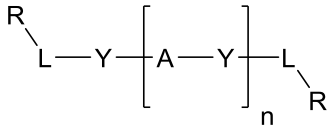
WHAT IS CLAIMED IS:

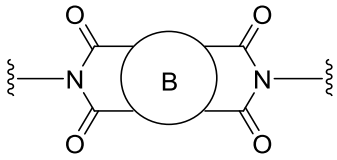
1. A polyimide compound defined by Formula I below



Formula I

wherein

A, individually for each occurrence, represents a cyclic diimide moiety represented by the structure below



where B represents a cyclic moiety substituted with a first cyclic imide group and a second cyclic imide group;

Y, individually for each occurrence, represents a bivalent linking group;

L, individually for each occurrence, is absent or represents a cyclic imide group;

R, individually for each occurrence, represents a polymeric tail; and

n is an integer from 1 to 20.

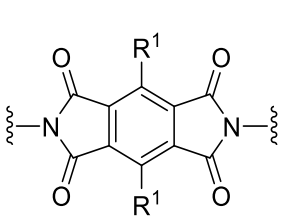
2. The compound of claim 1, wherein Y is, individually for each occurrence, chosen from alkylene, heteroalkylene, cycloalkylene, heterocycloalkylene, arylene, heteroarylene, alkylarylene, alkylheteroarylene, polyalkyleneoxy, or polyalkenylamino.

3. The compound of claim 1, wherein Y, individually for each occurrence, comprises from 2 to 30 carbon atoms.

4. The compound of claim 1, wherein B comprises an aryl group.

5. The compound of claim 1, wherein the first cyclic imide group comprises a five-membered cyclic imide ring and a second cyclic imide group comprises a five-membered cyclic imide ring.

6. The compound of claim 5, wherein A is chosen from one of the following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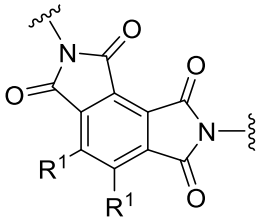
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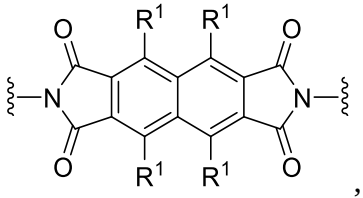
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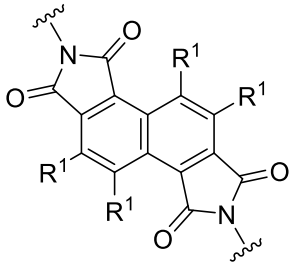
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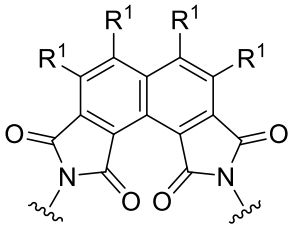
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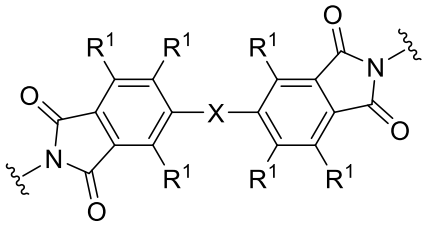
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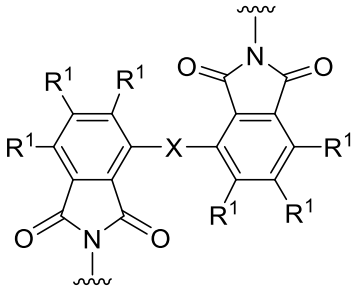
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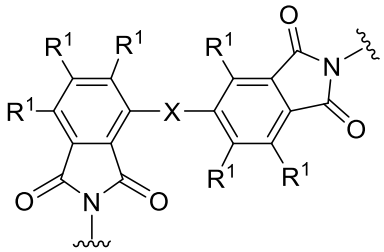

,

wherein

X is absent, or represents $-(CR^2R^3)_m-$, $-O-$, $-SO_2-$,  ,

$-O-(CR^2R^3)_m-O-$, $-O-Ar-O-$, polyalkyleneoxy, or polyalkenylamino;

R^1 represents, independently for each occurrence, H, halogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, alkoxy, aryl, heteroaryl, alkylaryl, or alkylheteroaryl, or wherein permissible, two adjacent R^1 groups, together with the atoms to which they are attached, form a 5-8 membered substituted or unsubstituted aromatic or non-aromatic ring;

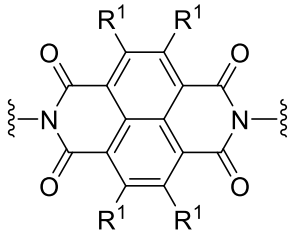
R^2 and R^3 represent, independently for each occurrence, H, halogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, alkoxy, aryl, heteroaryl, alkylaryl, or alkylheteroaryl;

Ar represents an aryl group; and

m is an integer from 1 to 12.

7. The compound of claim 1, wherein the first cyclic imide group comprises a six-membered cyclic imide ring and a second cyclic imide group comprises a six-membered cyclic imide ring.

8. The compound of claim 7, wherein A is chosen from one of the following



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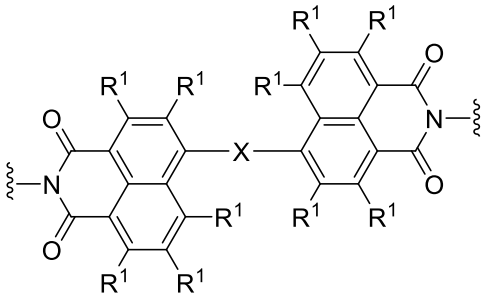


wherein

X is absent, or represents $-(CR^2R^3)_m-$, $-O-$, $-SO_2-$,  , $-O-(CR^2R^3)_m-O-$, $-O-Ar-O-$, polyalkyleneoxy, or polyalkenylamino;

R^1 represents, independently for each occurrence, H, halogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, alkoxy, aryl, heteroaryl, alkylaryl, or alkylheteroaryl, or wherein permissible, two adjacent R^1 groups, together with the atoms to which they are attached, form a 5-8 membered substituted or unsubstituted aromatic or non-aromatic ring;

R^2 and R^3 represent, independently for each occurrence, H, halogen, alkyl, heteroalkyl, cycloalkyl, heterocycloalkyl, alkoxy, aryl, heteroaryl, alkylaryl, or alkylheteroaryl;

Ar represents an aryl group; and

m is an integer from 1 to 12.

9. The compound of claim 1, wherein n is an integer from 1-6.

10. The compound of claim 1, wherein R is a hydrophobic moiety.

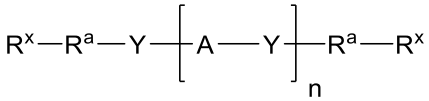
11. The compound of claim 1, wherein R is chosen from a polyolefin group, a polyetheramine group; a polyalkenylamine group; a polyalkyleneoxy group, or a combination thereof.

12. The compound of claim 1, wherein R comprises a polyolefin group terminated by an initiator residue.

13. The compound of claim 1, wherein R comprises a polyisobutylene group terminated by an initiator residue.

14. The compound of claim 1, wherein L is absent.

15. The compound of claim 14, where the compound is defined by Formula IA below



Formula IA

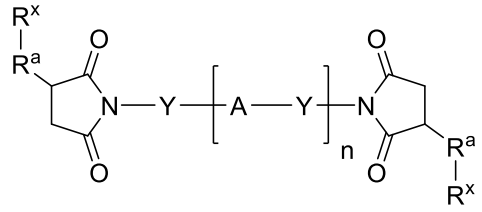
wherein

A and n are as defined above with respect to Formula I,

R^x is an initiator residue; and

R^a is a polyolefin group;

16. The compound of claim 1, where the compound is defined by Formula IB below



Formula IB

wherein

A, Y, and n are as defined above with respect to Formula I,

R^x is an initiator residue; and

R^a is a polyolefin group;

17. The compound of claim 16, wherein R^a comprises a polyisobutylene group.

18. The compound of claim 1, wherein n is 1.

19. The compound of claim 1, wherein the compound is a dispersant for use in lubricating oils and R has a molecular weight of from 1,000 Da to 2,500 Da.

20. The compound of claim 1, wherein the compound is an additive for use in a hydrocarbon fuel and R has a molecular weight of less than 1,000 Da.

21. A fuel composition comprising a major amount of hydrocarbons boiling in the gasoline or diesel range and a polyimide compound defined by any one of claims 1 to 20.

22. The fuel composition of claim 21, wherein the fuel comprises a diesel fuel as defined by ASTM D975-17.

23. The fuel composition of claim 21 or 22, wherein the fuel composition comprises form 100 to 5000 ppm for the polyimide compound.

24. A lubricating composition comprising an oil of lubricating viscosity and a polyimide compound as defined in any one of claims 1 to 20.