3-(2-(DIMETHYLAMINO)ETHYL)-1H-INDOL-4-YL DERIVATIVES

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to U.S. Provisional Application No. 63/481,385, filed, January 24, 2023, and U.S. Provisional Application No. 63/457,469, filed April 6, 2023, the disclosure of each of which is incorporated by reference in its entirety for all purposes.

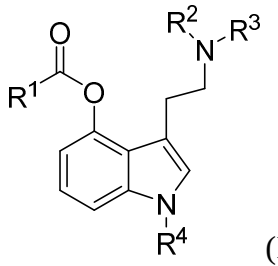
BACKGROUND

[0002] Over 50% of adults in the United States will be diagnosed with a psychiatric disorder at some point in their lifetime. Nearly 1 in 5 suffer from mental illness, and nearly 1 in 25 are afflicted with severe mental illness, such as major depression, schizophrenia, or bipolar disorder.

[0003] Psychedelics show promising activity in treating mental illness. New psychedelic compounds are needed for treating mental illness.

SUMMARY

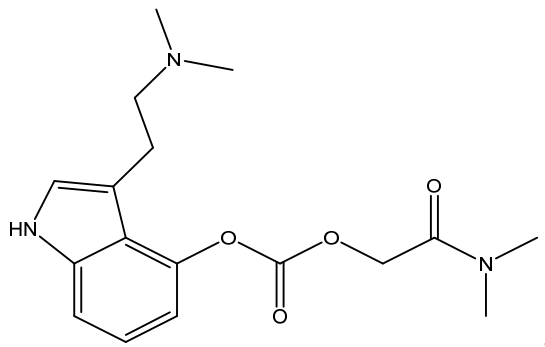
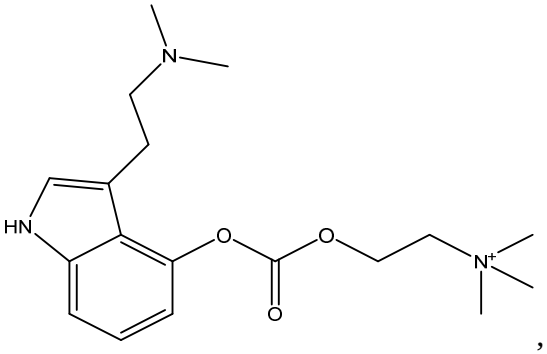
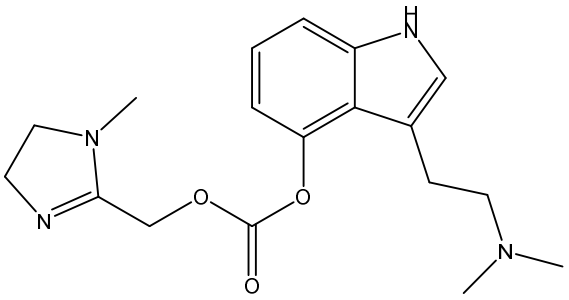
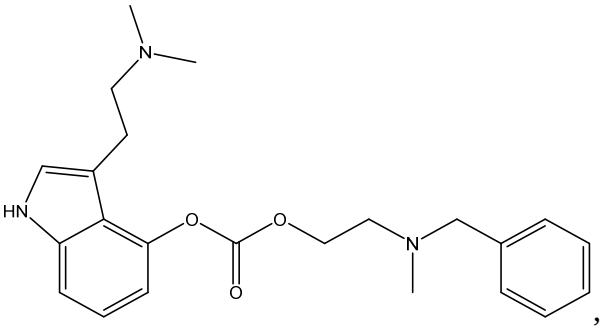
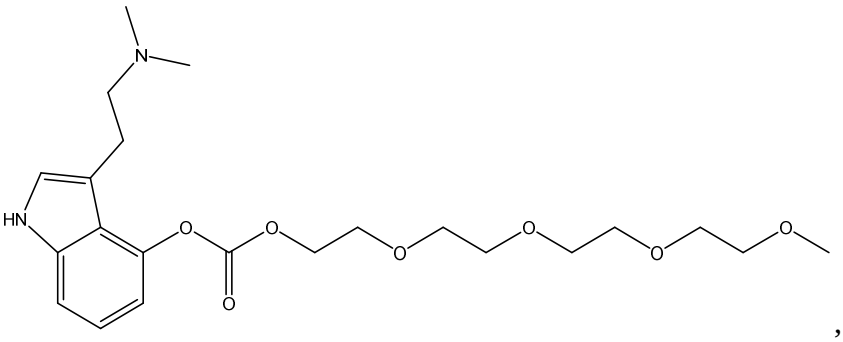
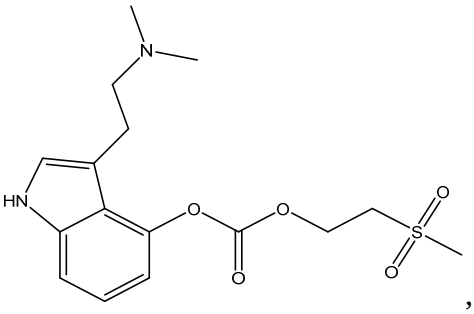
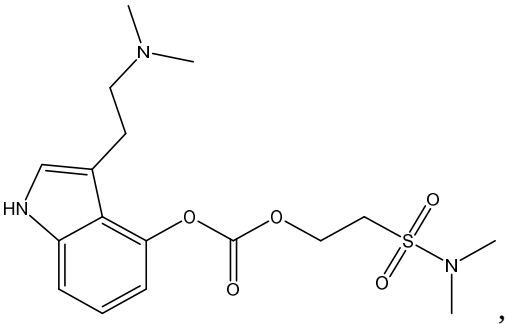
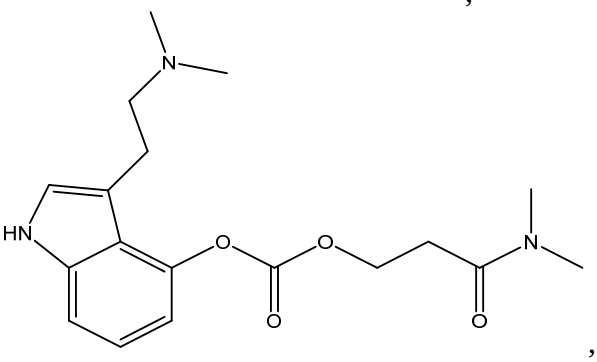
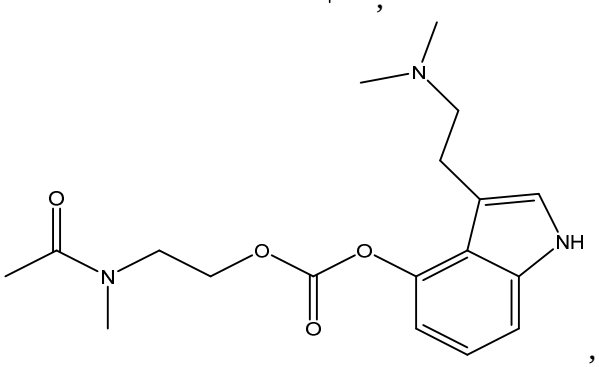
[0004] In some examples, this disclosure provides a compound of Formula (I)

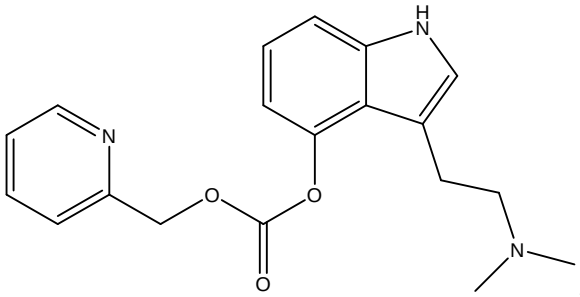
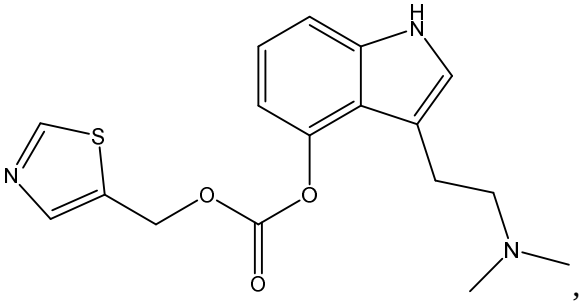
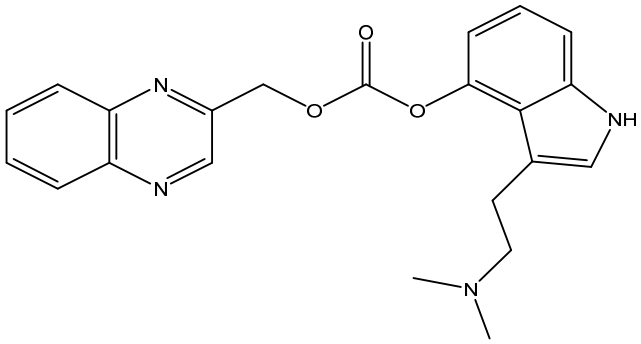
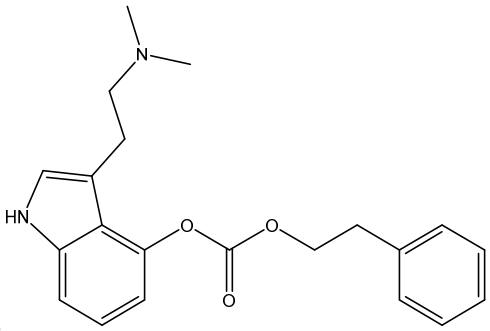
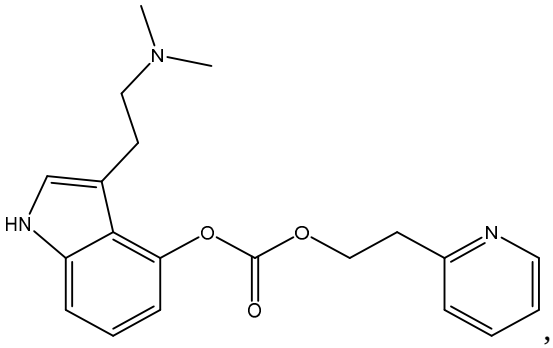
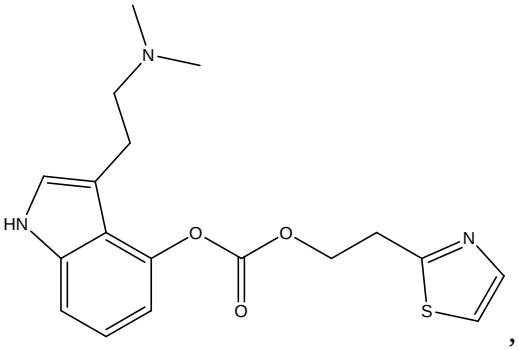
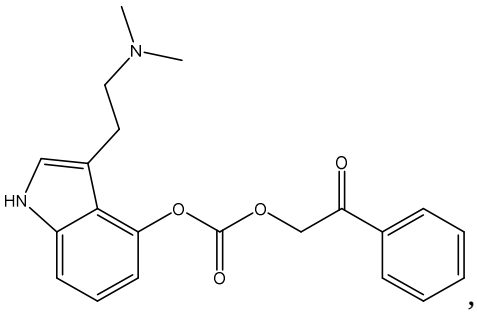
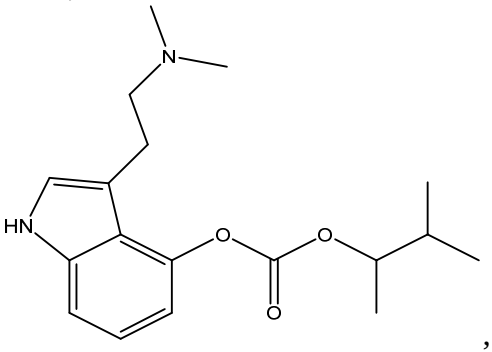
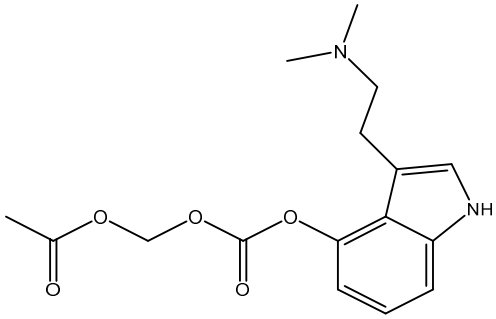
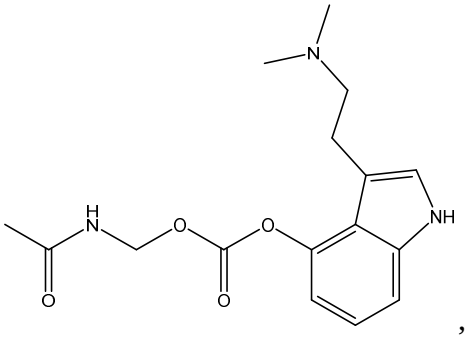


(I), or a pharmaceutically acceptable salt or deuterated form thereof, wherein R^1, R^2, R^3 and R^4 are defined herein.

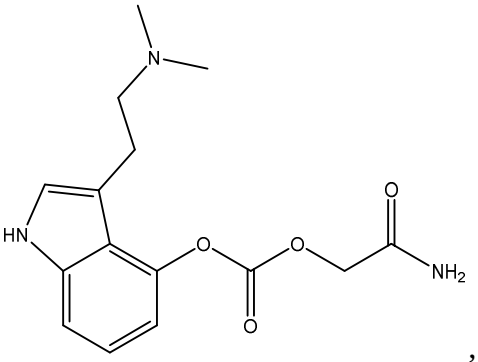
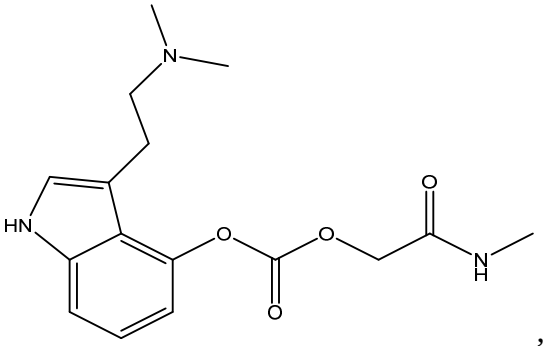
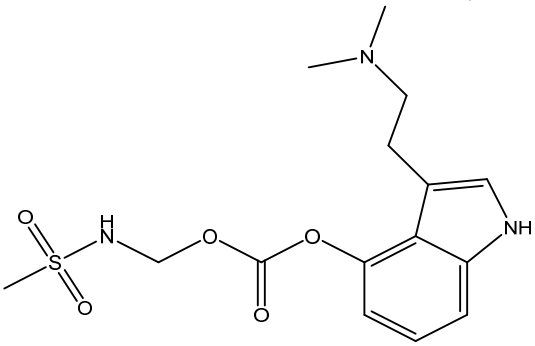
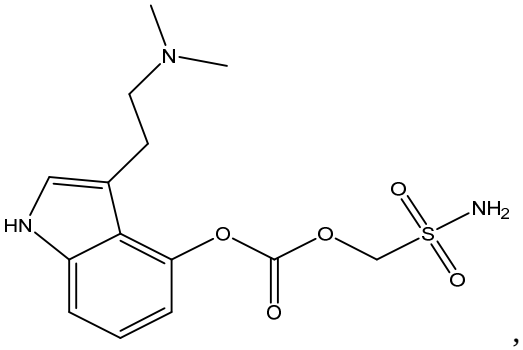
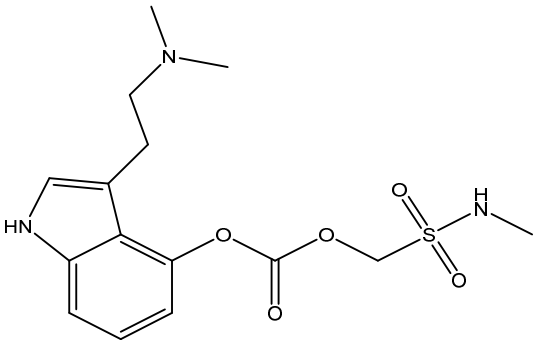
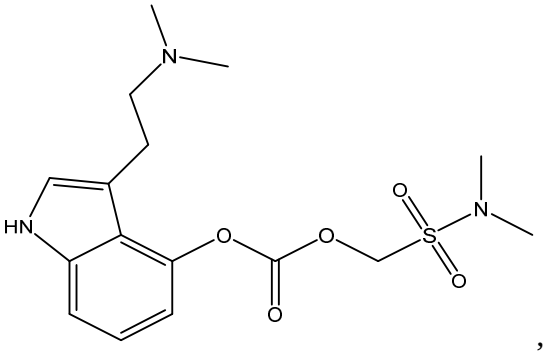
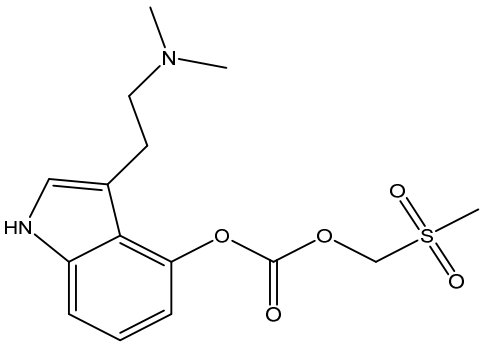
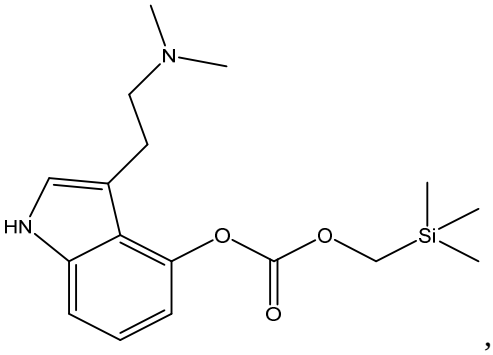
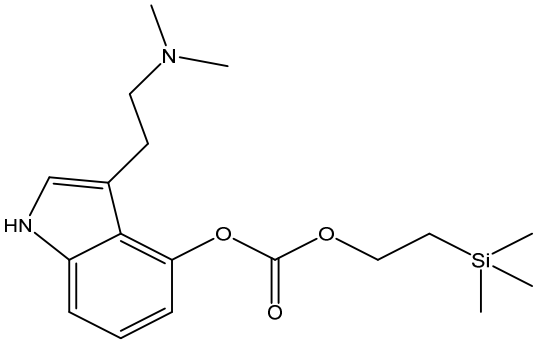
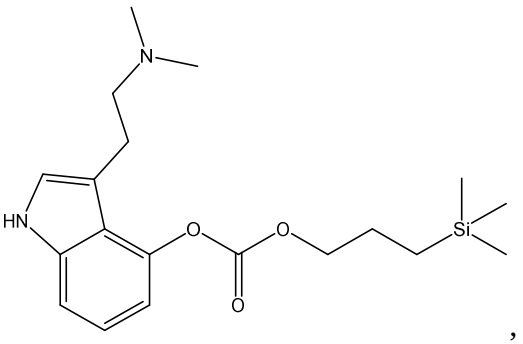
[0005] In some examples, this disclosure provides a compound selected from any of the compounds in Table 1, Table 2, Table 3, Table 4 or Table 5, or a pharmaceutical salt or deuterated form thereof.

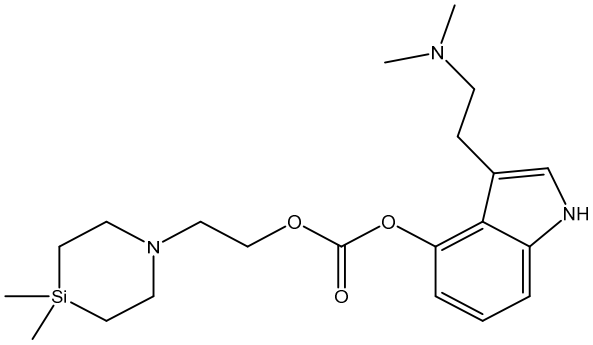
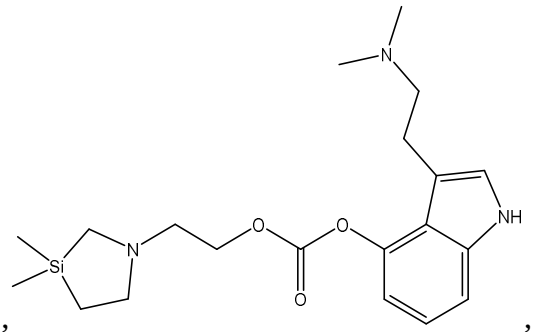
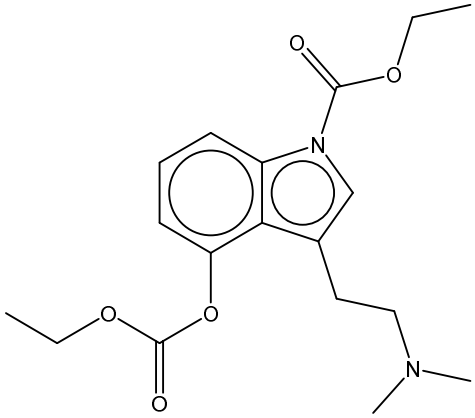
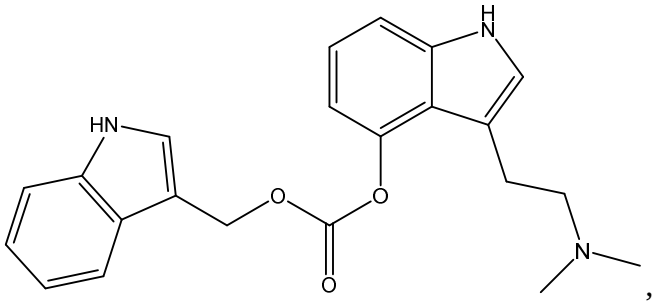
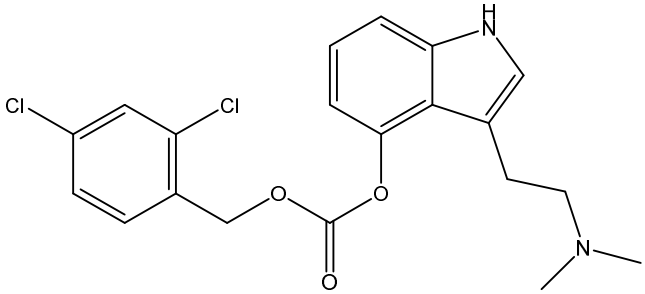
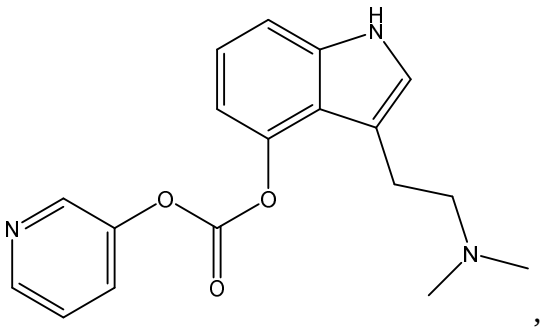
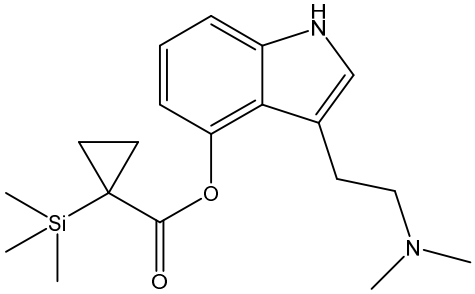
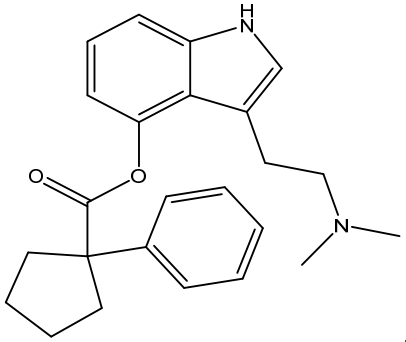
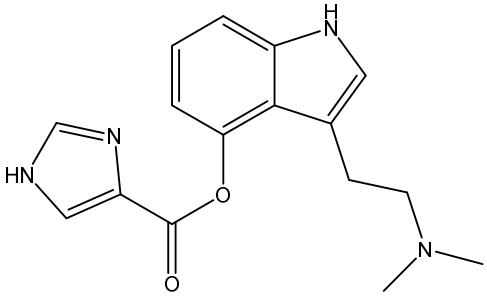
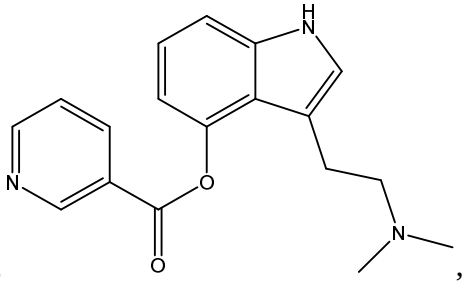
[0005a] In one aspect, the present disclosure refers to a compound selected from any one of the following structures, or a pharmaceutically acceptable salt or a deuterated form thereof:

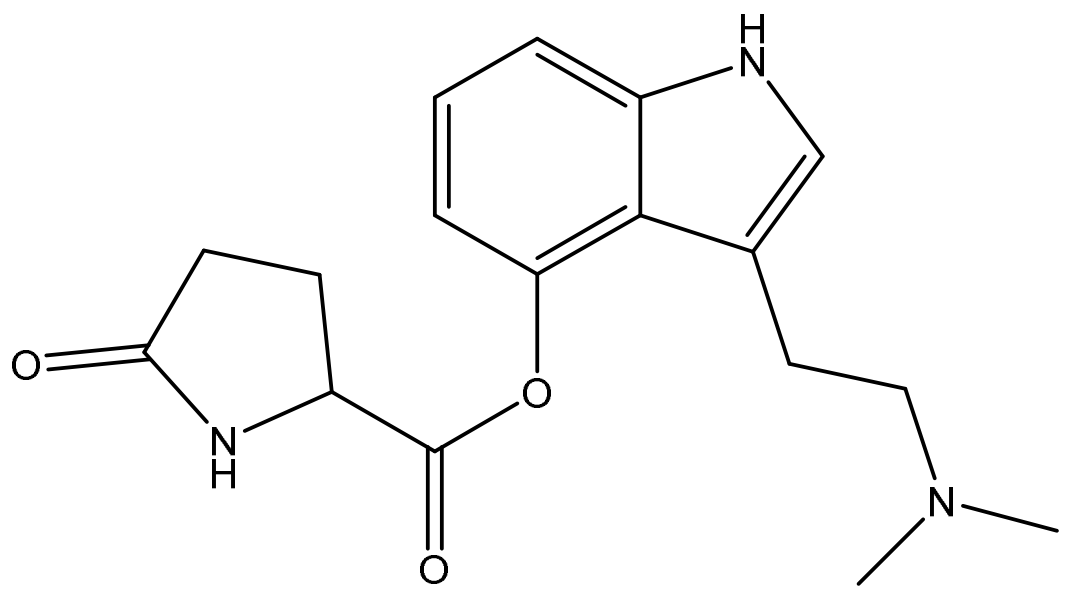

,

,

,

,

,

,

,

,

,

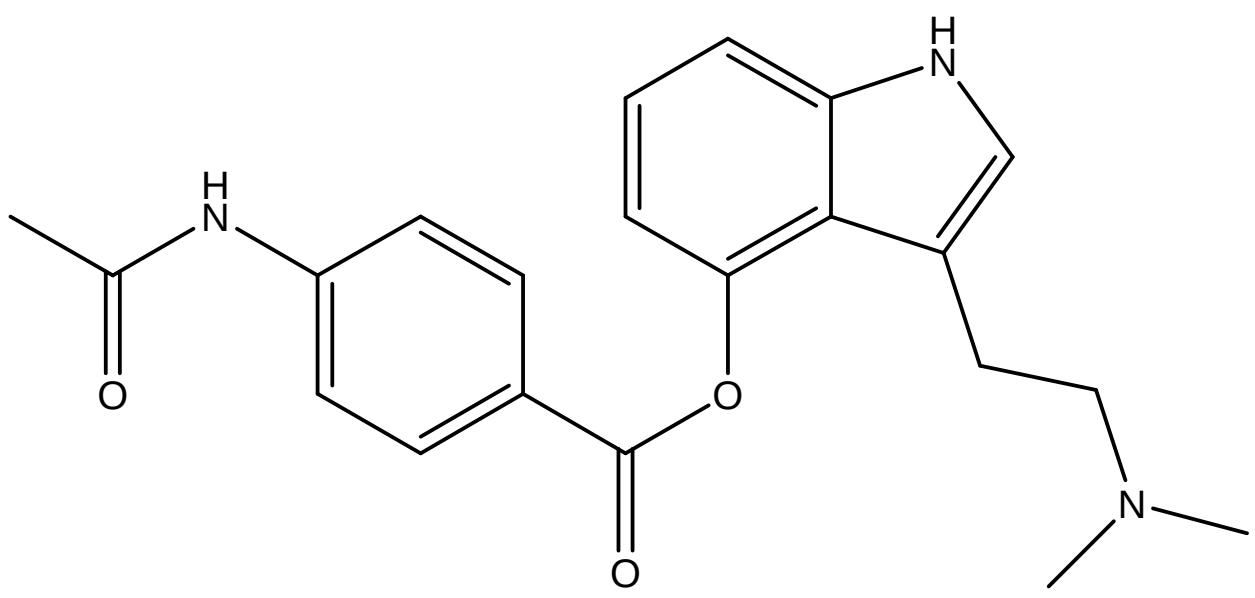

,

,

,

,

,

,

,

,

,

,

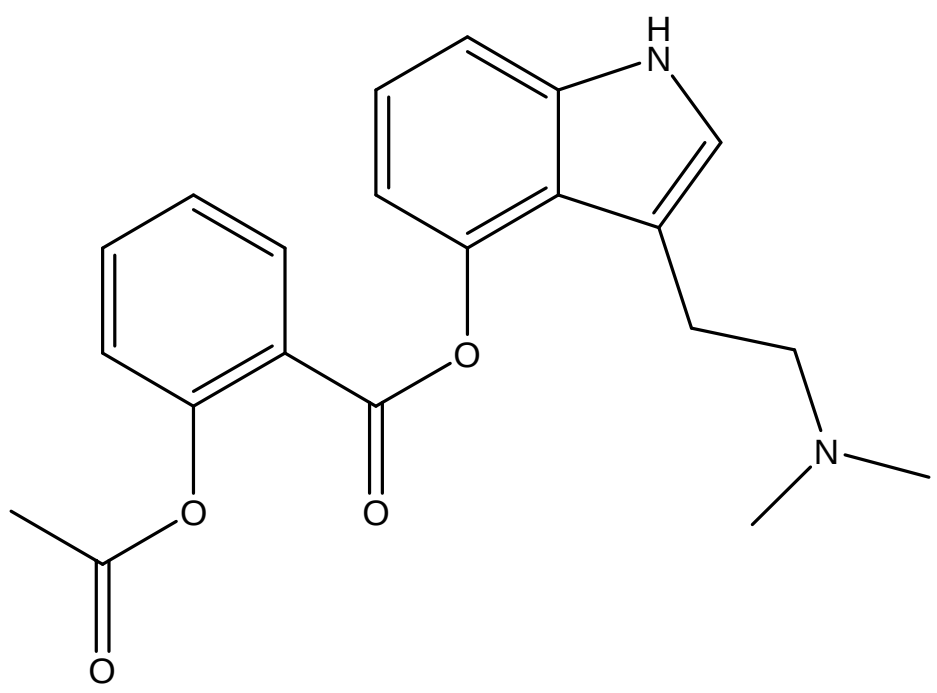
1b

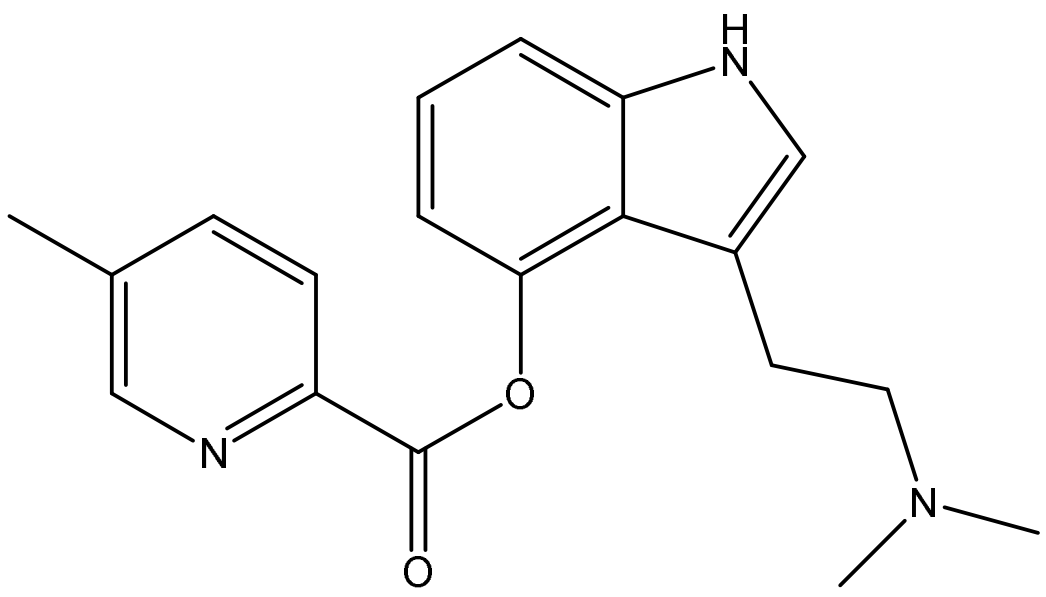

,

,

,

,

,

,

,

,

,

,

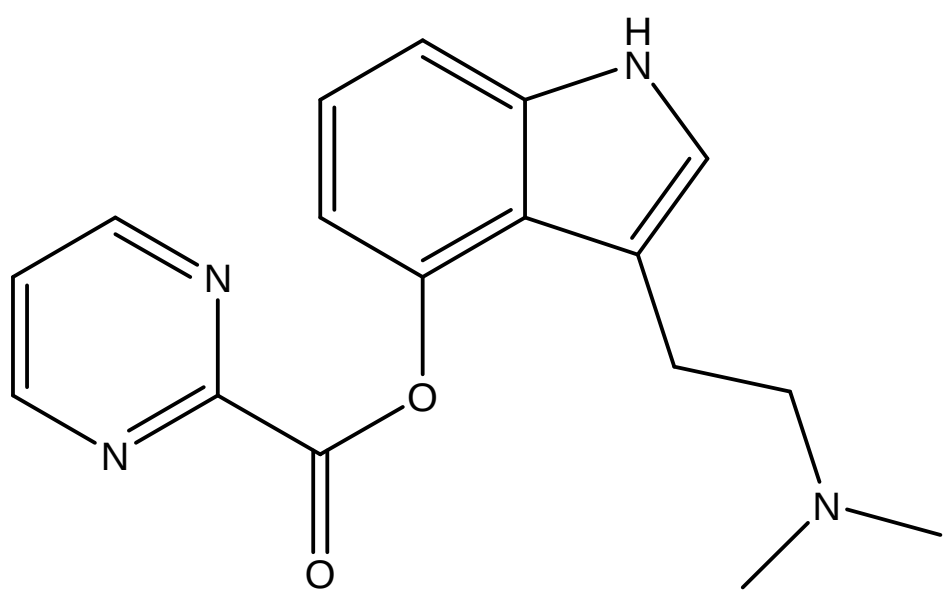











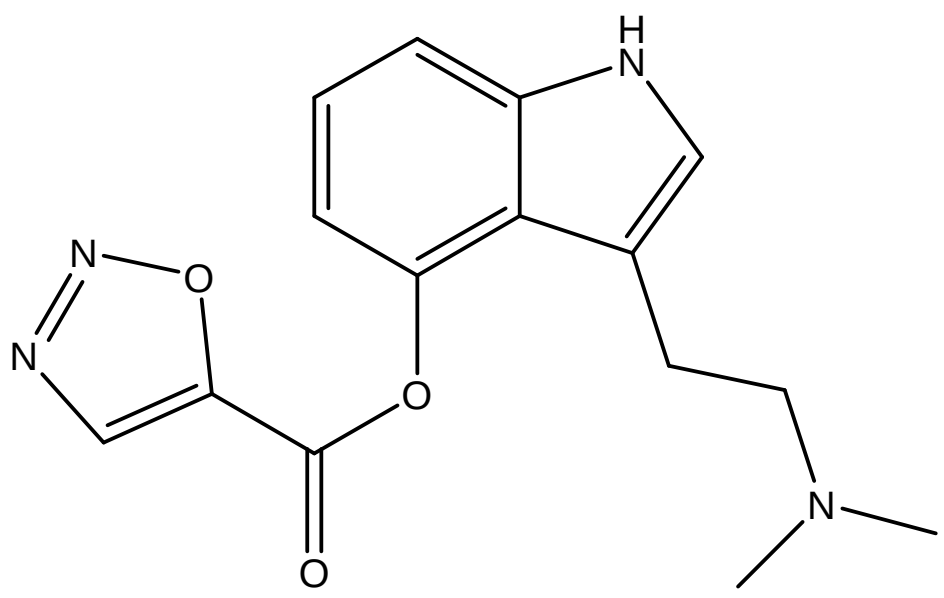
 ,

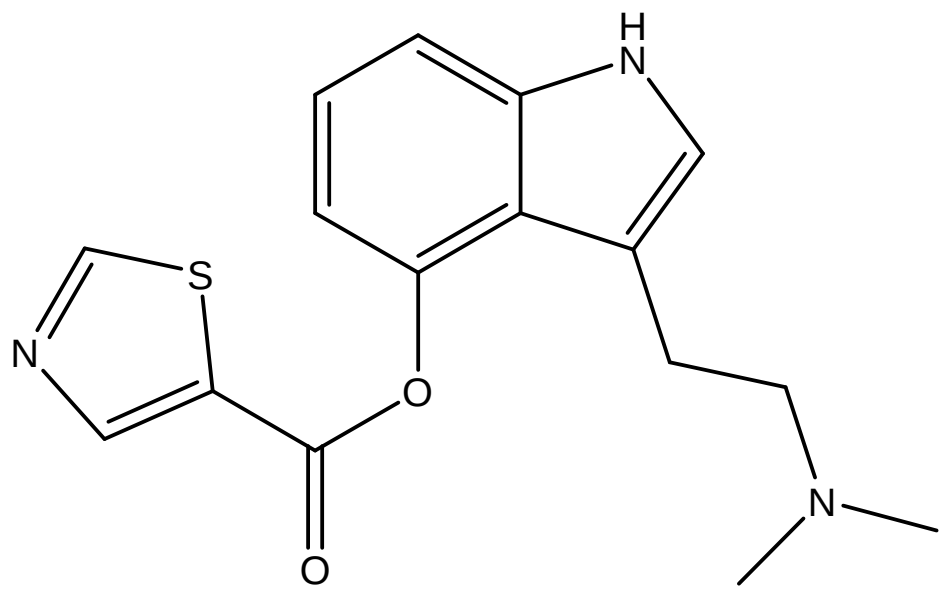
 ,

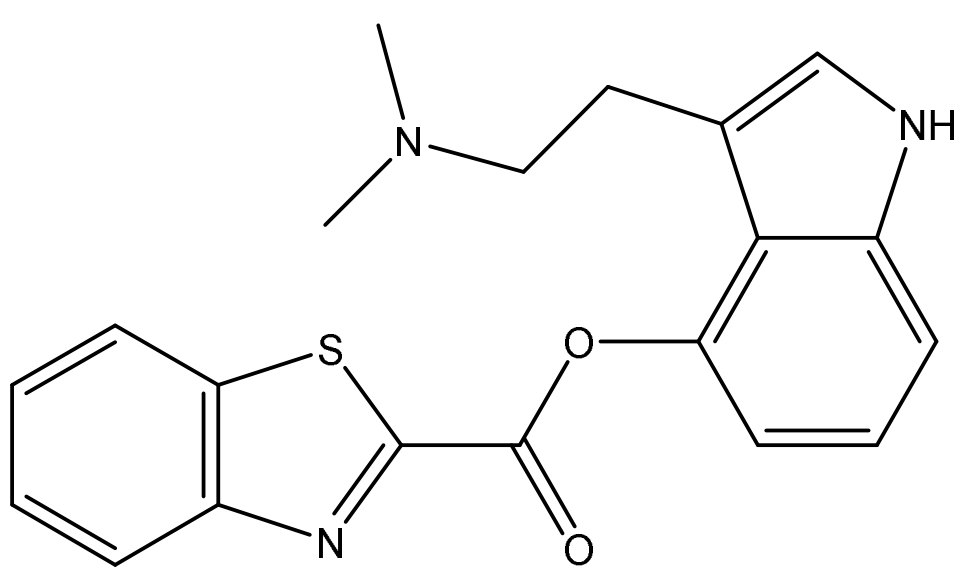
 ,

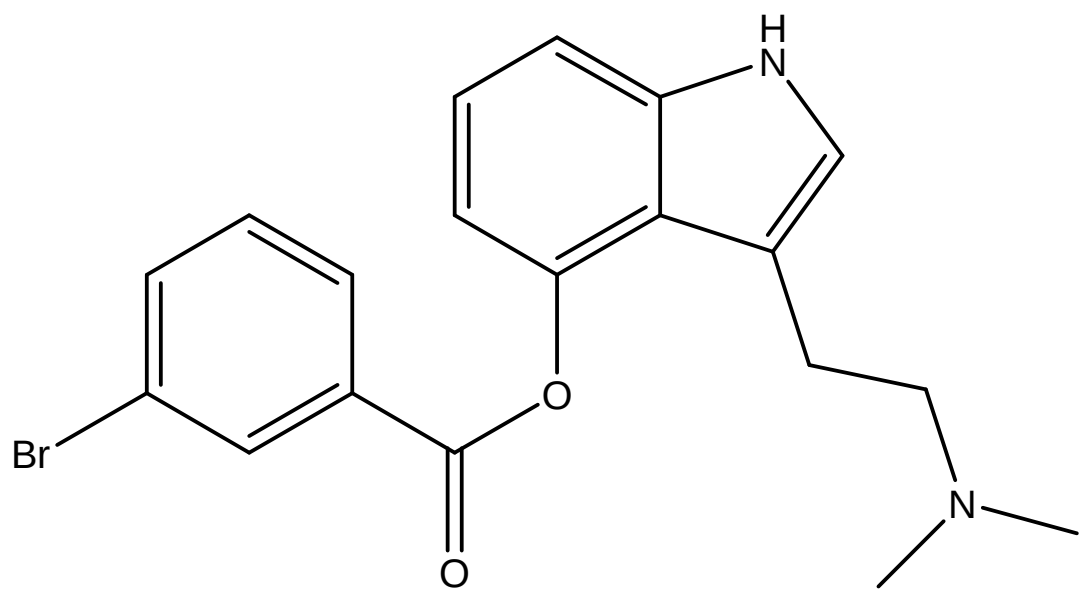
 ,

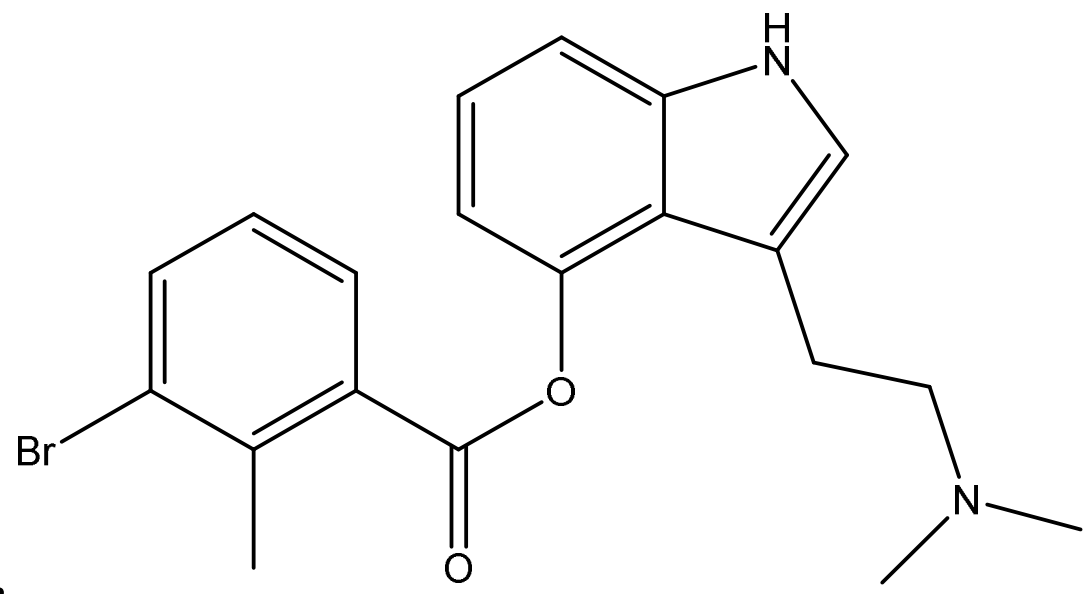
 ,

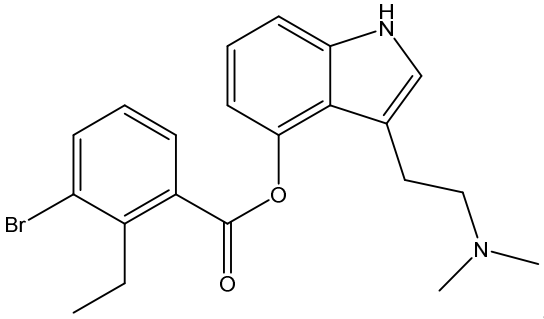
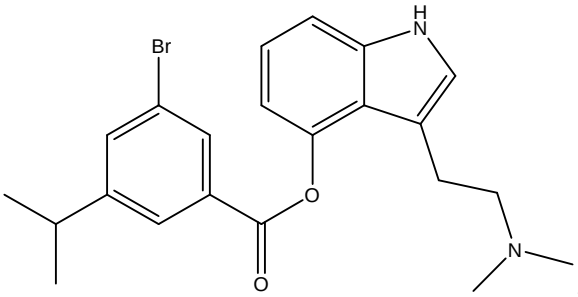
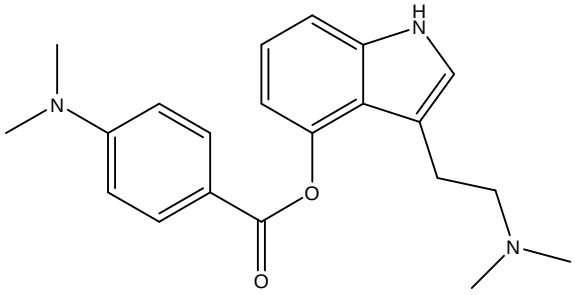
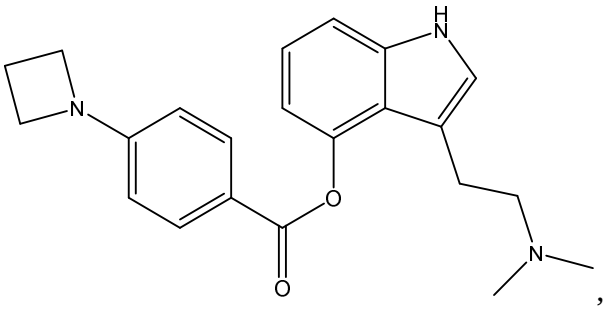
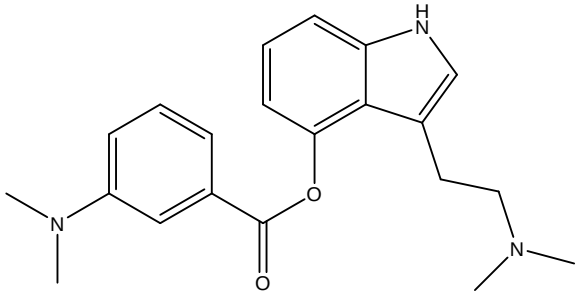
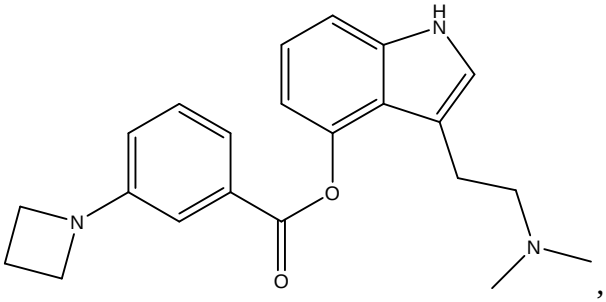
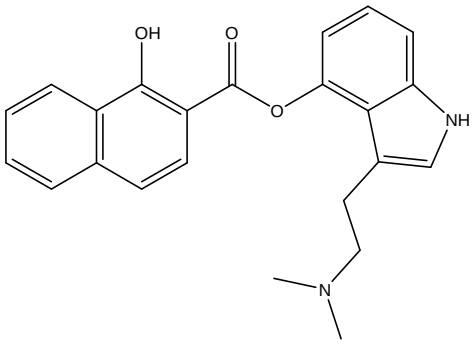
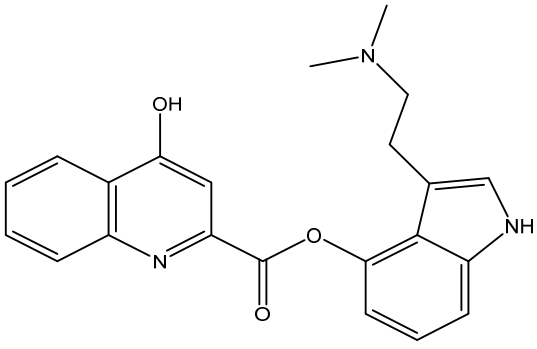
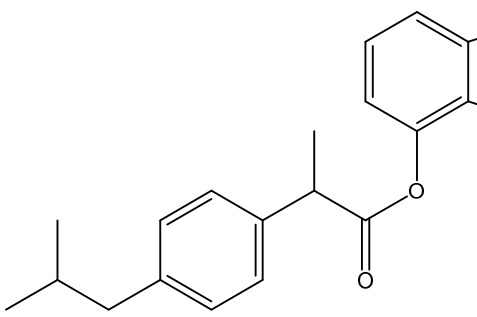
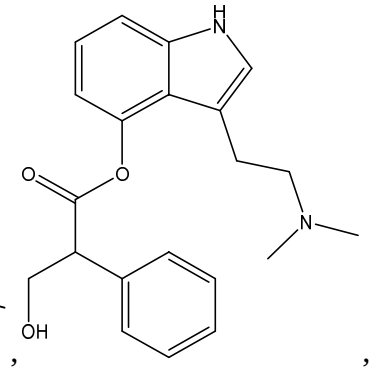
 ,

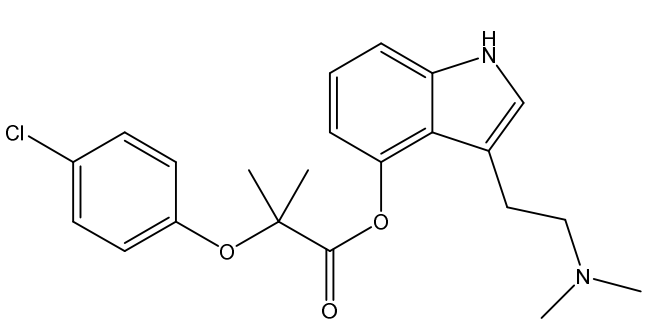
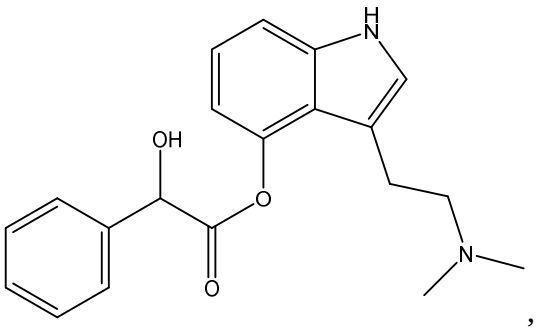
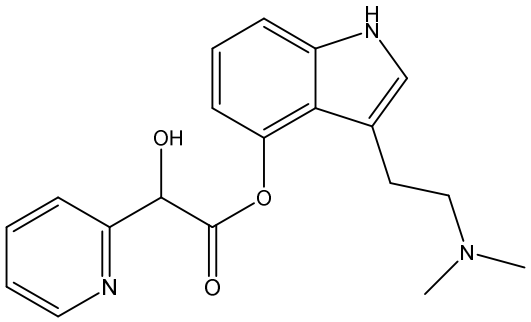
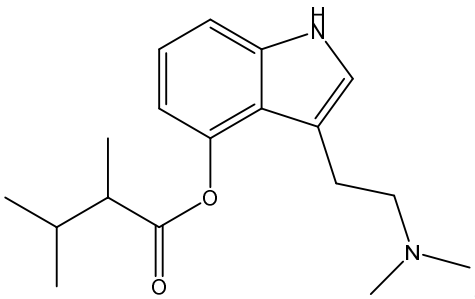
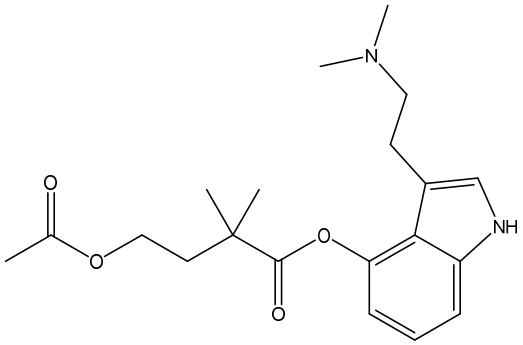
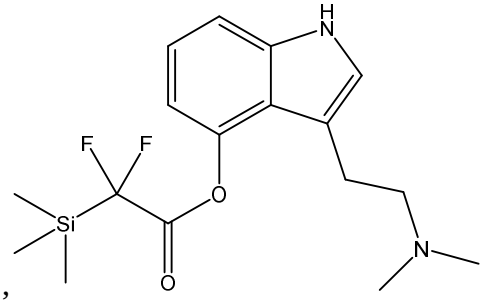
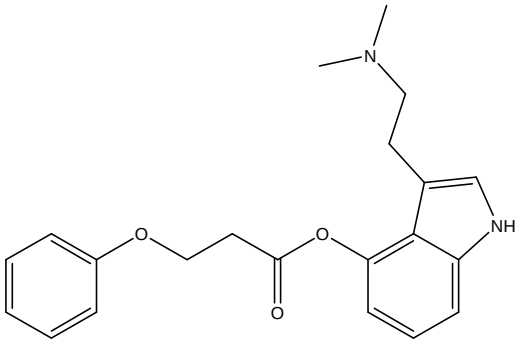
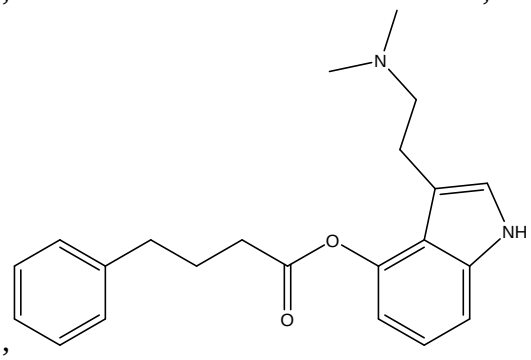
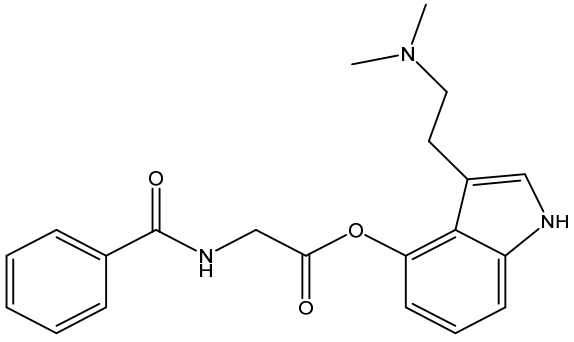
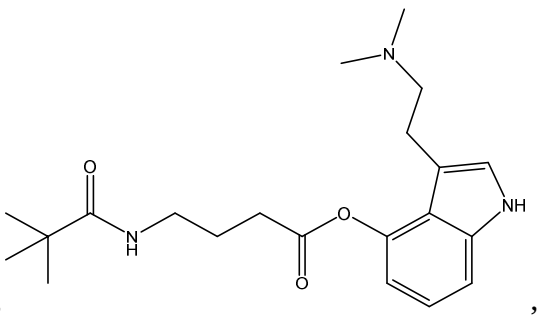
 ,

 ,

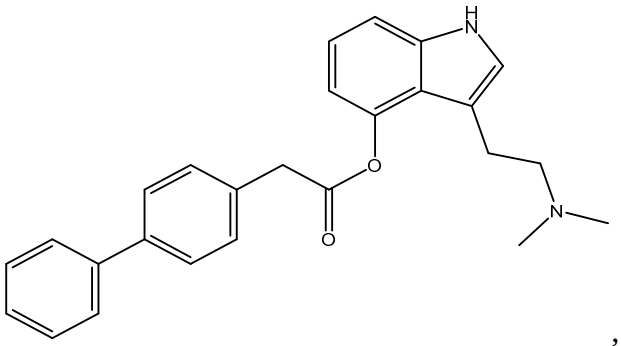
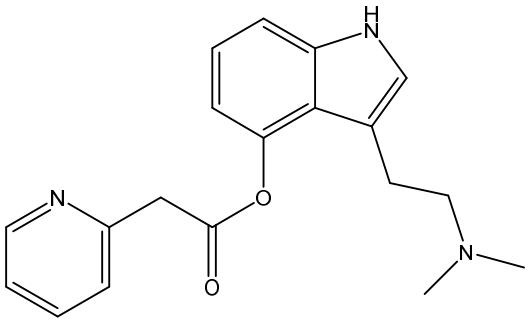
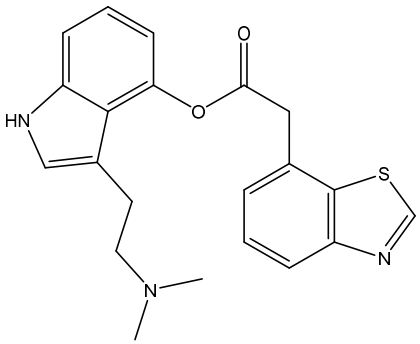
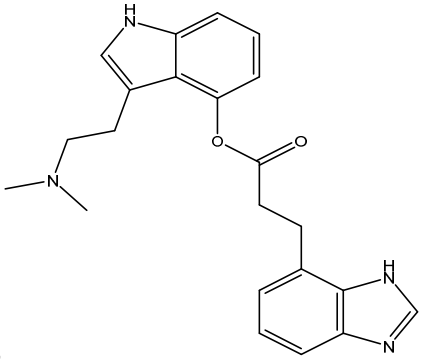
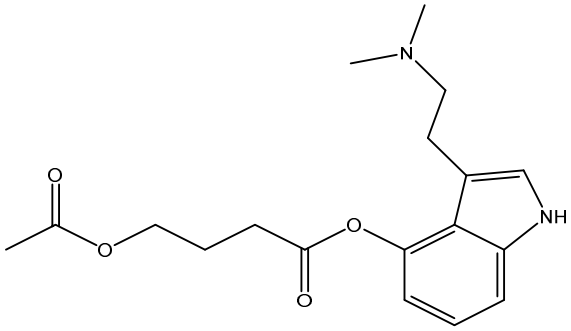
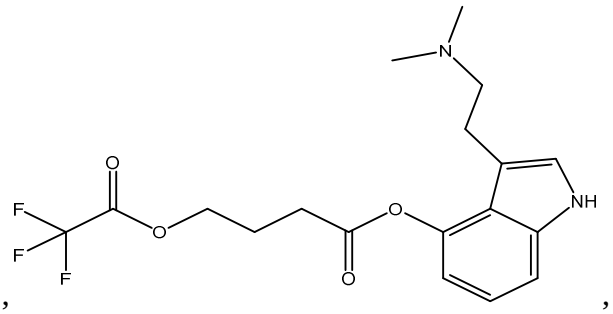
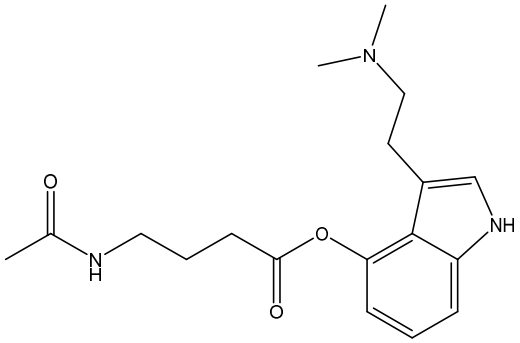
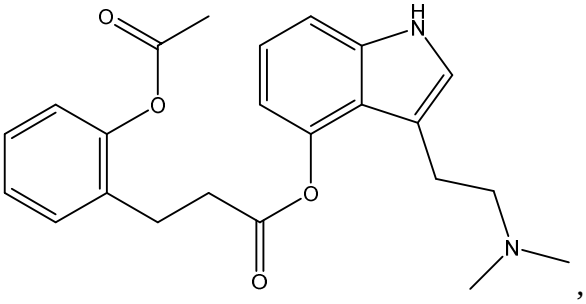
 ,

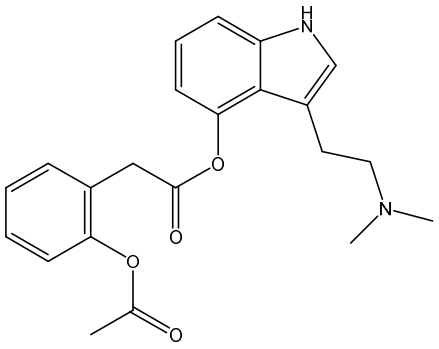
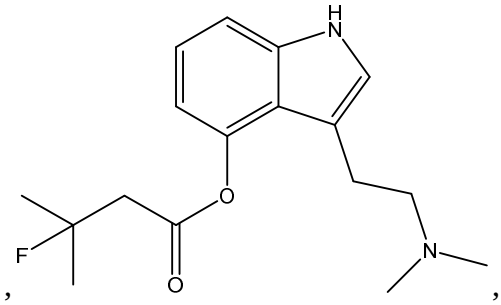
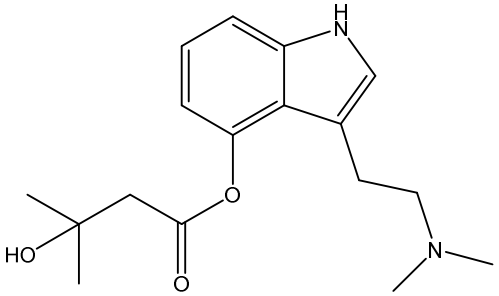
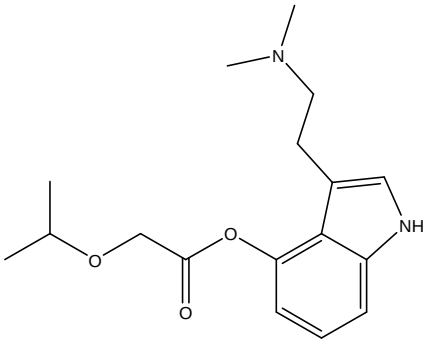
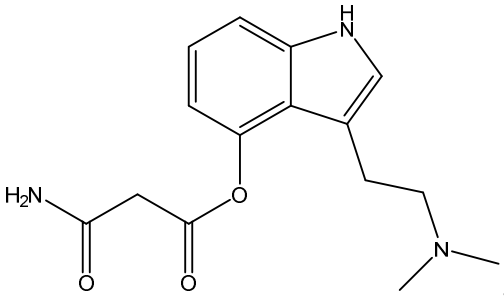
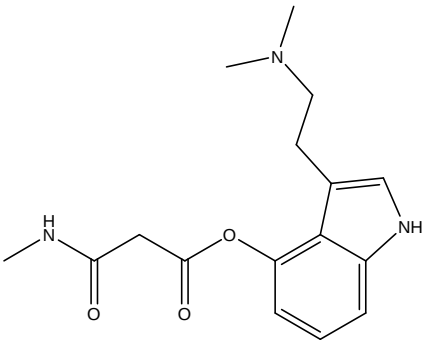
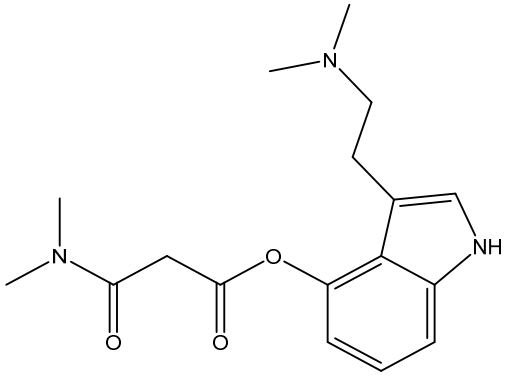
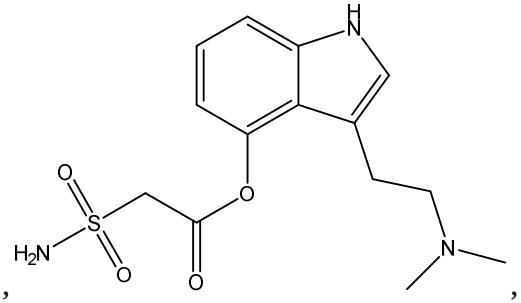
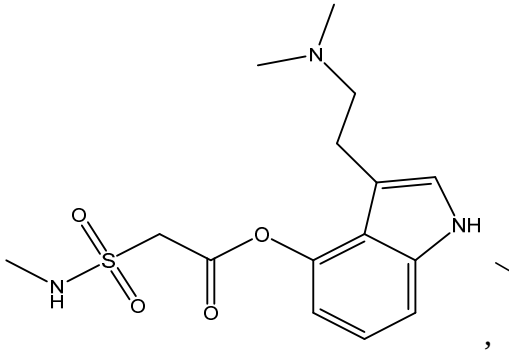
 ,

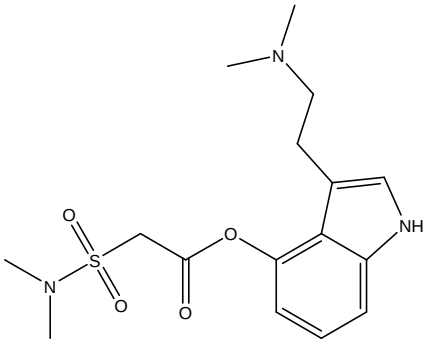











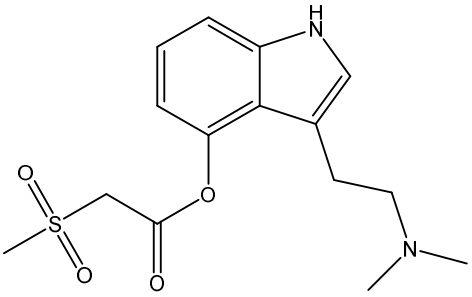
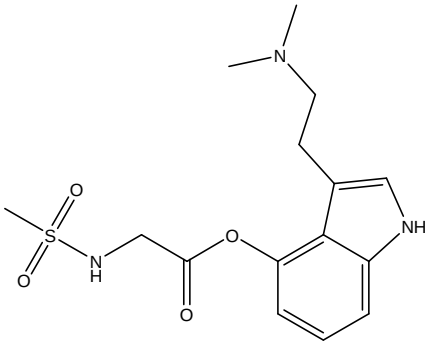
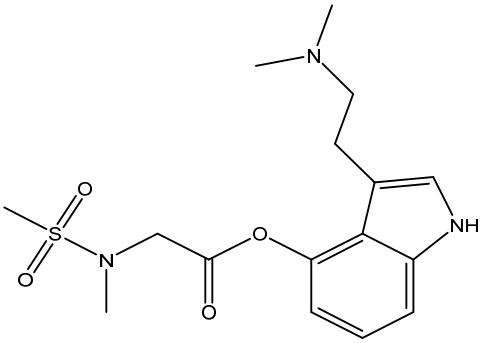
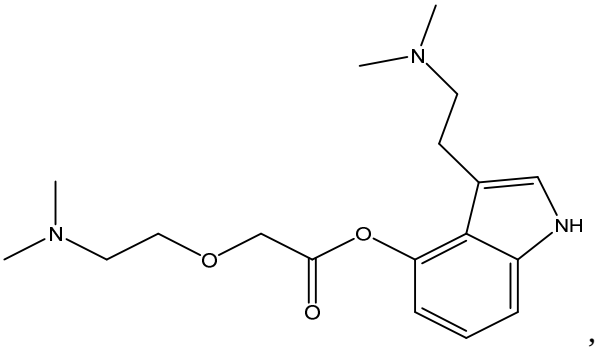
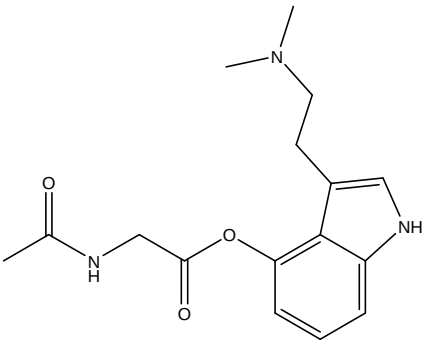
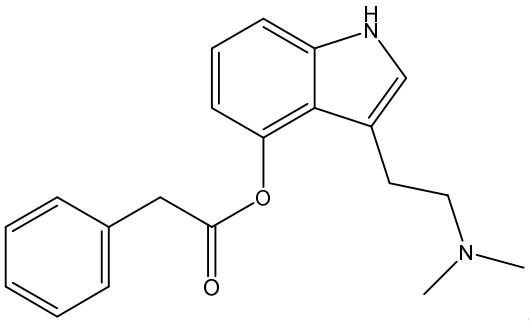
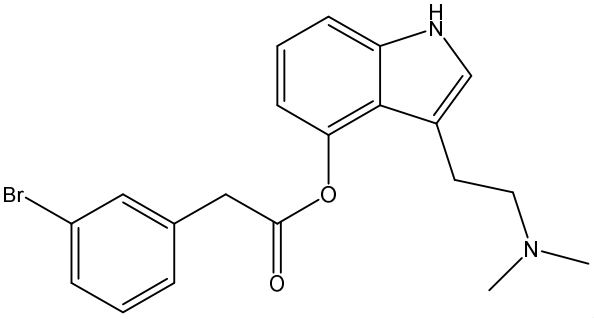
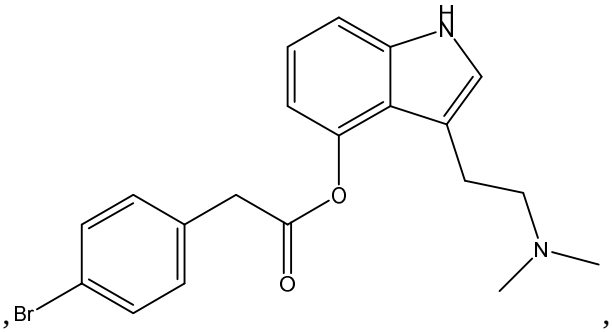
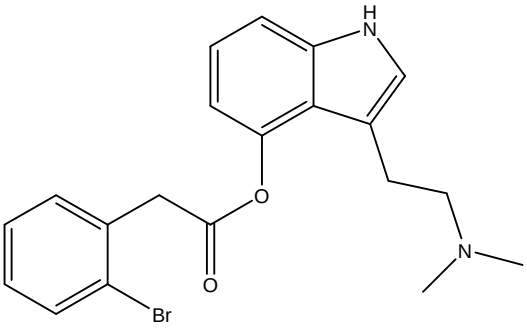
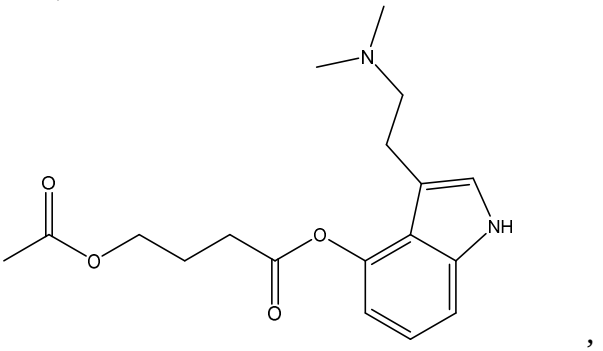











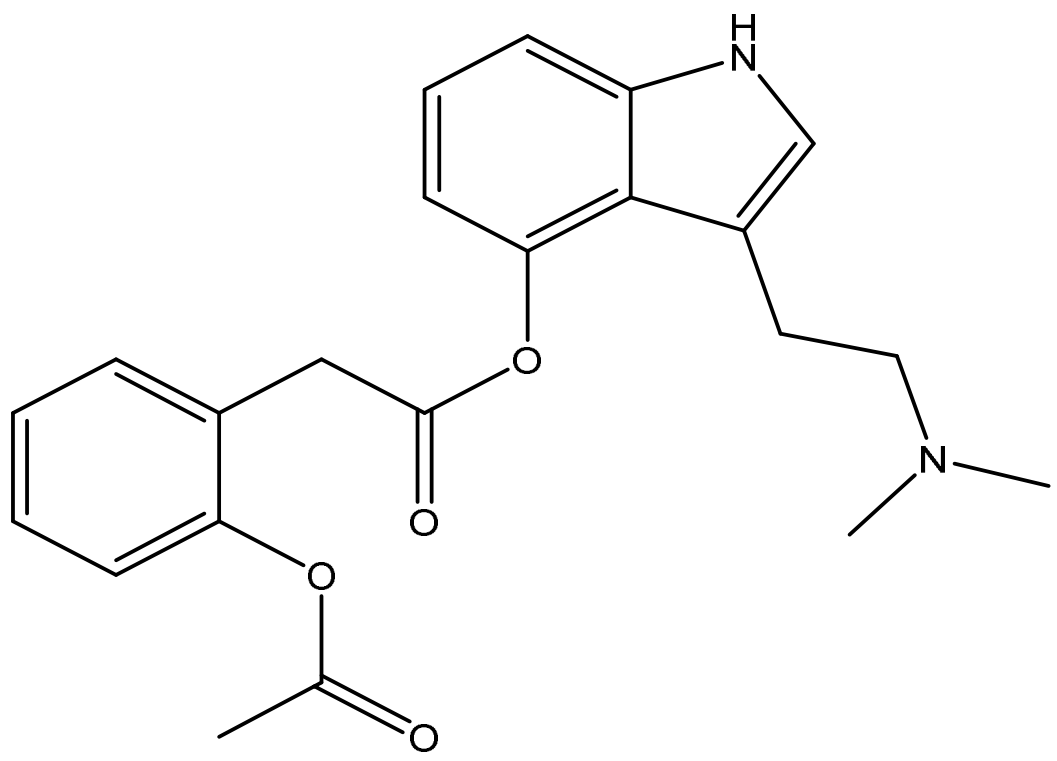
1g


,

,

,

,

,

,


,

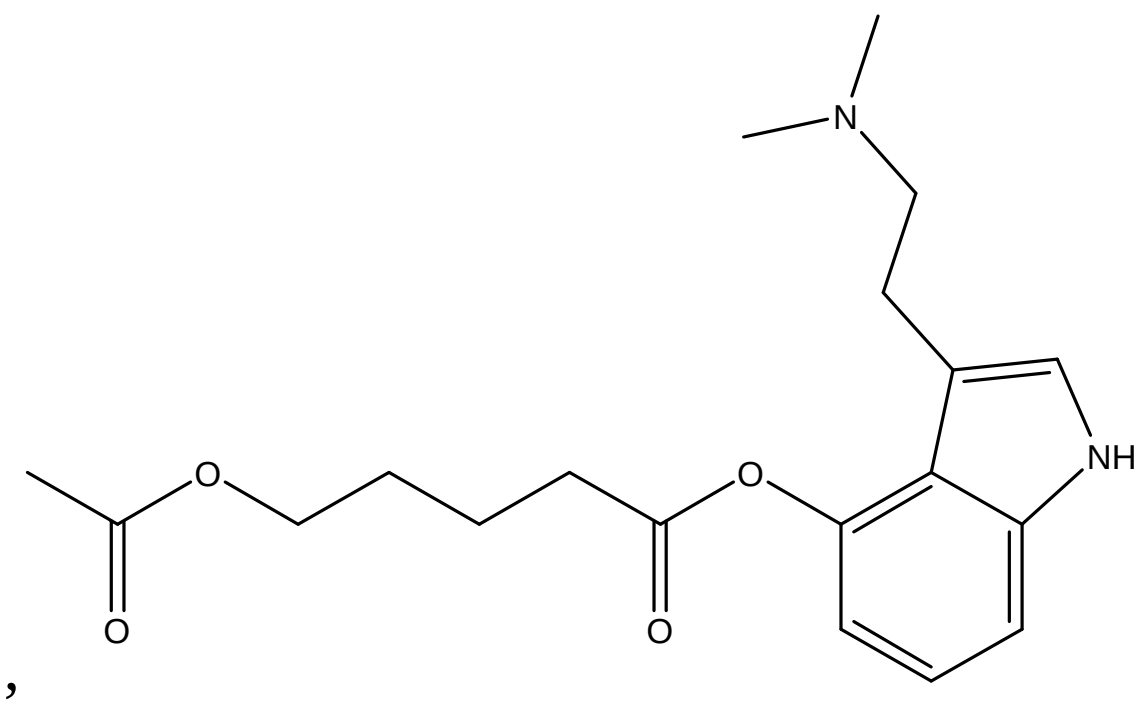












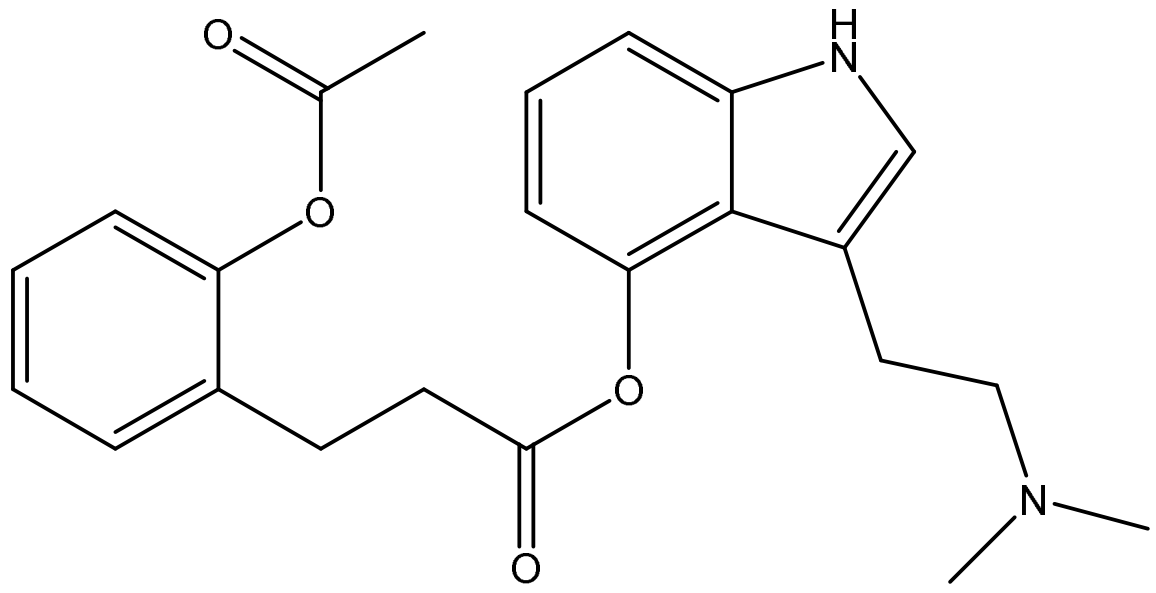

,

,

,

,

,

,

,

,

,

,



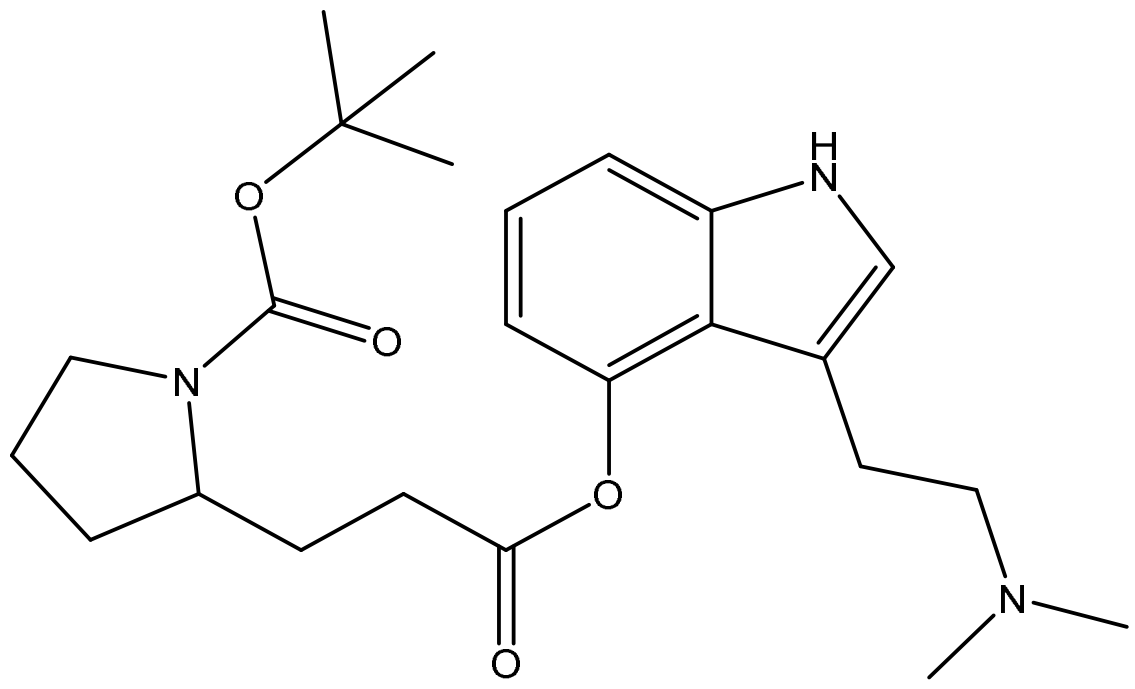
,



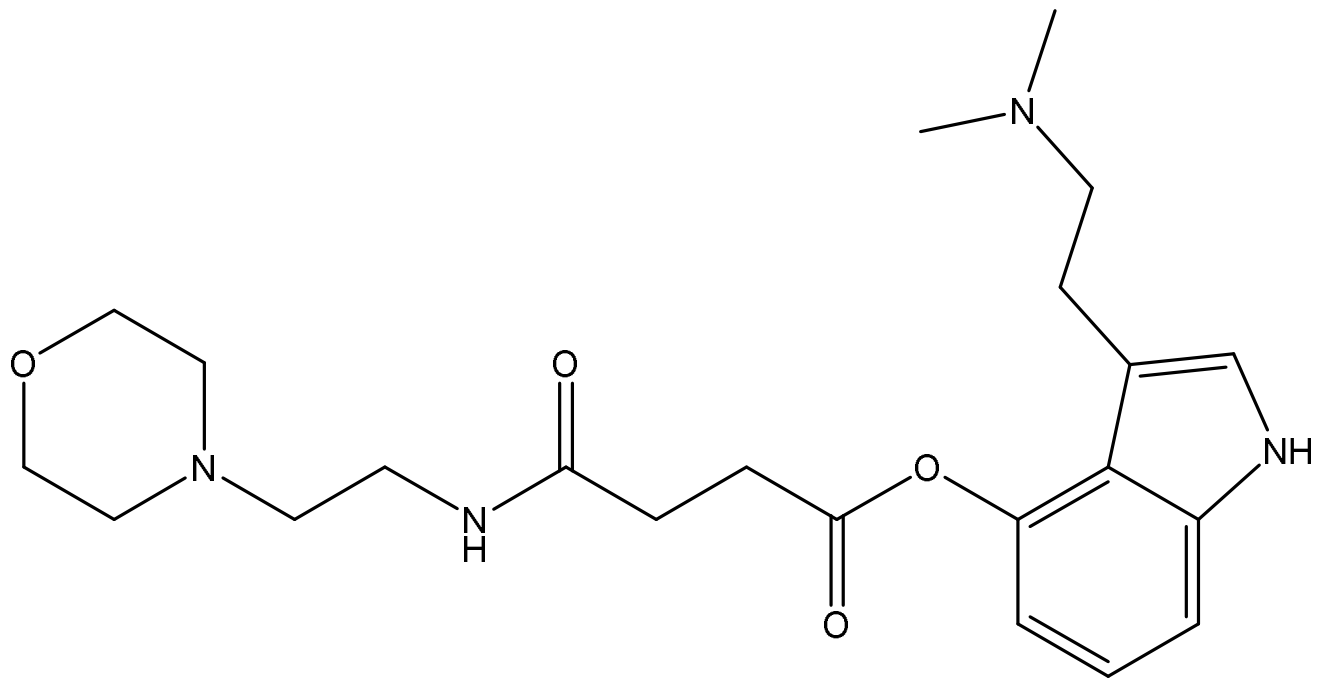
,



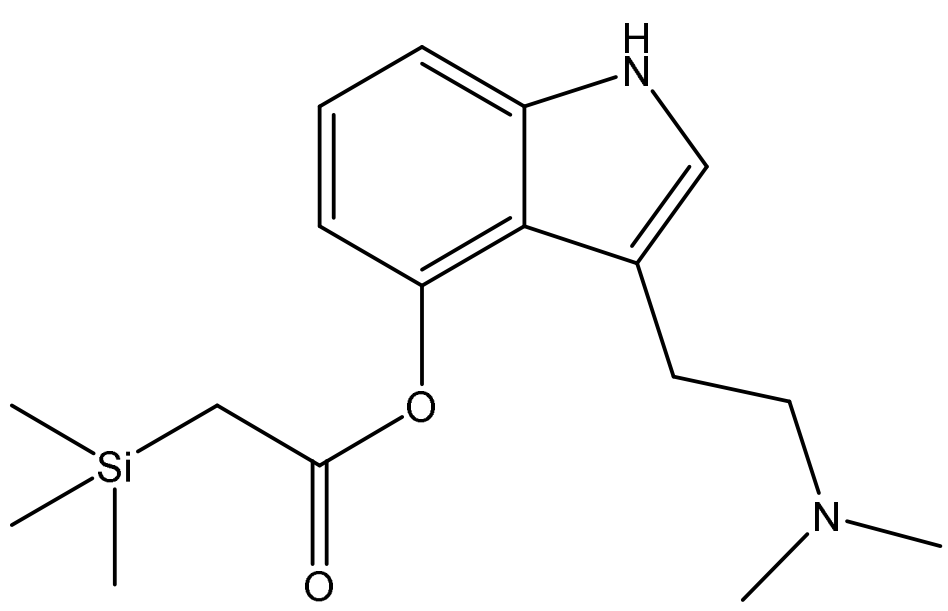
,



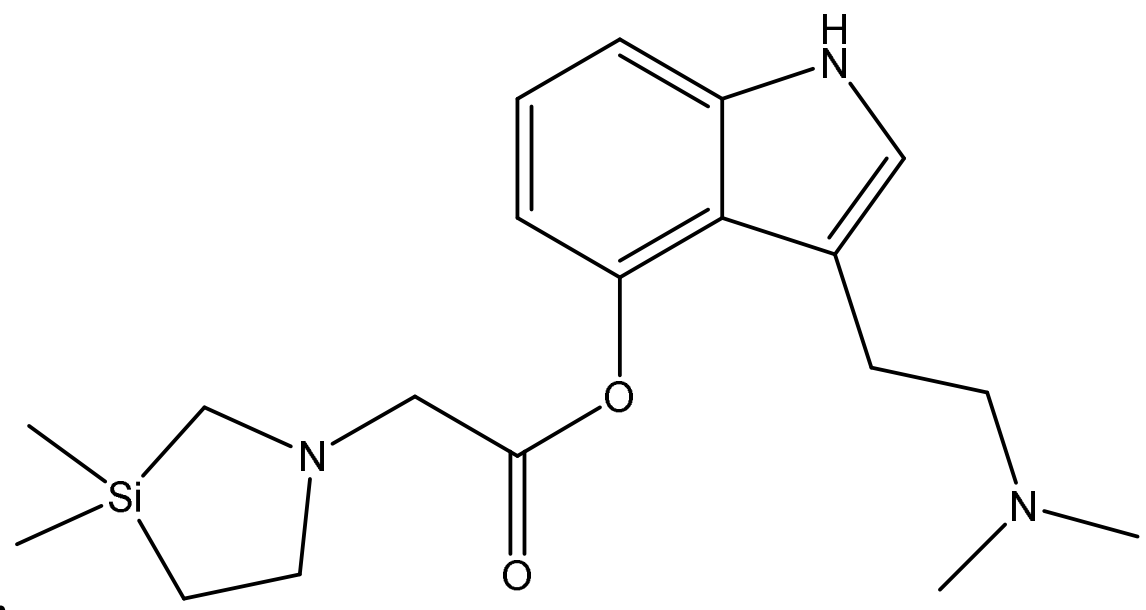
,



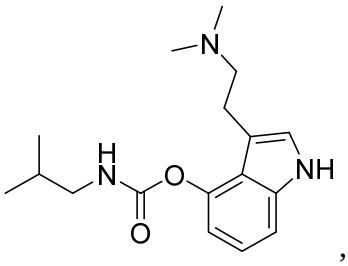
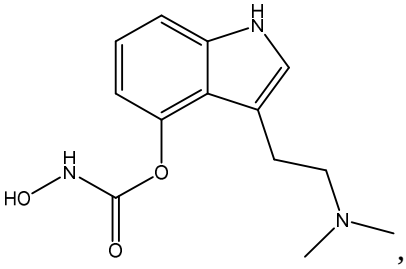
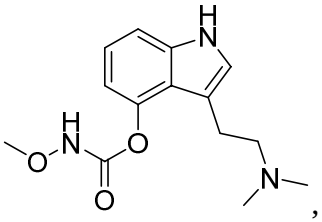
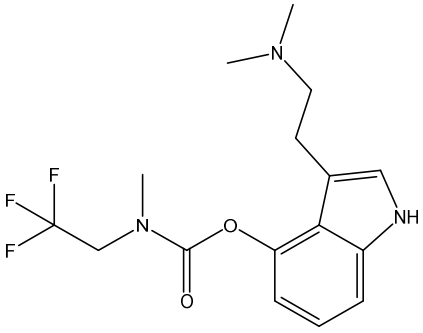
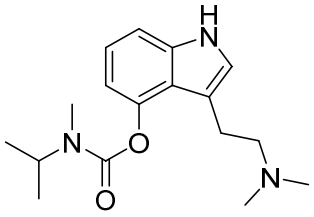
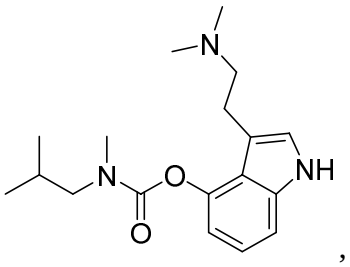
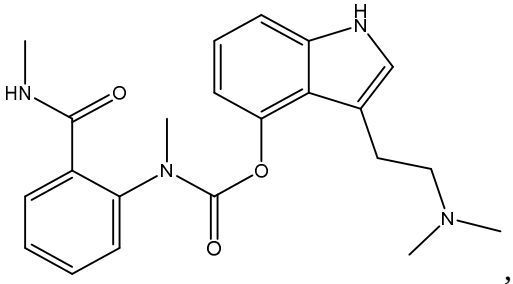
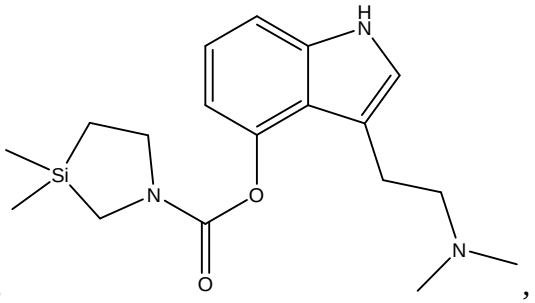
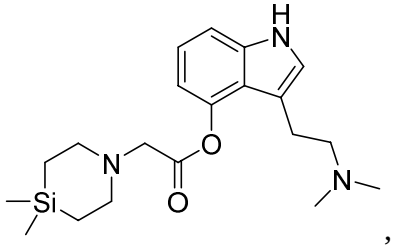
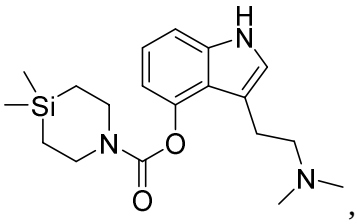
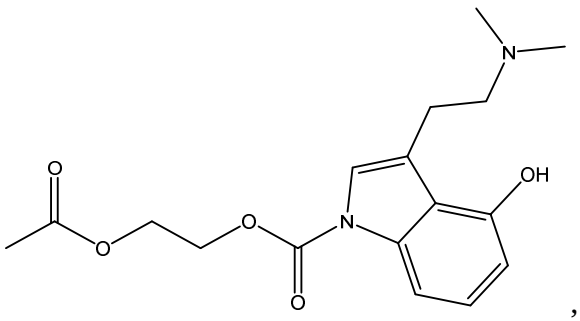
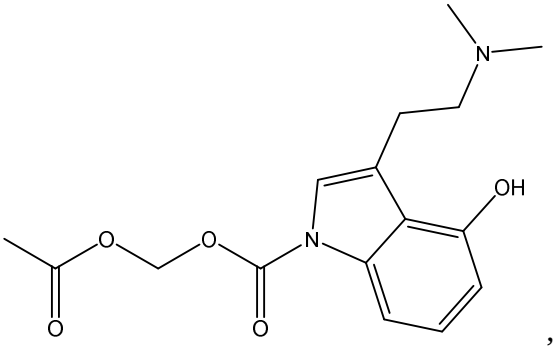
,

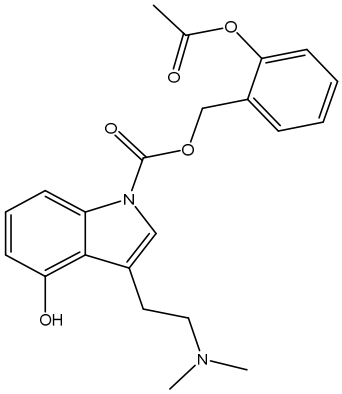
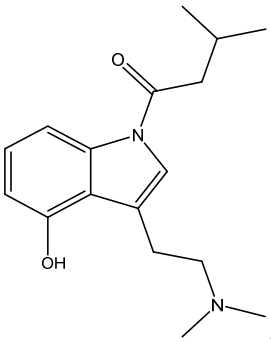
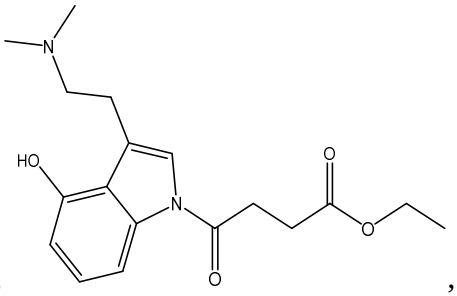
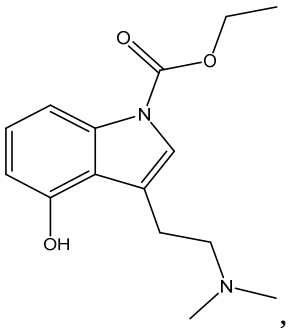
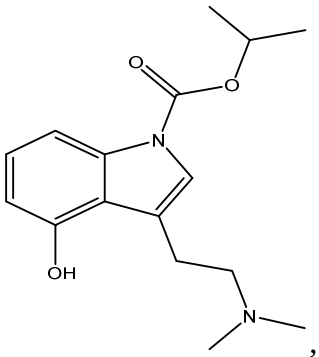
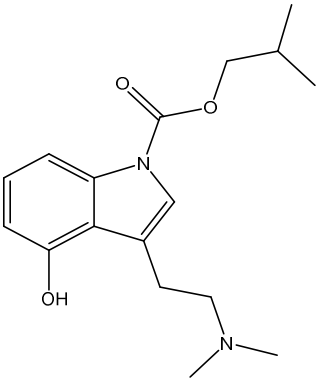
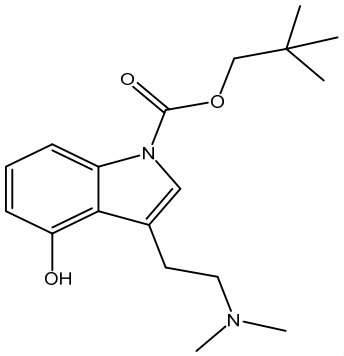


,



,


,

,

,

,

,

,

,

,

,

,

,

,


,

,

,

,

,

or

.

[0005b] In one aspect, the present disclosure refers to a pharmaceutical composition comprising a compound disclosed herein, or a pharmaceutically acceptable salt or deuterated form thereof.

[0005c] In one aspect, the present disclosure refers to use of a compound disclosed herein, or a pharmaceutically acceptable salt or deuterated form thereof, in the manufacture of a medicament for treating 5-HT_2A receptor associated disease or disorder.

DETAILED DESCRIPTION

[0006] The terms below, as used herein, have the following meanings, unless indicated otherwise:

[0007] “Cyano” refers to the -CN radical.

[0008] “Hydroxy” or “hydroxyl” refers to the -OH radical.

[0009] “Oxo” refers to the =O substituent.