copolymer and a cationic acrylic copolymer. Also provided are methods of using the transdermal compositions and kits containing the transdermal compositions.

In a first aspect of the present disclosure, there is provided a transdermal composition, the composition comprising:

(A) a matrix comprising:

(i) a propynylaminoindan; and

(ii) a pressure sensitive adhesive comprising:

(a) an acrylate copolymer component that consists of one or more acrylate copolymers that lacks pendant –COOH functional groups; and

(b) a cationic acrylic copolymer; and

(B) a backing,

wherein any acrylate copolymer in the pressure sensitive adhesive lacks –COOH pendant functional groups.

In a second aspect of the present disclosure, there is provided a use of a transdermal composition as defined above in the manufacture of a medicament for treating Parkinson's disease.

In a third aspect of the present disclosure, there is provided a kit comprising two or more transdermal compositions as defined above.

In a fourth aspect of the present disclosure, there is provided a transdermal composition as defined above for use in treating Parkinson's disease.

BRIEF DESCRIPTION OF THE FIGURES

Figure 1 shows a cross sectional view of an embodiment of the transdermal active agent formulation described herein.

Figures 2A to 2B provide graphs of flux as a function of time (middle point between the two sampling time points) for various formulations.

DETAILED DESCRIPTION

Propynylaminoindan (e.g., Rasagiline) transdermal compositions are provided. Aspects of the transdermal compositions include a matrix which includes the propynylaminoindan, a pressure sensitive adhesive that includes an acrylate copolymer and a cationic acrylic copolymer. Also provided are methods of using the transdermal compositions and kits containing the transdermal compositions.

WHAT IS CLAIMED IS:

1. A transdermal composition, the composition comprising:

(A) a matrix comprising:

(i) a propynylaminoindan; and

(ii) a pressure sensitive adhesive comprising:

(a) an acrylate copolymer component that consists of one or more acrylate copolymers that lacks pendant –COOH functional groups; and

(b) a cationic acrylic copolymer; and

(B) a backing,

wherein any acrylate copolymer in the pressure sensitive adhesive lacks pendant –COOH functional groups.

2. The transdermal composition according to Claim 1, wherein the propynylaminoindan is rasagiline.

3. The transdermal composition according to Claim 2, wherein rasagiline is present as a free base.

4. The transdermal composition according to Claim 2, wherein the rasagiline is present as a salt.

5. The transdermal composition according to Claim 4, wherein the salt is rasagiline mesylate.

6. The transdermal composition according to Claim 5, wherein the acrylate copolymer component is an acrylate copolymer that lacks pendant –COOH functional groups in a solvent system comprising ethyl acetate and cyclohexane.

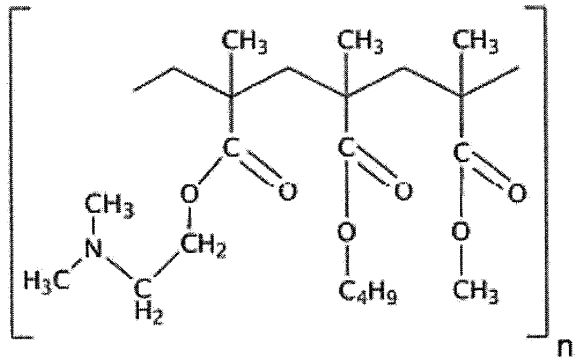
7. The transdermal composition according to Claim 5, wherein the acrylate copolymer component is an acrylate vinyl acetate that lacks –COOH functional groups.

8. The transdermal composition according to any of Claims 1 to 7, wherein the pressure sensitive adhesive is present in an amount ranging from 75 to 90% by weight of the matrix.

9. The transdermal composition according to any of Claims 1 to 8, wherein the cationic acrylic copolymer is an aminated methacrylate copolymer.

10. The transdermal composition according to Claim 9, wherein the aminated methacrylate copolymer is a copolymer of diethylaminoethyl methacrylate, butyl methacrylate and methyl methacrylate.

11. The transdermal composition according to Claim 9, wherein the aminated methacrylate copolymer is described by the formula:



12. The transdermal composition according to any of the preceding claims, wherein the matrix comprises a percutaneous absorption enhancer.

13. The transdermal composition according to any of the preceding claims, wherein the transdermal composition exhibits a therapeutic flux of the propynylaminoindan for 24 hours or longer.

14. The transdermal composition according to any of the preceding claims, wherein the matrix has a single layer configuration.

15. The transdermal composition according to any of the preceding claims, wherein the composition further comprises a release liner.

16. The transdermal composition according to any of the preceding claims, wherein the composition is storage stable.

17. Use of a transdermal composition according to any of Claims 1 to 16 in the manufacture of a medicament for treating Parkinson's disease.

18. A kit comprising two or more transdermal compositions according to any of Claims 1 to 16.

19. A transdermal composition according to any of Claims 1 to 16 for use in treating Parkinson's disease.