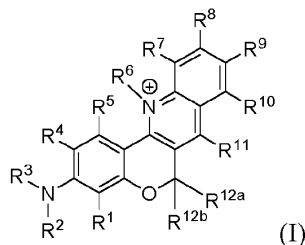


WHAT IS CLAIMED IS:

1. A compound of Formula (I), a salt or a mesomeric form thereof:



wherein each of R^1 , R^4 , R^5 , R^7 , R^8 , R^9 , R^{10} , R^{11} , R^{12a} and R^{12b} is independently H, C_1 - C_6 alkyl, substituted C_1 - C_6 alkyl, C_1 - C_6 alkoxy, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, C_1 - C_6 haloalkyl, C_1 - C_6 haloalkoxy, $(C_1$ - C_6 alkoxy) C_1 - C_6 alkyl, optionally substituted amino, amino(C_1 - C_6 alkyl), halo, cyano, hydroxy, hydroxy(C_1 - C_6 alkyl), nitro, sulfonyl, sulfo, sulfinio, sulfonate, S-sulfonamido, or N-sulfonamido;

each of R^2 and R^3 is independently H, C_1 - C_6 alkyl, or substituted C_1 - C_6 alkyl; and

R^6 is C_1 - C_6 alkyl or substituted C_1 - C_6 alkyl;

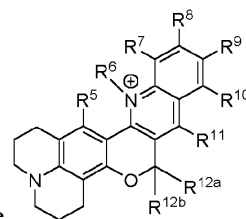
alternatively, R^1 and R^2 together with the atoms to which they are attached form an optionally substituted 5-10 membered heteroaryl or an optionally substituted 5-10 membered heterocyclyl;

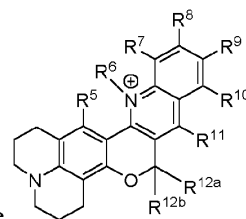
alternatively, R^3 and R^4 together with the atoms to which they are attached form an optionally substituted 5-10 membered heteroaryl or an optionally substituted 5-10 membered heterocyclyl;

alternatively, R^8 and R^9 together with the atoms to which they are attached form an optionally substituted C_6 - C_{10} aryl, an optionally substituted 3-10 membered carbocyclyl, an optionally substituted 5-10 membered heteroaryl or an optionally substituted 3-10 membered heterocyclyl;

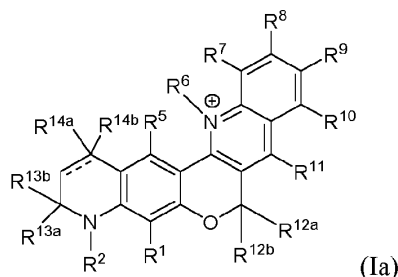
provided that when each of R^2 and R^3 is ethyl; each of R^1 , R^4 , R^5 , R^7 , R^8 , R^{10} , R^{11} , R^{12a} and R^{12b} is H; and R^6 is methyl; then R^9 is a substituted C_1 - C_6 alkyl comprising a carboxyl; and

provided that when R^1 and R^2 together with the atoms to which they are attached form a piperidinyl and R^3 and R^4 together with the atoms to which they are attached form



a piperidinyl such that the compound has the structure ; each of R⁵, R⁷, R⁸, R¹⁰, R¹¹, R^{12a} and R^{12b} is H; and R⁶ is methyl; then R⁹ is a substituted C₁-C₆ alkyl comprising a carboxyl.

2. The compound of claim 1, wherein R² is H and R³ is C₁-C₆ alkyl or substituted C₁-C₆ alkyl.
3. The compound of claim 1, wherein each of R² and R³ is independently C₁-C₆ alkyl.
4. The compound of claim 1, wherein the compound of Formula (I) is also represented by Formula (Ia), a salt, or a mesomeric form thereof:



wherein each of R^{13a}, R^{13b}, R^{14a} and R^{14b} is independently H, C₁-C₆ alkyl, substituted C₁-C₆ alkyl, C₁-C₆ alkoxy, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ haloalkyl, C₁-C₆ haloalkoxy, (C₁-C₆ alkoxy)C₁-C₆ alkyl, optionally substituted amino, amino(C₁-C₆ alkyl), halo, cyano, hydroxy, hydroxy(C₁-C₆ alkyl), nitro, sulfonyl, sulfo, sulfinio, sulfonate, S-sulfonamido, or N-sulfonamido; and

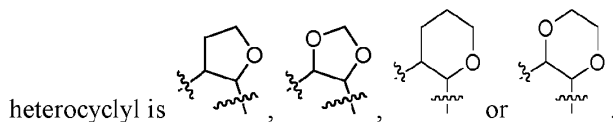
the bond represented by a solid and dashed line  is selected from the group consisting of a single bond and a double bond, provided that when  is a double bond, then R^{14b} is absent.

5. The compound of claim 4, wherein the bond represented by a solid and dashed line  is a double bond.
6. The compound of claim 5, wherein R^{14a} is H or C₁-C₆ alkyl.
7. The compound of claim 6, wherein R^{14a} is methyl.
8. The compound of claim 4, wherein the bond represented by a solid and dashed line  is a single bond.
9. The compound of claim 8, wherein R^{14a} is H and R^{14b} is C₁-C₆ alkyl.
10. The compound of claim 8, wherein each of R^{14a} and R^{14b} is H.

11. The compound of any one of claims 4 to 10, wherein each of R^{13a} and R^{13b} is H.
12. The compound of any one of claims 4 to 10, wherein each of R^{13a} and R^{13b} is C_1 - C_6 alkyl.
13. The compound of claim 12, wherein each of R^{13a} and R^{13b} is methyl.
14. The compound of any one of claims 4 to 13, wherein R^2 is C_1 - C_6 alkyl or substituted C_1 - C_6 alkyl.
15. The compound of claim 14, wherein R^2 is C_1 - C_6 alkyl substituted with one or more substituents selected from the group consisting of carboxyl ($-C(O)OH$), carboxylate ($-C(O)O^-$), sulfo ($-SO_3H$), sulfonate ($-SO_3^-$), $-C(O)OR^{15}$, and $-C(O)NR^{16}R^{17}$, wherein R^{15} is optionally substituted C_1 - C_6 alkyl, optionally substituted C_6 - C_{10} aryl, optionally substituted 5 to 10 membered heteroaryl, or optionally substituted C_3 - C_7 cycloalkyl, and wherein each of R^{16} and R^{17} is independently H, optionally substituted C_1 - C_6 alkyl, optionally substituted C_6 - C_{10} aryl, optionally substituted 5 to 10 membered heteroaryl, or optionally substituted C_3 - C_7 cycloalkyl.
16. The compound of claim 15, wherein R^2 is C_1 - C_6 alkyl substituted with carboxyl or $-C(O)NR^{16}R^{17}$, and wherein each R^{16} and R^{17} is independently C_1 - C_6 alkyl substituted with carboxyl, carboxylate, $-C(O)OR^{15}$, sulfo or sulfonate.
17. The compound of any one of claims 1 to 16, wherein R^1 is H.
18. The compound of any one of claims 1 and 4 to 13, wherein R^1 and R^2 are joined together with the atoms to which they are attached to form an optionally substituted 6 membered heterocyclyl.
19. The compound of claim 18, wherein the 6 membered heterocyclyl is substituted with one or more C_1 - C_6 alkyl.
20. The compound of any one of claims 1 to 19, wherein each R^5 and R^{11} is H.
21. The compound of any one of claims 1 to 20, wherein R^6 is C_1 - C_6 alkyl.
22. The compound of any one of claims 1 to 20, wherein R^6 is C_1 - C_6 alkyl substituted with carboxyl or $-C(O)NR^{16}R^{17}$, and wherein each R^{16} and R^{17} is independently C_1 - C_6 alkyl substituted with carboxyl, carboxylate, $-C(O)OR^{15}$, sulfo or sulfonate.
23. The compound of any one of claims 1 to 22, wherein at least one of R^7 , R^8 , R^9 and R^{10} is independently C_1 - C_6 alkyl or C_1 - C_6 alkoxy.
24. The compound of any one of claims 1 to 22, wherein at least one of R^7 , R^8 , R^9 and R^{10} is C_1 - C_6 alkyl substituted carboxyl, carboxylate, sulfo, sulfonate, $-C(O)OR^{15}$ or $-C(O)NR^{16}R^{17}$, and wherein each R^{16} and R^{17} is independently H or C_1 - C_6 alkyl substituted with carboxyl, carboxylate, $-C(O)OR^{15}$, sulfo or sulfonate.

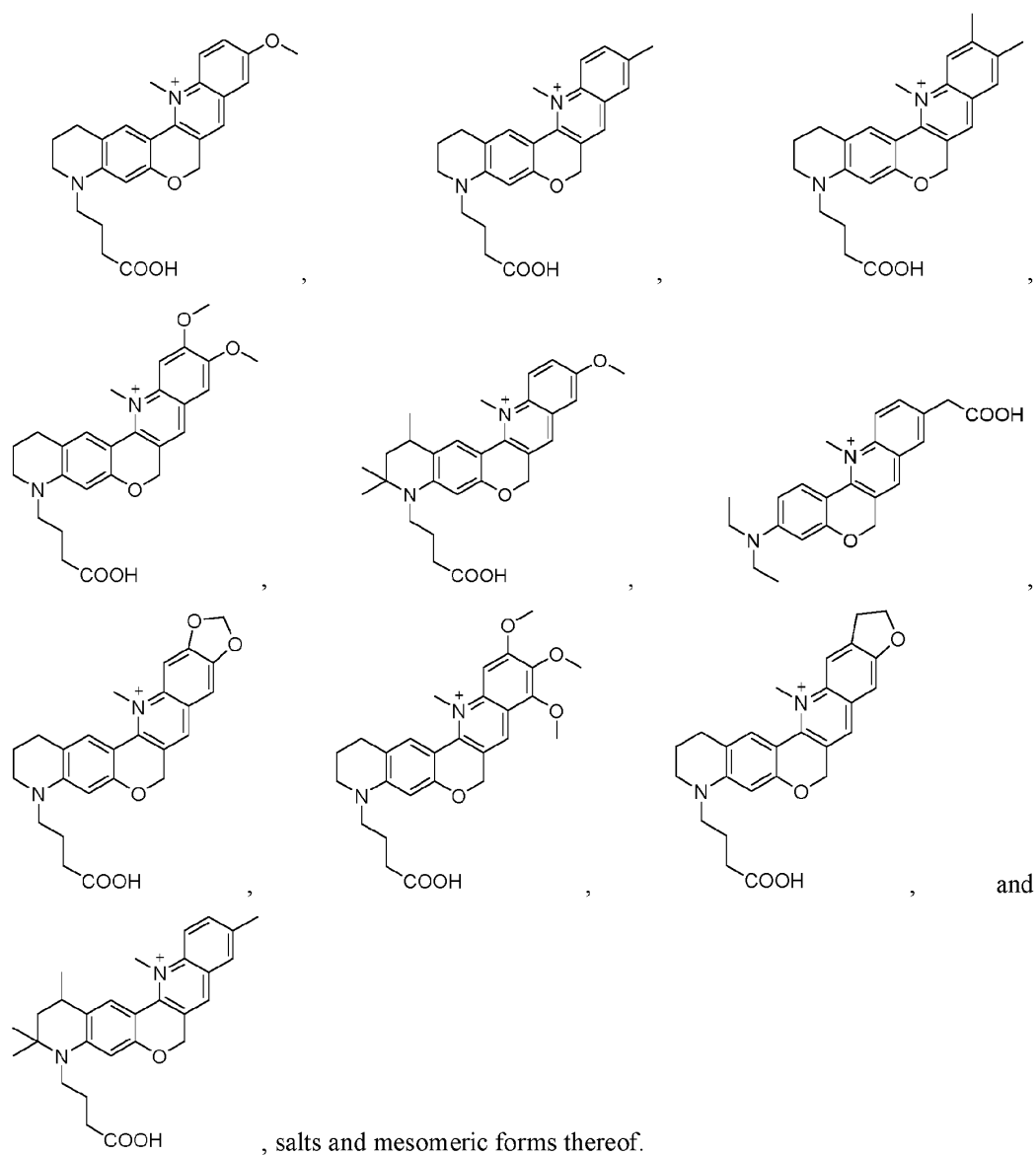
25. The compound of any one of claims 1 to 22, wherein R^8 and R^9 together with the atoms to which they are attached form an optionally substituted 5 or 6 membered heterocycl.

26. The compound of claim 25, wherein the optionally substituted 5 or 6 membered



27. The compound of any one of claims 1 to 26, wherein each of R^{12a} and R^{12b} is H.

28. The compound of claim 1, selected from the group consisting of:



29. A nucleotide or oligonucleotide labeled with a compound according to any one of claims 1 to 28.

30. The labeled nucleotide or oligonucleotide of claim 29, wherein the compound is attached the nucleotide or oligonucleotide via a carboxyl group of R^2 or R^6 of Formula (I).

31. The labeled nucleotide or oligonucleotide of claim 29, wherein the compound is attached the nucleotide or oligonucleotide via a carboxyl group of one of R^7 , R^8 , R^9 and R^{10} of Formula (I).

32. The labeled nucleotide or oligonucleotide of any one of claims 29 to 31, wherein the compound is attached to the C5 position of a pyrimidine base or the C7 position of a 7-deaza purine base through a linker moiety.

33. The labeled nucleotide or oligonucleotide of any one of claims 29 to 32, further comprising a 3' OH blocking group covalently attached to the ribose or deoxyribose sugar of the nucleotide.

34. The nucleotide or oligonucleotide of any one of claims 29 to 33, wherein the nucleotide or oligonucleotide is an oligonucleotide hybridized to at least a portion of a target polynucleotide.

35. The oligonucleotide of claim 34, wherein the target polynucleotide is immobilized on a solid support.

36. The oligonucleotide according to claim 35, wherein the solid support comprises an array of a plurality of immobilized target polynucleotides.

37. A kit comprising a first nucleotide labeled with a first compound according to any one of claims 29 to 33.

38. The kit of claim 37, further comprising a second nucleotide, wherein the second nucleotide is labeled with a second compound that is different from the first compound of the first labeled nucleotide.

39. The kit of claim 38, wherein the first labeled nucleotide and the second labeled nucleotide are excitable using a first light source wavelength.

40. The kit of claim 38 or 39, further comprising a third nucleotide, wherein the third nucleotide is labeled with a third compound that is different from the first and the second compounds, and wherein the first and third labeled nucleotides are excitable using a second light source wavelength.

41. The kit of claim 40, further comprising a fourth nucleotide, and wherein the fourth nucleotide is unlabeled (dark).

42. The kit of any one of claims 37 to 41, each of the first labeled nucleotide, the second labeled nucleotide and the third labeled nucleotide has an emission spectrum that is detectable in a single detection channel.

43. The kit of any one of claims 37 to 42, further comprising a DNA polymerase and one or more buffer compositions.

44. A method of determining the sequence of a target polynucleotide, comprising:

(a) contacting a primer polynucleotide/target polynucleotide complex with one or more labeled nucleotides, wherein at least one of said labeled nucleotide is a nucleotide of any one of claims 29 to 33, and wherein the primer polynucleotide is complementary to at least a portion of the target polynucleotide;

(b) incorporating a labeled nucleotide into the primer polynucleotide to produce an extended primer polynucleotide; and

(c) performing one or more fluorescent measurements of the extended primer polynucleotide to determine the identity of the incorporated nucleotide.

45. The method of claim 44, wherein the primer polynucleotide/target polynucleotide complex is formed by contacting the target polynucleotide with a primer polynucleotide complementary to at least a portion of the target polynucleotide.

46. The method of claim 44 or 45, further comprising (d) removing the label and the 3' blocking group from the nucleotide incorporated into the primer polynucleotide.

47. The method of claim 45, further comprising (e) washing the removed label and the 3' blocking group away from the primer polynucleotide.

48. The method of claim 47, further comprising repeating steps (a) to (e) until a sequence of at least a portion of the template polynucleotide strand is determined.

49. The method of claim 48, wherein the steps (a) to (e) is repeated at least 50 times.

50. The method of any one of claims 44 to 49, wherein the label and the 3' blocking group from the nucleotide incorporated into the primer polynucleotide are removed in a single chemical reaction.

51. The method of any one of claims 44 to 50, wherein the method is performed on an automated sequencing instrument, and wherein the automated sequencing instrument comprises two light sources operating at different wavelengths.