Claims

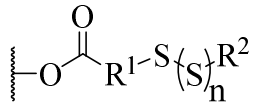
1. A tin compound of the formula $(R^aSn)_6O_6(R^b)_6$,

wherein

(A) R^a is an unsubstituted linear C_1-C_{10} alkyl group, a linear C_1-C_6 alkyl group substituted with a halogen, a linear C_1-C_6 alkyl group substituted with an amino group, a linear C_1-C_6 alkyl group substituted with a C_5–C_6 unsubstituted aromatic group, an unsubstituted branched C_3-C_{10} alkyl group, a branched C_3-C_{10} alkyl group substituted with a halogen, a C_1-C_{10} heteroalkylene, a branched C_3-C_{10} alkyl group substituted with an unsubstituted amine, a substituted amine, -$Si(CH_3)_3$, a benzyl group, a C_3-C_8 unsubstituted cyclic alkyl group, a C_3-C_8 cyclic alkyl group substituted with a halogen, a C_3-C_8 cyclic alkyl group substituted with an amino group, a C_4-C_8 unsubstituted aromatic group, a C_4-C_8 aromatic group substituted with a halogen, a C_4-C_8 aromatic group substituted with an amino group, a C_3-C_{10} heterocyclic group, a C_2-C_{10} alkenyl group and a C_3-C_{10} alkynyl group; and

(B) R^b is a carboxylic acid moiety group selected from the group of

(i) formula **(1)**:



(1)

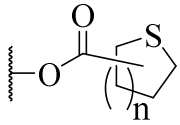
wherein

n = 0 or 1;

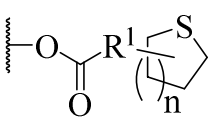
R^1 is an unsubstituted linear C_1-C_6 alkylene group, an unsubstituted branched C_3-C_6 alkylene group, an unsubstituted linear C_2-C_6 alkenylene group, an unsubstituted branched C_3-C_6 alkenylene group, an unsubstituted linear C_2-C_6 alkynylene group, an unsubstituted branched C_4-C_6 alkynylene group or a C_3-C_8 unsubstituted cyclic alkylene group; and

R^2 is an unsubstituted linear C_1-C_6 alkyl group, an unsubstituted branched C_3-C_6 alkyl group, an unsubstituted linear C_2-C_6 alkenyl group, an unsubstituted branched C_3-C_6 alkenyl group, an unsubstituted linear C_2-C_6 alkynyl group, an unsubstituted branched C_4-C_6 alkynyl group or a C_3-C_8 unsubstituted cyclic alkyl group;

(ii) formulae **(2a)** or **(2b)**:



(2a) or



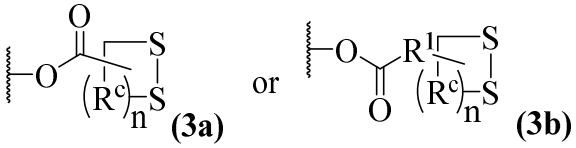
(2b)

wherein

n = 1 to 4; and

R^1 is an unsubstituted linear C_1-C_6 alkylene group or an unsubstituted branched C_3-C_6 alkyl group;

(iii) formulae **(3a)** or **(3b)**:



(3a) or **(3b)**

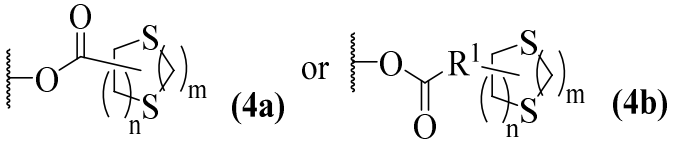
wherein

n = 2 to 5;

each R^c is individually an unsubstituted methylene group or a methylene group substituted with one or two C_1-C_4 alkyl groups; and

R^1 is an unsubstituted linear C_1-C_6 alkylene group or an unsubstituted branched C_3-C_6 alkylene group;

(iv) formulae **(4a)** or **(4b)**:



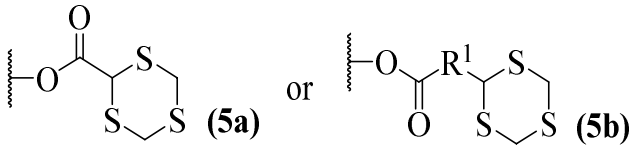
(4a) or **(4b)**

wherein

n and m = individually 1 to 4; and

R^1 is an unsubstituted linear C_1-C_6 alkylene group or an unsubstituted branched C_3-C_6 alkylene group; and

(v) formulae **(5a)** or **(5b)**:



(5a) or **(5b)**

wherein

R^1 is an unsubstituted linear C_1-C_6 alkylene group or an unsubstituted branched C_3-C_6 alkylene group.

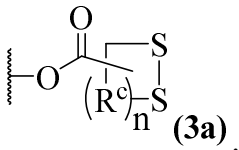
2. The compound of claim 1, wherein R^a is selected from the group consisting of an unsubstituted linear C_1-C_4 alkyl group, an unsubstituted branched C_3-C_4 alkyl group, a C_2-C_6

alkenyl group and a C_4-C_6 unsubstituted aromatic group.

3. The compound of claim 1, wherein R^a is selected from the group consisting of a $-CH_3$ group, a $-CH(CH_3)_2$ group, a $-C(CH_3)_3$ group, a $-CH=CH_2$ group, a $-CH_2CH=CH_2$ group, a $-CH_2CH_2CH=CH_2$ group, a $-CH_2CH_2CH_2CH_3$ group, a $-C_6H_5$ group and a $-CH_2-C_6H_5$ group.

4. The compound of claim 1, wherein R^a is a methyl group or an n-butyl group.

5. The compound of claim 1, wherein R^b is a carboxylic acid moiety of formula (3a):

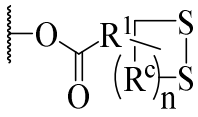


(3a).

6. The compound of claim 1, wherein R^b is a carboxylic acid moiety of formula (3a) wherein at least one R^c is a methylene group.

7. The compound of claim 1, wherein R^b is a carboxylic acid moiety of formula (3a) wherein at least one R^c is a methylene group substituted with one C_1-C_4 alkyl group.

8. The compound of claim 1, wherein R^b is a carboxylic acid moiety of formula (3b):



(3b).

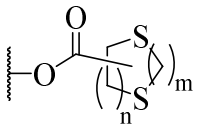
9. The compound of claim 1, wherein R^b is a carboxylic acid moiety of formula (3b) wherein R^1 is an unsubstituted linear C_1-C_6 alkylene group.

10. The compound of claim 1, wherein R^b is a carboxylic acid moiety of formula (3b) wherein R^1 is an unsubstituted branched C_3-C_6 alkylene group.

11. The compound of claim 1, wherein R^b is a carboxylic acid moiety of formula (3b) wherein at least one R^c is a methylene group.

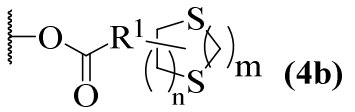
12. The compound of claim 1, wherein R^b is a carboxylic acid moiety of formula (3b) wherein at least one R^c is a methylene group substituted with one C_1-C_4 alkyl group.

13. The compound of claim 1, wherein R^b is a carboxylic acid moiety of formula (4a):



(4a).

14. The compound of claim 1, wherein R^b is a carboxylic acid moiety of formula (4b):

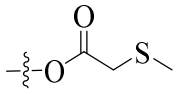
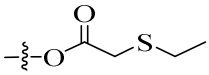
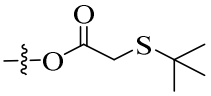
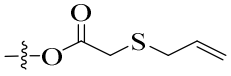
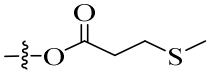
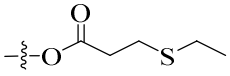
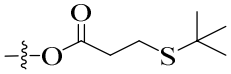
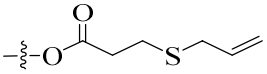
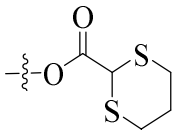
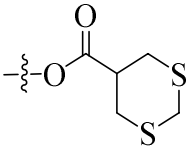
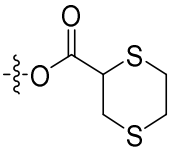
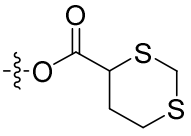
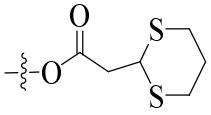
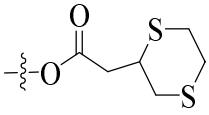
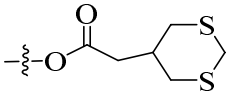
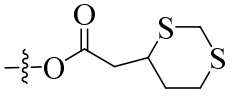
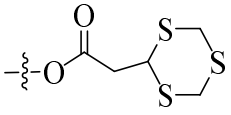
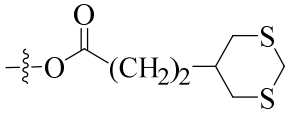
 **(4b)**

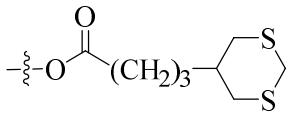
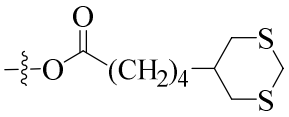
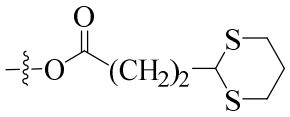
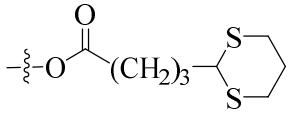
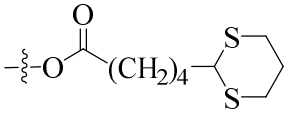
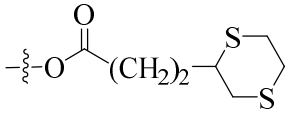
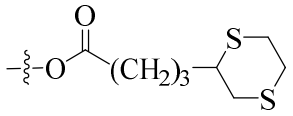
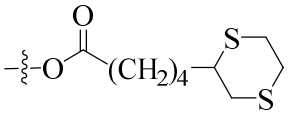
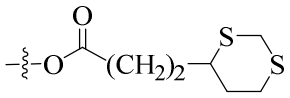
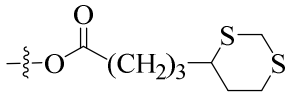
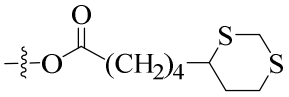
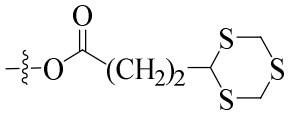
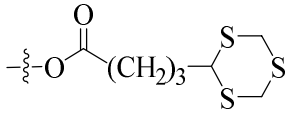
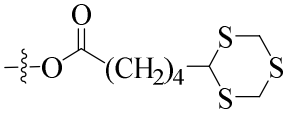
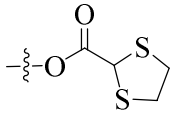
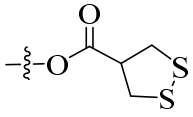
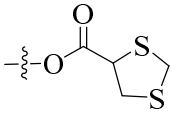
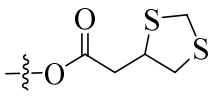
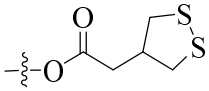
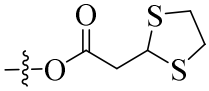
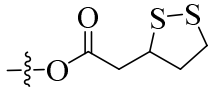
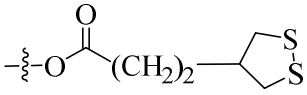
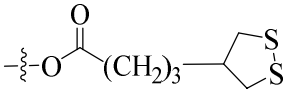
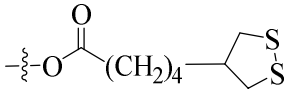
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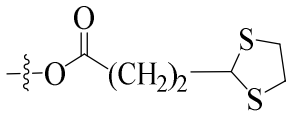
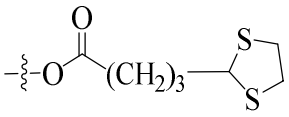
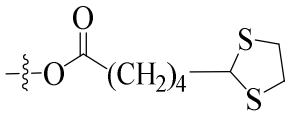
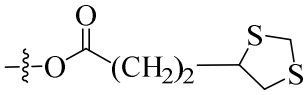
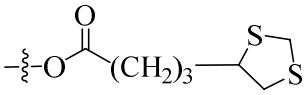
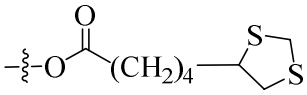
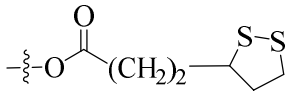
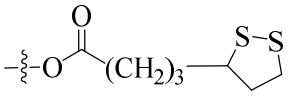
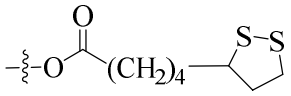
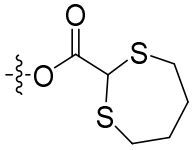
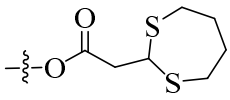
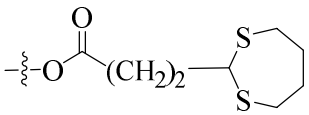
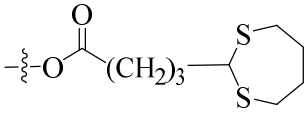
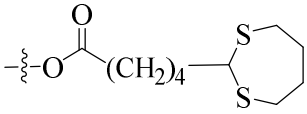
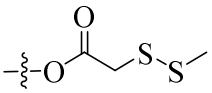
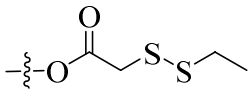
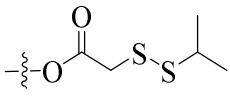
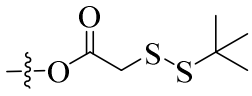
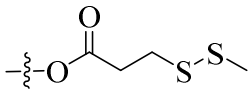
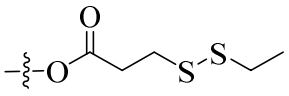
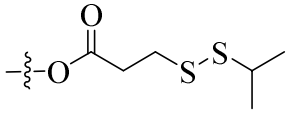
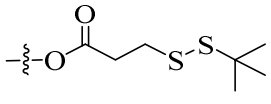
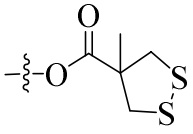
15. The compound of claim 1, wherein R^b is a carboxylic acid moiety of formula (4b) wherein R^1 is an unsubstituted linear C_1-C_6 alkylene group.

16. The compound of claim 1, wherein R^b is a carboxylic acid moiety of formula (4b) wherein R^1 is an unsubstituted branched C_3-C_6 alkylene group.

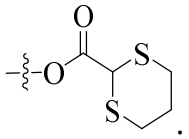
17. The compound of claim 1, wherein R^b is selected from the group of:

 **1A**	 **2A**	 **3A**
 **4A**	 **5A**	 **6A**
 **7A**	 **8A**	 **9A**
 **10A**	 **11A**	 **12A**
 **13A**	 **14A**	 **15A**
 **16A**	 **17A**	 **18A**

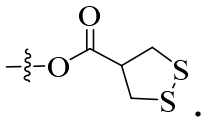
 **19A**	 **20A**	 **21A**
 **22A**	 **23A**	 **24A**
 **25A**	 **26A**	 **27A**
 **28A**	 **29A**	 **30A**
 **31A**	 **32A**	 **33A**
 **34A**	 **35A**	 **36A**
 **37A**	 **38A**	 **39A**
 **40A**	 **41A**	 **42A**

 **43A**	 **44A**	 **45A**
 **46A**	 **47A**	 **48A**
 **49A**	 **50A**	 **51A**
 **52A**	 **53A**	 **54A**
 **55A**	 **56A**	 **57A**
 **58A**	 **59A**	 **60A**
 **61A**	 **62A**	 **63A**
 **64A**	 **65A**	

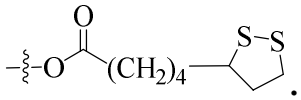
18. The compound of claim 1, wherein R^b is a carboxylic acid moiety group of structure 9A:



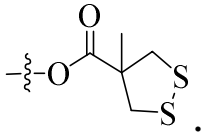
19. The compound of claim 1, wherein R^b is a carboxylic acid moiety group of structure 34A:



20. The compound of claim 1, wherein R^b is a carboxylic acid moiety group of structure 51A:



21. The compound of claim 1, wherein R^b is a carboxylic acid moiety group of structure 65A:



22. A formulation comprising (i) a compound of any of the preceding claims and (ii) one or more solvents suitable for use in a spin-coating process.

23. A process for patterning a radiation sensitive coating comprising:

(i) forming a coating on a substrate surface with a formulation comprising one or more compounds of any of the preceding claims;

(ii) drying the coating to produce a dried layer; and

(iii) irradiating at least a portion of the dried layer to form a latent image.

24. The process of claim 23, wherein the irradiating of step (iii) includes exposing at least a portion of the dried coating to ionizing radiation having a wavelength range of about 10 nm to about 365 nm.

25. The process of claim 23, wherein the irradiating of step (iii) includes exposing at least a portion of the dried coating to comprises EUV radiation.