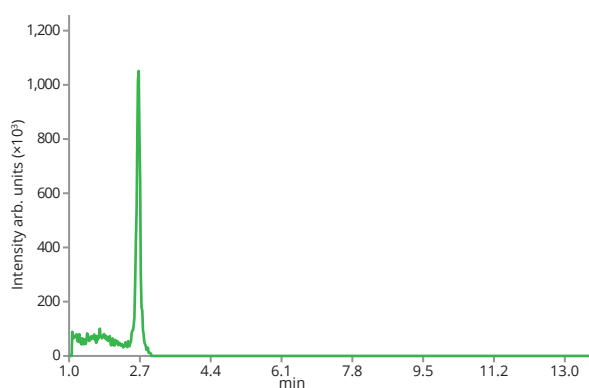
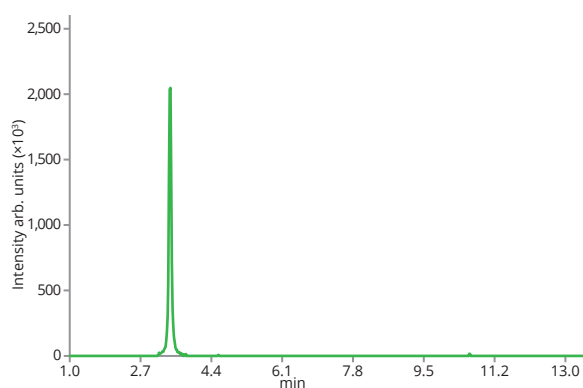


Analysis of drugs of abuse

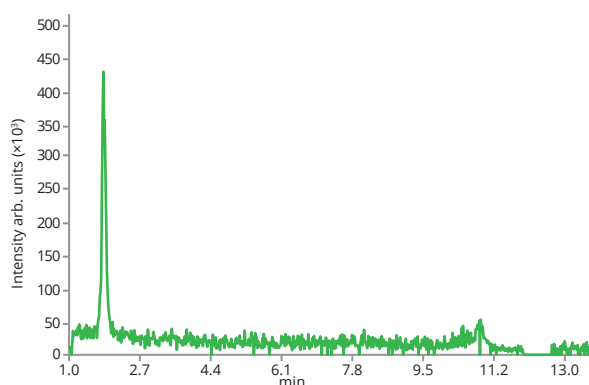
Drug abuse has become a serious problem worldwide. Determination of drugs of abuse is important for understanding of the needed treatment as well as for the law enforcement. The list of target compounds to be screened can number in the hundreds. This application shows a rapid analysis of the drugs of abuse belonged to different classes.



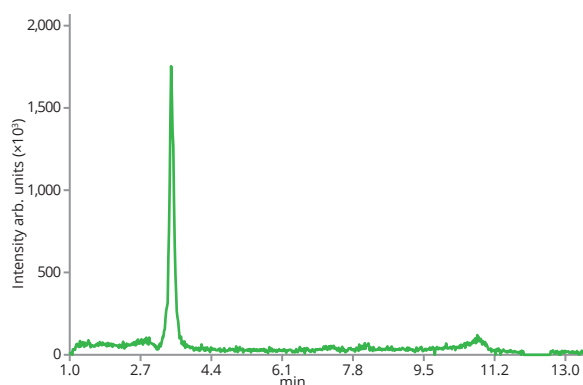
Naloxone RT: 2.68, m/z 328.1543



6-acetylmorphine RT: 3.43, m/z 328.1549

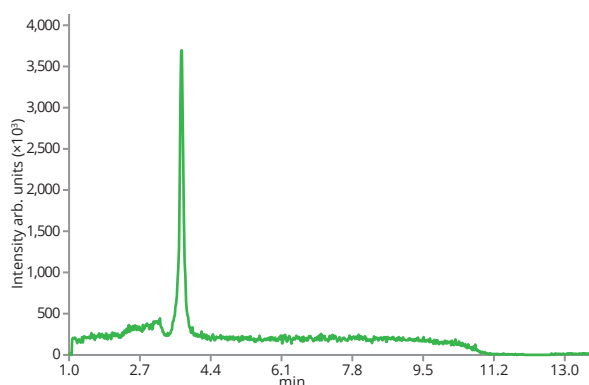


Cathinone RT: 5.66, m/z 150.0919

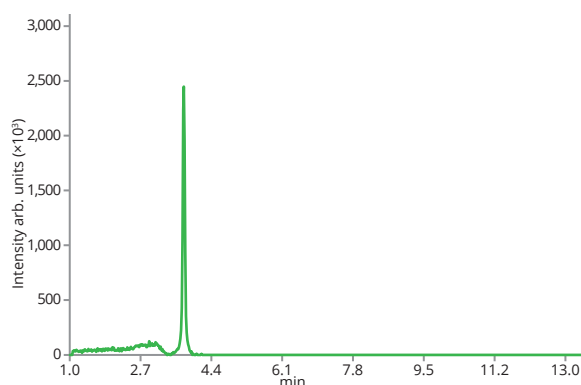


Metamphetamine RT: 4.59, m/z 150.1283

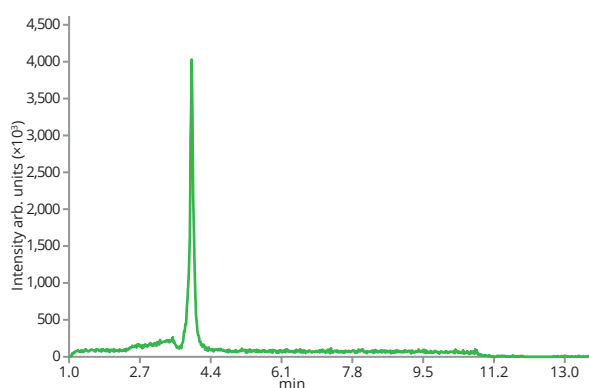
Analysis of drugs of abuse



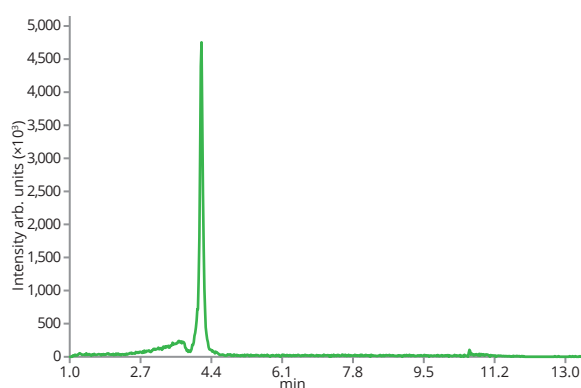
MDMA RT: 3.7, m/z 194.1181



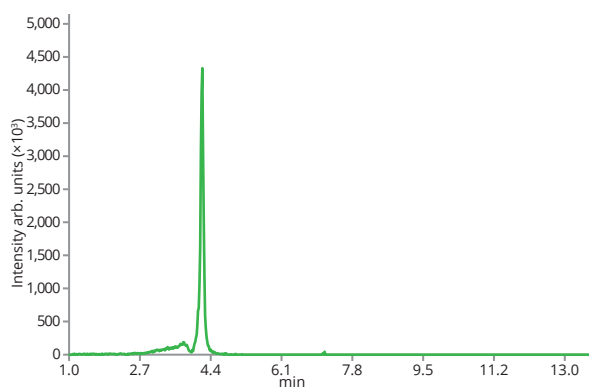
2-Oxo-3-hydroxy-LSD RT: 3.75, m/z 356.1974



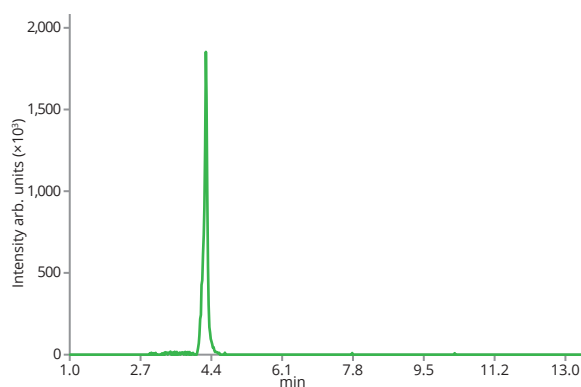
Mephedrone (4-methylmethcathinone) RT: 3.96, m/z 178.1232



MDEA RT: 4.18, m/z 208.1337

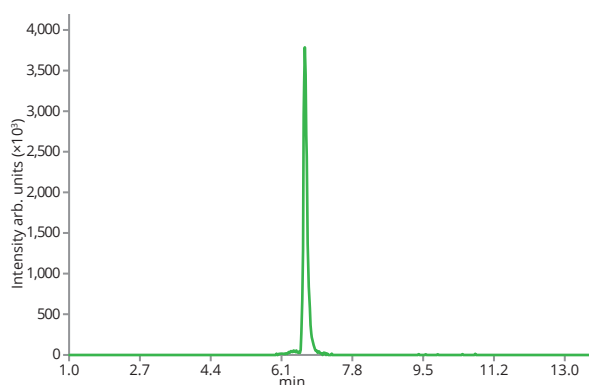


Ketamine RT: 4.21, m/z 238.0998

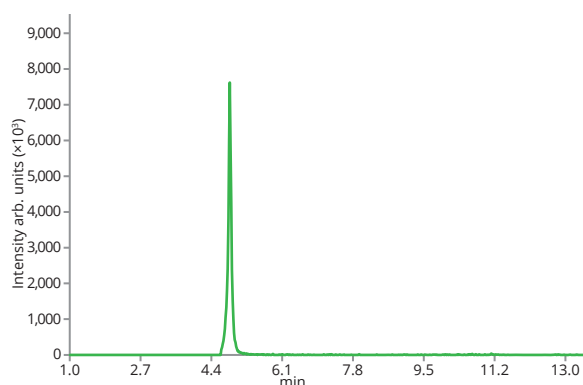


Benzoylecgonine RT: 4.28, m/z 290.1392

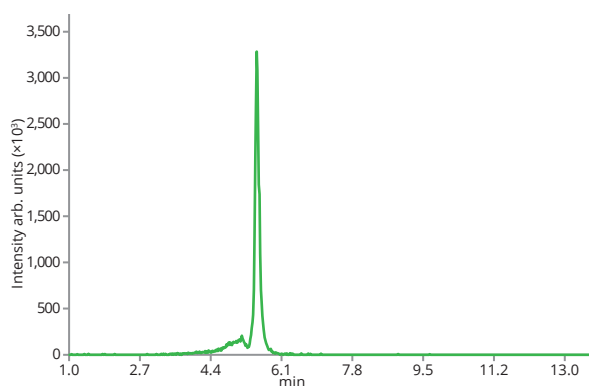
Analysis of drugs of abuse



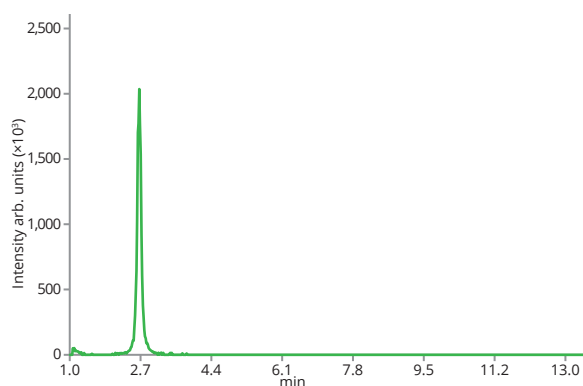
Diphenhydramine RT: 6.67, m/z 256.1701



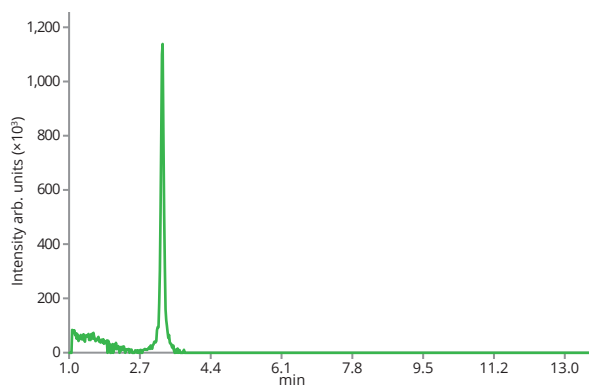
Tramadol RT: 4.86, m/z 264.1963



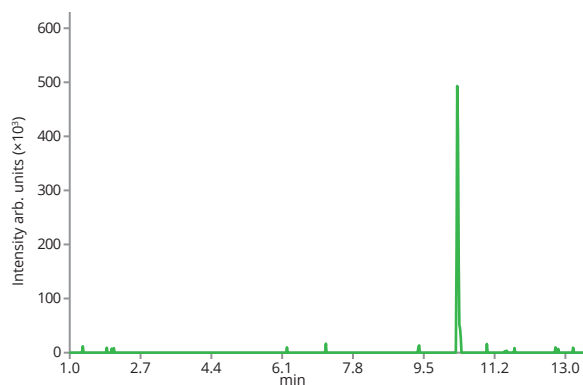
Cocaine RT: 5.52, m/z 304.1549



Codeine RT: 2.68, m/z 300.1599

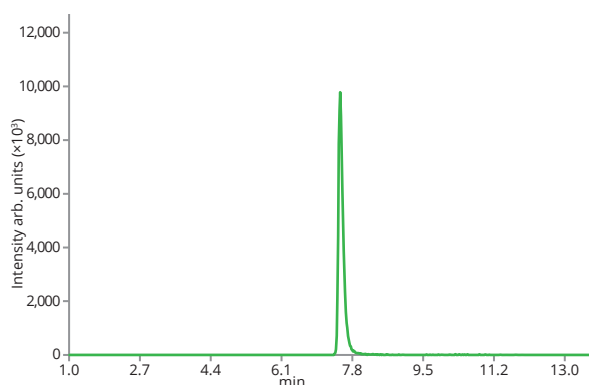


Oxycodone RT: 3.24, m/z 316.1549

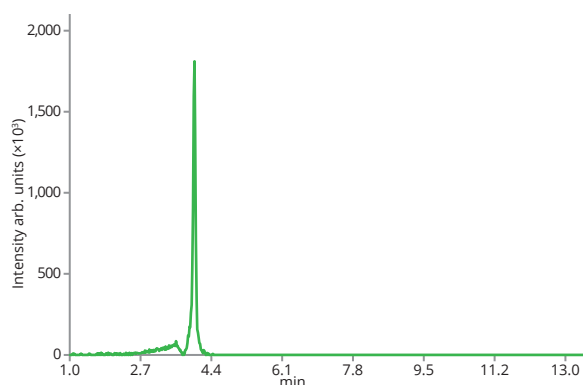


THC-COOH RT: 10.4, m/z 345.2066

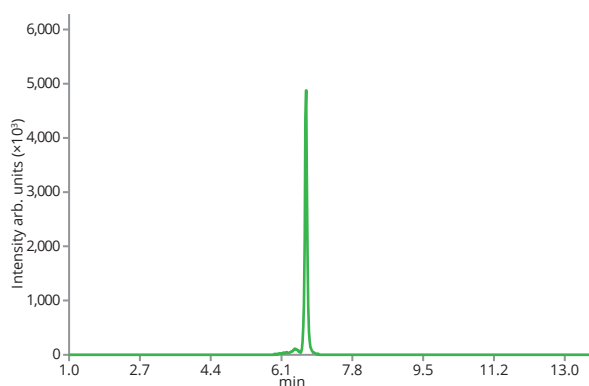
Analysis of drugs of abuse



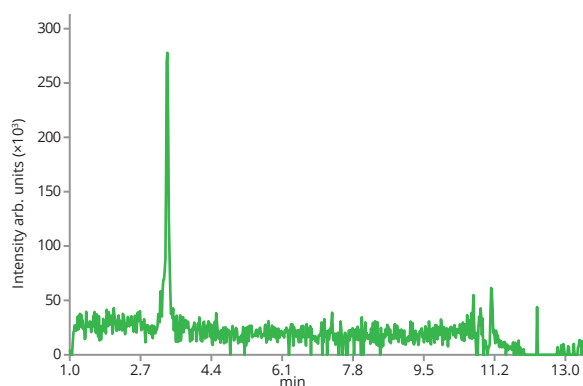
Methadone RT: 7.57, m/z 310.2171



Norketamine RT: 4.01, m/z 224.0842



Buprenorphine RT: 6.71, m/z 468.3114



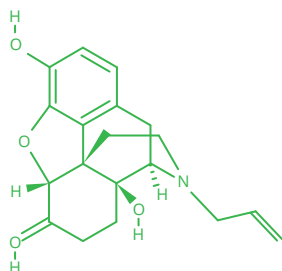
MDA RT: 3.71, m/z 163.0753



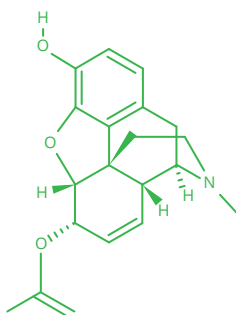
Analysis of drugs of abuse

| | | | | | | |
|-------------------------|---|--------------|--------------|-------------|--------------|--------------|
| Column | ASTRA® C18-HE, 3.0 µm | | | | | |
| Dimensions | 75 mm × 2.1 mm | | | | | |
| Part number | AST-5732-IH21 | | | | | |
| Mobile phase | A: DDW + 0.1% Formic Acid, B: ACN + 0.1% Formic Acid | | | | | |
| Gradient elution | Time | A (%) | B (%) | Time | A (%) | B (%) |
| | 0 | 90 | 10 | 14 | 0 | 100 |
| | 1 | 90 | 10 | 14.01 | 90 | 10 |
| | 4 | 75 | 25 | 15 | 90 | 10 |
| | 8 | 60 | 40 | 17 | 90 | 10 |
| | 10 | 0 | 100 | | | |
| Flow rate | 0.35 mL/min | | | | | |
| Temperature | 23 °C | | | | | |
| Detection | Full scan (resolving power 120 000, m/z 200), positive mode | | | | | |
| Injection volume | 5 µL | | | | | |
| Analytes | <ol style="list-style-type: none">1. Naloxone, CAS number 465-65-62. 6-acetylmorphine, CAS number 2784-73-83. Cathinone, CAS number 71031-15-74. Metamphetamine, CAS number 537-46-25. MDMA (3,4-methylenedioxymethamphetamine), CAS number 42542-10-96. 2-Oxo-3-hydroxy-LSD (2-Oxo-3-hydroxy-lysergide), CAS number 111295-09-17. Mephedrone (4-methylmethcathinone), CAS number 1189805-46-68. MDEA (N-methyldiethanolamine), CAS number 105-59-99. Ketamine, CAS number 6740-88-110. Benzoylecgonine, CAS number 519-09-511. Diphenhydramine, CAS number 58-73-112. Tramadol, CAS number 123154-38-113. Cocaine, CAS number 50-36-214. Codeine, CAS number 76-57-315. Oxycodone, CAS number 76-42-616. THC-COOH (11-Nor-9-carboxy-THC), CAS number 64280-14-417. Methadone, CAS number 76-99-318. Norketamine, CAS number 35211-10-019. Buprenorphine, CAS number 52485-79-720. MDA (tenamfetamine), CAS number 4764-17-4 | | | | | |

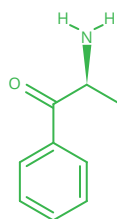
Analysis of drugs of abuse



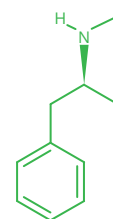
Naloxone



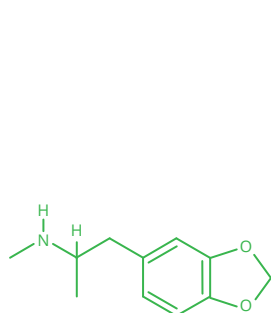
6-acetylmorphine



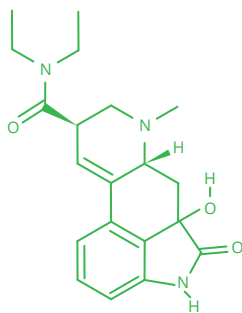
Cathinone



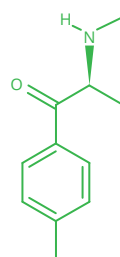
Metamphetamine



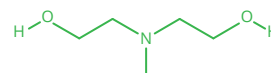
MDMA



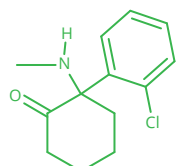
2-Oxo-3-hydroxy-LSD



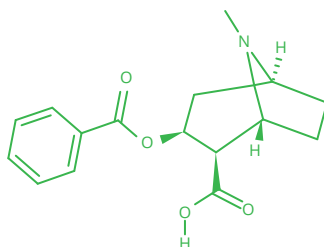
Mephedrone



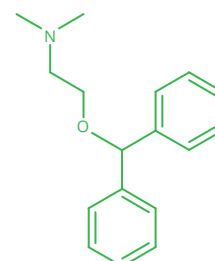
MDEA



Ketamine

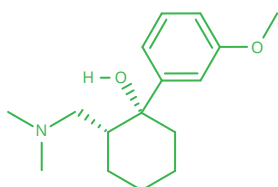


Benzoyllecgonine

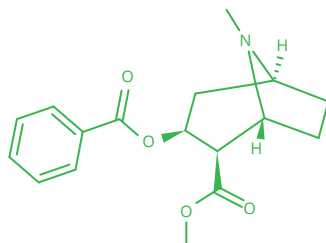


Diphenhydramine

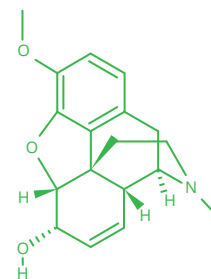
Analysis of drugs of abuse



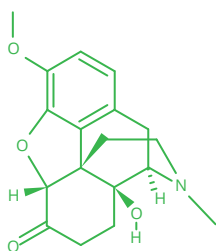
Tramadol



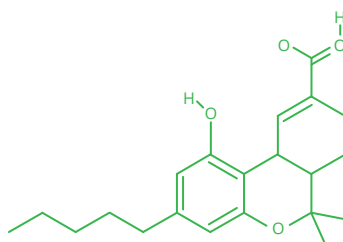
Cocaine



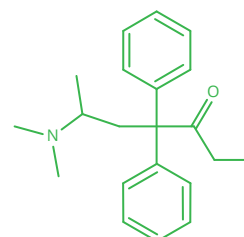
Codeine



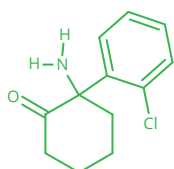
Oxycodone



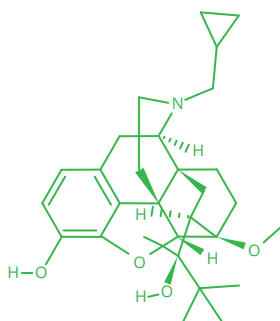
THC-COOH



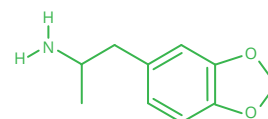
Methadone



Norketamine



Buprenorphine



MDA