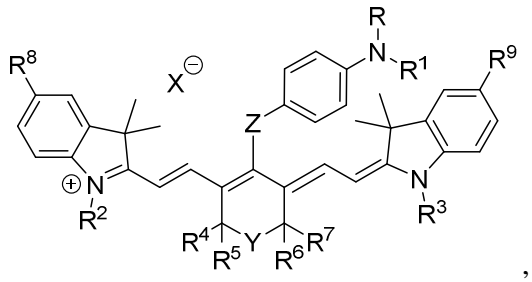
Claims:

1. A compound having the following structure:



,

wherein

X is an anion;

Y is NH, NR^{10}, or $CR^{11}R^{12}$;

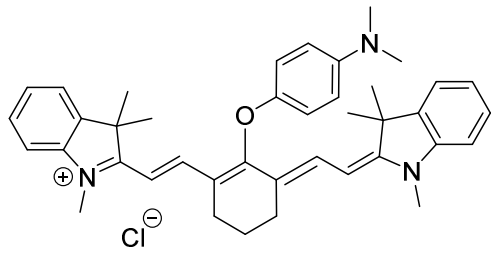
Z is O;

R and R^1 are independently chosen from methyl, ethyl, propyl, isopropyl, butyl, isobutyl, n-butyl, t-butyl, and combinations thereof;

R^2 and R^3 are independently chosen from methyl, ethyl, propyl, isopropyl, butyl, isobutyl, n-butyl, t-butyl, and combinations thereof;

R^4, R^5, R^6, R^7, R^8, and $R^9$are independently chosen from hydrogen, alkyl groups, and combinations thereof,

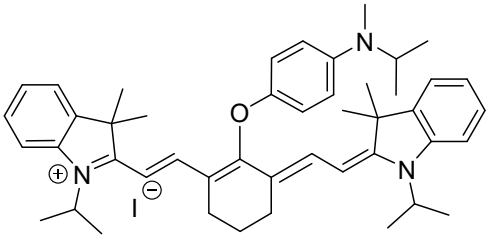
with the proviso the compound does not have the following structure:

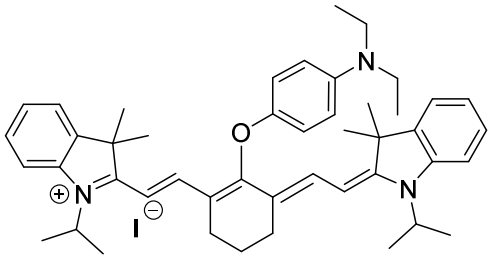


CypH-1

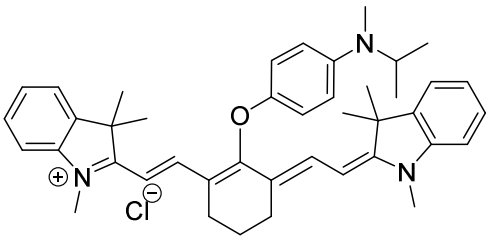
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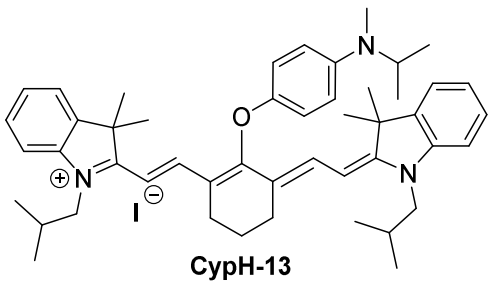
2. A compound of claim 1, wherein the compound has the following structure



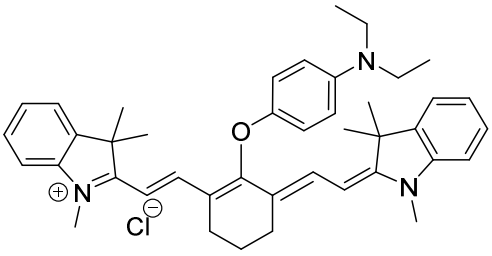
CypH-11, 

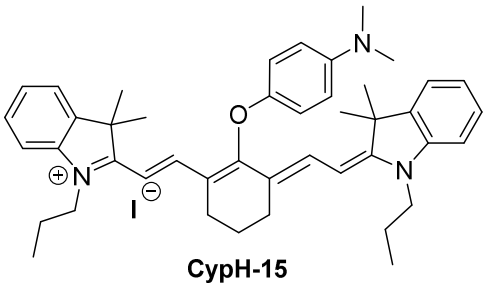
CypH-21,



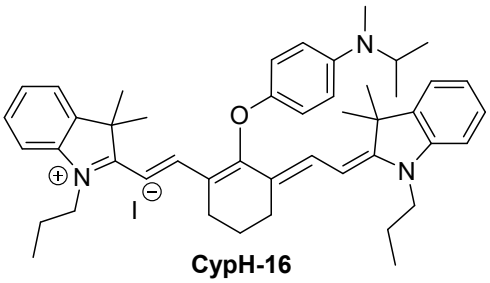
CypH-12, 

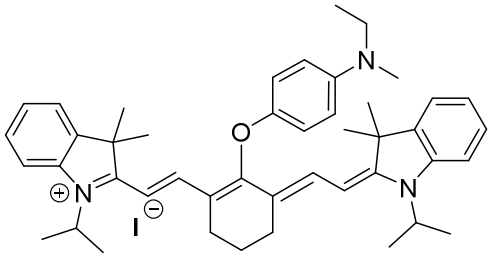
CypH-13,



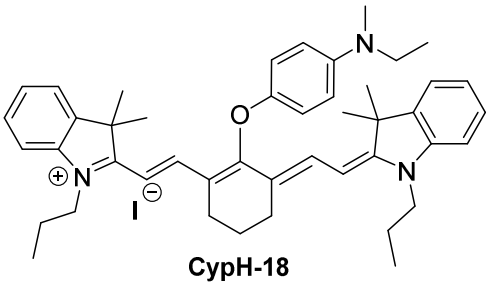
CypH-14, 

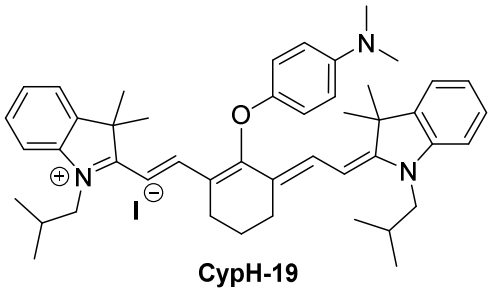
CypH-15,



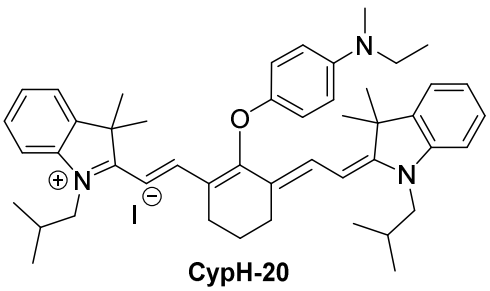
CypH-16, 

CypH-17,

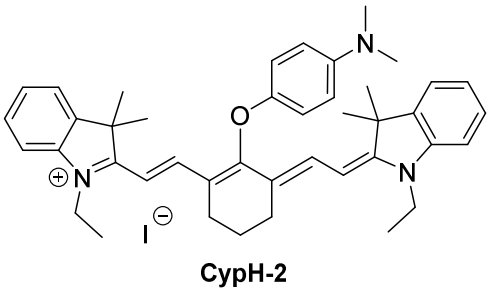


CypH-18, 

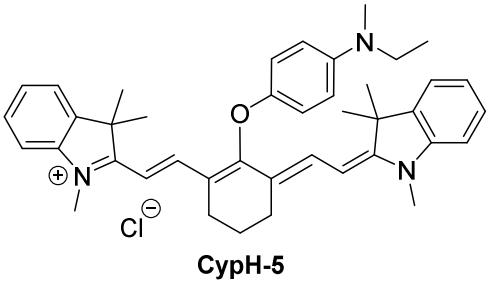
CypH-19,



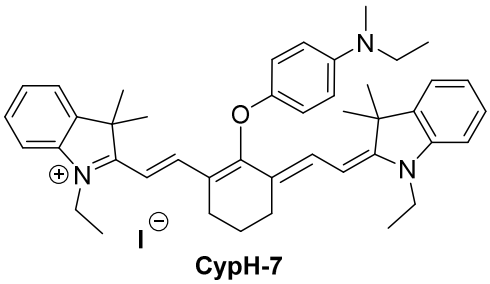
CypH-20 ,



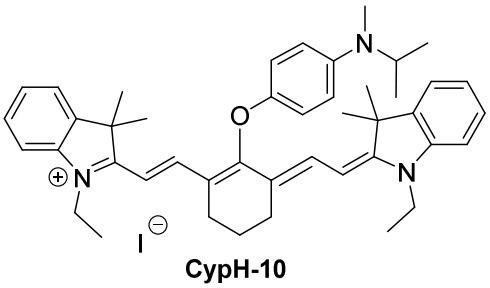
CypH-2 ,



CypH-5 ,

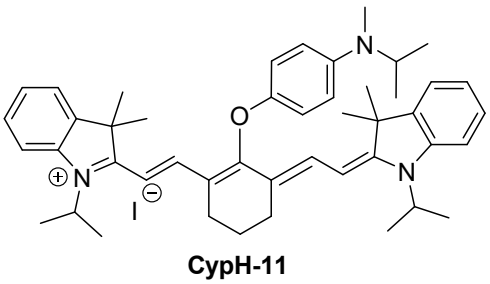


CypH-7 , or



CypH-10 .

3. A compound of claim 2, wherein the compound has the following structure:



CypH-11 .

4. A composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier.

5. The composition of claim 4, wherein the concentration of the compound is 0.5 to 10 μM.

6. The composition of claim 4, wherein the composition is a sprayable composition or oral rinse.

7. A method of determining the presence and/or location of a solid tumor in an individual in need of treatment comprising:

administering or applying a compound of claim 1 or a composition comprising the compound to an area of interest on/in the individual;

exposing the area of interest to near infrared electromagnetic radiation; and

imaging and/or visualizing the area of interest,

wherein the presence and/or location of the solid tumor is determined.

8. The method of claim 7, wherein a signal is generated from the exposing and the signal is detected in less than 5 minutes.

9. The method of claim 8, wherein the signal is detected in less than 1 minute.

10. The method of claim 7, wherein the administering/applying is a topical administration/application.

11. The method of claim 10, wherein the topical administration/application is spraying or an oral rinsing.

12. The method of claim 7, wherein the solid tumor is chosen from ovarian tumors, skin cancer, pancreatic cancer, genitourinary cancer, colon tumors, bladder tumors, brain tumors, esophagus tumors, cervical tumors, oral tumors, and combinations thereof.

13. The method of claim 7, wherein the administration/application to the solid tumor results in the protonation of the compound.

14. A method of imaging a solid tumor comprising:

applying or administering a compound of claim 1 to the solid tumor;

exposing an area of interest to near-infrared electromagnetic radiation; and

obtaining an image of the solid tumor.

15. The method of claim 14, wherein after application or administration of the compound, wherein a signal is generated from the exposing and the signal is detected in less than 5 minutes.

16. The method of claim 15, wherein the signal is detected in less than 1 minute.

17. The method of claim 16, wherein the administering/applying is a topical administration/application.

18. The method of claim 15, wherein the topical administration/application is spraying or an oral rinsing.

19. The method of claim 15, wherein the solid tumor is chosen from ovarian tumors, skin cancer, pancreatic cancer, genitourinary cancer, brain tumors, colon tumors, bladder tumors, esophagus tumors, cervical tumors, oral tumors, and combinations thereof.

20. A method for determining margins of a solid tumor, comprising:

applying or administering a compound of claim 1 to the solid tumor;

exposing an area of interest to near-infrared electromagnetic radiation;

imaging and/or visualizing the area of interest; and

determining the margin of the solid tumor,

wherein the margins of the solid tumor against non-cancerous tissue is determined.

21. The method of claim 20, wherein the applying or administering is spraying or an oral rinsing.

22. The method of claim 20, wherein a signal is generated from the exposing and the signal is detected in less than 5 minutes.

23. The method of claim 22, wherein the signal is detected in less than 1 minute.

24. The method of claim 20, wherein the solid tumor is chosen from ovarian tumors, skin cancer, pancreatic cancer, genitourinary cancer, brain tumors, colon tumors, bladder tumors, esophagus tumors, cervical tumors, oral tumors, and combinations thereof.

25. A kit comprising a compound of claim 1.