	7.56	10-5000	3	10	N-(3- METHYLBENZYL)PIPERAZINE (5321-48-2)	10	4.00	223.7	4.10	123	-	3	-
	100		95.27	8.13	-4.73					100		116.1	3.88	16.1			
	1000		87.22	6.97	-12.8					1000		48.74	3.32	-51.3			
	2000		81.48	4.85	-18.5					2000		45.49	3.31	-54.5			
	5000		93.73	13.9	-6.27					5000		51.24	3.85	-48.8			
4-MAPB	10	6.86	95.76	10.1	-4.24	10-5000	3	10	N,N- DIETHYLPHENETHYLAMINE( 5300-21-0)	10	5.37	89.59	10.4	-10.4	10-5000	3	10
	100		95.34	6.45	-4.66					100		95.05	7.54	-4.95			
	1000		64.45	3.51	-35.6					1000		100.8	8.44	0.790			
	2000		96.66	10.7	-3.34					2000		94.01	1.87	-5.99			
	5000		97.48	8.12	-2.52					5000		94.99	3.58	-5.01			
4-MEAP (18297-05-7)	10	8.57	116.4	6.20	16.4	10-5000	3	10	N,N-DIMETHYLPENTYLONE (17763-13-2)	100	7.31	109.7	7.05	9.69	100- 5000	30	100
	100		107.0	6.84	7.02					1000		110.2	6.77	10.2			
	1000		96.00	15.0	-4.00					5000		110.7	5.99	10.7			
	2000		91.08	15.7	-8.92					100		89.92	18.7	-10.1			
	5000		96.31	1.55	-3.69					1000		98.92	5.61	-1.08			
4-MEO-ALPHA-PVP (5537-19-9)	10	8.04	112.4	5.23	12.4	10-5000	3	10	N,N-DMT (61-50-7)	5000	9.24	94.41	2.72	-5.59	10-5000	3	10
	100		97.44	8.69	-2.56					10		88.45	14.1	-11.6			
	1000		99.82	3.25	-0.18					100		112.2	5.13	12.2			
	2000		93.33	5.21	-6.67					1000		110.8	4.36	10.8			
	5000		-	-	-					2000		101.7	3.16	1.70			
4-MeOPBP (2749897-35-4)	10	6.93	102.9	12.1	2.89	10-5000	3	10	NAPHYRONE (850352-11-3)	5000	10.08	93.77	3.47	-6.23	10-5000	3	10
	100		96.16	8.29	-3.84					10		97.24	9.74	-2.76			

Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )	Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )
	1000		89.59	7.30	-10.4					100		108.4	1.60	8.36			
	2000		81.63	2.40	-18.4					1000		111.0	4.69	11.0			
	5000		82.95	4.12	-17.1					2000		100.1	3.46	0.06			
4-METHOXY PHENCYCLIDINE (2185-93-5)	10	8.93	82.18	13.6	-17.8	10-5000	3	10	NAPHYRONE-1-NAPHTYL ISOMER (1349245-31-3)	5000	9.61	91.33	4.72	-8.67	10-5000	3	10
	100		107.5	5.04	7.51					10		101.6	18.5	1.56			
	1000		113.9	3.94	13.9					100		111.7	5.24	11.7			
	2000		104.4	4.55	4.42					1000		113.3	2.96	13.3			
	5000		101.2	3.10	1.24					2000		108.5	3.26	8.51			
4-METHOXY PV8 (2749302-60-9)	10	10.19	88.91	7.39	-11.1	10-5000	3	10	N-BENZYL NORBUTYLONE (1823865-05-9)	5000	8.71	98.14	3.88	-1.86	10-5000	3	10
	100		109.4	5.15	9.44					10		90.25	9.38	-9.75			
	1000		111.3	4.60	11.3					100		111.5	7.15	11.5			
	2000		100.1	3.28	0.050					1000		118.4	1.15	18.4			
	5000		90.84	5.61	-9.16					2000		111.2	5.23	11.2			
4-METHOXY PV9 (2748590-60-3)	10	11.13	84.42	8.29	-15.6	10-5000	3	10	N-ETHYL-4-METHOXYAMPHETAMINE (93963-24-7)	5000	6.12	101.3	3.28	1.34	10-5000	3	10
	100		113.5	6.57	13.48					10		91.97	6.65	-8.03			
	1000		118.2	3.76	18.2					100		93.07	11.2	-6.93			
	2000		110.3	3.83	10.3					1000		89.23	4.39	-10.8			
	5000		93.56	4.25	-6.44					2000		85.26	7.41	-14.7			
4-METHOXYMETHAMPHETAMINE (PMMA) (3398-68-3)	100	5.69	105.2	8.15	5.15	100-5000	30	100	N-ETHYLBUPHEDRONE (2731709-73-0)	5000	5.82	83.10	3.00	-16.9	10-5000	3	10
	1000		105.3	10.2	5.31					100		96.75	16.5	-3.25			
	5000		98.61	4.33	-1.39					1000		102.3	7.11	2.31			
4-METHYL PENTEDRONE (1373918-61-6)	10	8.30	81.31	13.5	-18.7	10-5000	3	10	N-ETHYL-N-METHYLCATHINONE (1157739-24-6)	1000	4.91	89.15	3.20	-10.9	10-5000	3	10
	100		93.27	6.74	-6.73					2000		85.77	5.07	-14.2			
	1000		100.8	2.14	0.810					5000		87.75	5.41	-12.3			
	2000		92.22	5.99	-7.78					10		109.3	10.7	9.28			
	5000		86.51	4.54	-13.5					100		111.2	6.84	11.2			
4-METHYL-ALPHA-ETHYLAMINO BUTIOPHENONE (18268-19-4)	10	7.44	101.7	9.53	1.73	10-5000	3	10	N-ETHYLNORDAZEPAM (5571-65-3)	1000	12.89	83.73	2.85	-16.3	100-5000	30	100
	100		95.36	6.20	-4.64					1000		100.5	7.60	0.520			
	1000		98.74	10.6	-1.26					2000		117.7	3.58	17.70			
	2000		104.1	13.5	4.11					5000		108.0	3.04	8.04			
	5000		90.86	7.49	-9.14					10		97.71	10.8	-2.30			
4-METHYLAMPHETAMINE (41632-56-8)	10	6.71	100.6	11.5	0.600	10-5000	3	10	N-ETHYLNORKETAMINE (2525095-53-6)	100	7.13	95.86	8.04	-4.14	10-5000	3	10
	100		95.14	12.3	-4.86					1000		92.66	4.43	-7.34			
	1000		90.43	3.92	-9.57					2000		87.21	3.34	-12.8			
	2000		84.95	2.26	-15.1					5000		87.03	7.71	-13.0			
	5000		83.88	5.76	-16.1					100		87.03	7.71	-13.0			
4-METHYLCATHINONE (31952-47-3)	100	5.71	118.0	5.02	18.0	100-5000	30	100	N-ETHYLOXAZEPAM	100	12.25	94.36	6.73	-5.64	100-	30	100
	1000		86.12	5.84	-13.9												

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4-METHYLMETHAMPHETAMINE (4-MMA) (161697-16-1)	5000	6.88	107.5	5.08	7.50	100- 5000	30	100	(62659-64-7)	1000	7.51	116.6	3.10	16.6	100- 5000	30	100
	100		80.08	6.56	-19.9				5000	112.0		5.74	11.99				
	1000		91.70	5.75	-8.30				1000	108.6		1.62	8.63				
	5000		106.3	4.35	6.31				5000	115.0		5.24	15.0				
4-METHYLMETHCATHINONE (4-MMC) (1189726-22-4)	100	6.01	116.9	6.36	16.9	100- 5000	30	100	N-ETHYLPENTYLONE (17763-02-9)	1000	10.98	103.5	4.59	3.47	100- 5000	30	100
	1000		87.08	8.18	-12.9				100	97.18		4.12	-2.82				
	5000		81.26	12.4	-18.7				1000	114.5		6.83	14.5				
4-METHYL-N,N-DMC (1448845-14-4)	10	6.04	92.86	10.4	-7.14	10-5000	3	10	NIMETAZEPAM (2011-67-8)	5000	8.02	105.6	4.08	5.56	100- 5000	30	100
	100		91.79	5.29	-8.21				100	107.8		10.6	7.81				
	1000		96.57	4.14	-3.43				1000	115.5		7.67	15.5				
	2000		90.86	4.56	-9.14				5000	103.9		8.91	3.88				
	5000		91.95	5.04	-8.05				100	82.78		9.40	-17.2				
4-METHYL-N-METHYLBUPHEDRONE (2748589-93-5)	10	7.10	91.67	10.9	-8.33	10-5000	3	10	NITRAZEPAM (146-22-5)	1000	10.62	117.7	3.47	17.69	100- 5000	30	100
	100		93.65	3.61	-6.35				5000	106.2		2.21	6.20				
	1000		97.15	6.77	-2.85				10	86.30		12.8	-13.7				
	2000		95.79	5.36	-4.21				100	104.9		3.85	4.87				
	5000		101.6	15.9	1.63				1000	118.7		4.29	18.7				
4-METHYL-N-METHYLHEXANOPHENONE (2168553-84-0)	10	9.43	91.56	17.1	-8.44	10-5000	3	10	N-METHYL-2AI (10408-85-2)	100	4.29	96.01	6.23	-3.99	100- 5000	30	100
	100		104.6	6.54	4.63				1000	85.59		4.67	-14.4				
	1000		103.2	3.35	3.22				5000	83.10		3.52	-16.9				
	2000		97.18	3.57	-2.82				10	115.3		1.90	15.3				
	5000		94.72	2.93	-5.28				100	106.7		4.61	6.65				
4-METHYL-PBP (1214-15-9)	10	7.50	98.56	11.1	-1.44	10-5000	3	10	N-METHYL-PEA (589-08-2)	1000	3.73	42.25	1.61	-57.8	10-100	3	10
	100		100.2	7.58	0.200				2000	39.30		1.51	-60.7				
	1000		113.7	4.52	13.7				5000	43.90		3.25	-56.1				
	2000		118.5	3.17	18.5				100	110.8		5.30	10.75				
	5000		113.8	4.23	13.8				1000	111.5		9.32	11.5				
4-METHYL-PHP (1391052-36-0)	10	9.63	87.47	5.23	-12.5	10-5000	3	10	N-METHYLTRYPTAMINE (61-49-4)	5000	4.82	97.58	4.78	-2.42	100- 5000	30	100
	100		100.7	7.57	0.73				10	90.72		8.50	-9.28				
	1000		111.2	4.72	11.2				100	97.27		4.83	-2.73				
	2000		100.0	2.02	0.000				1000	103.2		7.04	3.23				
	5000		94.53	1.89	-5.47				2000	92.02		8.87	-7.98				
4-METHYL- $\alpha$ -ETHYLTRYPTAMINE (28289-30-7)	100	8.41	80.88	9.22	-19.1	100- 5000	30	100	NN-DMC (10105-90-5)	5000	4.32	108.3	8.47	8.28	10-5000	3	10
	1000		119.9	3.86	19.9				100	104.0		7.88	4.00				
	5000		112.1	4.67	12.1				1000	109.4		2.10	9.35				
5-APB (286834-80-8)	100	7.03	105.0	9.03	5.00	100- 5000	30	100	NORCLOBAZAM (22316-55-8)	5000	10.72	100.4	4.51	0.360	100- 5000	30	100
	1000		103.8	5.47	3.80				100	110.6		4.95	10.6				
	5000		89.13	2.68	-10.9				1000	115.5		2.37	15.5				

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5-APDB (152623-94-4)	100	5.66	115.0	10.4	15.0	100-5000	30	100	NORKETAMINE (79499-59-5)	5000	6.45	100.4	6.55	0.350	100-5000	30	100
	1000		83.30	1.86	-16.7					100		109.2	11.0	9.21			
	5000		105.9	10.1	5.94					5000		106.5	8.36	6.49			
5-APDI (152623-95-5)	10	8.73	89.59	10.2	-10.4	10-5000	3	10	NORTRIPTYLINE (894-71-3)	100	11.06	117.4	5.49	17.4	100-5000	30	100
	100		82.50	4.80	-17.5					1000		114.8	6.10	14.8			
	1000		115.5	3.19	15.5					5000		109.0	4.11	9.00			
	2000		105.4	3.38	5.44					100		105.7	6.06	5.67			
	5000		104.3	2.94	4.29					1000		111.5	3.22	11.5			
5-CHLORO AB-PINACA (1801552-02-2)	10	13.00	107.8	13.7	7.75	10-1000	3	10	N-PROPYLAMPHETAMINE (59877-57-5)	100	6.69	105.7	6.06	5.67	100-5000	30	100
	100		97.11	3.75	-2.89					1000		111.5	3.22	11.5			
	1000		101.6	4.77	1.64					5000		109.6	5.73	9.62			
5-CHLORO-NNEI (1800101-23-8)	10	14.09	84.78	12.5	-15.2	10-1000	3	10	NRG-3 (2701928-05-2)	100	9.84	108.8	9.16	8.82	10-5000	3	10
	100		107.1	8.70	7.12					1000		113.4	2.74	13.4			
	1000		108.7	6.67	8.74					2000		106.5	3.00	6.53			
5-EAPB (1823776-22-2)	100	7.20	103.0	8.32	2.96	100-5000	30	100	o-CPP (41202-32-8)	10	6.80	147.2	9.29	47.2	1000-5000	30	1000
	1000		108.4	11.1	8.36					100		101.2	10.5	1.23			
	5000		106.7	3.84	6.71					1000		91.15	4.65	-8.85			
5F-ABICA (1801338-26-0)	10	12.12	81.39	18.5	-18.6	10-1000	3	10	OCTACAINE (93940-32-0)	1000	6.11	96.44	2.79	-3.56	10-5000	3	10
	100		95.68	7.08	-4.32					2000		83.26	4.14	-16.7			
	1000		95.99	7.75	-4.01					5000		82.68	2.48	-17.3			
5-F-JWH-018 ADAMANTYL ANALOG (1364933-62-9)	10	15.31	84.84	5.55	-15.2	10-1000	3	10	ORG-28611 (784138-08-5)	10	11.56	82.98	2.21	-17.0	10-1000	3	10
	100		102.5	5.09	2.51					100		96.47	11.4	-3.53			
	1000		113.2	3.36	13.2					1000		96.44	2.79	-3.56			
5-FLUORO THJ (2180934-72-7)	10	15.13	98.77	17.6	-1.23	10-1000	3	10	OXAZEPAM (604-75-1)	2000	11.37	93.11	3.31	-6.89	100-5000	30	100
	100		94.72	10.6	-5.28					100		119.3	6.07	19.3			
	1000		102.5	6.61	2.45					1000		92.44	5.14	-7.56			
5-FLUORO-2-ADB-PINACA ISOMER 2 (2365471-68-5)	10	12.30	88.09	10.3	-11.9	10-1000	3	10	OXYMORPHONE (76-41-5)	100	2.65	147.7	72.9	47.7	-	30	-
	100		103.3	6.06	3.32					1000		94.24	7.29	-5.76			
	1000		113.2	4.19	13.2					2000		33.48	45.9	-66.5			
5-FLUORO-CUMYL-PICA (1400742-18-8)	10	13.78	88.29	10.3	-11.7	10-1000	3	10	PARACETAMOL (103-90-2)	10	3.93	5.65	169	-94.4	100-5000	30	100
	100		106.1	7.51	6.06					100		117.9	3.72	17.9			
	1000		106.9	6.54	6.85					5000		101.3	6.80	1.31			
5-FLUORO-SDB-006 (1776086-02-2)	10	13.05	95.74	13.20	-4.26	10-1000	3	10	PARACETAMOL (103-90-2)	100	3.93	87.76	9.13	-12.2	100-5000	30	100
	100		96.52	3.92	-3.48					1000		117.9	3.72	17.9			
	1000		92.63	2.53	-7.37					1000		87.76	9.13	-12.2			
5-F-PENTYL-3-PYRIDINOYLINDOLE	10	12.12	95.28	10.6	-4.72	10-1000	3	10	PARACETAMOL (103-90-2)	100	3.93	117.9	3.72	17.9	100-5000	30	100
	100		104.0	5.81	3.95					1000		87.76	9.13	-12.2			
	1000		110.1	7.10	10.1					1000		87.76	9.13	-12.2			

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5F-SDB-005 (2185863-14-1)	10	14.79	90.33	12.0	-9.67	10-1000	3	10	PAROXETINE (78246-49-8)	5000	10.58	107.6	4.52	7.59	100-5000	30	100
	100		106.3	9.61	6.27					100		100.4	7.68	0.380			
	1000		100.7	7.57	0.720					1000		117.0	6.51	17.0			
5-HYDROXY DMT (55206-22-9)	100	2.99	116.2	4.59	16.2	-	30	-	PCEEA (1798021-89-2)	5000	9.18	100.5	3.04	0.530	10-5000	3	10
	1000		60.52	4.81	-39.5					10		92.89	6.83	-7.11			
	5000		58.69	3.21	-41.3					100		104.4	6.53	4.36			
5-IT (3784-30-3)	100	5.08	99.99	6.72	-0.01	100-5000	30	100	PCMPA (1934-63-0)	1000	8.96	108.4	2.24	8.41	10-5000	3	10
	1000		97.99	7.59	-2.01					2000		100.9	5.03	0.900			
	5000		-	-	-					5000		94.17	5.25	-5.83			
5-MAPB (1823925-53-6)	100	6.71	111.3	6.02	11.3	100-5000	30	100	PCPr (1934-55-0)	10	9.06	87.59	2.62	-12.4	10-5000	3	10
	1000		99.04	6.52	-0.96					100		96.51	7.48	-3.49			
	5000		107.9	2.76	7.91					1000		99.55	5.31	-0.45			
5-MAPDB (2748590-04-5)	10	5.69	76.41	13.3	-23.6	100-5000	30	100	PENTEDRONE (879669-95-1)	2000	6.85	94.67	8.91	-5.33	10-5000	3	10
	100		110.1	6.19	10.1					5000		89.00	6.51	-11.0			
	1000		88.41	3.07	-11.6					10		100.4	13.4	0.370			
5-MeO-ALPHA-ET (4765-10-0)	1000	7.09	84.51	6.11	-15.5	10-5000	3	10	PENTEDRONE METABOLITE (1422513-91-4)	100	6.90	92.95	5.11	-7.05	100-5000	30	100
	2000		93.31	3.05	-6.69					1000		92.12	3.00	-7.88			
	5000		85.16	18.7	-14.8					2000		85.58	4.11	-14.4			
5-MeO-DALT (928822-98-4)	100	7.31	98.61	11.9	-1.39	10-5000	3	10	PENTYLONE (17763-01-8)	5000	7.21	86.58	4.01	-13.4	100-5000	30	100
	1000		106.7	5.97	6.65					100		108.5	7.17	8.54			
	2000		99.27	2.50	-0.73					1000		96.09	11.4	-3.91			
5-METHOXY AMT (1137-04-8)	5000	6.02	95.13	3.36	-4.87	100-5000	30	100	PHENAZEPAM (51753-57-2)	100	12.14	111.7	6.58	11.7	100-5000	30	100
	100		107.0	14.7	6.99					100		112.4	3.90	12.4			
	1000		108.5	4.98	8.50					1000		113.7	3.13	13.7			
5-METHOXY DiPT (4021-34-5)	5000	7.32	100.1	5.10	0.130	100-5000	30	100	PHENCYCLIDINE (956-90-1)	5000	8.55	100.1	7.15	0.120	100-5000	30	100
	100		113.4	4.37	13.4					100		111.3	4.77	11.3			
	1000		93.42	9.54	-6.58					1000		117.4	5.54	17.4			
5-METHOXY DMT (1019-45-0)	5000	5.34	110.8	4.11	10.8	100-5000	30	100	PHENOBARBITAL (50-06-6)	100	8.44	112.9	5.25	12.9	100-5000	30	100
	100		106.1	6.89	6.11					100		98.44	6.73	-1.56			
	1000		112.4	7.31	12.4					1000		117.4	1.09	17.4			
5-METHOXY METHYLONE (2702151-27-5)	5000	5.57	109.4	2.75	9.38	10-5000	3	10	PHENOBARBITAL (50-06-6)	100	8.44	110.5	2.59	10.5	100-5000	30	100
	100		102.4	11.3	2.40					100		100.7	7.29	0.690			
	1000		97.36	8.45	-2.64					1000		115.7	6.22	15.7			
5-METHOXY METHYLONE (2702151-27-5)	5000	5.57	96.67	6.05	-3.33	10-5000	3	10	PHENOBARBITAL (50-06-6)	5000	8.44	103.7	3.46	3.66	100-5000	30	100
	10		113.2	8.84	13.2					100		104.6	7.71	4.58			
	100		115.8	2.97	15.8					1000		113.0	6.20	13.0			
5-METHOXY METHYLONE (2702151-27-5)	1000	5.57	79.77	4.00	-20.2	10-5000	3	10	PHENOBARBITAL (50-06-6)	5000	8.44	107.7	5.99	7.70	100-5000	30	100

Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )	Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )
5-METHOXY MiPT (96096-55-8)	2000	6.32	71.44	5.43	-28.6	100-5000	30	100	PHENTERMINE (1197-21-3)	100	5.98	114.4	7.26	14.4	100-5000	30	100
	5000		82.75	4.57	-17.3					1000		110.6	5.41	10.6			
	100		101.6	11.7	1.57					5000		108.5	5.39	8.50			
6-APB (286834-84-2)	1000	6.51	110.4	6.36	10.4	100-5000	30	100	PHENYTOIN (57-41-0)	100	10.21	95.37	6.41	-4.63	100-5000	30	100
	5000		103.4	4.49	3.42					1000		118.0	4.32	18.0			
	100		91.98	10.6	-8.02					5000		103.6	5.34	3.63			
6-APDB (1281872-58-9)	1000	6.06	107.6	11.0	7.58	100-5000	30	100	PRAVADOLINE (92623-83-1)	10	10.24	83.57	13.7	-16.4	10-5000	3	10
	5000		112.3	8.72	12.6					100		100.3	5.95	0.310			
	10		101.3	15.1	1.29					1000		105.4	8.76	5.43			
6-BROMO-MDMA (87913-26-6)	100	7.48	108.4	12.18	8.44	10-5000	3	10	PRAZEPAM (2955-38-6)	2000	13.52	102.5	5.88	2.46	100-5000	30	100
	2000		96.56	6.52	-3.44					100		110.2	2.42	10.2			
	5000		94.17	10.4	-5.83					1000		113.8	4.77	13.8			
6-CHLORO-MDMA (319920-71-3)	10	7.08	85.92	3.71	-14.1	10-5000	3	10	PREGABALIN (148553-50-8)	5000	4.62	94.23	2.21	-5.77	100-5000	30	100
	100		111.9	7.53	11.9					100		100.9	6.45	0.910			
	1000		111.7	4.41	11.7					1000		106.2	5.41	6.20			
6-EAPB (1823318-37-1)	2000	7.03	100.9	4.12	0.930	10-5000	3	10	PROCAINE (51-05-8)	5000	4.20	89.59	6.30	-10.4	100-5000	30	100
	5000		99.38	3.16	-0.62					100		101.6	7.15	1.57			
	10		82.67	9.88	-17.3					1000		84.87	5.66	-15.1			
6-IT (21005-63-0)	100	5.88	108.2	4.00	8.18	10-5000	3	10	PROLINTANE (1211-28-5)	5000	8.04	82.94	5.28	-17.1	100-5000	30	100
	1000		104.7	4.27	4.70					100		101.1	6.74	1.12			
	2000		97.58	4.68	-2.42					1000		105.5	2.97	5.54			
6-MAM (2784-73-8)	5000	5.20	94.20	2.75	-5.80	100-5000	30	100	PROPANOLOL (318-98-9)	5000	9.12	105.4	4.85	5.36	100-5000	30	100
	10		99.06	9.71	-0.94					100		108.2	5.76	8.21			
	100		107.5	11.5	7.52					1000		116.8	4.18	16.8			
6-MAPB (2731011-08-6)	1000	6.58	110.6	7.70	10.6	100-5000	30	10	PROPAPHENONE (34183-22-7)	5000	10.71	101.4	3.57	1.43	100-5000	30	100
	2000		94.46	8.54	-5.54					100		108.1	4.00	8.05			
	5000		90.09	5.44	-9.91					1000		112.2	4.29	12.2			
6-METHOXY MiPT (96096-55-8)	10	6.32	99.70	9.14	-0.30	100-5000	30	100	PROPYLHEXEDRINE (1007-33-6)	5000	8.04	98.15	5.61	-1.85	100-5000	30	100
	100		105.9	8.50	5.87					100		110.2	7.56	10.2			
	1000		86.17	5.69	-13.8					1000		105.7	6.54	5.71			
6-APB (286834-84-2)	2000	6.51	98.46	2.54	-1.54	100-5000	30	100	PSB-SB-1202 (1399049-60-5)	5000	15.97	104.8	7.67	4.83	10-1000	3	10
	5000		93.30	5.60	-6.70					100		97.80	6.92	-2.20			
	100		114.3	7.19	14.3					1000		113.4	5.95	13.4			
6-APB (286834-84-2)	1000	6.51	98.84	5.78	-1.16	100-5000	30	100	PSB-SB-1202 (1399049-60-5)	5000	15.97	111.2	3.02	11.2	10-1000	3	10
	5000		82.93	5.05	-17.1					10		91.11	7.57	-8.90			
	10		96.62	15.3	-3.38					100		79.82	10.3	-20.2			
6-APB (286834-84-2)	100	6.58	92.41	16.3	-7.59	10-5000	30	100	PSB-SB-1202 (1399049-60-5)	1000	15.97	119.7	2.35	19.7	10-1000	3	10



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	1000		104.2	12.8	4.24					10		110.1	3.54	10.1			
	2000		99.41	15.8	-0.59				PTI-1 (1400742-46-2)	100	12.53	97.71	7.01	-2.29	10-1000	3	10
	5000		95.27	12.6	-4.73					1000		102.3	8.19	2.34			
7-AMINOCLONAZEPAM (4959-17-5)	100	6.68	108.5	7.03	8.53	100-5000	30	100	PTI-2 (1400742-45-1)	10		97.95	4.88	-2.05			
	1000		108.1	11.1	8.11					100	12.78	95.76	4.93	-4.24	10-1000	3	10
	5000		105.8	5.88	5.76					1000		101.1	3.39	1.06			
7-AMINODESMETHYLFLUNITRAZEPAM (894-76-8)	100	5.71	93.53	9.85	-6.48	100-5000	30	100	PV-8 (13415-55-9)	100	9.71	105.3	7.32	5.25	100-5000	30	100
	1000		116.4	7.36	16.4					1000		111.0	1.37	11.0			
	5000		99.36	11.6	-0.64					5000		102.8	3.76	2.80			
7-AMINOFUNITRAZEPAM (34084-50-9)	100	7.72	81.75	6.26	-18.3	100-5000	30	100		10		81.33	19.0	-18.7			
	1000		118.3	3.85	18.3				PV9 (2749897-19-4)	100		110.0	4.96	10.0			
	5000		112.4	4.09	12.4					1000	10.70	115.6	3.98	15.6	10-5000	3	10
7-AMINONITRAZEPAM (4928-02-3)	100	4.74	103.2	9.18	3.17	100-5000	30	100		2000		107.8	3.54	7.84			
	1000		106.1	4.58	6.13					5000		90.93	7.68	-9.07			
	5000		102.0	4.88	2.03					10		105.0	6.72	4.96			
7-APB (286834-86-4)	10	6.70	89.46	4.81	-10.5	10-5000	3	10	PX-2 (2365471-47-0)	100	12.76	101.2	6.05	1.24	10-1000	3	10
	100		105.9	5.41	5.88					1000		109.4	4.70	9.39			
	1000		96.06	7.51	-3.94					100		92.36	3.30	-7.64			
	2000		86.69	5.83	-13.3				PYRAZOLAM (39243-02-2)	1000	9.50	116.4	3.41	16.4	100-5000	30	100
	5000		90.85	3.29	-9.15					5000		113.5	3.74	13.5			
7-APDB (1337821-68-7)	10	5.99	92.60	14.7	-7.40	10-5000	3	10	QUETIAPINE (111974-72-2)	100	9.62	98.77	8.05	-1.23	100-5000	30	100
	100		100.2	11.4	0.21					1000		113.7	3.47	13.7			
	1000		89.11	8.02	-10.9					5000		101.3	3.71	1.31			
	2000		80.54	0.870	-19.5					10		85.32	15.8	-14.7			
	5000		82.63	7.95	-17.4					100		106.3	8.24	6.34			
A-834735 (895155-57-4)	10	14.21	95.17	5.06	-4.83	10-1000	3	10	RH-34 (1028307-48-3)	1000	8.13	112.0	4.25	12.0	10-5000	3	10
	100		98.04	9.92	-1.96					2000		105.1	4.18	5.06			
	1000		100.9	5.65	0.870					5000		96.14	2.88	-3.86			
A-836339 (959746-77-1)	10	12.46	105.2	6.14	5.15	10-1000	3	10		10		42.31	73.9	-57.7			
	100		104.6	5.47	4.57				R-MMC (1246816-2-5)	100	6.88	100.9	14.6	0.860	100-5000	30	100
	1000		100.8	1.48	0.820					1000		103.7	6.70	3.67			
AB-FUBINACA (1185282-01-2)	10	12.67	91.35	10.7	-8.65	10-1000	3	10		2000		94.44	6.08	-5.56			
	100		106.7	7.10	6.65					5000		89.34	5.21	-10.7			
	1000		115.7	3.78	15.7					100		109.2	9.75	9.16			
AB-FUBINACA 2-FLUOROBENZYL ISOMER (1185282-16-9)	10	12.86	102.3	9.53	2.33	10-1000	3	10	SCOPOLAMINE (114-49-8)	1000	4.80	92.60	6.73	-7.40	100-5000	3	100
	100		107.7	7.19	7.69					5000		82.01	8.44	-18.0			
	1000		101.9	5.66	1.93					10		95.00	14.0	-5.00			
AB-FUBINACA 3-FLUOROBENZYL	10	12.76	100.0	8.11	0.00	10-1000	3	10	SDB-005 (2180934-13-6)	100	15.57	87.95	12.6	-12.1	10-1000	3	10

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ISOMER (185282-19-2)	100		100.8	4.38	0.830					1000		113.1	4.17	13.1			
	1000		102.2	7.06	2.16					10		100.2	7.73	0.190			
ADB-PINACA ISOMER 1	10	13.69	107.1	9.45	7.09	10-1000	3	10	SDB-006 (695213-59-3)	100	14.09	103.9	6.08	3.88	10-1000	3	10
	100		104.7	8.04	4.71					1000		99.16	4.45	-0.840			
	1000		105.0	7.38	5.00					100		104.5	7.31	4.51			
ADB-PINACA ISOMER 2	10	13.99	101.8	10.3	1.84	10-1000	3	10	SERTRALINE (79559-97-0)	1000	11.57	106.8	6.82	6.81	100-5000	30	100
	100		100.3	3.82	0.32					5000		96.09	8.67	-3.91			
	1000		100.5	9.52	0.490					100		104.3	3.18	4.31			
ADB-PINACA ISOMER 3	10	14.2	95.21	21.17	-4.79	10-1000	3	10	SILDENAFIL (139755-83-2)	1000	10.34	114.9	6.00	14.9	100-5000	30	100
	100		99.21	5.03	-0.79					5000		101.5	6.80	1.54			
	1000		102.5	8.04	2.45					100		113.4	4.26	13.4			
ADB-PINACA ISOMER 4	10	13.99	115.9	10.33	15.9	10-1000	3	10	STANOZOLOL (10418-03-8)	1000	14.13	116.7	3.79	16.7	100-5000	30	100
	100		90.15	9.00	-9.85					5000		98.40	3.76	-1.60			
	1000		100.6	10.4	0.62					10		91.50	10.4	-8.50			
AH-7921 (55154-30-8)	100	9.79	102.4	7.44	2.40	100-5000	30	100	TAPENTADOL (175591-09-0)	100	7.33	108.1	8.23	8.05	10-5000	3	10
	1000		104.8	4.52	4.79					1000		104.1	6.55	4.07			
	5000		105.4	3.65	5.38					2000		91.70	3.74	-8.30			
	10		88.67	4.44	-11.3					5000		86.99	2.63	-13.0			
AKB48_N-(4-FLUOROBENZYL) ANALOG (2180933-90-6)	100	15.64	99.91	6.55	-0.09	10-1000	3	10	TEMAZEPAM (846-50-4)	100	11.68	91.84	15.7	-8.16	100-5000	30	100
	1000		115.9	3.50	15.9					1000		116.2	7.32	16.2			
	100		98.00	8.49	-2.00					5000		97.65	3.86	-2.35			
ALFA-ETHYLAMINOPENTIOPHENONE (18268-16-1)	100	7.14	108.6	4.46	8.63	100-5000	30	100	TETRACAINE (92-24-6)	100	9.03	104.3	10.1	4.31	10-5000	3	10
	5000		105.6	3.97	5.60					1000		110.5	2.96	10.5			
	100		99.57	4.26	-0.43					2000		99.99	3.58	-0.010			
ALFA-PROPYLAMINOPENTIOPHENONE (18268-15-0)	100	7.90	113.6	5.44	13.6	100-5000	30	100	THIOPROPAMINE (53632-92-1)	1000	3.76	93.71	12.3	-6.29	10-100	3	10
	1000		108.2	15.3	8.17					100		102.2	5.64	2.17			
	5000		93.92	14.2	-6.08					1000		33.28	3.80	-66.7			
ALPHA-DIMETHYLAMINOPENTIOPHENONE (2168229-67-0)	10	6.87	86.48	5.90	-13.5	10-5000	3	10	THJ (2180931-94-4)	1000	15.97	31.96	2.78	-68.0	10-1000	3	10
	100		99.52	12.2	-0.48					100		86.72	9.37	-13.3			
	1000		98.12	8.30	-1.88					1000		119.0	2.71	19.0			
	2000		92.07	9.97	-7.93					10		103.1	14.7	3.09			
	5000		88.69	5.22	-11.3					100		99.14	15.2	-0.860			
ALPHA-ETHYLAMINOHEXANOPHENONE (18410-62-3)	10	8.42	101.3	10.4	1.28	10-5000	3	10	TILETAMINE (14176-50-2)	1000	5.70	73.38	3.24	-26.6	10-5000	3	10
	100		107.4	7.85	7.36					1000		70.12	6.13	-29.9			
	2000		88.12	6.16	-11.9					5000		36.65	5.45	-63.4			

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	1000		112.5	4.69	12.5					5000		81.32	5.22	-18.7							
	2000		108.3	5.19	8.28					100		6.96	113.2	5.70				13.2			
	5000		100.0	4.73	0.040					100-5000		1000	105.5	4.65				5.47	100-5000	30	100
ALPHA-ETHYLTRYPTAMINE (2235-90-7)	100	7.14	103.4	2.53	3.36	100-5000	30	100	TRAMADOL (36282-47-2)	5000		106.9	6.29	6.85							
	1000		99.23	11.8	-0.77					100		8.39	112.0	5.02				12.0			
	5000		106.1	2.38	6.06					100-5000		1000	100.7	7.65				0.690	100-5000	30	100
ALPHA-METHYLTRYPTAMINE (299-26-3)	100	5.77	90.67	11.9	-9.33	100-5000	30	100	TRIAZOLAM (28911-01-5)	5000		86.79	6.49	-13.2							
	1000		104.1	7.57	4.08					100		11.46	97.70	6.47				-2.30			
	5000		97.46	5.78	-2.54					100-5000		1000	114.9	4.94				14.9	100-5000	30	100
ALPHA-PHP (13415-59-3)	10	8.43	93.22	9.55	-6.78	10-5000	3	10	TRIMIPRAMINE (521-78-8)	5000		101.4	6.96	1.42							
	100		104.1	5.66	4.06					100		11.02	107.7	9.07				7.72			
	1000		100.7	4.59	0.670					100-5000		1000	110.8	7.38				10.8	100-5000	30	100
	2000		95.54	2.03	-4.46					5000		100.7	2.54	0.680							
ALPHA-PHTALIMIDOPROPIOPHENONE (19437-20-8)	10	11.76	84.85	11.2	-15.2	10-5000	3	10	U-47700 (82657-23-6)	10		78.52	2.60	-21.5							
	100		114.2	5.01	14.2					100		9.13	113.3	4.22				13.3			
	1000		114.1	3.59	14.1					10-5000		1000	111.8	5.67				11.8	10-5000	3	10
	2000		103.9	2.48	3.91					5000		102.5	6.93	2.48							
	5000		89.53	3.32	-10.5					10		83.89	5.74	-16.1							
ALPHA-PIPBP (92728-82-0)	10	6.53	92.70	6.30	-7.30	10-5000	3	10	W-15 (93100-99-3)	100		103.7	5.43	3.67							
	100		95.67	3.97	-4.33					1000		13.31	109.8	6.40				9.84	10-5000	3	10
	1000		94.28	5.17	-5.72					2000		98.01	5.34	-1.99							
	2000		87.85	2.97	-12.2					5000		98.68	8.19	-1.32							
	5000		83.12	4.35	-16.9					10		86.55	13.9	-13.5							
ALPHA-PPP (92040-10-3)	10	5.06	93.49	11.4	-6.51	10-100	3	10	WIN 54,461 (166599-63-9)	100		97.27	5.99	-2.73							
	100		97.85	9.59	-2.15					1000		12.41	99.27	3.84				-0.73			
	1000		66.80	3.50	-33.2					10		104.9	11.0	4.91							
	2000		60.86	4.62	-39.1					100		13.65	95.03	4.94				-4.97	10-1000	3	10
	5000		57.78	43.3	-42.2					1000		91.09	7.43	-8.91							
ALPHA-PVP (5485-65-4)	100	7.29	96.93	7.01	-3.07	100-5000	30	100	XLR12 (895155-78-9)	10		93.26	17.5	-6.74							
	1000		104.0	6.41	3.95					100		14.79	88.36	13.3				-11.6	10-1000	3	10
	5000		102.5	3.67	2.47					1000		102.6	7.70	2.64							
ALPHA-PVT (2748622-52-6)	100	6.39	104.4	4.50	4.43	100-5000	30	100	YANGONIN (500-62-9)	10		103.4	11.5	3.43							
	1000		108.0	7.41	8.04					100		11.88	93.63	7.51				-6.37			
	5000		105.3	5.04	5.33					1000		124.4	2.82	24.4				10-5000	3	10	
ALPHA-PYRROLIDINOBUTHIOPHENONE (13415-54-8)	10	5.00	114.5	6.79	14.5	10-5000	3	10	ZALEPLON (151319-34-5)	2000		113.2	4.65	13.2							
	100		114.6	4.66	14.6					5000		117.6	3.14	17.6							
	1000		76.60	4.86	-23.4					100		10.05	93.55	10.2				-6.45	100-	30	100

Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )	Analyte (CAS numer)	C (ng mL <sup>-1</sup> )	t <sub>R</sub> (min)	R <sub>av</sub> (%)	CV (%)	BIAS (%)	RA (ng mL <sup>-1</sup> )	LOD (ng mL <sup>-1</sup> )	LOQ (ng mL <sup>-1</sup> )
	2000		71.51	5.06	-28.5					1000		110.5	5.04	10.5	5000		
	5000		82.28	3.03	-17.7					5000		109.8	4.50	9.79			
ALPRAZOLAM (28981-97-7)	100	11.46	97.10	7.57	-2.90	100-5000	30	100	ZOLPIDEM (82626-48-0)	100	7.96	97.13	6.56	-2.87	100-5000	30	100
	1000		113.8	7.29	13.8				1000	115.3		10.1	15.3				
	5000		116.7	3.51	16.7				5000	111.6		2.68	11.6				
	10		116.6	5.87	16.6				100	111.1		4.25	11.1				
AM1220 (137642-54-7)	100	10.52	97.82	3.75	-2.18	10-1000	3	10	ZOPICLONE (43200-80-2)	1000	6.84	115.9	5.11	15.9	100-5000	30	100
	1000		97.65	4.44	-2.35				5000	87.28		6.06	-12.7				
	10		96.74	15.1	-3.26				100	100.2		7.08	0.160				
AM2201 8-QUINOLINYL CARBOXAMIDE (2365471-42-5)	100	14.98	95.26	6.36	-4.74	10-1000	3	10	ZUCLOPENTHIXOL (53772-83-1)	1000	12.20	118.6	2.39	18.6	100-5000	30	100
	1000		117.1	5.14	17.1				5000	107.2		5.84	7.20				
	10		119.4	6.98	19.4				100	98.17		8.20	-1.83				
AM2201 BENZIMIDAZOLE ANALOG (1984789-90-3)	100	14.45	94.22	5.78	-5.78	10-1000	3	10	α-HYDROXYMIDAZOLAM (59468-90-5)	1000	10.07	116.2	3.82	16.2	100-5000	30	100
	1000		86.15	7.63	-13.9				5000	100.1		5.12	0.10				
	10		98.69	7.33	-1.31												
AM2232 (335161-19-8)	100	12.76	93.70	5.56	-6.30	10-1000	3	10									
	1000		95.30	5.46	-4.70												
	10																

Figure S1. Chromatogram for blank injection.

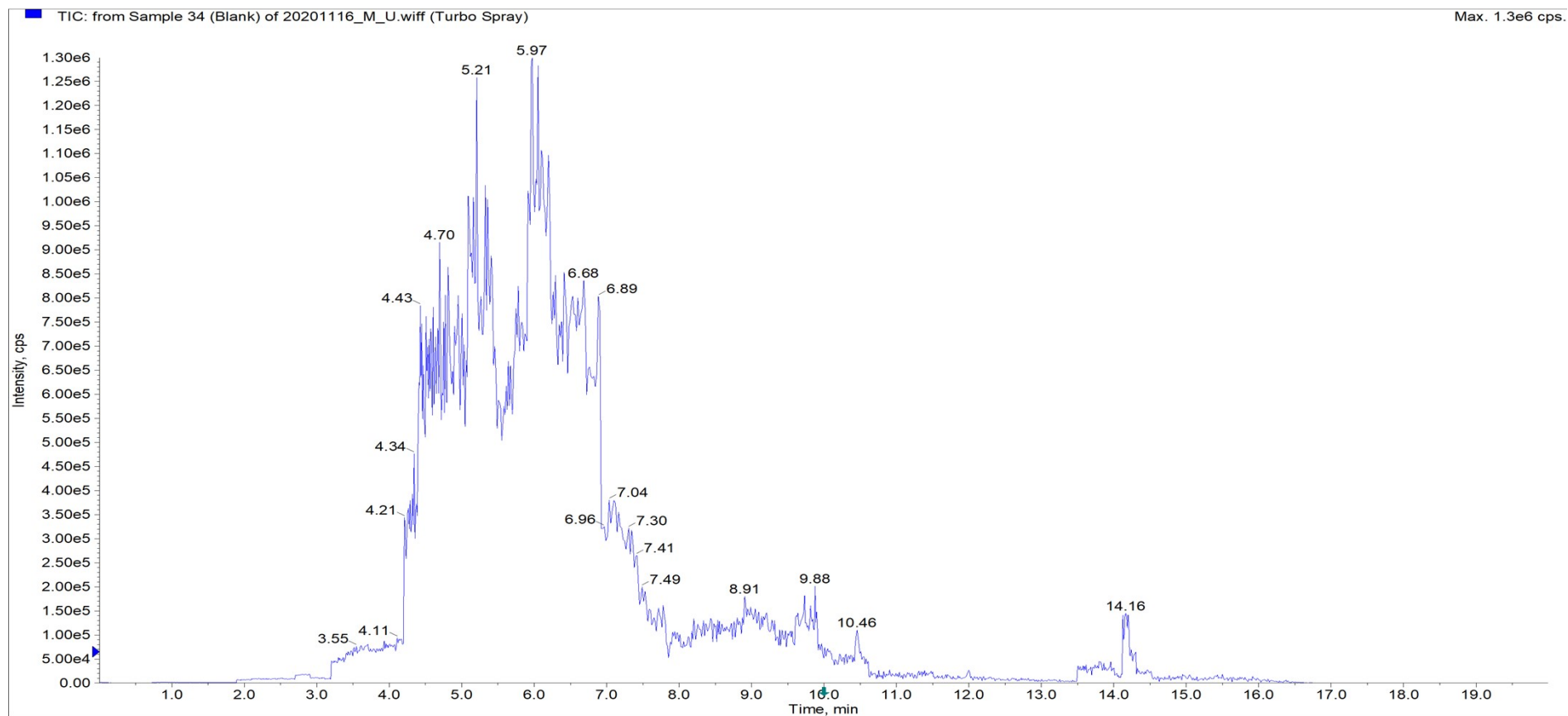


Figure S2. Chromatogram for standard solution 0.1 ng mL<sup>-1</sup> in urine.

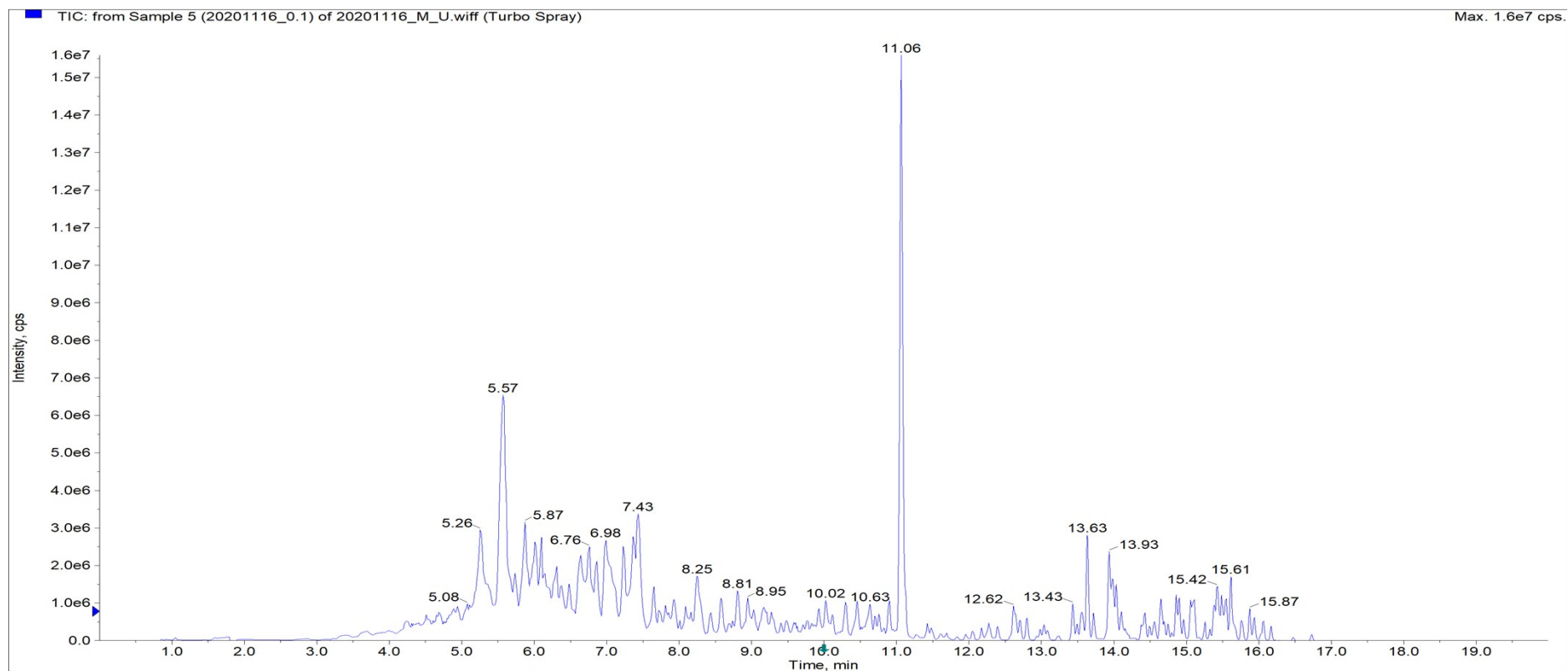


Figure S3. Chromatogram of the matrix (urine) with addition of a standard (1 ng mL<sup>-1</sup>).

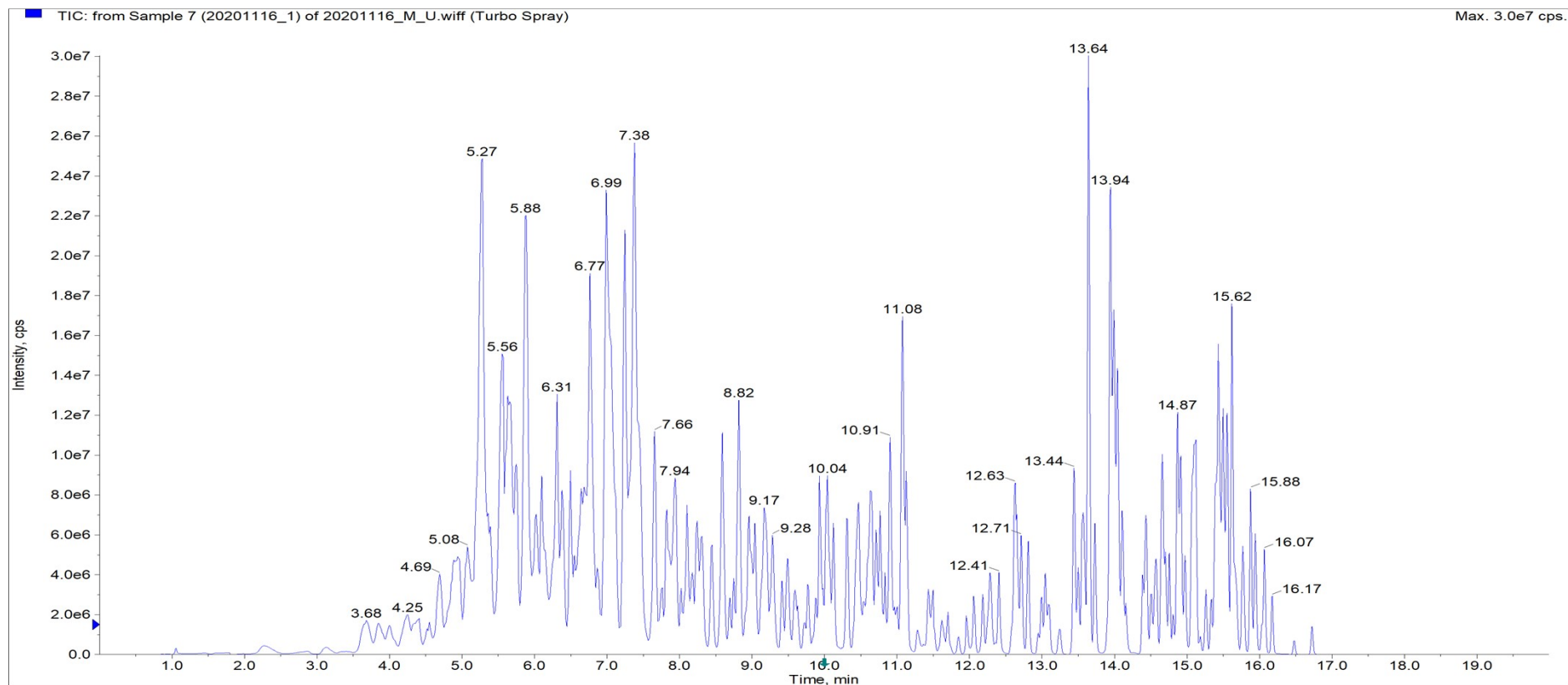


Figure S4. Chromatogram for fortified sample (TOX11911) 100 ng mL<sup>-1</sup> (IS – Atrazine, t<sub>R</sub>=11.08 min).

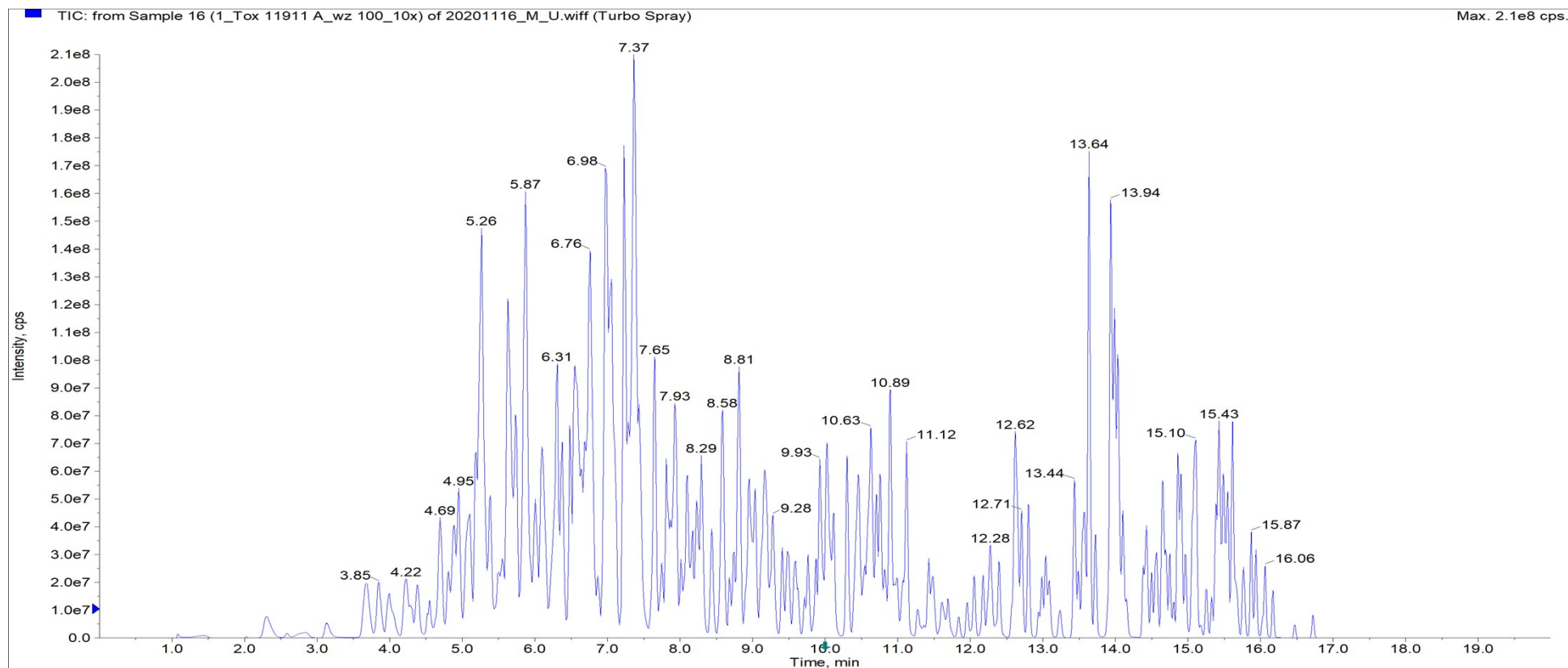




Figure S5. Chromatogram for sample TOX11911 (IS – Atrazine,  $t_R=11.08$  min).

