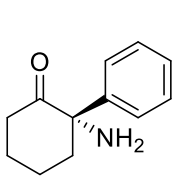
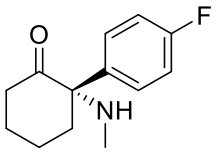
CLAIMS

~~What is claimed is:~~

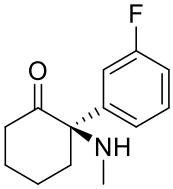
~~An isolated,~~1. A substantially enantiomerically pure compound selected from the group consisting of:



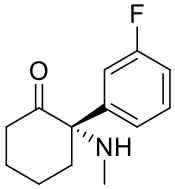
11S,



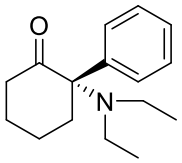
18S,



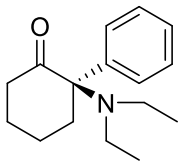
19R,



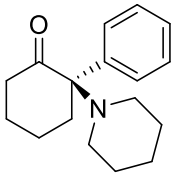
19S,



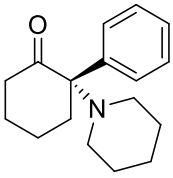
25S,



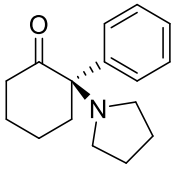
25R,



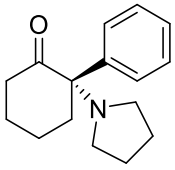
26R,



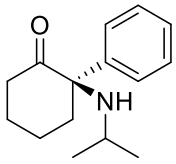
26S,



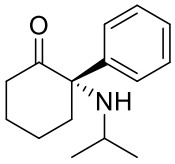
27R,



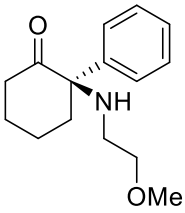
27S,



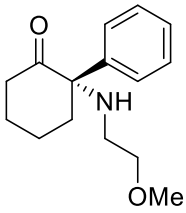
28R,



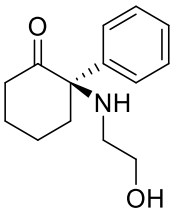
28S,



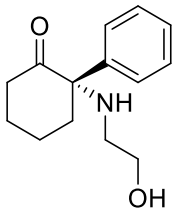
29R,



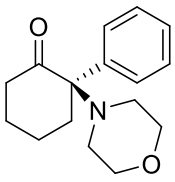
29S,



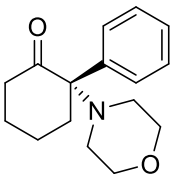
30R,



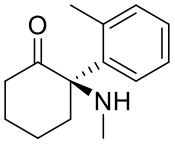
30S,



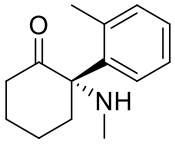
31R,



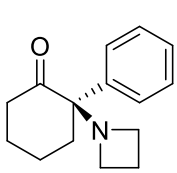
31S,



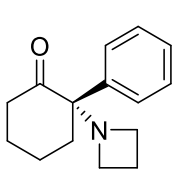
38R,



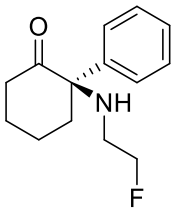
38S,



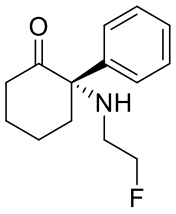
84R ,



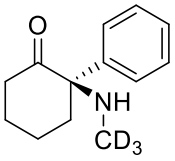
84S ,



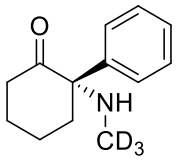
86R ,



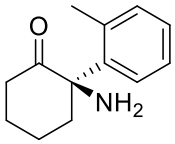
86S ,



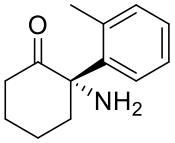
88R ,



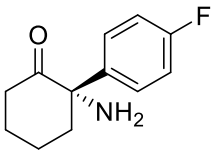
88S ,



114R ,



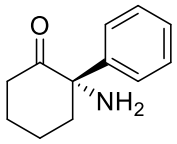
114S , and



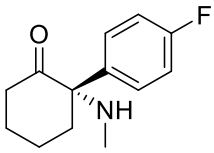
117S

or a pharmaceutically acceptable salt thereof.

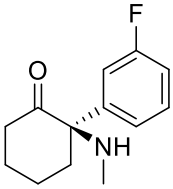
~~1. An enantiomeric~~2. The compound ~~represented by~~



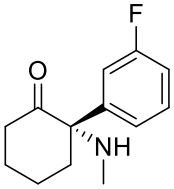
11S ,



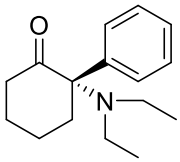
18S ,



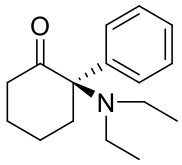
19R ,



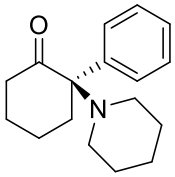
19S ,



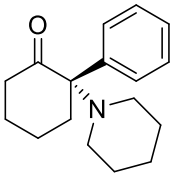
25S ,



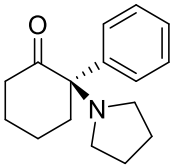
25R ,



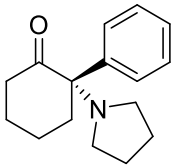
26R ,



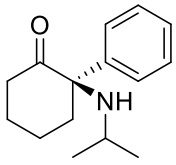
26S ,



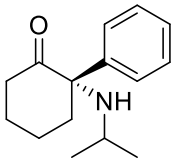
27R ,



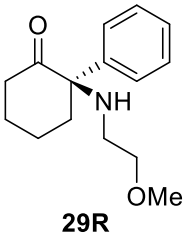
27S ,



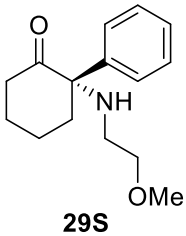
28R ,



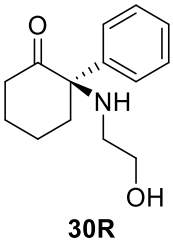
28S ,



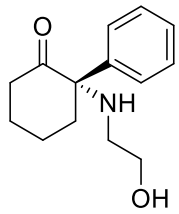
29R ,



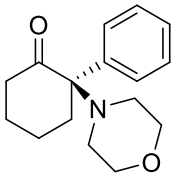
29S ,



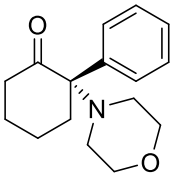
30R ,



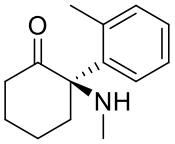
30S,



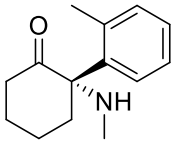
31R,



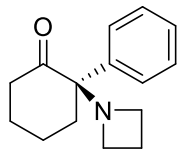
31S,



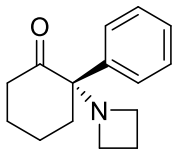
38R,



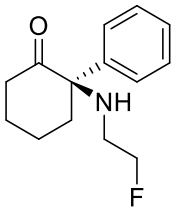
38S,



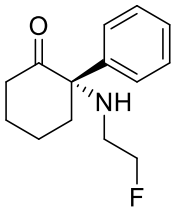
84R,



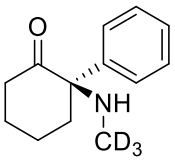
84S,



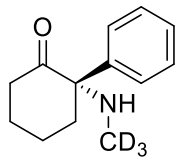
86R,



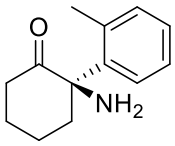
86S,



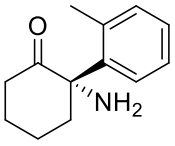
88R,



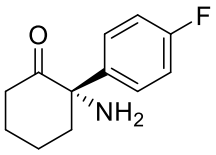
88S,



114R,



114S, ~~and~~



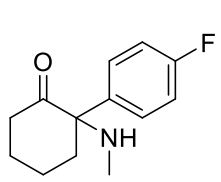
117S,

of claim 1 or ~~a~~ pharmaceutically acceptable salt thereof, wherein the ~~enantiomeric~~ compound is ~~present in an enantiomeric mixture having~~ at least 90~~%,~~ % enantiomerically pure.

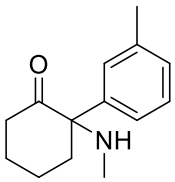
3.The compound of claim 1 or pharmaceutically acceptable salt thereof, wherein the compound is at least 95% ~~or~~ enantiomerically pure.

4. The compound of claim 1 or pharmaceutically acceptable salt thereof, wherein the compound is at least 99% ~~of the enantiomeric compound~~enantiomerically pure.

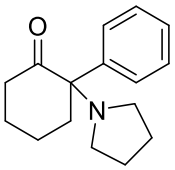
5. A compound selected from:



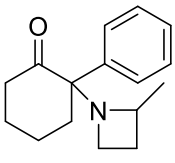
18rac,



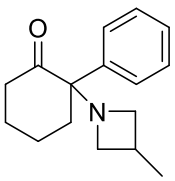
23rac,



27rac,



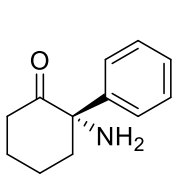
128mix, and



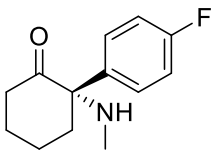
129rac.

or pharmaceutically acceptable salt thereof.

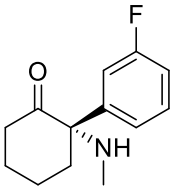
6. The compound of claim 1 ~~or 2~~, wherein the compound is selected from:



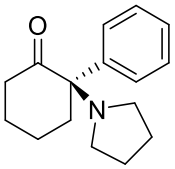
11S ,



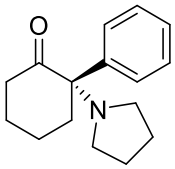
18S ,



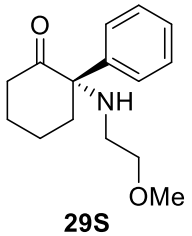
19S ,



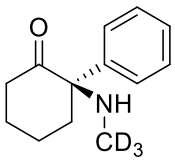
27R ,



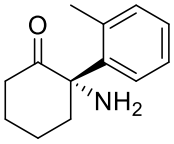
27S ,



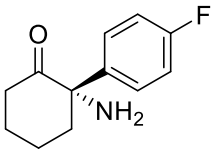
29S ,



88R ,



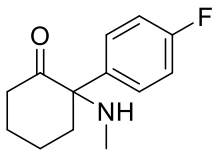
114S , and



117S ,

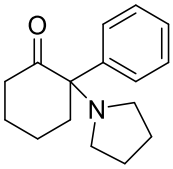
or a pharmaceutically acceptable salt thereof.

7. The compound of claim ~~3~~5, wherein the compound is



18rac

or



27rac ~~,~~.

or a pharmaceutically acceptable salt thereof.

8. A pharmaceutical composition comprising a compound of ~~any one of claims 1-5~~claim 1 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable excipient.

~~A method of treating~~9. Use of the compound of claim 1 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of depression, anxious depression, a mood disorder, an anxiety disorder, or a substance use disorder and any symptom or disorders associated therewith in a subject in need thereof, wherein an

effective amount of the compound or a pharmaceutically acceptable salt thereof is to be administered to the subject in need thereof.

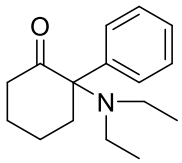
10. Use of the compound of claim 1 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of depression or anxious depression in a subject in need thereof, wherein an effective amount of the compound or a pharmaceutically acceptable salt thereof is to be administered to the subject in need thereof.

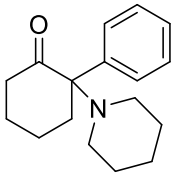
11. A pharmaceutical composition comprising the compound of claim 5 or a pharmaceutically acceptable salt thereof and a pharmaceutically acceptable excipient.

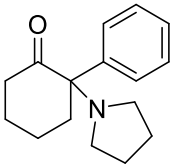
12. Use of the compound of claim 5 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of depression, anxious depression, a mood disorder, an anxiety disorder, or a substance use disorder and any symptom or disorders associated therewith in a subject in need thereof, wherein an effective amount of the ~~method comprising administering~~compound or a pharmaceutically acceptable salt thereof is to be administered to the subject in need thereof ~~an effective amount of a compound of any one of claims 1-5~~.

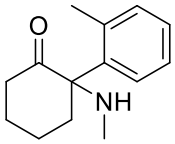
~~A method~~13. Use of ~~treating~~the compound of claim 5 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of depression or anxious depression in a subject in need thereof, ~~the method comprising administering~~wherein an effective amount of the compound or a pharmaceutically acceptable salt thereof is to be administered to the subject in need thereof ~~an effective amount of a compound of any one of claims 1-5.~~.

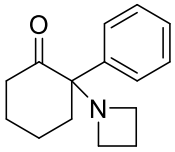
14. A composition comprising an enantiomeric mixture of a compound selected from the group consisting of:

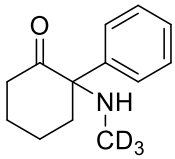


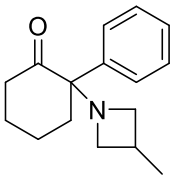
25, 

26, 

27, 

38, 

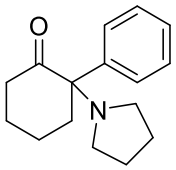
84, 

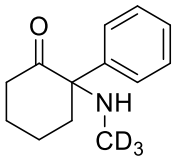
88, 

and **129**

or a pharmaceutically acceptable salt thereof, wherein the enantiomeric mixture has a significantly greater amount of the enantiomer having the lower binding affinity at the NMDA receptor MK-801 site.

15. The composition of claim ~~9~~14, wherein the compound is selected from the group consisting of:

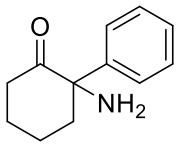


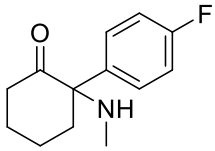
27 and 

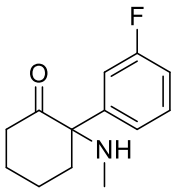
88

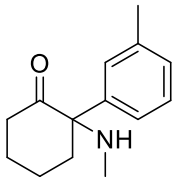
or a pharmaceutically acceptable salt thereof.

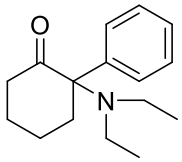
16. A composition comprising an enantiomeric mixture of a compound selected from the group consisting of:

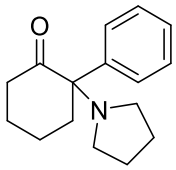


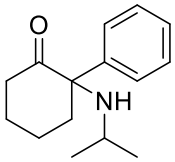
11, 

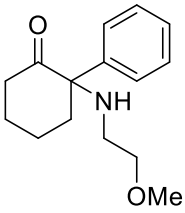
18, 

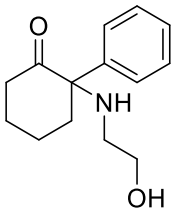
19, 

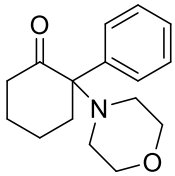
23, 

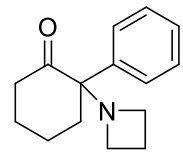
25, 

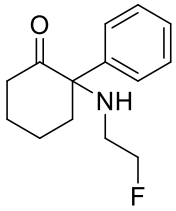
27, 

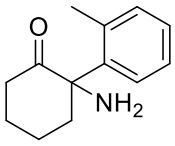
28, 

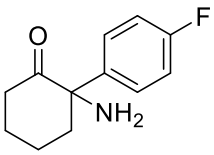
29, 

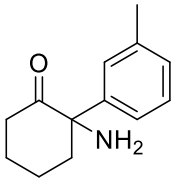
30, 

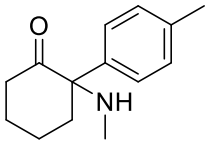
31, 

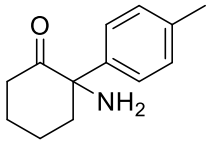
84, 

86, 

114, 

117, 

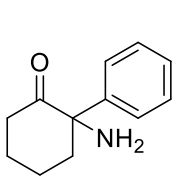
118, 

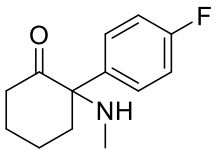
119, and 

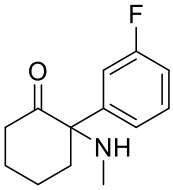
120,

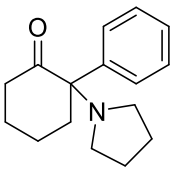
or a pharmaceutically acceptable salt thereof, wherein the enantiomeric mixture has a significantly greater amount of the enantiomer having the higher binding affinity at the NMDA receptor MK-801 site.

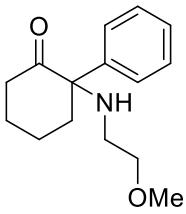
17. The composition of claim ~~11~~16, wherein the compound is selected from the group consisting of:



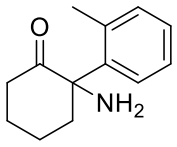
11rac, 

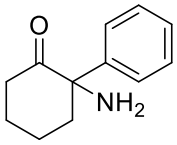
18rac, 

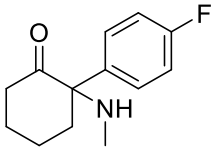
19rac, 

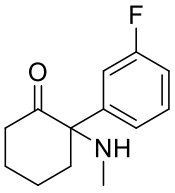
27rac, 

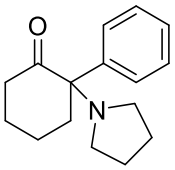
29rac,



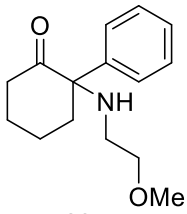
114rac, , 

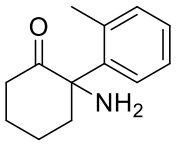
11, 

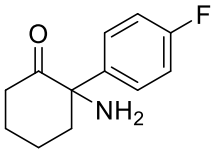
18, 

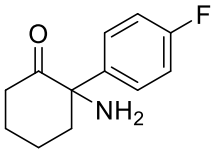
19, 

27,



29, 

114, and 

117rac. 

117,

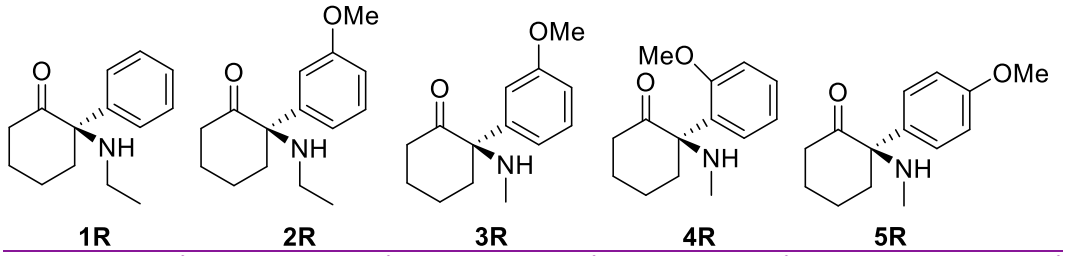
~~2. A method of treating depression, anxious depression, a mood disorder, an anxiety disorder, or a substance use disorder and any symptom or disorders associated therewith in a subject in need thereof, the method comprising administering to the subject in need thereof an effective amount of a composition of any one of claims 9-12.~~

~~3. A method of treating depression or anxious depression in a subject in need thereof, the method comprising administering to the subject in need thereof an effective amount of a compound of any one of claims 9-12.~~

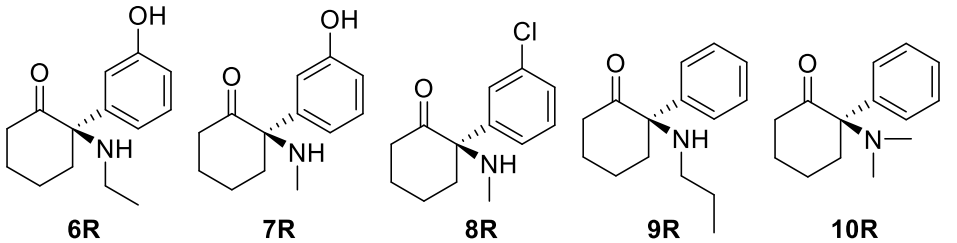
~~A method of treating~~or a pharmaceutically acceptable salt thereof.

18. Use of the composition of claim 14 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of depression, anxious depression, a mood disorder, an anxiety disorder, or a substance use disorder and any symptom or disorders associated therewith in a subject in need thereof, ~~the method comprising administering to the subject in need thereof~~wherein an effective amount of ~~a~~the composition ~~comprising an~~

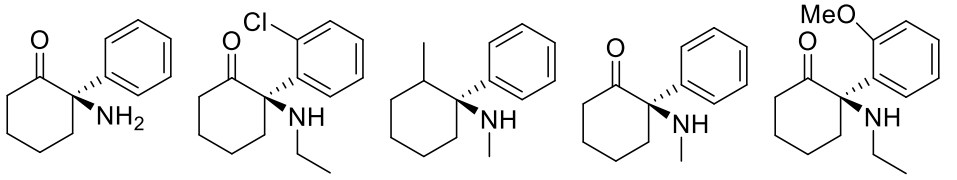
~~isolated, substantially enantiomerically pure compound selected from the group consisting of:~~or a pharmaceutically acceptable salt thereof is to be administered to the subject in need thereof.



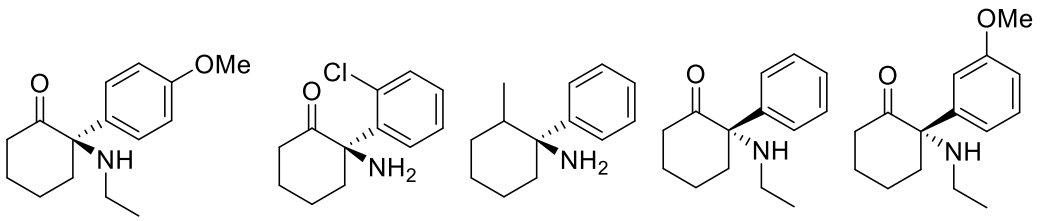
1R, **2R**, **3R**, **4R**, **5R**,



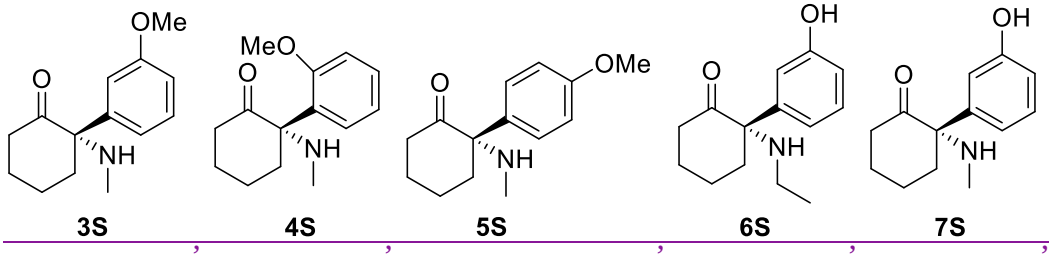
6R, **7R**, **8R**, **9R**, **10R**,



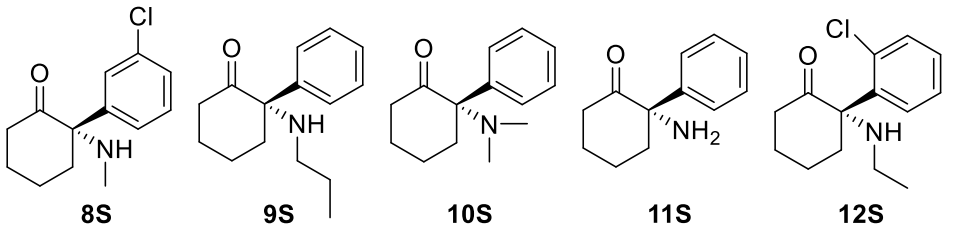
11R, **12R**, **13S**, **14R**, **55R**,

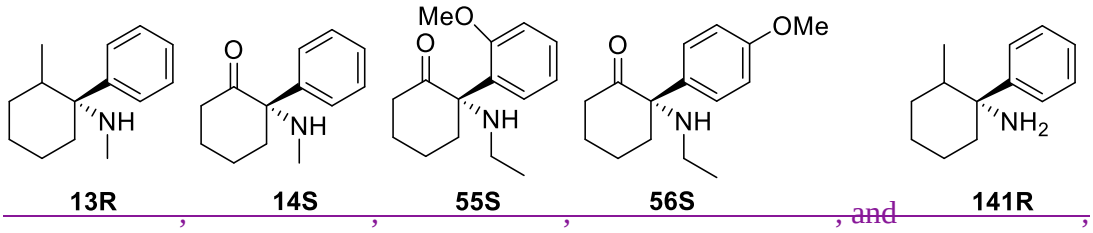


56R, **78R**, **141S**, **1S**, **2S**,



3S, **4S**, **5S**, **6S**, **7S**,

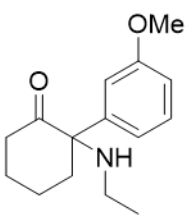


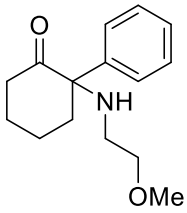


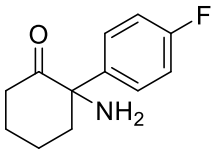
~~or a pharmaceutically acceptable salt thereof.~~

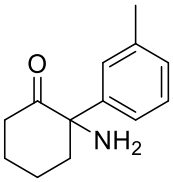
~~A method of treating~~19. Use of the composition of claim 14 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of depression or anxious depression in a subject in need thereof, wherein an effective amount of the composition or a pharmaceutically acceptable salt thereof is to be administered to the subject in need thereof.

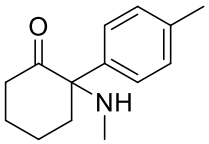
20. Use of the composition of claim 16 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of depression, anxious depression, a mood disorder, an anxiety disorder, or a substance use disorder and any symptom or disorders associated therewith in a subject in need thereof, ~~the method comprising administering to the subject in need thereof~~wherein an effective amount of ~~a~~the composition ~~comprising a compound selected from the group consisting of:~~or a pharmaceutically acceptable salt thereof is to be administered to the subject in need thereof.

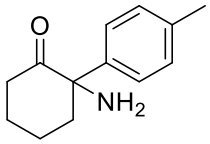


2rac, 

29rac, 

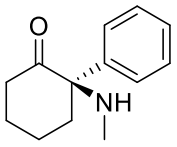
117rac, 

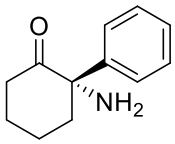
118rac, 

119rac, and 

120rac.

~~4. The method of claim 15, wherein the compound is selected from the group consisting of:~~

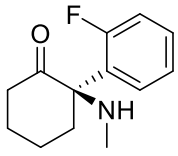


14R ~~and~~ 

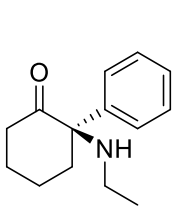
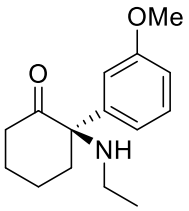
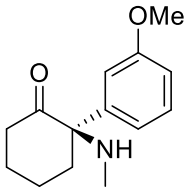
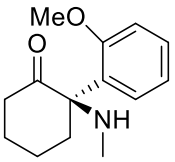
11S.

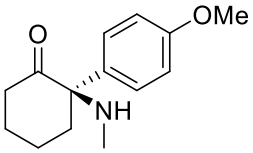
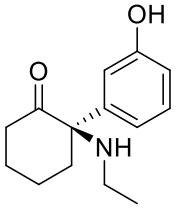
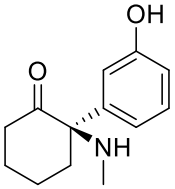
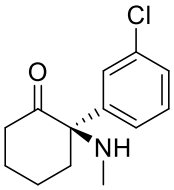
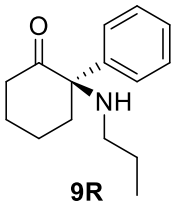
~~An isolated,~~21. Use of the composition of claim 16 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of depression or anxious depression in a subject in need thereof, wherein an effective amount of the composition or a pharmaceutically acceptable salt thereof is to be administered to the subject in need thereof.

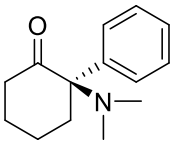
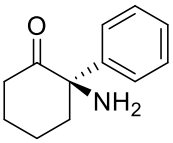
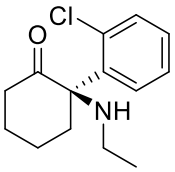
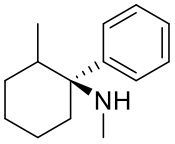
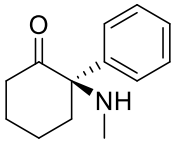
22. Use of a composition comprising a substantially enantiomerically pure compound ~~represented by~~selected from the group consisting of:

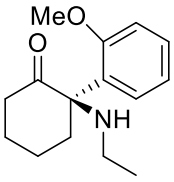
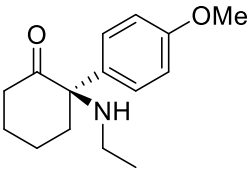
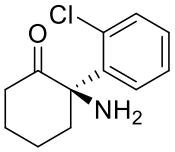
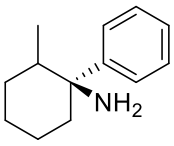
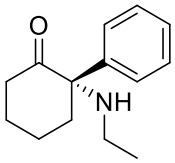


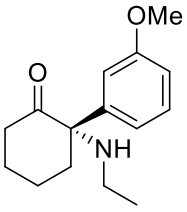
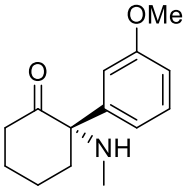
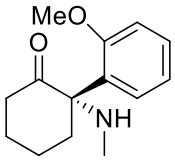
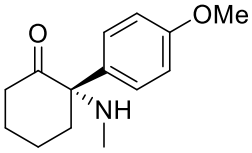
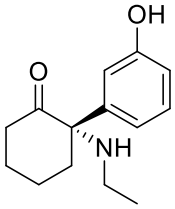
35R

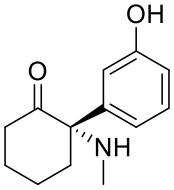
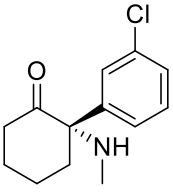
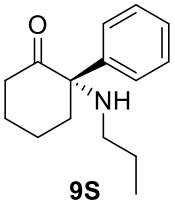
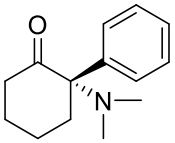
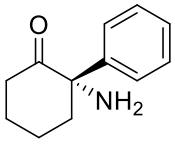
~~A method of treating~~  **1R** ,  **2R** ,  **3R** ,  **4R** ,

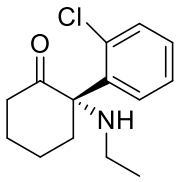
 **5R** ,  **6R** ,  **7R** ,  **8R** ,  **9R** ,

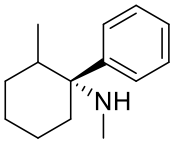
 **10R** ,  **11R** ,  **12R** ,  **13S** ,  **14R** ,

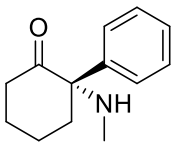
 **55R** ,  **56R** ,  **78R** ,  **141S** ,  **1S** ,

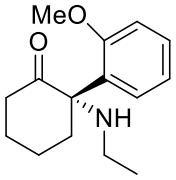
 **2S** ,  **3S** ,  **4S** ,  **5S** ,  **6S** ,

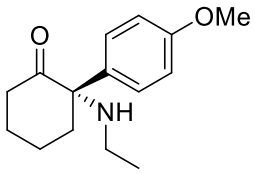
 **7S** ,  **8S** ,  **9S** ,  **10S** ,  **11S** ,



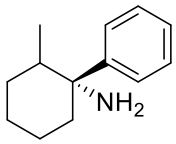
12S, 

13R, 

14S, 

55S, 

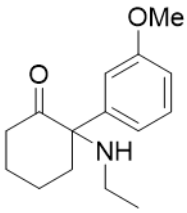
56S, and

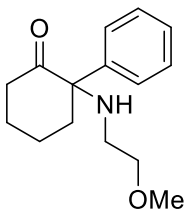


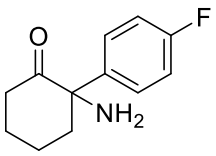
141R,

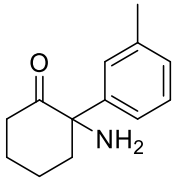
or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of depression, anxious depression, a mood disorder, an anxiety disorder, or a substance use disorder and any symptom or disorders associated therewith in a subject in need thereof, wherein an effective amount of the composition is to be administered to the subject in need thereof.

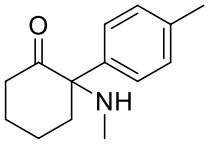
23. Use of a composition comprising a compound selected from the group consisting of:



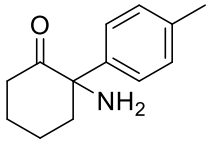
2rac, 

29rac, 

117rac, 

118rac, 

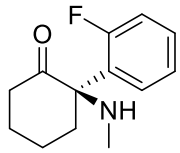
119rac, and



120rac.

or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of depression, anxious depression, a mood disorder, an anxiety disorder,

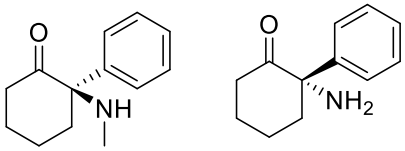
or a substance use disorder and any symptom or disorders associated therewith in a subject in need thereof, ~~the method comprising administering to the subject in need thereof~~wherein an effective amount of ~~a~~the composition ~~comprising an isolated, substantially enantiomerically pure compound represented by:~~is to be administered to the subject in need thereof.



35R

~~or a pharmaceutically acceptable salt thereof.~~

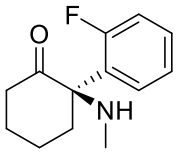
~~A method~~24. The use of ~~treating~~claim 22, wherein the compound is selected from the group consisting of:



14R and 11S,

or a pharmaceutically acceptable salt thereof.

25. A substantially enantiomerically pure compound of the formula:



35R

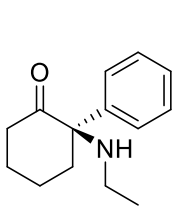
or a pharmaceutically acceptable salt thereof.

26. Use of the substantially enantiomerically pure compound of claim 25 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the

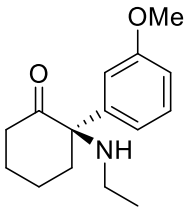
treatment of depression ~~or,~~ anxious depression, a mood disorder, an anxiety disorder, or a substance use disorder and any symptom or disorders associated therewith in a subject in need thereof, ~~the method comprising administering~~wherein an effective amount of the substantially enantiomerically pure compound of claim 25 or a pharmaceutically acceptable salt thereof is to be administered to the subject in need thereof ~~an effective amount of an isolated, substantially enantiomerically pure compound~~ .

27. Use of the substantially enantiomerically pure compound of claim 25 or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for the treatment of depression or anxious depression in a subject in need thereof, wherein an effective amount of the substantially enantiomerically pure compound or a pharmaceutically acceptable salt thereof is to be administered to the subject in need thereof.

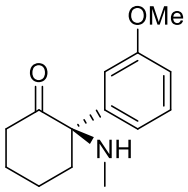
28. The compound of claim 1 or a pharmaceutically acceptable salt thereof,
the compound of claim 5 or a pharmaceutically acceptable salt thereof,
the composition of claim 14 or a pharmaceutically acceptable salt thereof,
the composition of claim 16 or a pharmaceutically acceptable salt thereof,
a composition comprising a substantially enantiomerically pure compound selected from the group consisting of:



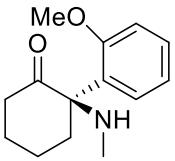
1R



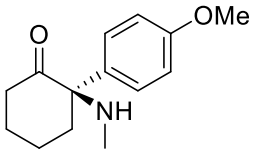
2R



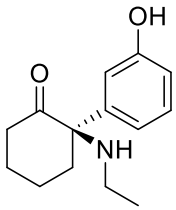
3R



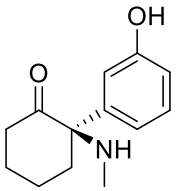
4R



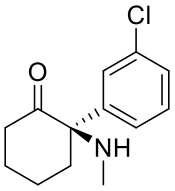
5R



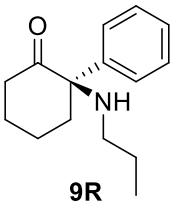
6R



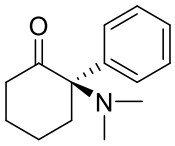
7R



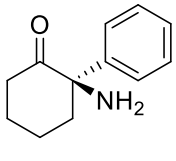
8R



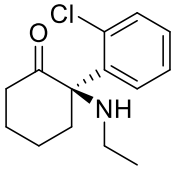
9R



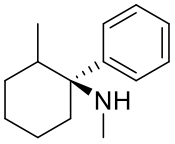
10R



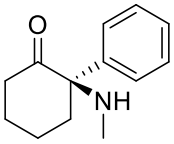
11R



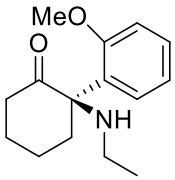
12R



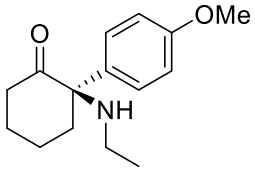
13S



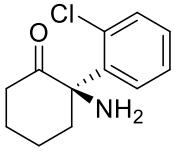
14R



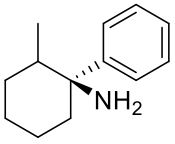
55R



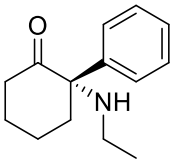
56R



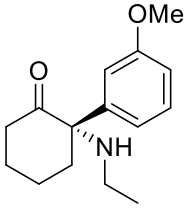
78R



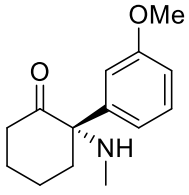
141S



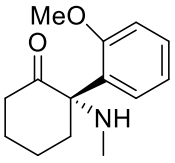
1S



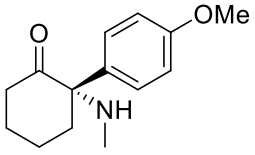
2S



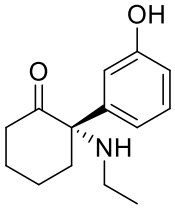
3S



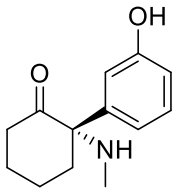
4S



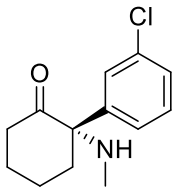
5S

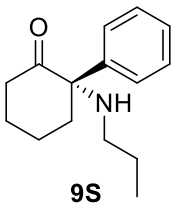


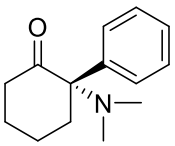
6S

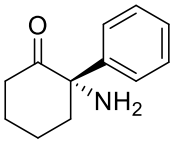


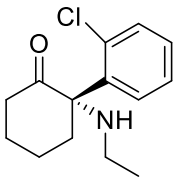
7S



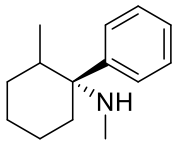
8S, 

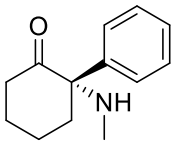
9S, 

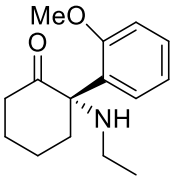
10S, 

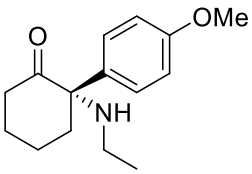
11S, 

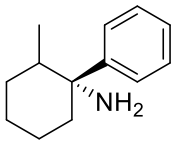
12S,



13R, 

14S, 

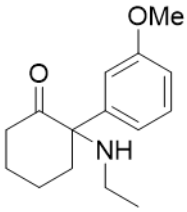
55S, 

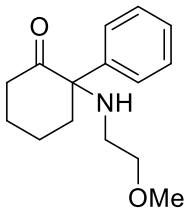
56S, and 

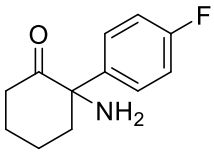
141R,

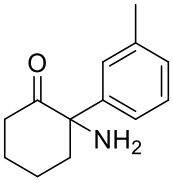
or a pharmaceutically acceptable salt thereof,

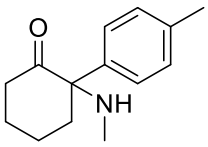
a composition comprising a compound selected from the group consisting of:



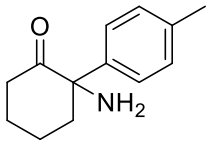
2rac, 

29rac, 

117rac, 

118rac, 

119rac, and



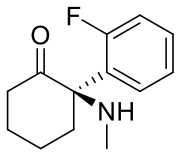
120rac.

or a pharmaceutically acceptable salt thereof, or

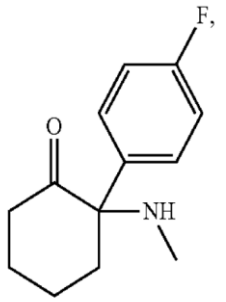
the substantially enantiomerically pure compound of claim 25 or a pharmaceutically acceptable salt thereof,

for use in therapy.

29. A compound represented by:



35R



or a pharmaceutically acceptable salt thereof.

30. A pharmaceutical composition comprising a compound of claim 29 and a pharmaceutically acceptable excipient.