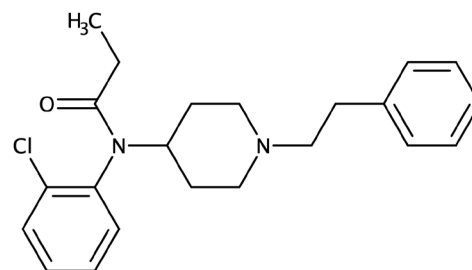




Announcement of an Emerging Fentanyl-Related Compound

ortho-Chlorofentanyl



Information sharing: Synth-Opioids participants from the Florida Department of Law Enforcement shared information on first appearance of the substance within the forum on April 1, 2021. The substance was identified as the *ortho* isomer of chlorofentanyl based on GC-MS data. Participants from the Ohio Bureau of Criminal Investigation (BCI) provided additional GC-MS reference data for the *ortho*, *meta*, and *para* isomers. *ortho*-Chlorofentanyl was first reported to NFLIS-Drug in late 2020 (see table).

Appearance: White powder.

Other components: Fentanyl.

Name: *ortho*-chlorofentanyl

Chemical name: *N*-(2-chlorophenyl)-*N*-(1-phenethylpiperidin-4-yl)propionamide

Molecular formula: C₂₂H₂₇ClN₂O

Molecular weight: 370.92

CAS #: 88796-96-7

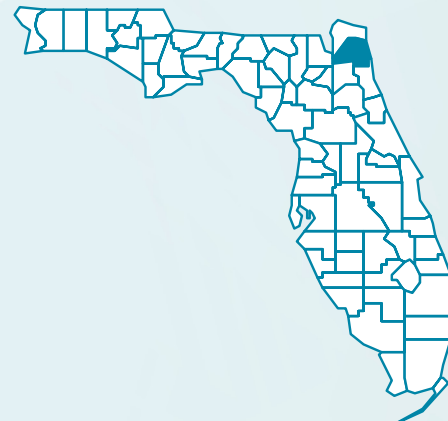
UNII: QA3HA2Q9GB

Reference standard: The reference standard is available commercially.

Website for additional information: <https://pubchem.ncbi.nlm.nih.gov/compound/12741858>

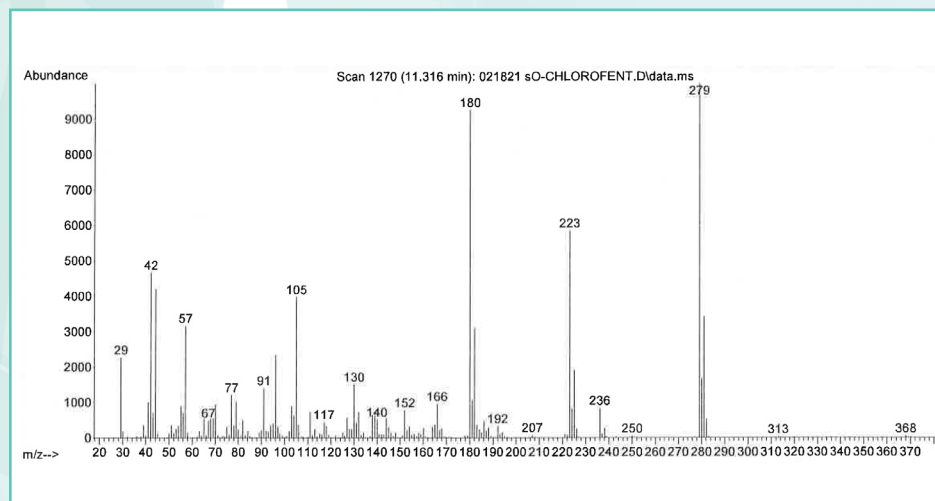
Location:

Jacksonville, Florida



Number of Chlorofentanyl Reports by State to NFLIS-Drug as of June 2, 2021

State	2020	2021
Chlorofentanyl		
Massachusetts	1	0
New Jersey	7	0
Ohio	3	1
Tennessee	3	0
<i>para</i>-Chlorofentanyl		
New Jersey	1	0
Ohio	16	1
<i>ortho</i>-Chlorofentanyl		
Ohio	3	1
Florida	0	1



Note: GC mass spectrum of *ortho*-chlorofentanyl reference material from Ohio BCI.

Announcement of an Emerging Fentanyl-Related Compound *ortho*-Chlorofentanyl

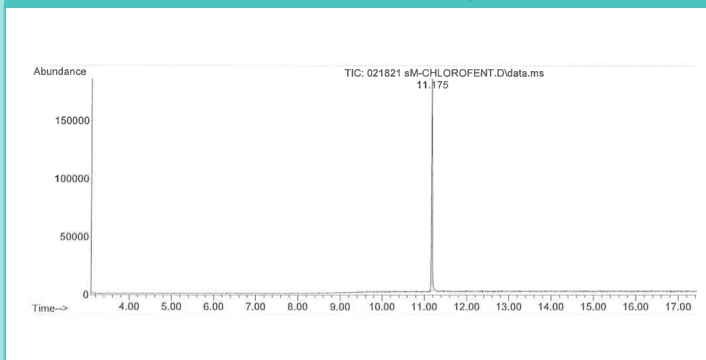
GC-MS Parameters for Reference Data Acquired by Ohio BCI

Column: DB-5MS 30m x 0.25mm x 0.25 μ m

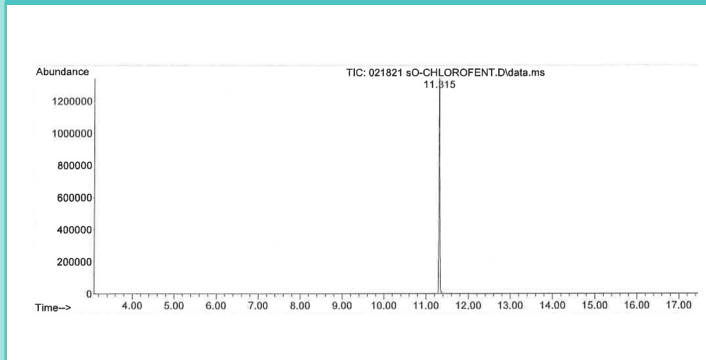
Oven program: 100°C (hold 2 min) at 30°C/
min to 305°C (hold 11 min)

Mass range: m/z 29–500

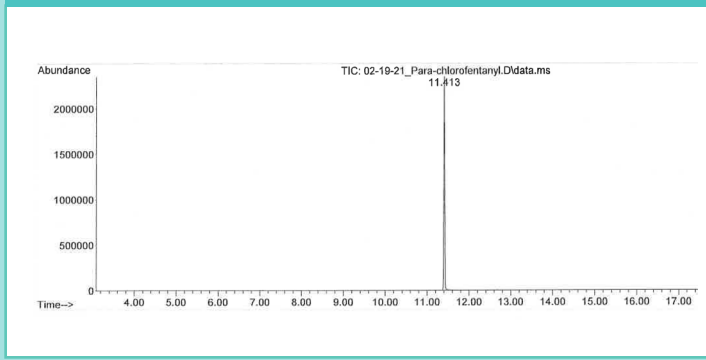
meta-Chlorofentanyl



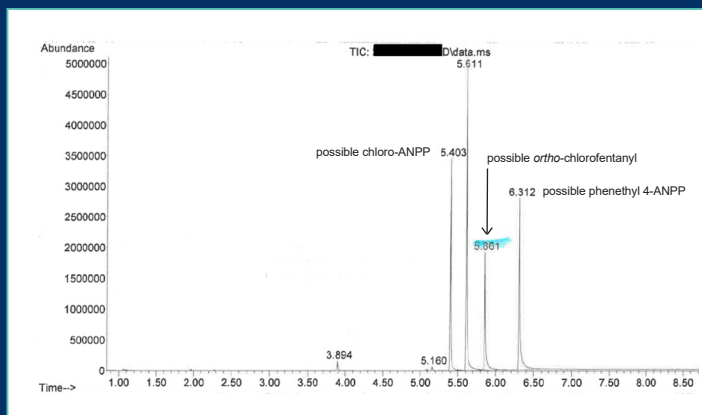
ortho-Chlorofentanyl



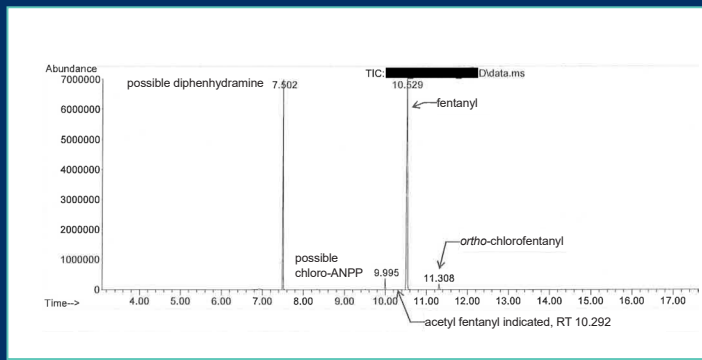
para-Chlorofentanyl



Florida Case Sample

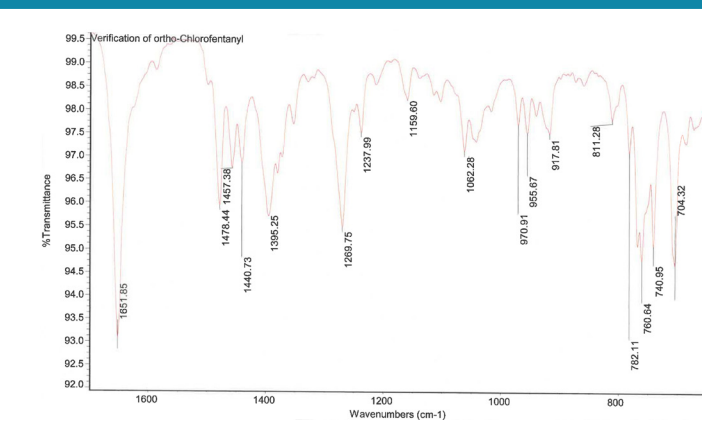


Ohio Case Sample



Note: Possible chloro-ANPP was observed in case samples from Florida and Ohio.

ATR-FTIR of Reference Standard



For more information: Questions about this information are welcome and may be directed to Agnes.D.Winokur@usdoj.gov.
This announcement results from a post on the DEA Synth-Opioids forum at <https://synthopioids.nflis.deadiversion.usdoj.gov/>.