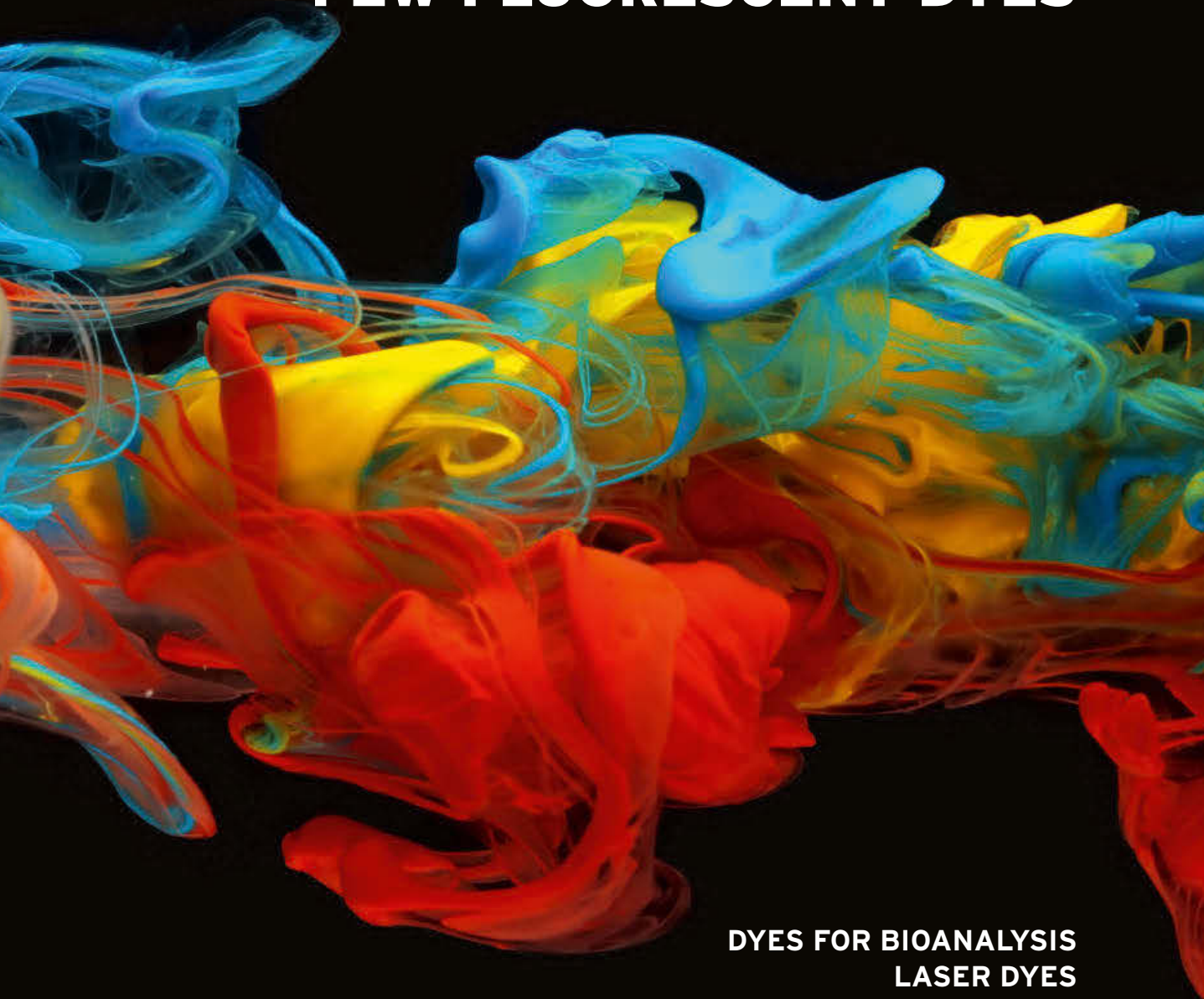
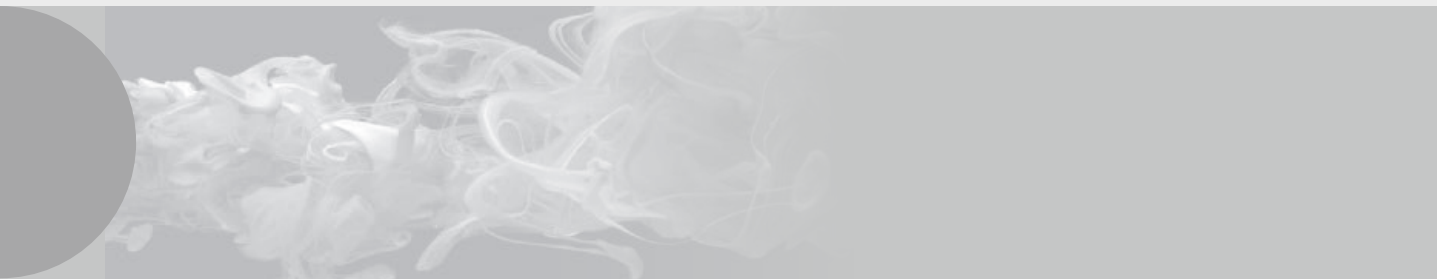


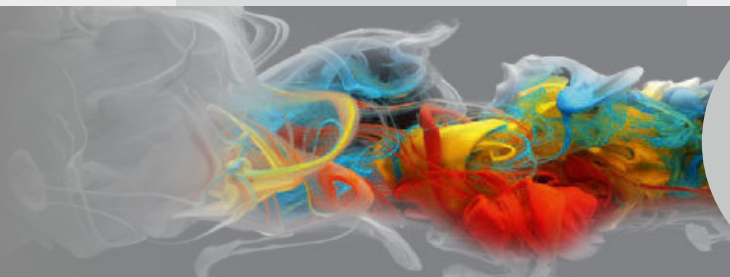
FEW  **CHEMICALS**

FEW FLUORESCENT DYES



**DYES FOR BIOANALYSIS
LASER DYES
MEMBRANE POTENTIAL SENSITIVE DYES**

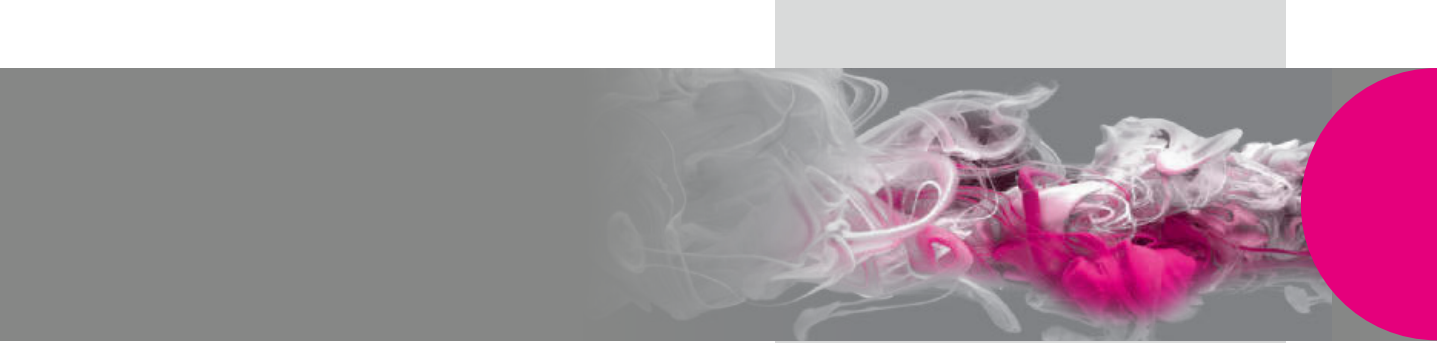




FEW FLUORESCENT DYES

Contents

Amine Reactive Dyes	3
Solvent Soluble Cyanine Dyes	29
Water Soluble Cyanine Dyes	47
Hemicyanine Dyes	57
Coumarins and related Dyes	71
Squarylium Dyes	93
Index	99



Amine Reactive Dyes

Absorption maximum

419 nm (MeOH)

Emission maximum

467 nm

Quantum yield

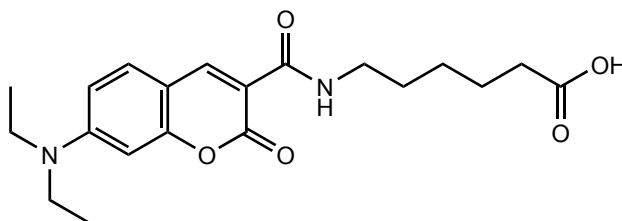
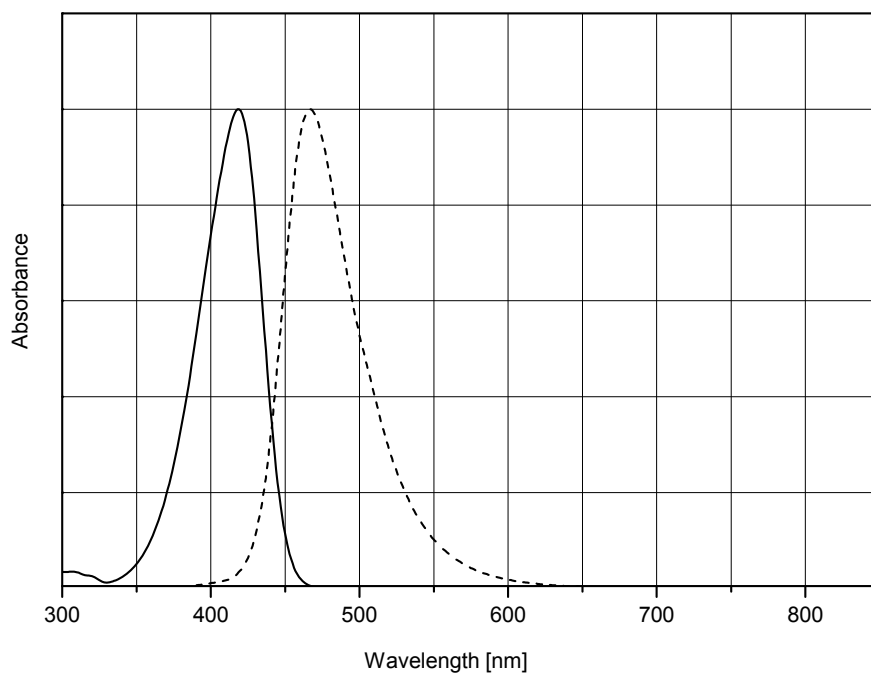
0.02

Total formula $C_{20}H_{26}N_2O_5$ **Molecular weight**374.44 g mol⁻¹**CAS #**

2015221-38-0

Name

6-[(7-Diethylamino-2-oxo-2H-chromene-3-carbonyl)-amino]-hexanoic acid

Structure**Spectrum**

S 2410

Absorption maximum

419 nm (MeOH)

Emission maximum

467 nm

Quantum yield

Total formula

C₂₄H₂₉N₃O₇

Molecular weight

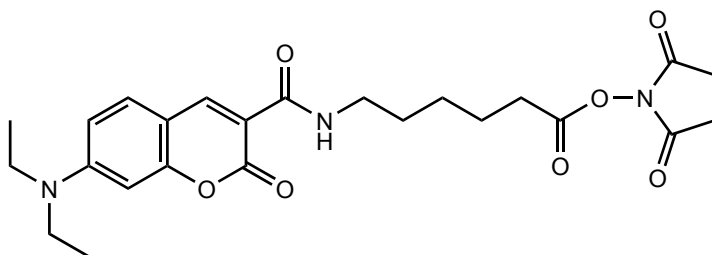
471.51 g mol⁻¹

CAS

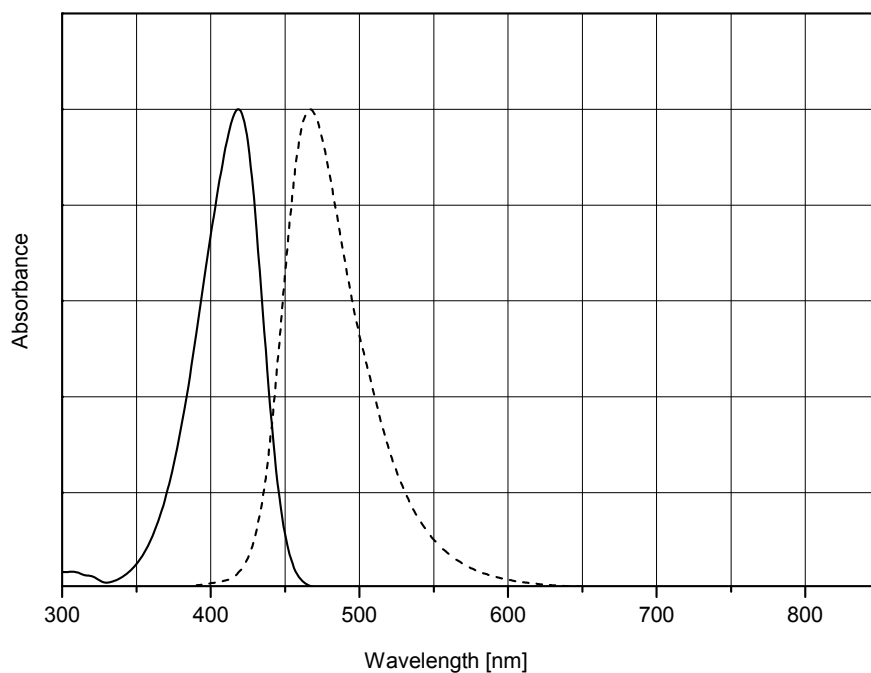
Name

6-[(7-Diethylamino-2-oxo-2H-chromene-3-carbonyl)-amino]-hexanoic acid 2,5-dioxo-pyrrolidin-1-yl ester

Structure



Spectrum



Absorption maximum

428 nm (MeOH)

Emission maximum

464 nm

Quantum yield

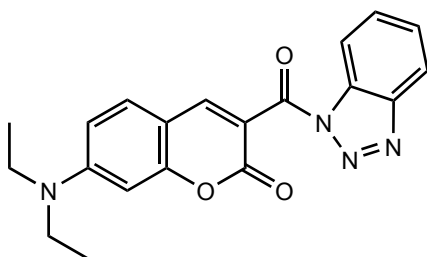
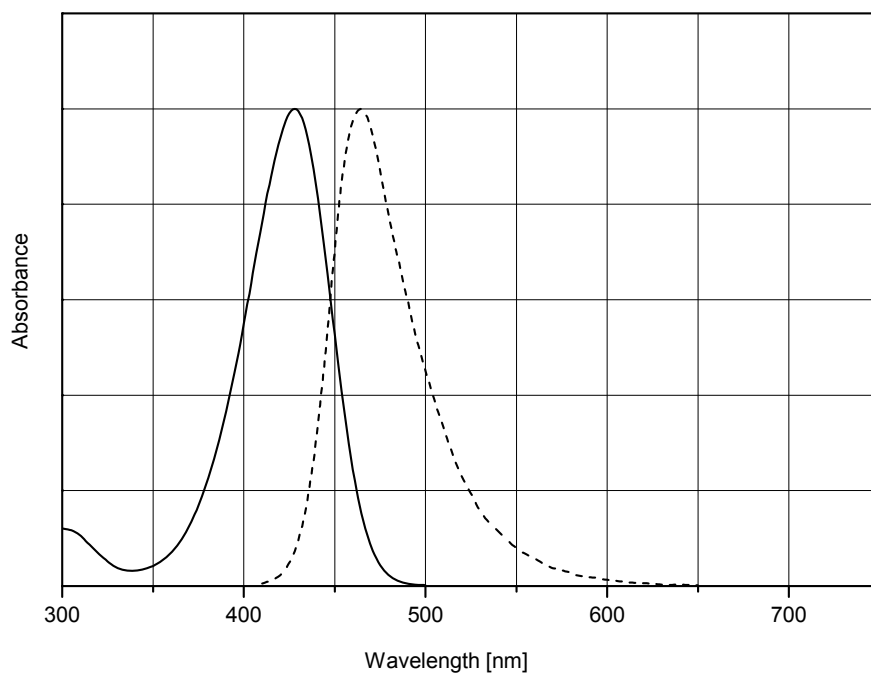
0.03

Total formula $C_{20}H_{18}N_4O_3$ **Molecular weight**362.39 g mol⁻¹**CAS #**

1286276-78-5

Name

3-(Benzotriazole-1-carbonyl)-7-diethylamino-chromen-2-one

Structure**Spectrum**

Absorption maximum

549 nm (MeOH)

Emission maximum

563 nm

Quantum yield

0.06

Total formula

$C_{32}H_{41}BrN_2O_2$

Molecular weight

565.59 g mol⁻¹

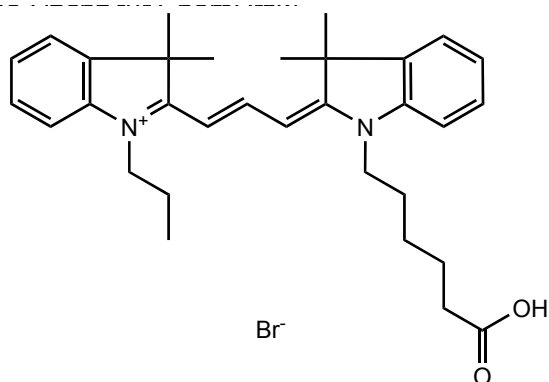
CAS

1355043-65-0

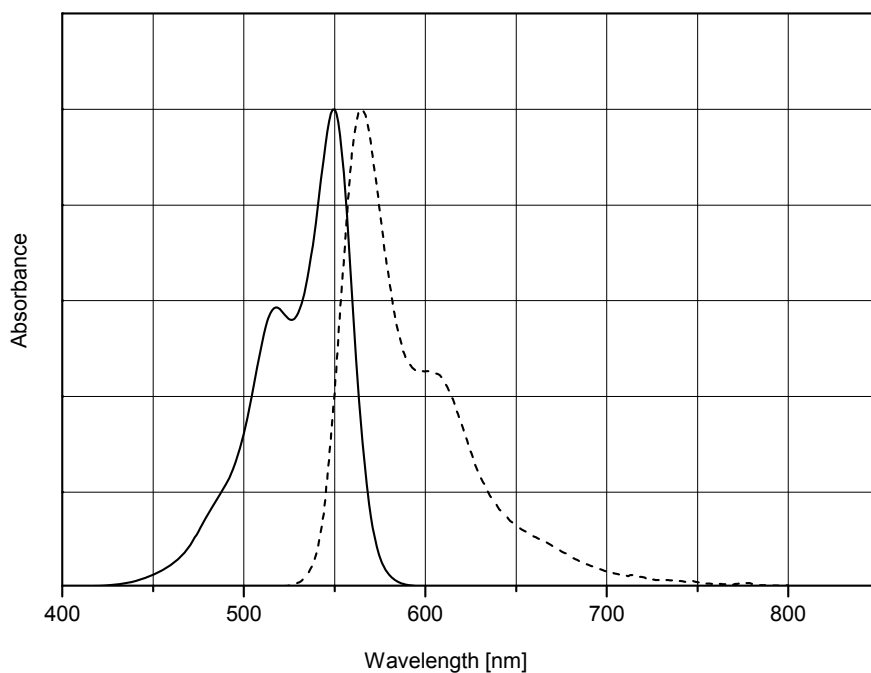
Name

2-[3-[1-(5-Carboxypentyl)-3,3-dimethyl-1,3-dihydro-indol-2-ylidene]-propenyl]-3,3-dimethyl-1-propyl-3H-indolium bromide

Structure



Spectrum



Absorption maximum

549 nm (MeOH)

Emission maximum

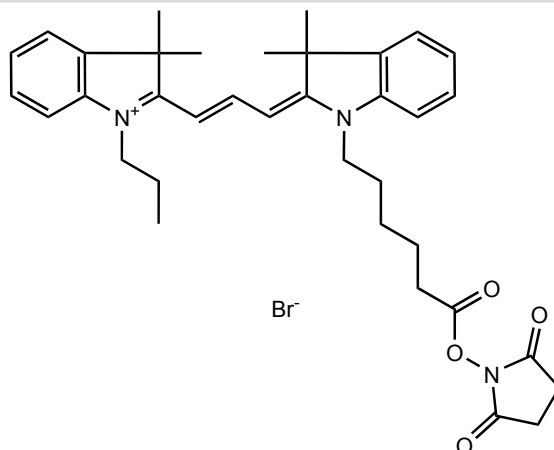
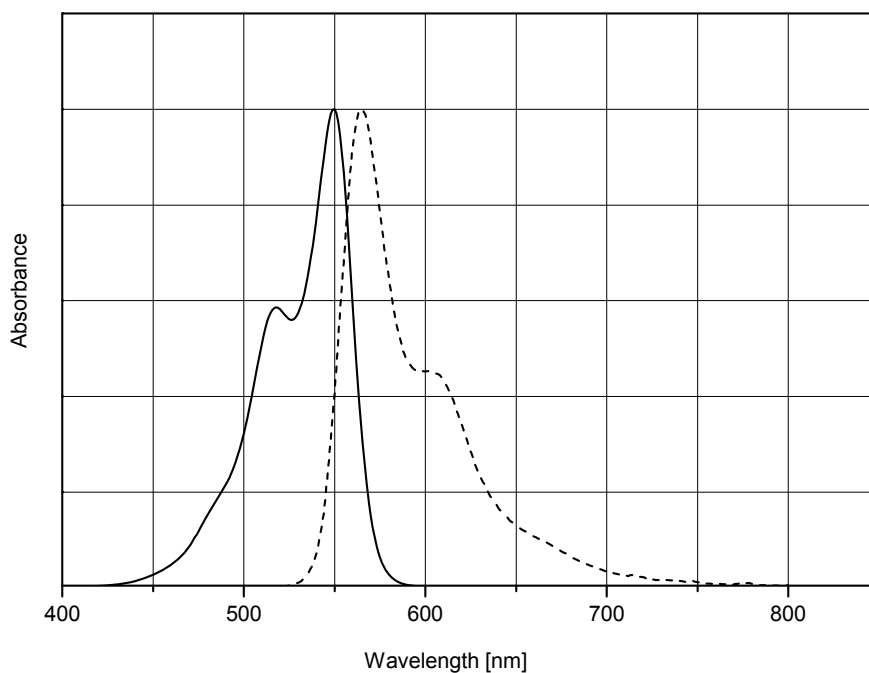
563 nm

Quantum yield**Total formula** $C_{36}H_{44}BrN_3O_4$ **Molecular weight**662.67 g mol⁻¹**CAS #**

350686-87-2

Name

2-(3-[1-[5-(2,5-Dioxo-pyrrolidin-1-yloxycarbonyl)-pentyl]-3,3-dimethyl-1,3-dihydro-indol-2-ylidene]-propenyl)-3,3-dimethyl-1-propyl-3H-indolium bromide

Structure**Spectrum**

Absorption maximum

550 nm (MeOH)

Emission maximum

565 nm

Quantum yield

0.07

Total formula

$C_{33}H_{42}N_2O_5S$

Molecular weight

578.77 g mol⁻¹

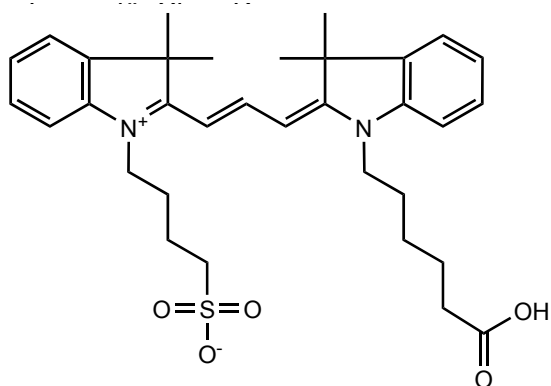
CAS

644979-14-6

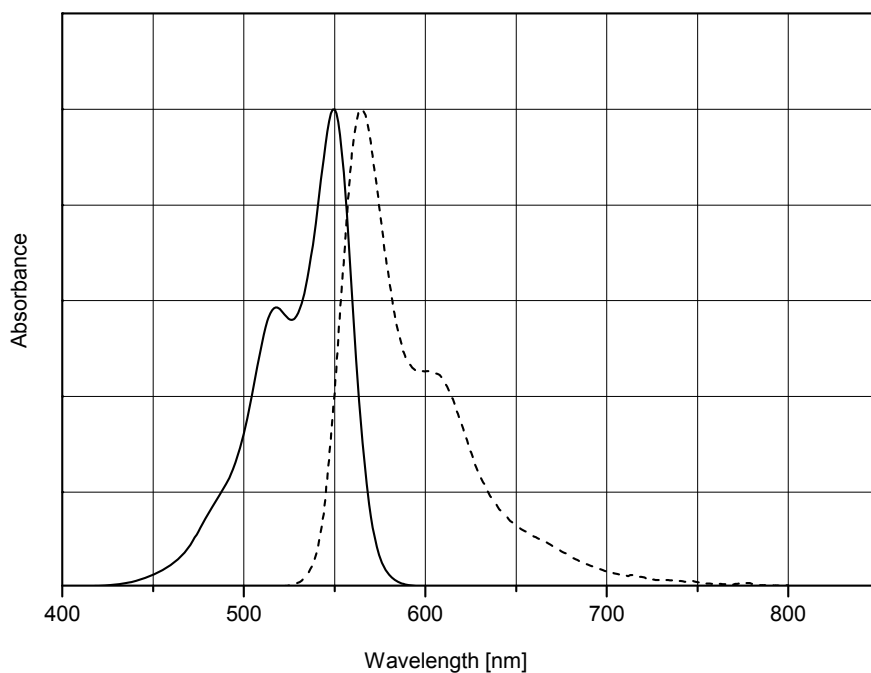
Name

2-[3-[1-Carboxypentyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-propenyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt

Structure



Spectrum



Absorption maximum

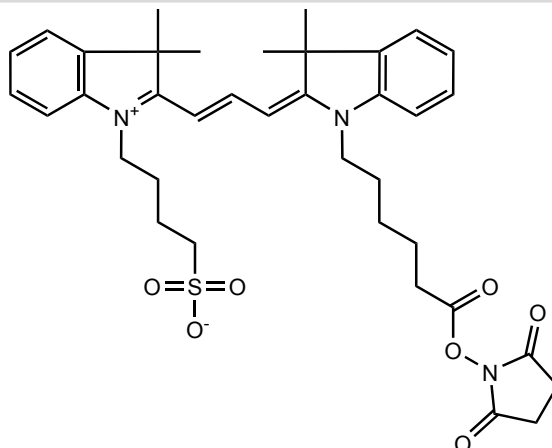
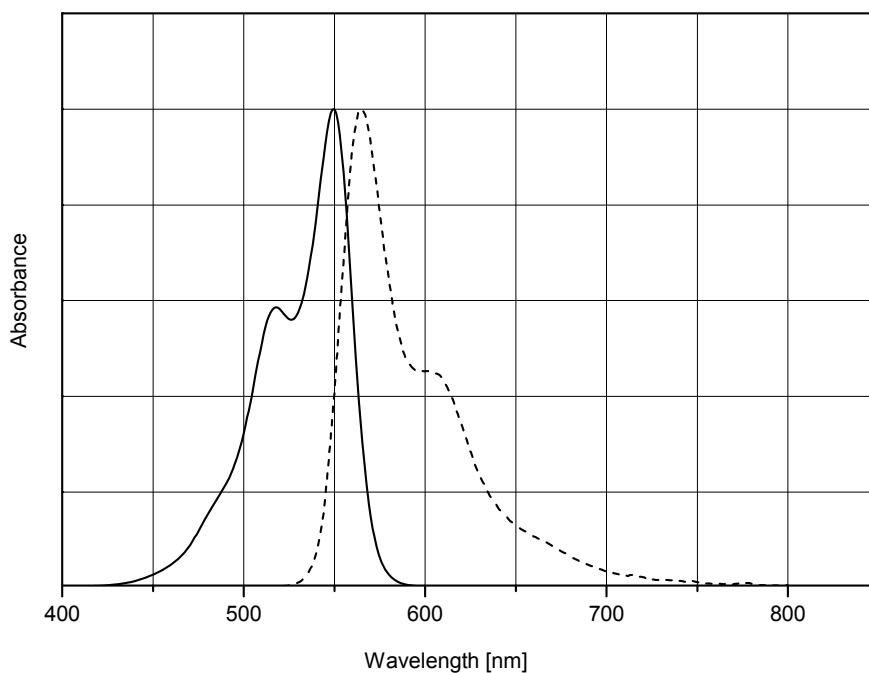
550 nm (MeOH)

Emission maximum

565 nm

Quantum yield**Total formula** $C_{37}H_{45}N_3O_7S$ **Molecular weight**675.84 g mol⁻¹**CAS #****Name**

2-(3-[1-[5-(2,5-Dioxo-pyrrolidin-1-yloxycarbonyl)-pentyl]-3,3-dimethyl-1,3-dihydro-indol-2-ylidene]-propenyl)-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt

Structure**Spectrum**

Absorption maximum

553 nm (MeOH)

Emission maximum

568 nm

Quantum yield

0.08

Total formula

$C_{33}H_{41}N_2NaO_8S_2$

Molecular weight

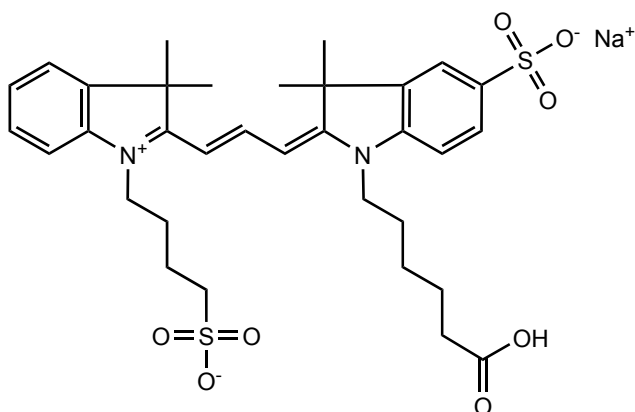
680.81 g mol⁻¹

CAS

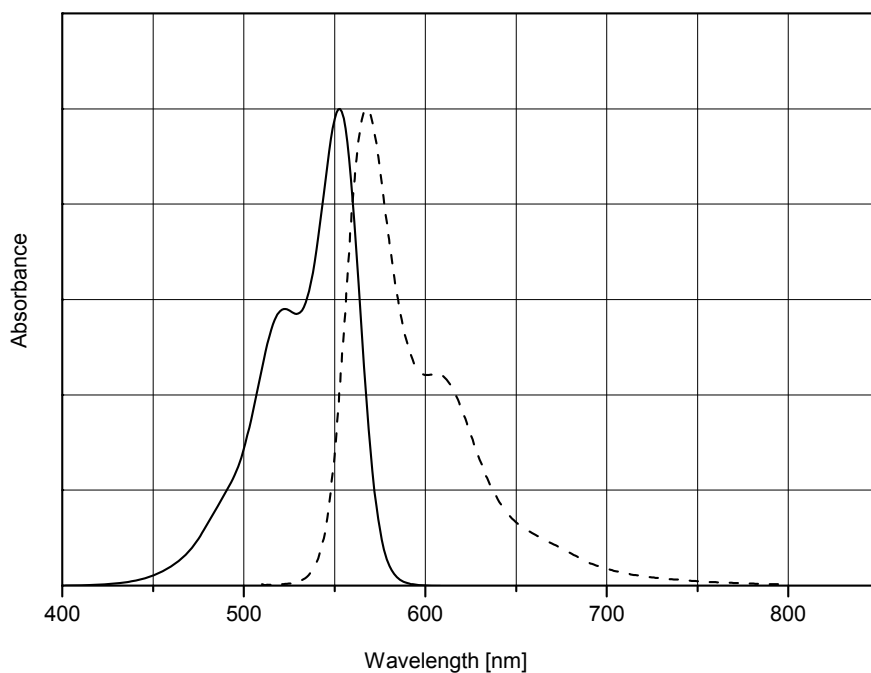
Name

2-[5-[1-(-Carboxypentyl)-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]propenyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt, sodium salt

Structure



Spectrum



Absorption maximum

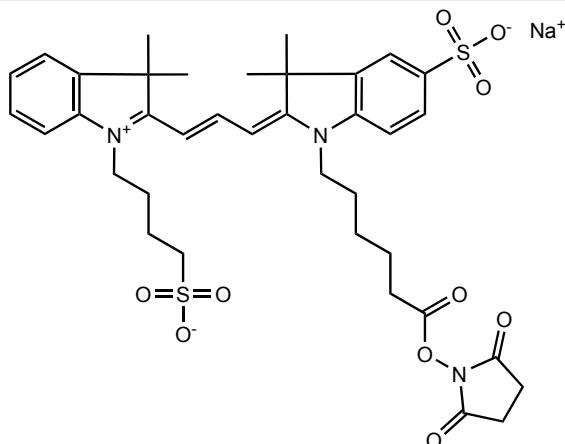
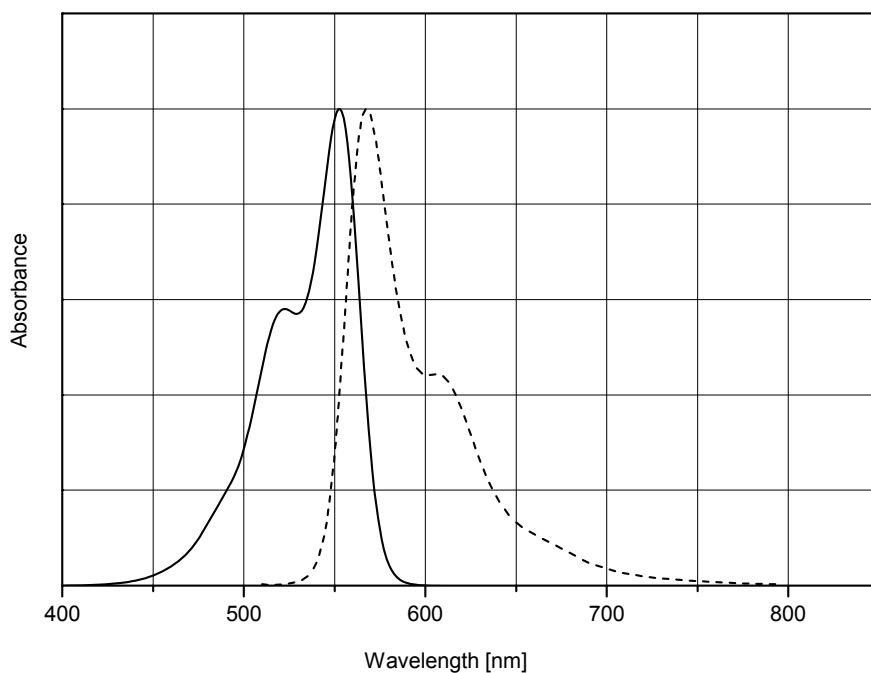
553 nm (MeOH)

Emission maximum

568 nm

Quantum yield**Total formula** $C_{37}H_{44}N_3NaO_{10}S_2$ **Molecular weight**777.88 g mol⁻¹**CAS #****Name**

2-(3-[1-[5-(2,5-Dioxo-pyrrolidin-1-yloxycarbonyl)-pentyl]-3,3-dimethyl-5-sulfo-1,3-dihydro-indol-2-ylidene]-propenyl)-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt, sodium salt

Structure**Spectrum**

Absorption maximum

642 nm (MeOH)

Emission maximum

663 nm

Quantum yield

0.23

Total formula

$C_{32}H_{39}BrN_2O_2$

Molecular weight

563.58 g mol⁻¹

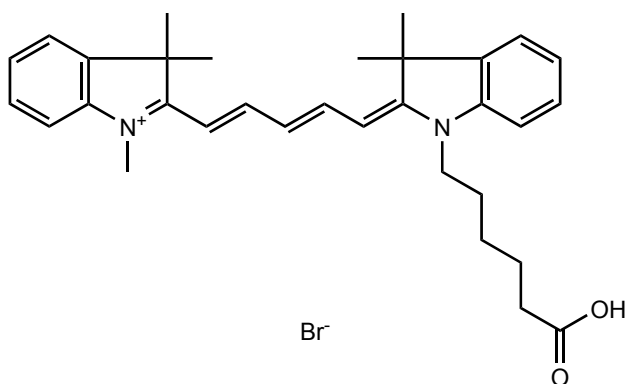
CAS

666829-25-0

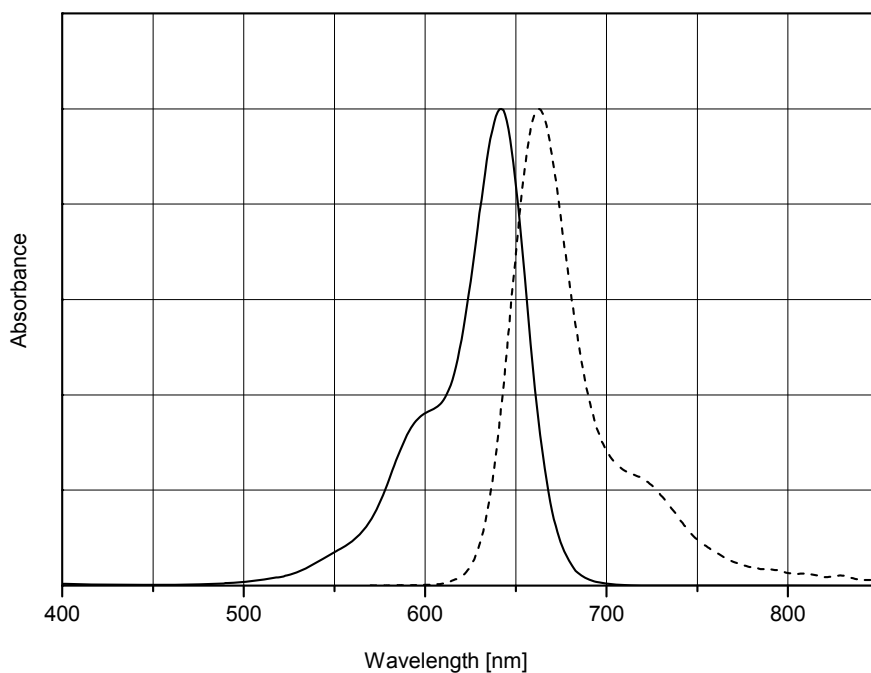
Name

2-[5-[1-(5-Carboxypentyl)-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-penta-1,3-dienyl]-1,3,3-trimethyl-3H-indolium bromide

Structure



Spectrum



Absorption maximum

642 nm (MeOH)

Emission maximum

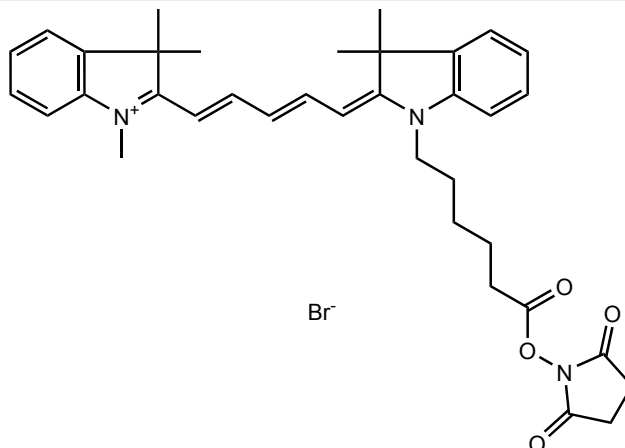
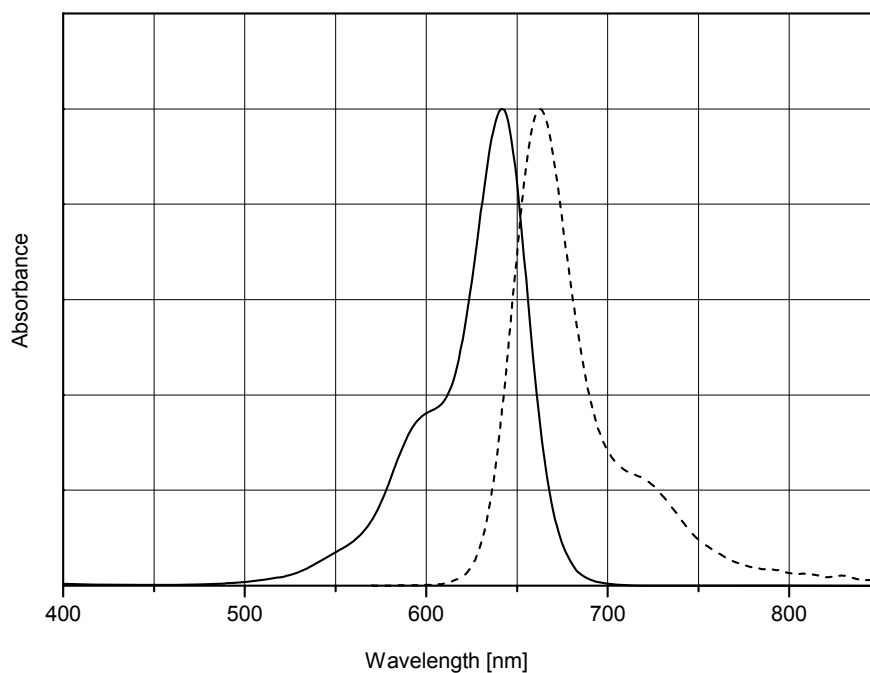
663 nm

Quantum yield**Total formula** $C_{36}H_{42}BrN_3O_4$ **Molecular weight**660.65 g mol⁻¹**CAS #**

1653991-59-3

Name

2-(5-[1-[5-(2,5-Dioxo-pyrrolidin-1-yloxycarbonyl)-pentyl]-3,3-dimethyl-1,3-dihydro-indol-2-ylidene]-penta-1,3-dienyl)-1,3,3-trimethyl-3H-indolium bromide

Structure**Spectrum**

Absorption maximum

644 nm (MeOH)

Emission maximum

666 nm

Quantum yield

0.29

Total formula

$C_{35}H_{44}N_2O_5S$

Molecular weight

604.80 g mol⁻¹

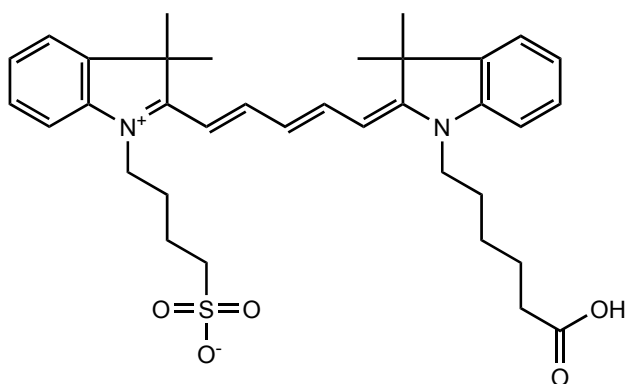
CAS

644979-16-8

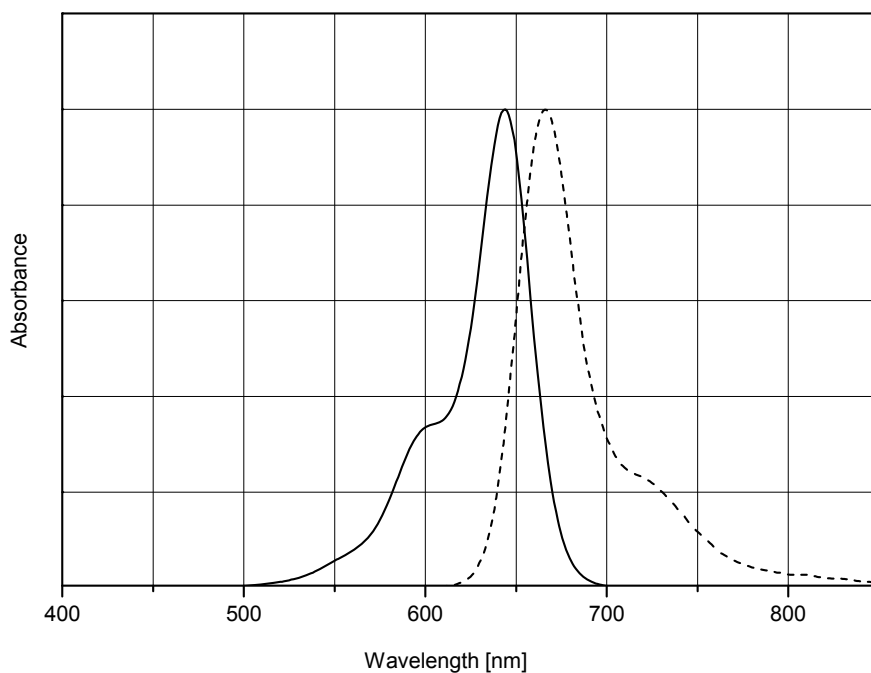
Name

2-[5-[1-Carboxypentyl-1,3-dihydro-3,3-dimethyl-2H-indol-2-ylidene]-penta-1,3-dienyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt

Structure



Spectrum



Absorption maximum

644 nm (MeOH)

Emission maximum

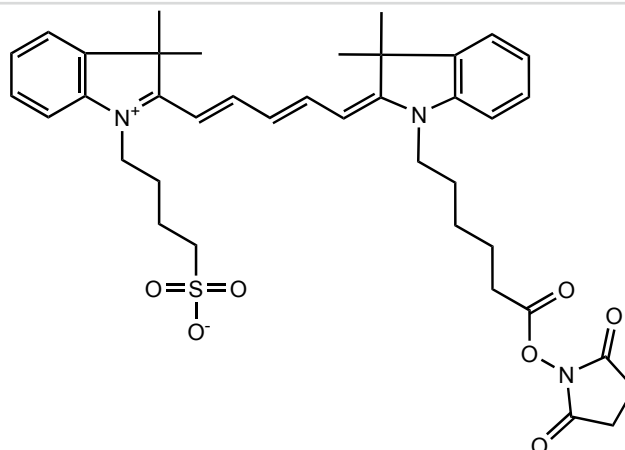
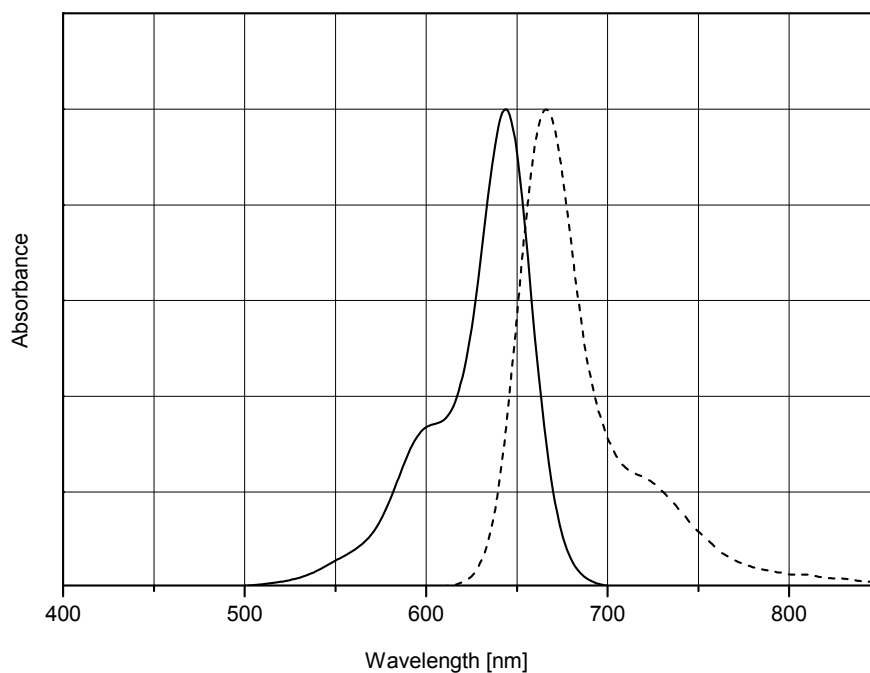
666 nm

Quantum yield**Total formula** $C_{39}H_{47}N_3O_7S$ **Molecular weight**701.88 g mol⁻¹**CAS #**

400051-84-5

Name

2-(5-[1-[5-(2,5-Dioxo-pyrrolidin-1-yloxycarbonyl)-pentyl]-3,3-dimethyl-1,3-dihydro-indol-2-ylidene]-penta-1,3-dienyl)-3,3-dimethyl-1-(4-sulfobutyl)-4,5-dihydro-3H-indolium hydroxide, inner salt

Structure**Spectrum**

Absorption maximum

646 nm (MeOH)

Emission maximum

669 nm

Quantum yield

0.31

Total formula

$C_{35}H_{43}N_2NaO_8S_2$

Molecular weight

706.84 g mol⁻¹

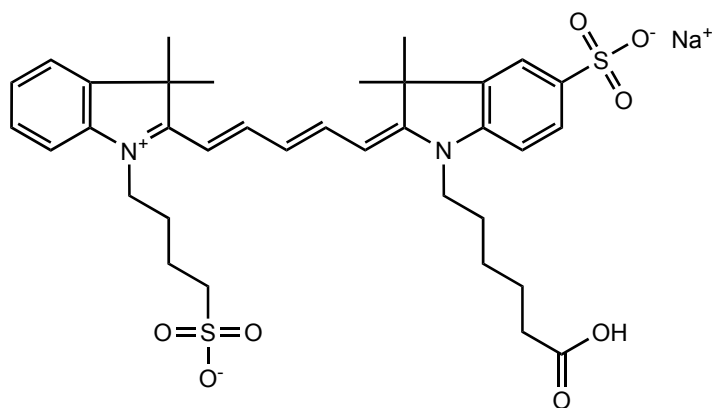
CAS

666829-22-7

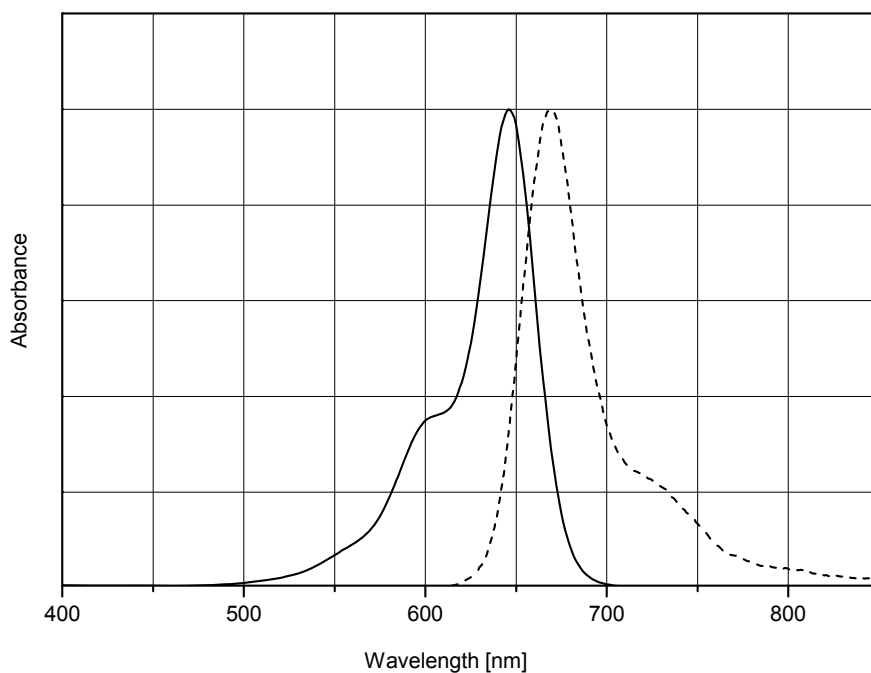
Name

2-[5-[1-(5-Carboxypentyl)-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-penta-1,3-dienyl]-3,3-dimethyl-1-(4-sulfo-4-butyl)-3H-indolium hydroxide, inner salt, sodium salt

Structure



Spectrum



Absorption maximum

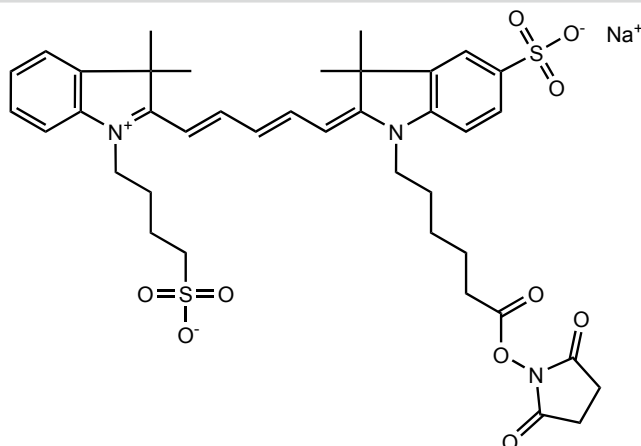
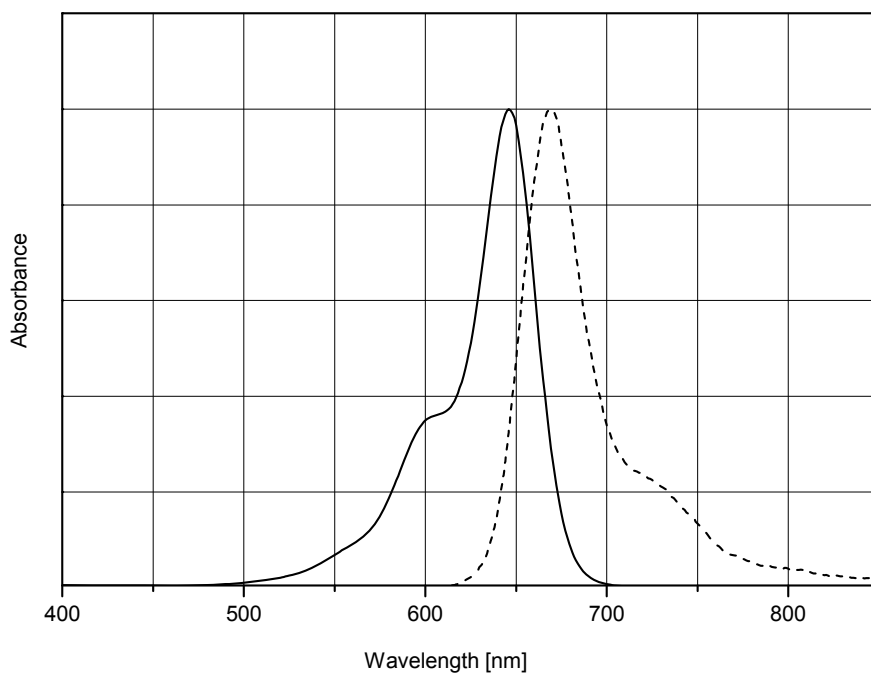
646 nm (MeOH)

Emission maximum

669 nm

Quantum yield**Total formula** $C_{39}H_{46}N_3NaO_{10}S_2$ **Molecular weight**803.92 g mol⁻¹**CAS #****Name**

2-(5-[1-[5-(2,5-Dioxo-pyrrolidin-1-yloxycarbonyl)-pentyl]-3,3-dimethyl-5-sulfo-1,3-dihydro-indol-2-ylidene]-penta-1,3-dienyl)-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt, sodium salt

Structure**Spectrum**

Absorption maximum

648 nm (MeOH)

Emission maximum

663 nm

Quantum yield

0.17

Total formula

$C_{36}H_{44}N_2Na_2O_{11}S_3$

Molecular weight

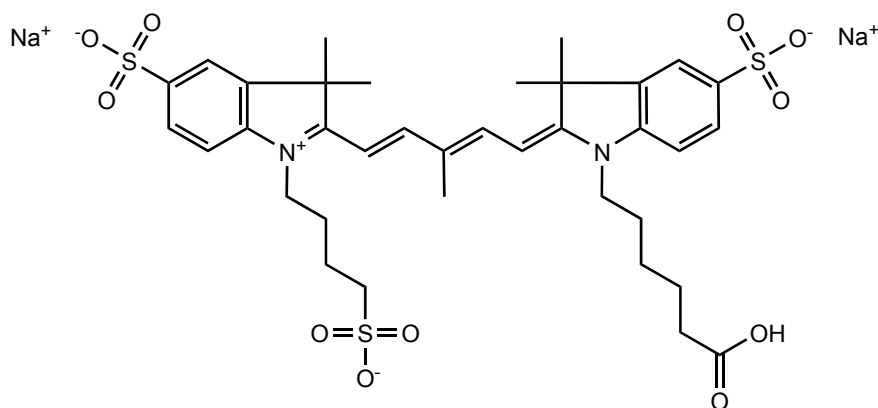
822.91 g mol⁻¹

CAS

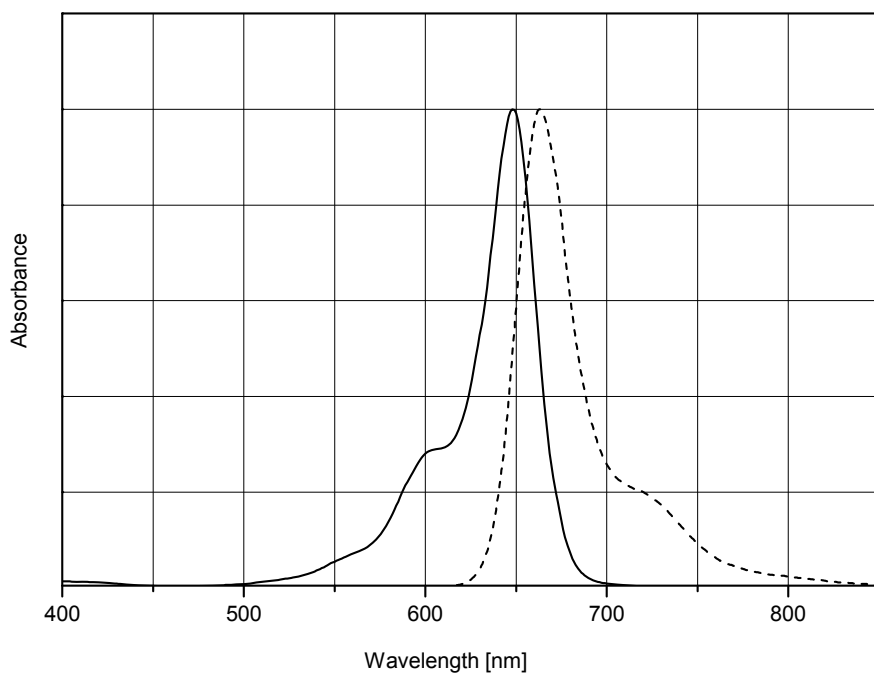
Name

2-[5-[1-(5-Carboxypentyl)-3,3-dimethyl-5-sulfo-1,3-dihydro-indol-2-ylidene]-3-methyl-penta-1,3-dienyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt, disodium salt

Structure



Spectrum



Absorption maximum

648 nm (MeOH)

Emission maximum

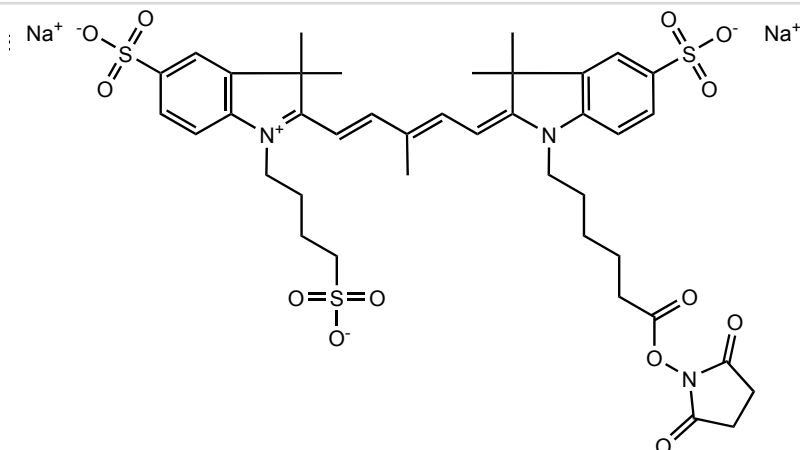
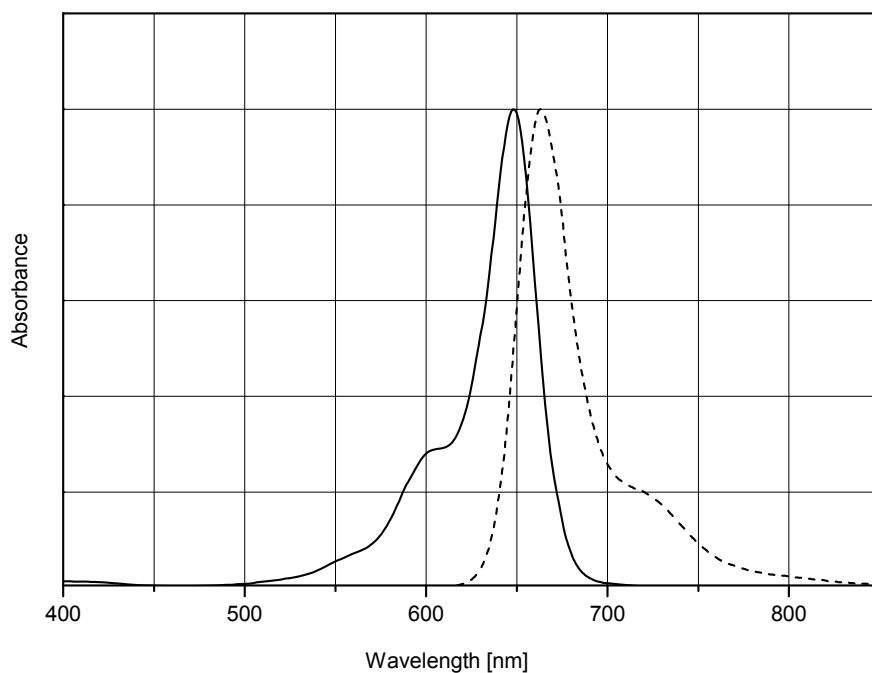
663 nm

Quantum yield**Total formula** $C_{40}H_{47}N_3Na_2O_{13}S_3$ **Molecular weight**919.99 g mol⁻¹**CAS #**

1644274-35-0

Name

2-(5-(1-[5-(2,5-Dioxo-pyrrolidin-1-yloxycarbonyl)-pentyl]-3,3-dimethyl-5-sulfo-1,3-dihydro-indol-2-ylidene)-3-methyl-penta-1,3-dienyl)-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt, disodium salt

Structure**Spectrum**

S 2405

Absorption maximum

650 nm (MeOH)

Emission maximum

671 nm

Quantum yield

0.33

Total formula

$C_{35}H_{42}N_2Na_2O_{11}S_3$

Molecular weight

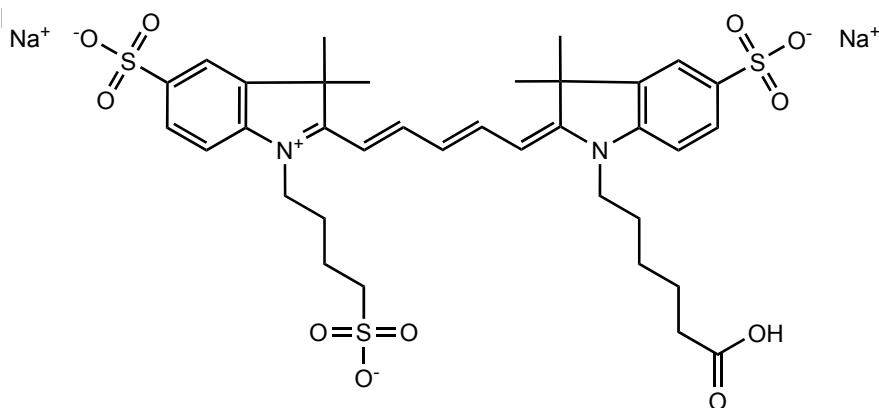
808.88 g mol⁻¹

CAS

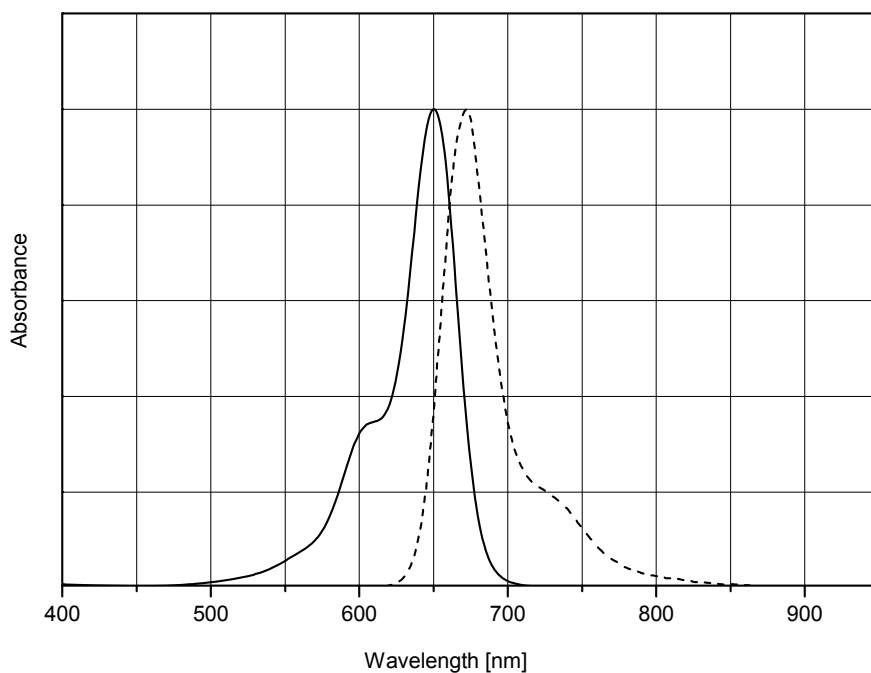
Name

2-[5-[1-(5-Carboxypentyl)-3,3-dimethyl-5-sulfo-1,3-dihydro-indol-2-ylidene]-penta-1,3-dienyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt, disodium salt

Structure



Spectrum



Absorption maximum

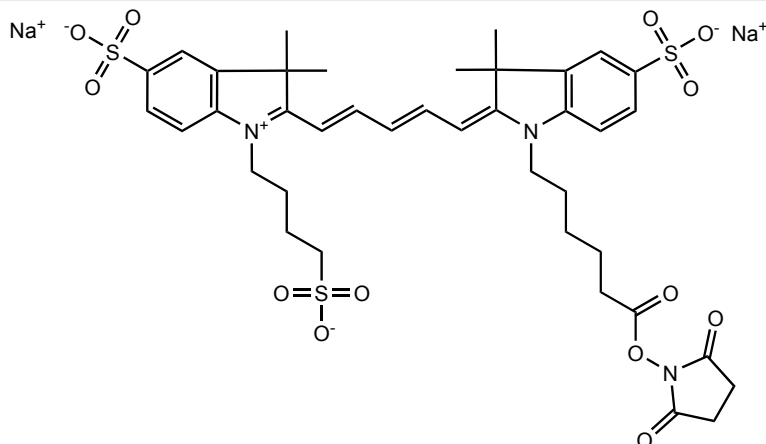
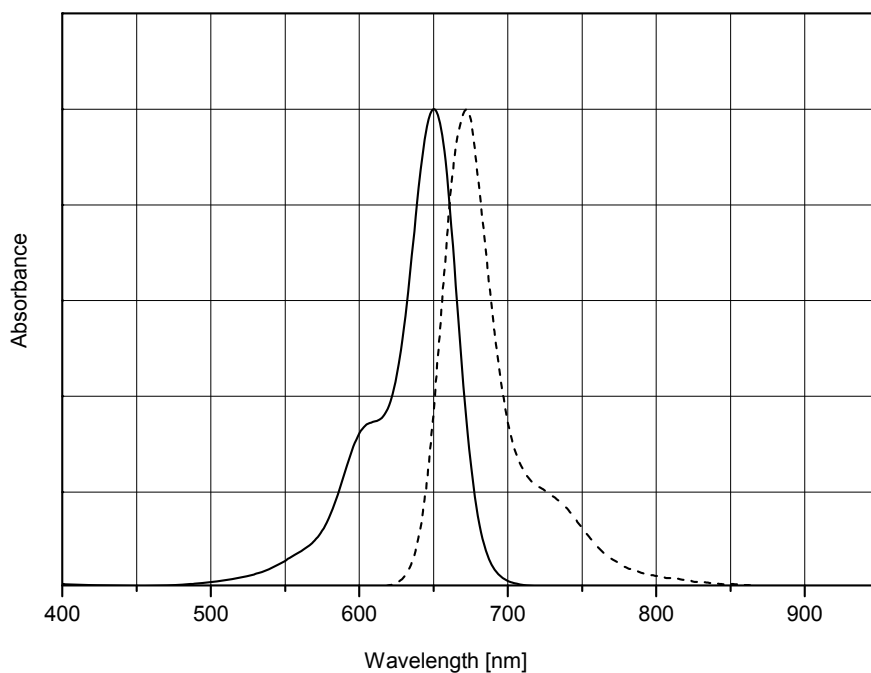
650 nm (MeOH)

Emission maximum

671 nm

Quantum yield**Total formula** $C_{39}H_{45}N_3Na_2O_{13}S_3$ **Molecular weight**905.96 g mol⁻¹**CAS #****Name**

2-(5-[1-[5-(2,5-Dioxo-pyrrolidin-1-yloxycarbonyl)-pentyl]-3,3-dimethyl-5-sulfo-1,3-dihydro-indol-2-ylidene]-penta-1,3-dienyl)-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt, disodium salt

Structure**Spectrum**

Absorption maximum

681 nm (MeOH)

Emission maximum

705 nm

Quantum yield

0.22

Total formula

C₄₃H₄₈N₂O₅S

Molecular weight

704.92 g mol⁻¹

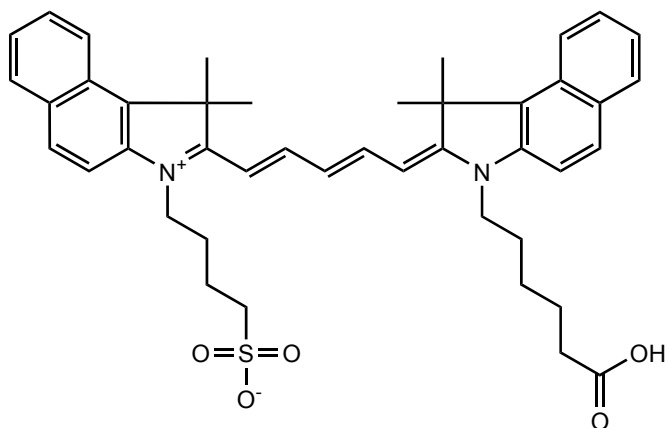
CAS

210105-75-2

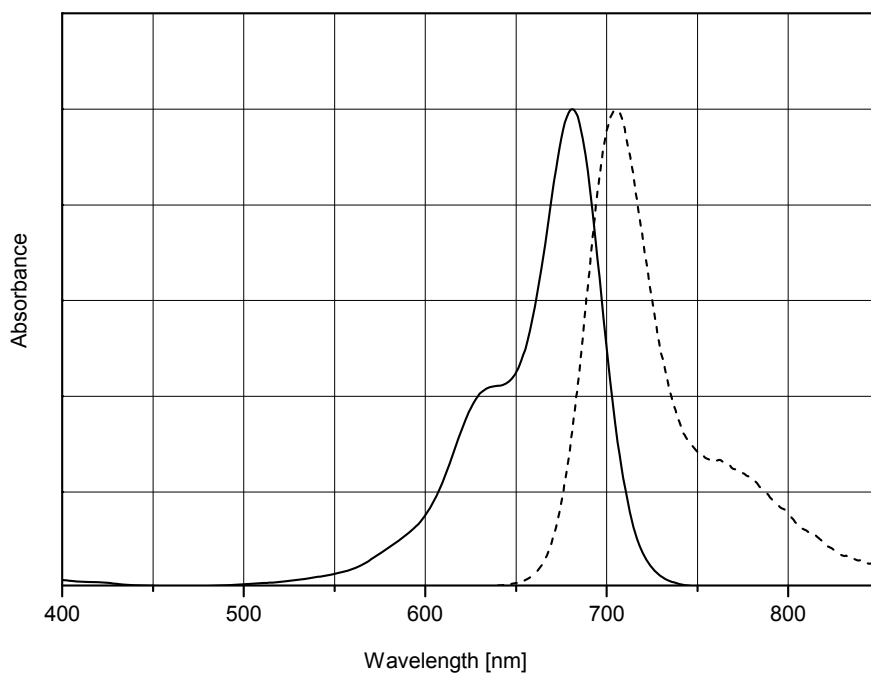
Name

2-[5-[3-(5-Carboxypentyl)-1,3-dihydro-1,1-dimethyl-2H-benzo[e]indol-2-ylidene]-penta-1,3-dienyl]-1,1-dimethyl-3-(4-sulfobutyl)-1H-benzo[e]indolium hydroxide, inner salt

Structure



Spectrum



Absorption maximum

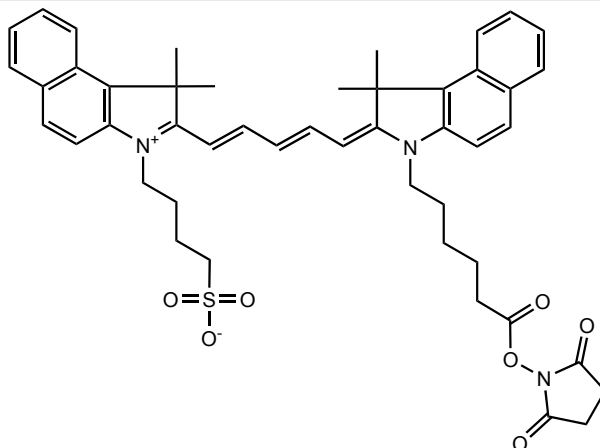
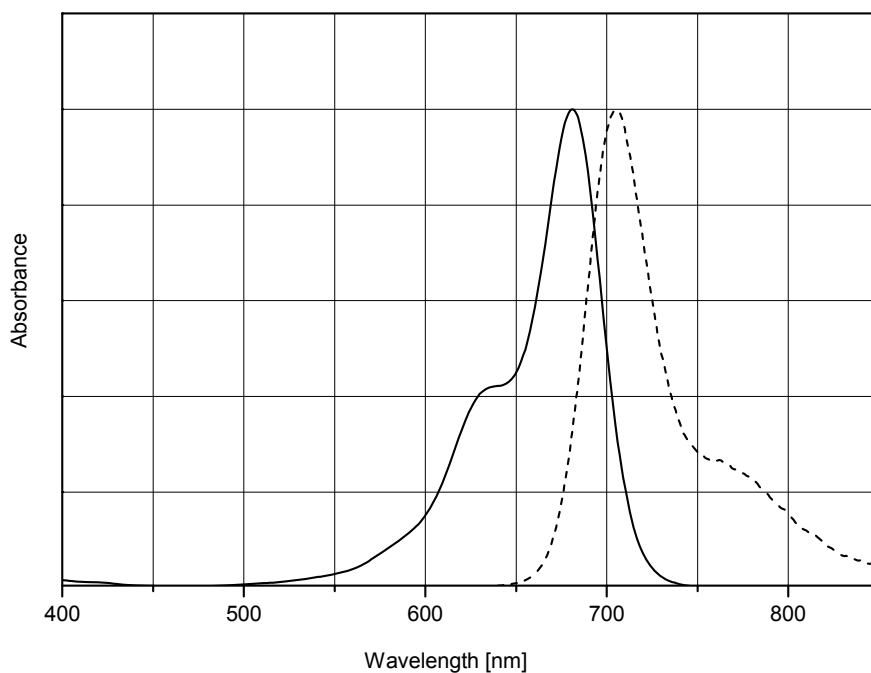
681 nm (MeOH)

Emission maximum

705 nm

Quantum yield**Total formula** $C_{47}H_{51}N_3O_7S$ **Molecular weight**802.00 g mol⁻¹**CAS #****Name**

2-(5-[3-[5-(2,5-Dioxo-pyrrolidin-1-yloxycarbonyl)-pentyl]-1,1-dimethyl-1,3-dihydro-benzo[e]indol-2-ylidene]-penta-1,3-dienyl)-1,1-dimethyl-3-(4-sulfobutyl)-1H-benzo[e]indolium hydroxide, inner salt

Structure**Spectrum**

S 2515

Absorption maximum

758 nm (MeOH)

Emission maximum

788 nm

Quantum yield

0.18

Total formula

$C_{39}H_{50}N_2O_5S$

Molecular weight

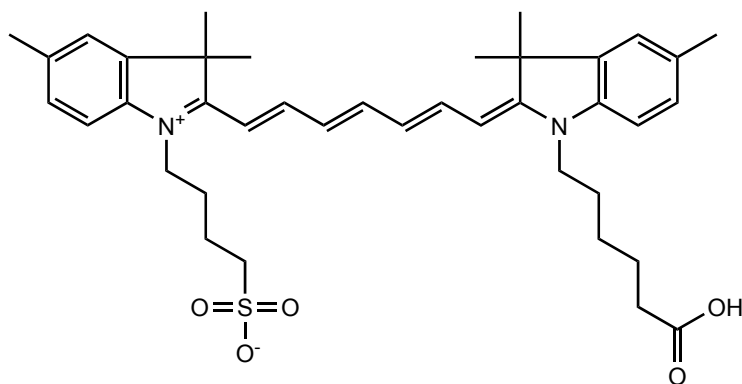
658.90 g mol⁻¹

CAS

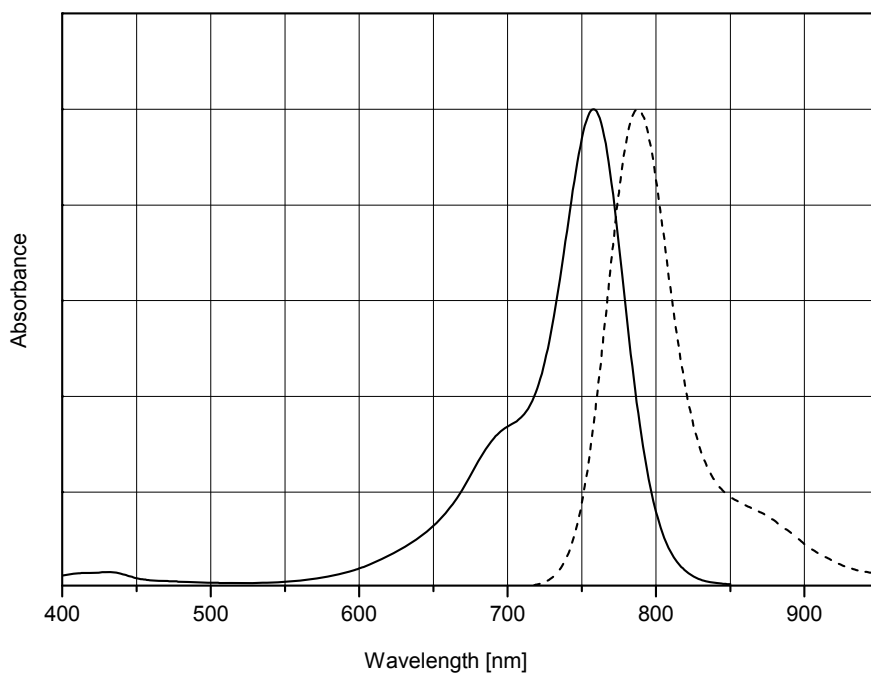
Name

7-[1-(5-Carboxypentyl)-3,3,5-trimethyl-1,3-dihydro-indol-2-ylidene]-hepta-1,3,5-trienyl-3,3,5-trimethyl-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt

Structure



Spectrum



Absorption maximum

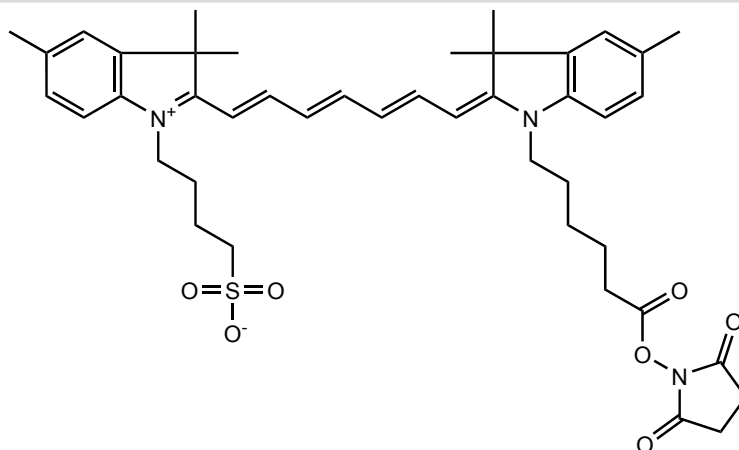
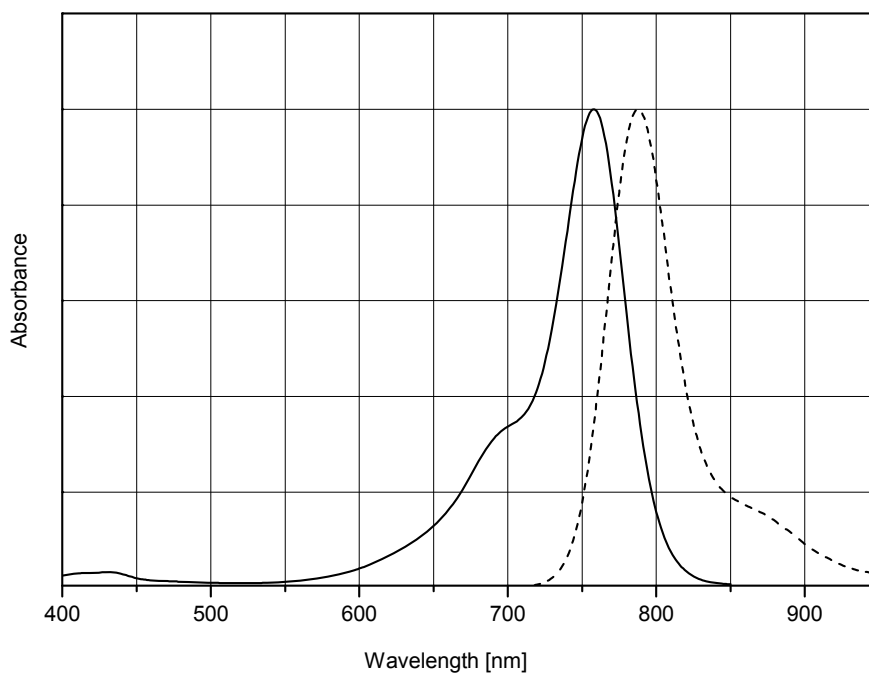
758 nm (MeOH)

Emission maximum

788 nm

Quantum yield**Total formula** $C_{43}H_{53}N_3O_7S$ **Molecular weight**755.97 g mol⁻¹**CAS #****Name**

2-(7-{1-[5-(2,5-Dioxo-pyrrolidin-1-yloxy)carbonyl]-pentyl}-3,3,5-trimethyl-1,3-dihydro-indol-2-ylidene)-hepta-1,3,5-trienyl)-3,3,5-trimethyl-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt

Structure**Spectrum**



Solvent Soluble Cyanine Dyes

Absorption maximum

483 nm (MeOH)

Emission maximum

498 nm

Quantum yield

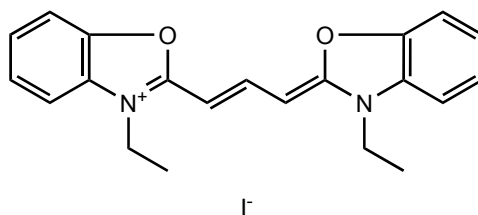
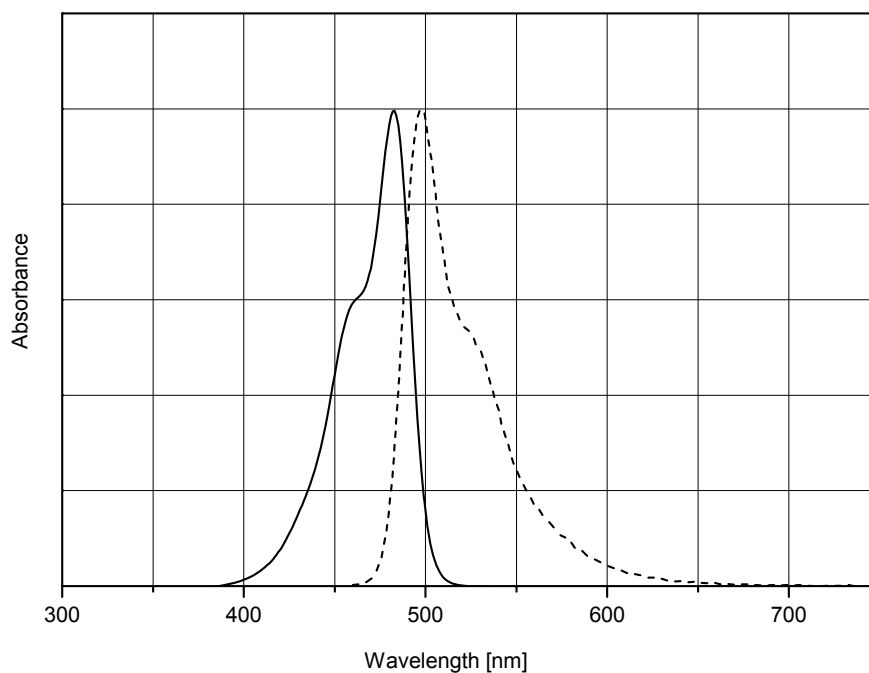
0.04

Total formula $C_{21}H_{21}IN_2O_2$ **Molecular weight**460.32 g mol⁻¹**CAS #**

905-96-4

Name

3-Ethyl-2-[3-(3-ethyl-3H-benzoxazol-2-ylidene)-propenyl]-benzoxazolium iodide

Structure**Spectrum**

Absorption maximum

515 nm (MeOH)

Emission maximum

529 nm

Quantum yield

0.02

Total formula

$C_{25}H_{27}Cl_4IN_4$

Molecular weight

652.23 g mol⁻¹

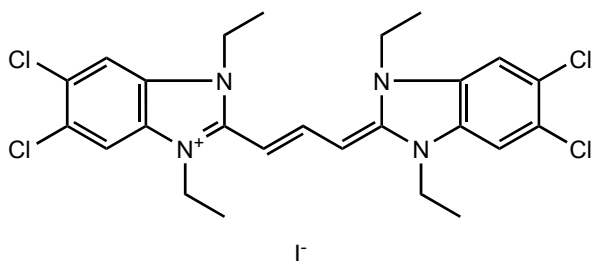
CAS

3520-43-2

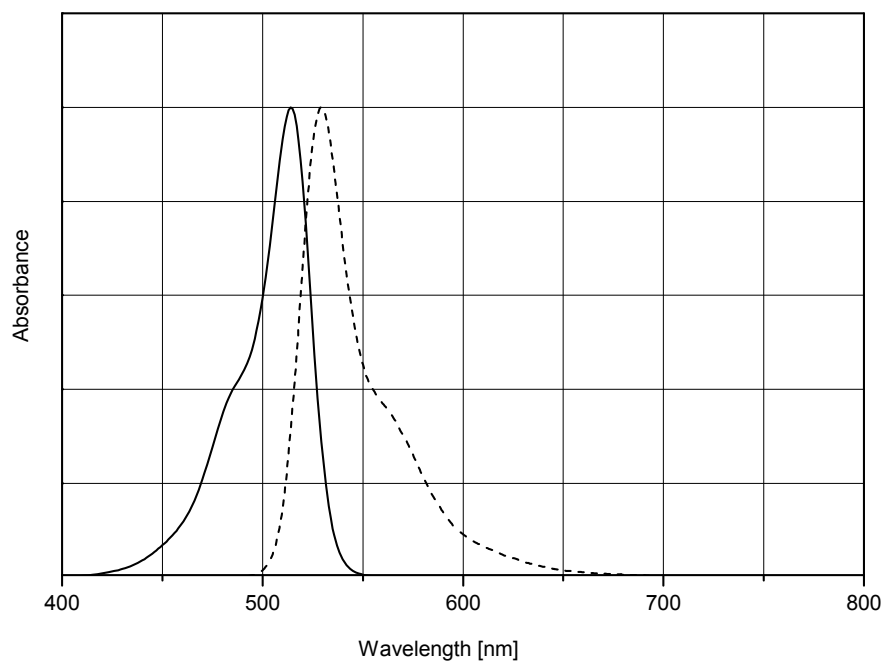
Name

5,6-Dichloro-2-[3-(5,6-dichloro-1,3-diethyl-1,3-dihydro-benzimidazol-2-ylidene)-propenyl]-1,3-diethyl-3H-benzimidazolium iodide

Structure



Spectrum



Absorption maximum

546 nm (MeOH)

Emission maximum

560 nm

Quantum yield

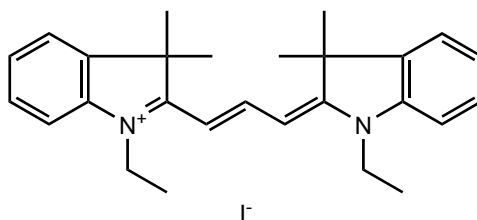
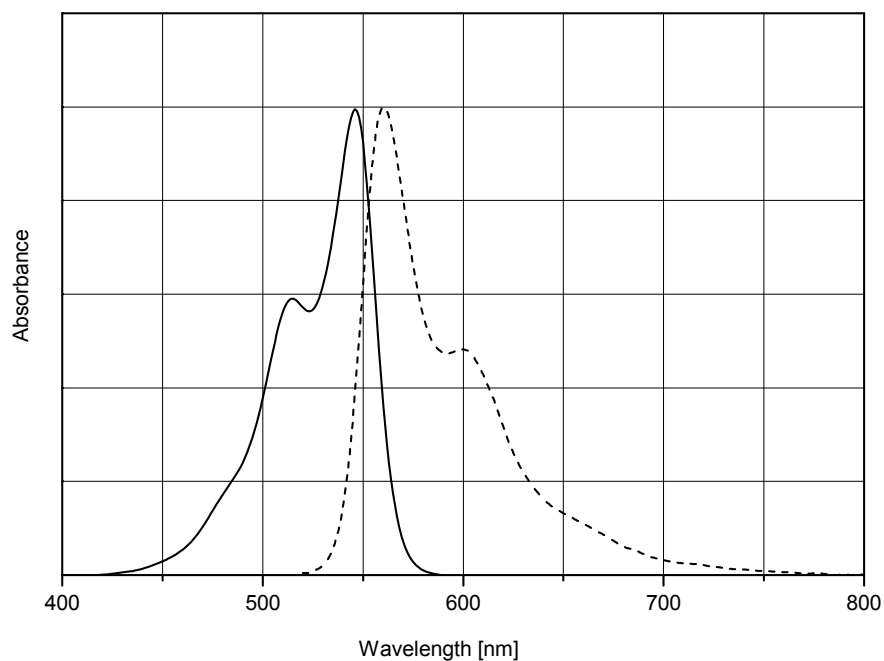
0.04

Total formula $C_{27}H_{33}IN_2$ **Molecular weight**512.48 g mol⁻¹**CAS #**

14696-39-0

Name

1-Ethyl-2-[3-(1-ethyl-3,3-dimethyl-1,3-dihydro-indol-2-ylidene)-propenyl]-3,3-dimethyl-3H-indolium iodide

Structure**Spectrum**

Absorption maximum

556 nm (MeOH)

Emission maximum

571 nm

Quantum yield

0.04

Total formula

$C_{21}H_{21}IN_2S_2$

Molecular weight

492.44 g mol⁻¹

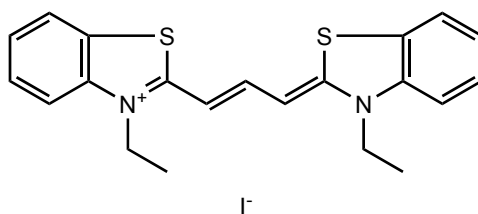
CAS

905-97-5

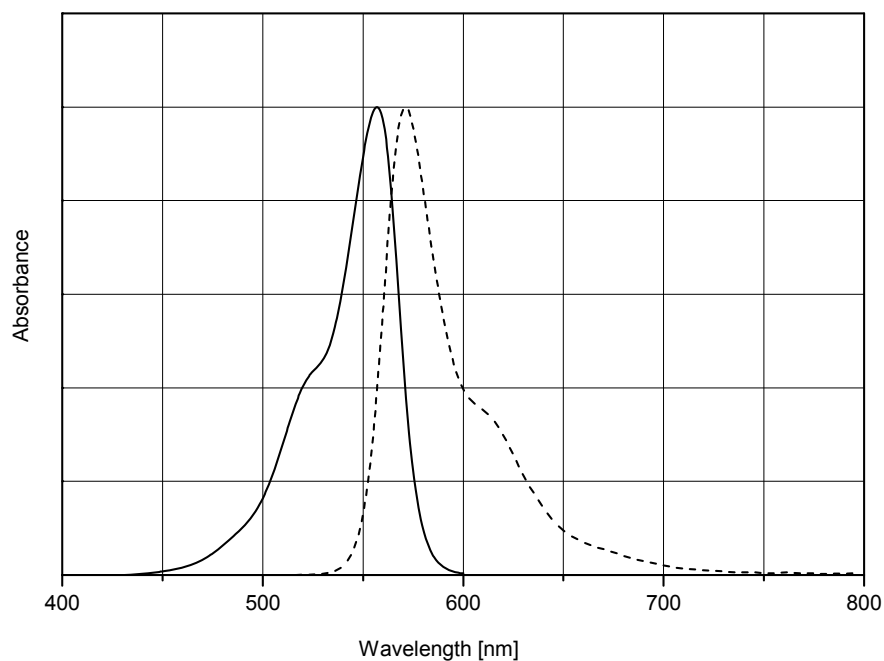
Name

3-Ethyl-2-[3-(3-ethyl-3H-benzothiazol-2-ylidene)-propenyl]-benzothiazolium iodide

Structure



Spectrum



Absorption maximum

644 nm (MeOH)

Emission maximum

661 nm

Quantum yield

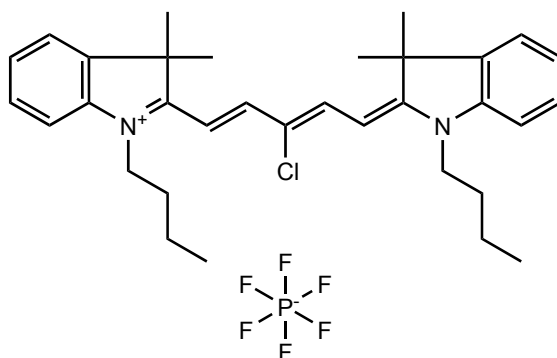
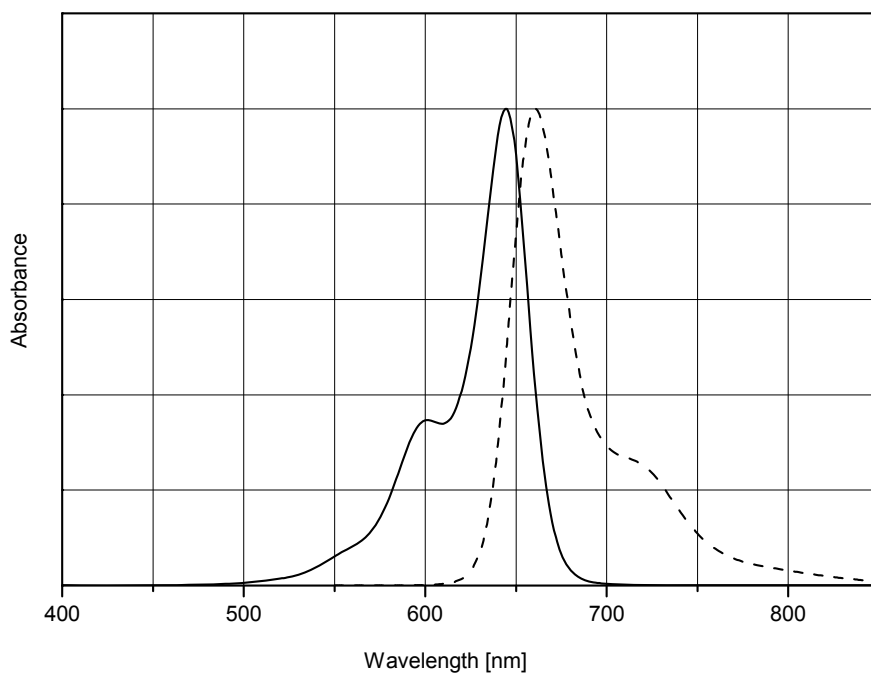
0.09

Total formula $C_{33}H_{42}ClF_6N_2P$ **Molecular weight**647.13 g mol⁻¹**CAS #**

462093-30-7

Name

1-Butyl-2-[5-(1-butyl-3,3-dimethyl-1,3-dihydro-indol-2-ylidene)-3-chloro-penta-1,3-dienyl]-3,3-dimethyl-3H-indolium hexafluorophosphate

Structure**Spectrum**

Absorption maximum

652 nm (Toluene)

Emission maximum

666 nm

Quantum yield

0.50

Total formula

$C_{33}H_{42}ClF_6N_2P$

Molecular weight

647.13 g mol⁻¹

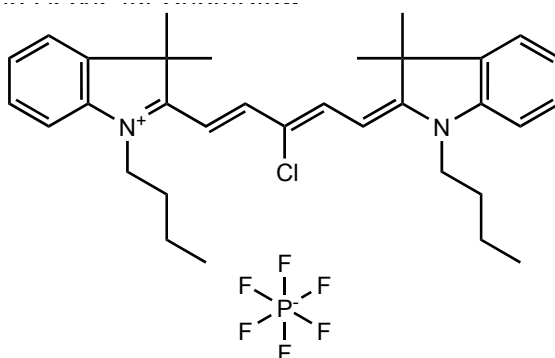
CAS

462093-30-7

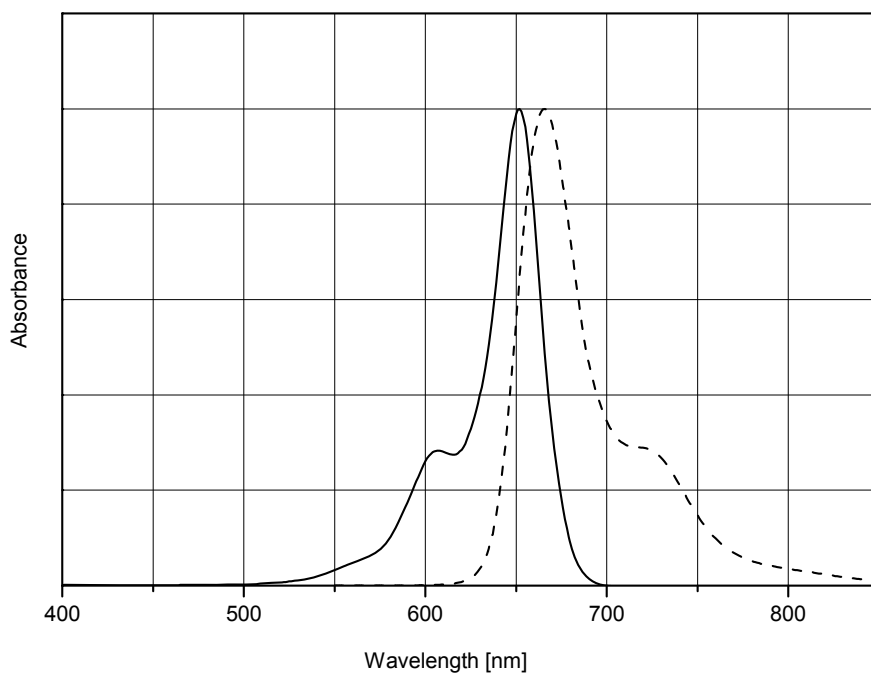
Name

1-Butyl-2-[5-(1-butyl-3,3-dimethyl-1,3-dihydro-indol-2-ylidene)-3-chloro-penta-1,3-dienyl]-3,3-dimethyl-3H-indolium hexafluorophosphate

Structure



Spectrum



Absorption maximum

652 nm (MeOH)

Emission maximum

673 nm

Quantum yield

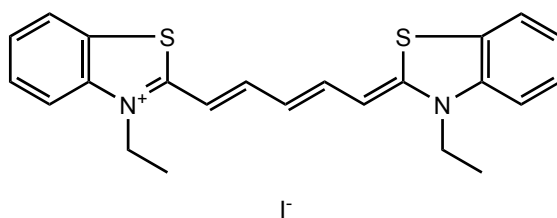
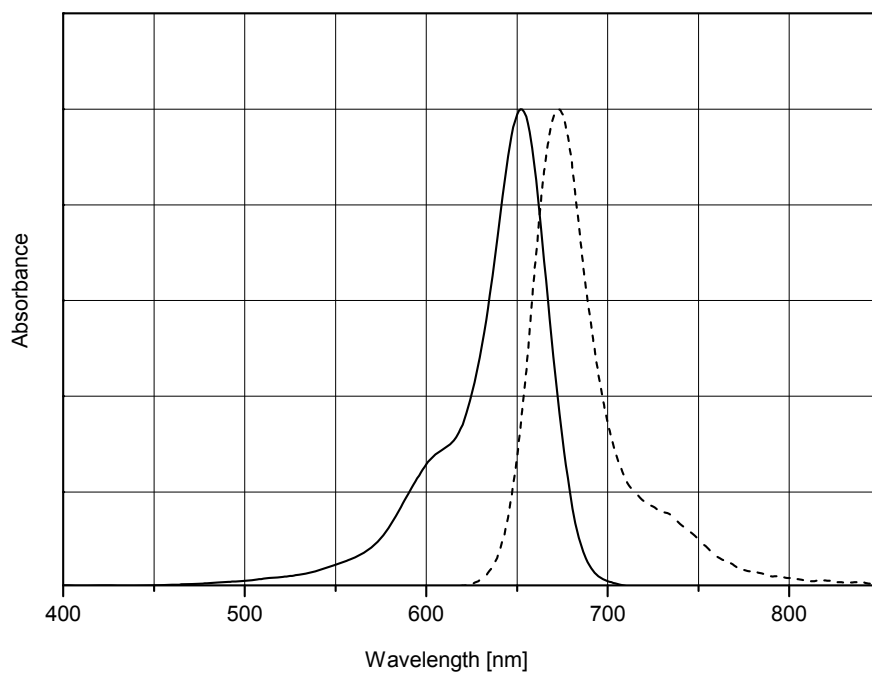
0.39

Total formula $C_{23}H_{23}IN_2S_2$ **Molecular weight**518.47 g mol⁻¹**CAS #**

514-73-8

Name

3-Ethyl-2-[5-(3-ethyl-3H-benzothiazol-2-ylidene)-penta-1,3-dienyl]-benzothiazol-3-ium iodide

Structure**Spectrum**

Absorption maximum

680 nm (MeOH)

Emission maximum

705 nm

Quantum yield

0.19

Total formula

C₄₁H₄₇F₆N₂P

Molecular weight

712.80 g mol⁻¹

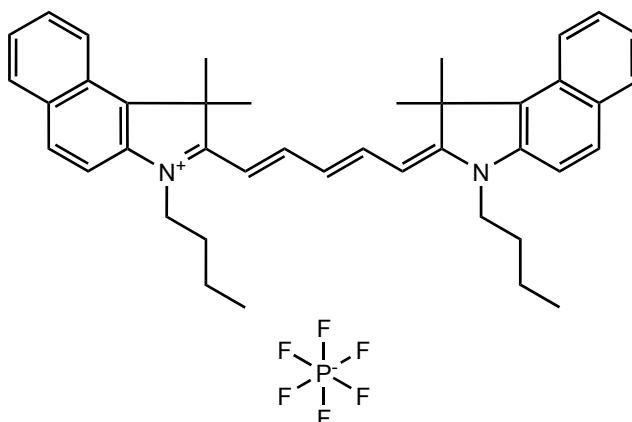
CAS

137147-59-2

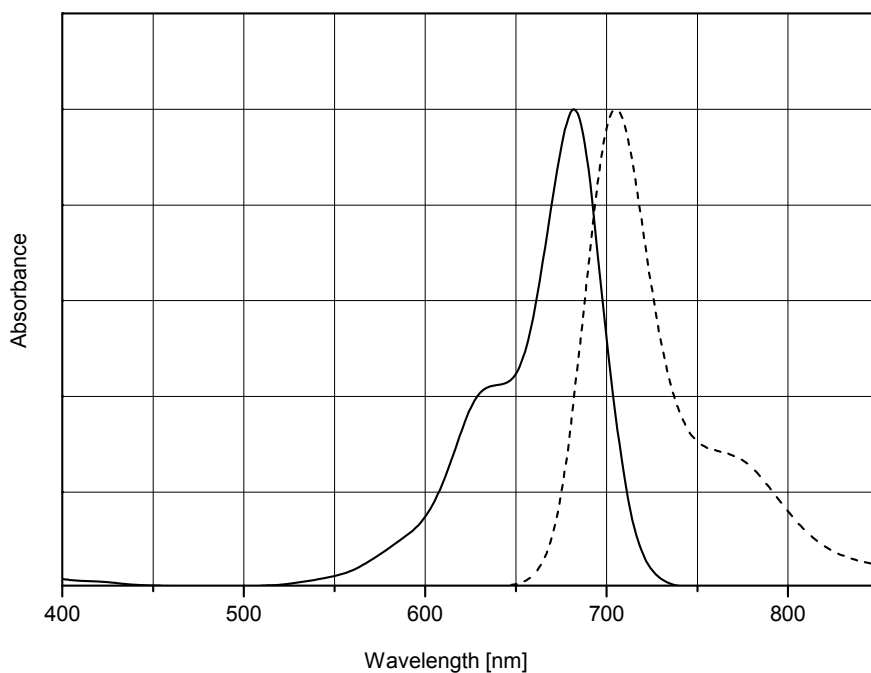
Name

3-Butyl-2-[5-(3-butyl-1,3-dihydro-1,1-dimethyl-2H-benzo[e]indol-2-ylidene)-penta-1,3-dienyl]-1,1-dimethyl-1H-benzo[e]indolium hexafluorophosphate

Structure



Spectrum



Absorption maximum

683 nm (MeOH)

Emission maximum

701 nm

Quantum yield

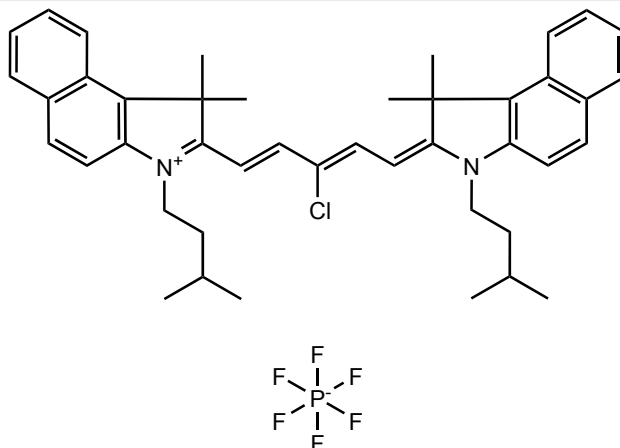
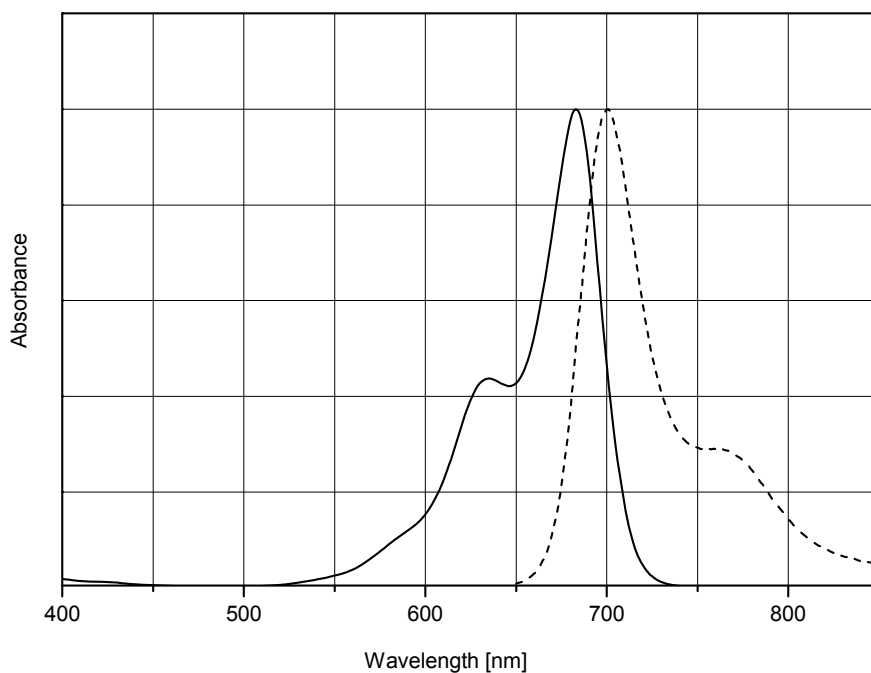
0.10

Total formula $C_{43}H_{50}ClF_6N_2P$ **Molecular weight**775.30 g mol⁻¹**CAS #**

1526918-65-9

Name

2-[3-Chloro-5-[1,1-dimethyl-3-(3-methyl-butyl)-1,3-dihydro-benzo[e]indol-2-ylidene]-penta-1,3-dienyl]-1,1-dimethyl-3-(3-methyl-butyl)-1H-benzo[e]indolium hexafluorophosphate

Structure**Spectrum**

Absorption maximum

689 nm (Toluene)

Emission maximum

702 nm

Quantum yield

0.51

Total formula

C₄₃H₅₀ClF₆N₂P

Molecular weight

775.30 g mol⁻¹

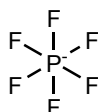
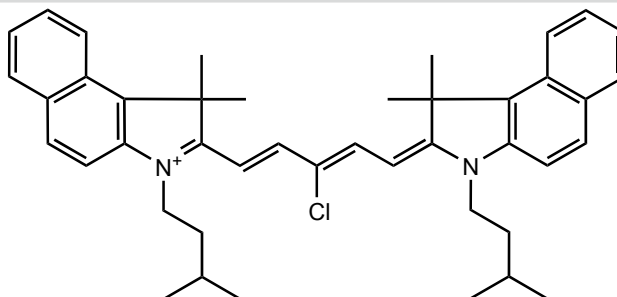
CAS

1526918-65-9

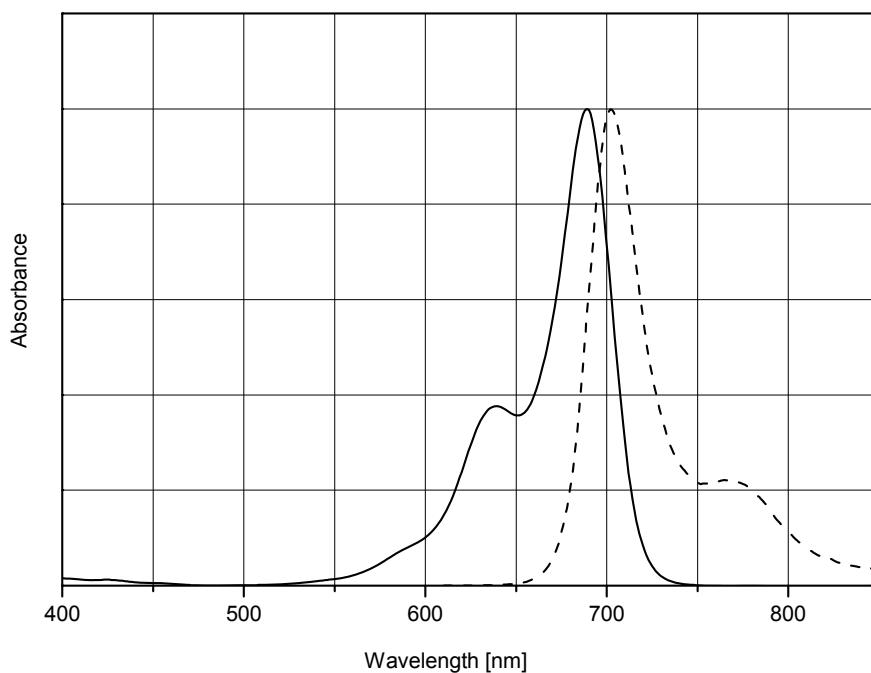
Name

2-[3-Chloro-5-[1,1-dimethyl-3-(3-methyl-butyl)-1,3-dihydro-benzo[e]indol-2-ylidene]-penta-1,3-dienyl]-1,1-dimethyl-3-(3-methyl-butyl)-1H-benzo[e]indolium hexafluorophosphate

Structure



Spectrum



Absorption maximum

747 nm (MeOH)

Emission maximum

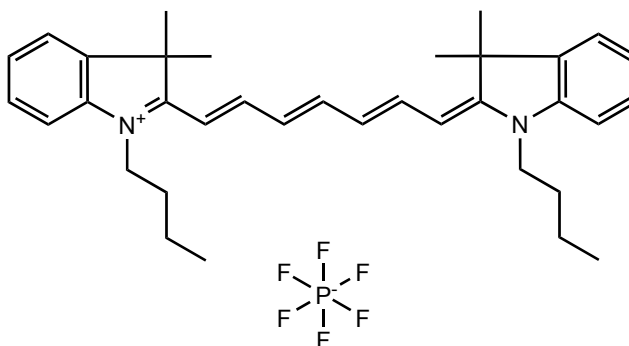
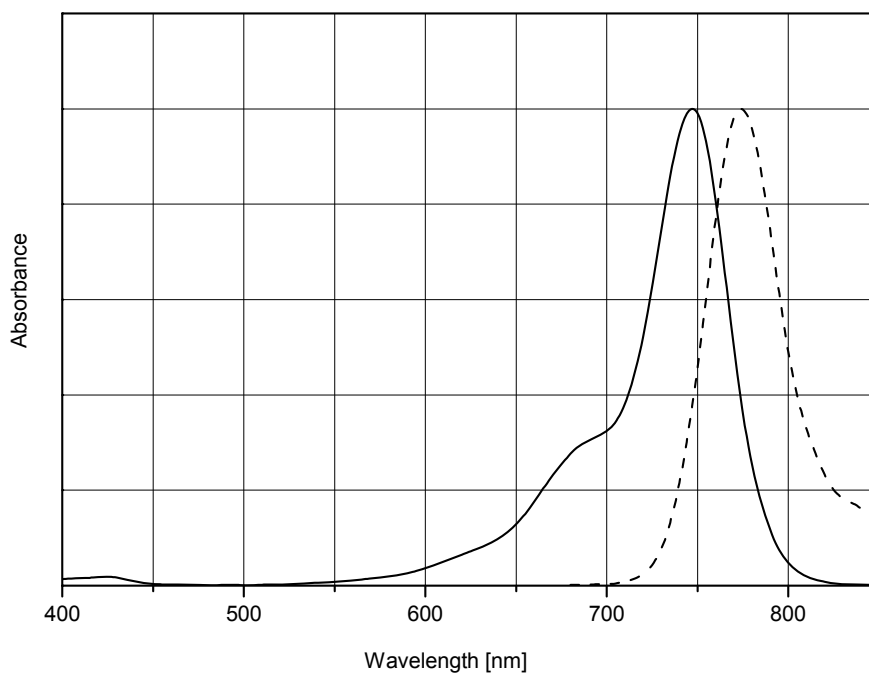
774 nm

Quantum yield**Total formula** $C_{35}H_{45}F_6N_2P$ **Molecular weight**638.72 g mol⁻¹**CAS #**

134339-08-5

Name

1-Butyl-2-[7-(1-butyl-3,3-dimethyl-1,3-dihydro-indol-2-ylidene)-hepta-1,3,5-trienyl]-3,3-dimethyl-3H-indolium hexafluorophosphate

Structure**Spectrum**

Absorption maximum

760 nm (MeOH)

Emission maximum

785 nm

Quantum yield

Total formula

$C_{25}H_{25}IN_2S_2$

Molecular weight

544.51 g mol⁻¹

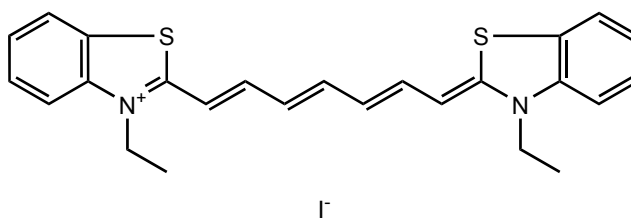
CAS

3071-70-3

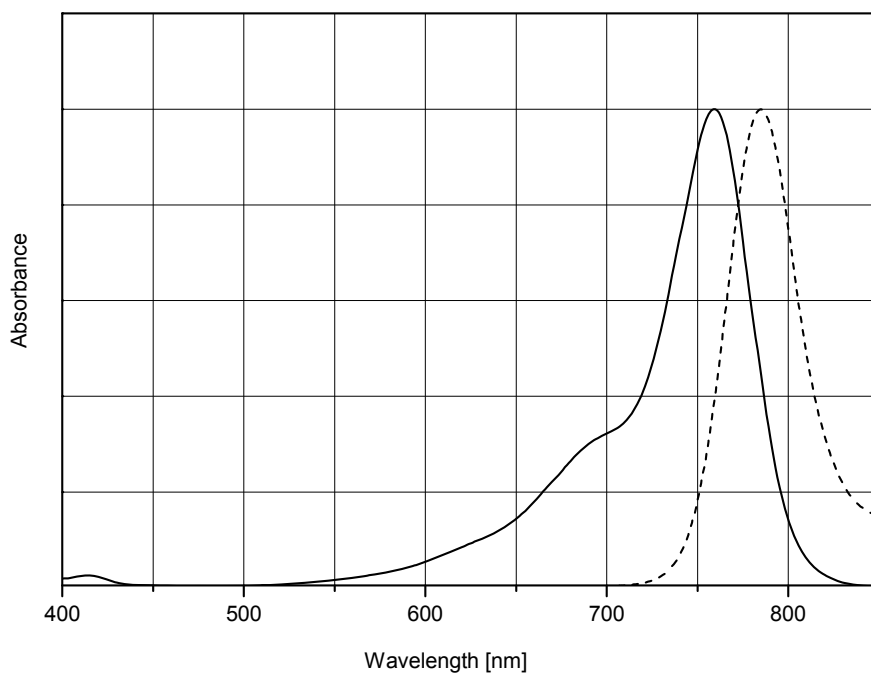
Name

3-Ethyl-2-[7-(3-ethyl-3H-benzothiazol-2-ylidene)-hepta-1,3,5-trienyl]-benzothiazolium iodide

Structure



Spectrum



Absorption maximum

761 nm (MeOH)

Emission maximum

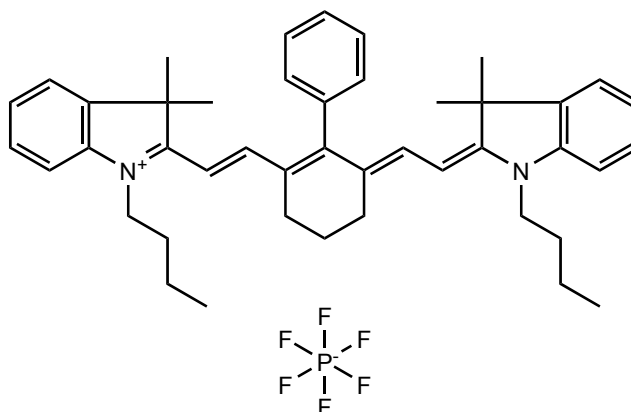
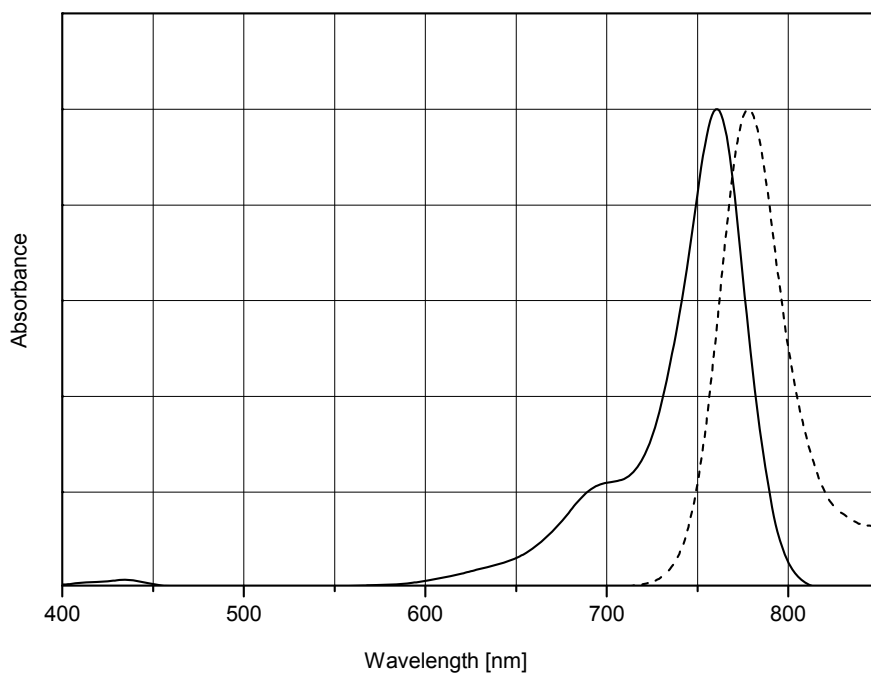
778 nm

Quantum yield**Total formula** $C_{44}H_{53}F_6N_2P$ **Molecular weight**754.88 g mol⁻¹**CAS #**

1472004-00-4

Name

1-Butyl-2-(2-[3-[2-(1-butyl-3,3-dimethyl-1,3-dihydro-indol-2-ylidene)-ethylidene]-2-phenyl-cyclohex-1-enyl]-vinyl)-3,3-dimethyl-3H-indolium hexafluorophosphate

Structure**Spectrum**

Absorption maximum

761 nm (Toluene)

Emission maximum

789 nm

Quantum yield

Total formula

C₄₄H₅₃F₆N₂P

Molecular weight

754.88 g mol⁻¹

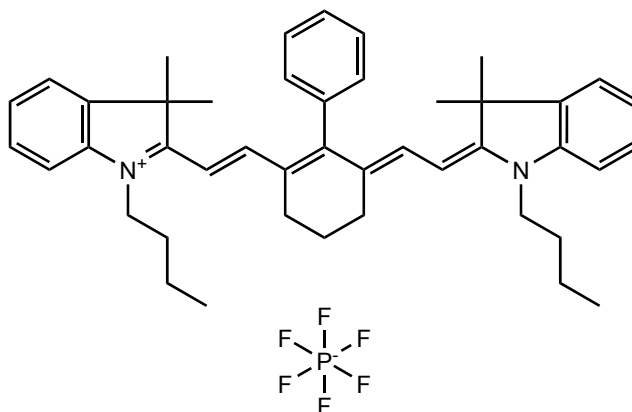
CAS

1472004-00-4

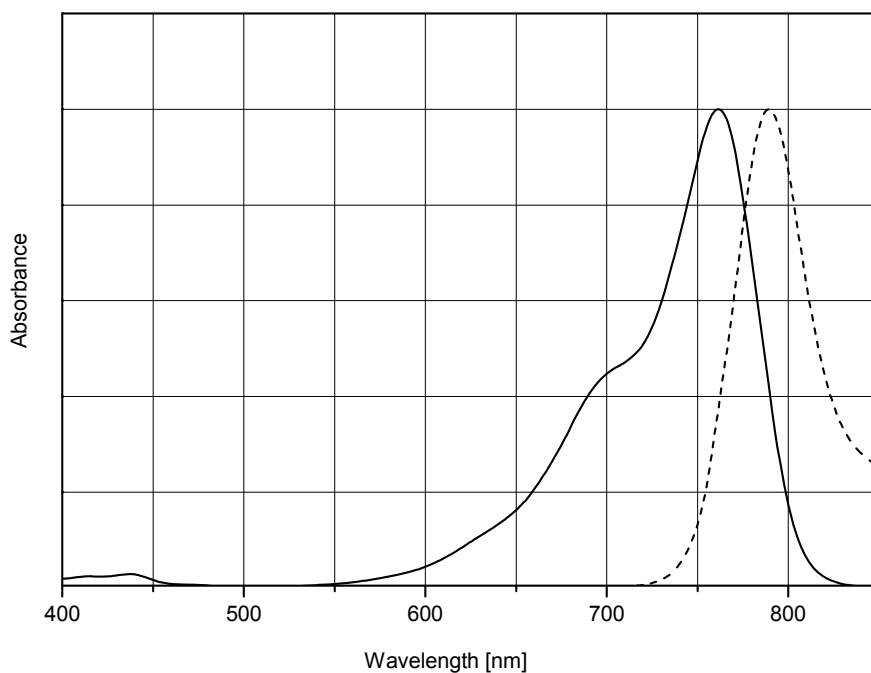
Name

1-Butyl-2-(2-[3-[2-(1-butyl-3,3-dimethyl-1,3-dihydro-indol-2-ylidene)-ethylidene]-2-phenyl-cyclohex-1-enyl]-vinyl)-3,3-dimethyl-3H-indolium hexafluorophosphate

Structure



Spectrum



Absorption maximum

794 nm (MeOH)

Emission maximum

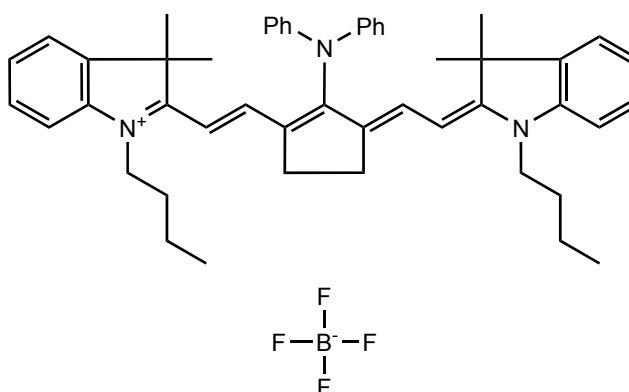
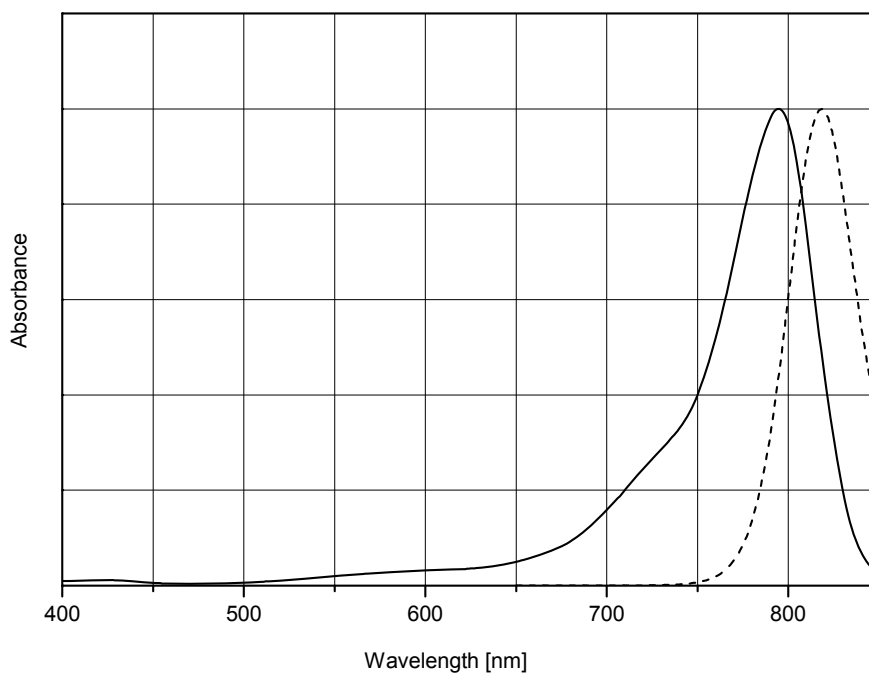
818 nm

Quantum yield**Total formula** $C_{49}H_{56}BF_4N_3$ **Molecular weight**773.81 g mol⁻¹**CAS #**

1888324-74-0

Name

1-Butyl-2-(2-[3-[2-(1-butyl-3,3-dimethyl-1,3-dihydro-indol-2-ylidene)-ethylidene]-2-diphenylamino-cyclopent-1-enyl]-vinyl)-3,3-dimethyl-3H-indolium tetrafluoroborate

Structure**Spectrum**



Water Soluble Cyanine Dyes

Absorption maximum

486 nm (MeOH)

Emission maximum

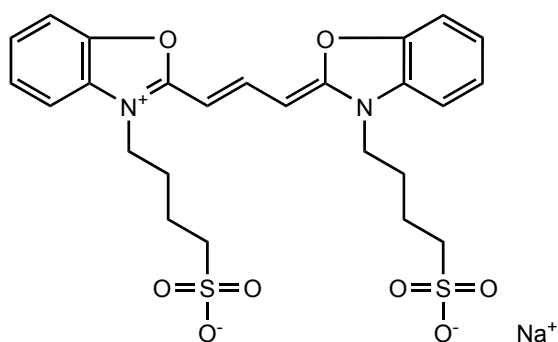
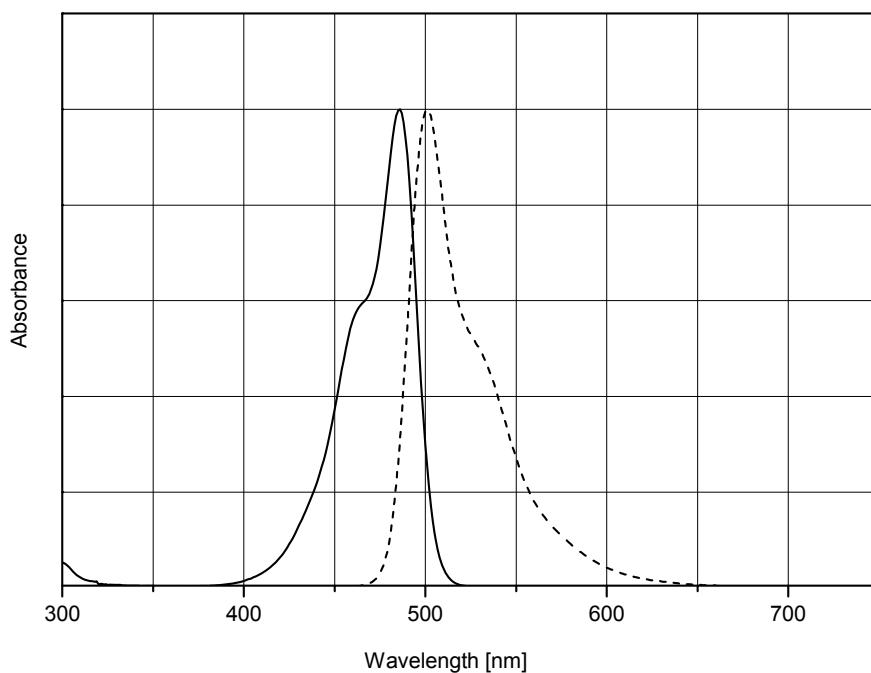
501 nm

Quantum yield

0.08

Total formula $C_{25}H_{27}N_2NaO_8S_2$ **Molecular weight**570.61 g mol⁻¹**CAS #****Name**

3-(4-Sulfobutyl)-2-[3-[3-(4-sulfobutyl)-3H-benzooxazol-2-ylidene]-propenyl]-benzooxazolium
hydroxide, inner salt, sodium salt

Structure**Spectrum**

Absorption maximum

549 nm (MeOH)

Emission maximum

565 nm

Quantum yield

0.07

Total formula

$C_{31}H_{39}N_2NaO_6S_2$

Molecular weight

622.77 g mol⁻¹

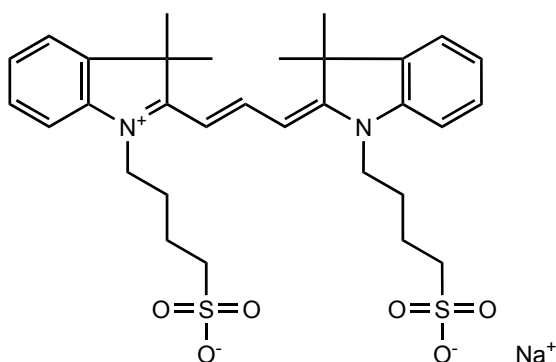
CAS

120724-84-7

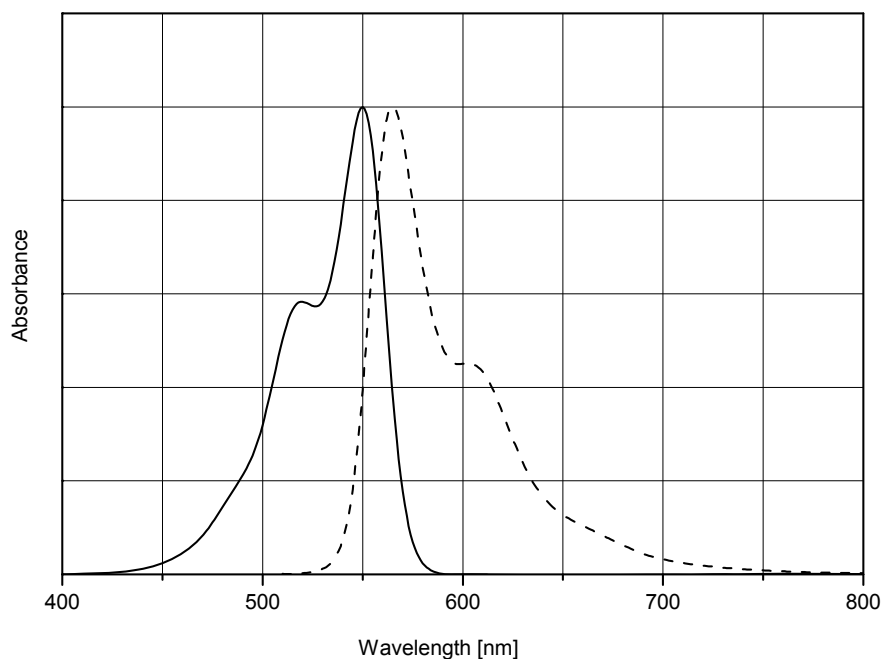
Name

2-[3-[3,3-Dimethyl-1-(4-sulfobutyl)-1,3-dihydro-indol-2-ylidene]-propenyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt, sodium salt

Structure



Spectrum



Absorption maximum

589 nm (MeOH)

Emission maximum

607 nm

Quantum yield

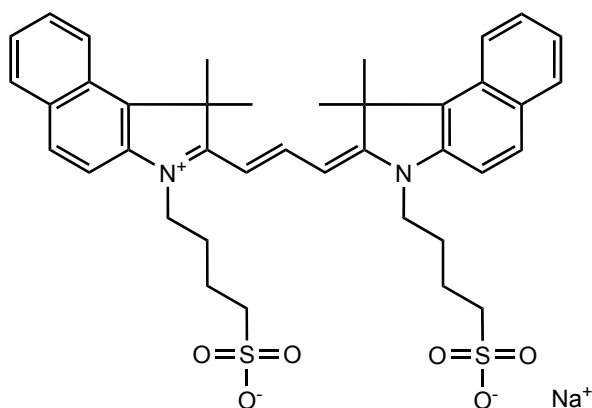
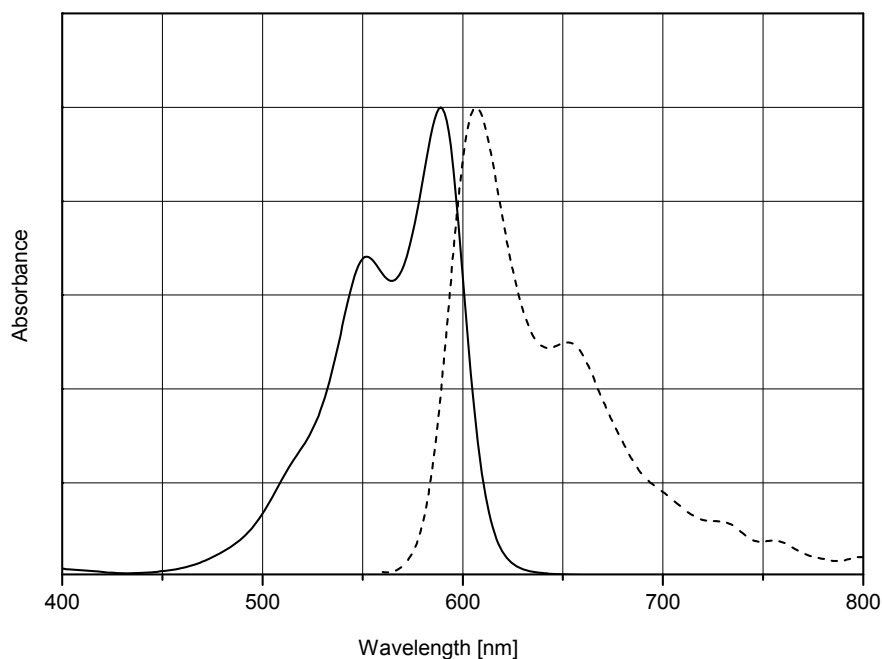
0.15

Total formula $C_{39}H_{43}N_2NaO_6S_2$ **Molecular weight**722.89 g mol⁻¹**CAS #**

1438644-82-6

Name

2-[3-[1,1-Dimethyl-3-(4-sulfobutyl)-1,3-dihydro-benzo[e]indol-2-ylidene]-propenyl]-1,1-dimethyl-3-(4-sulfobutyl)-1H-benzo[e]indolium hydroxide, inner salt, sodium salt

Structure**Spectrum**

Absorption maximum

643 nm (MeOH)

Emission maximum

666 nm

Quantum yield

0.28

Total formula

$C_{33}H_{41}N_2NaO_6S_2$

Molecular weight

648.81 g mol⁻¹

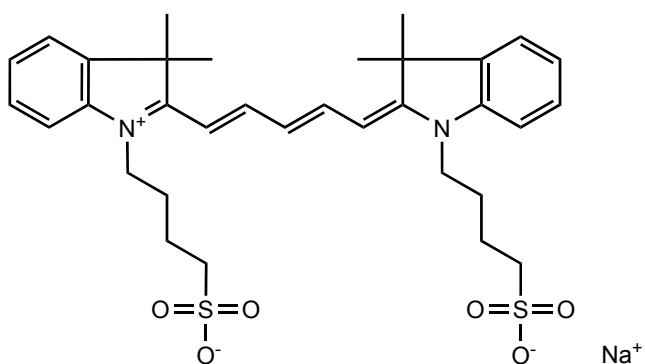
CAS

120768-44-7

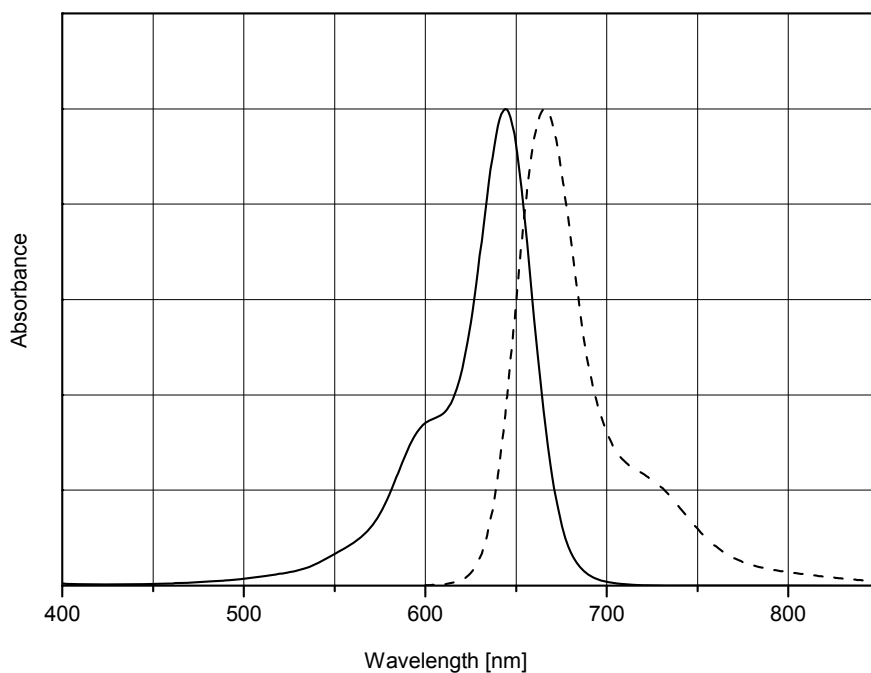
Name

2-[5-[3,3-Dimethyl-1-(4-sulfobutyl)-1,3-dihydro-indol-2-ylidene]-penta-1,3-dienyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt, sodium salt

Structure



Spectrum



Absorption maximum

681 nm (MeOH)

Emission maximum

705 nm

Quantum yield

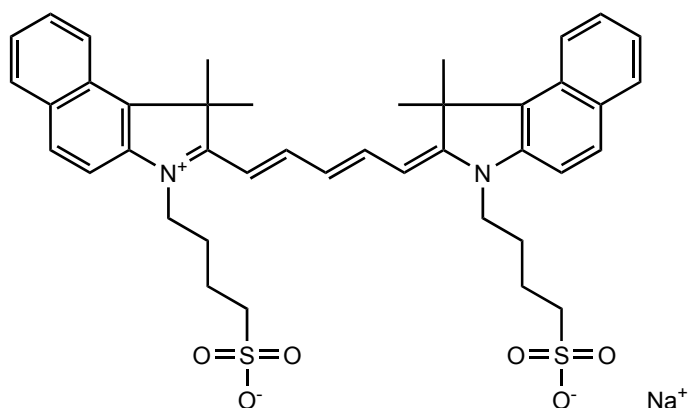
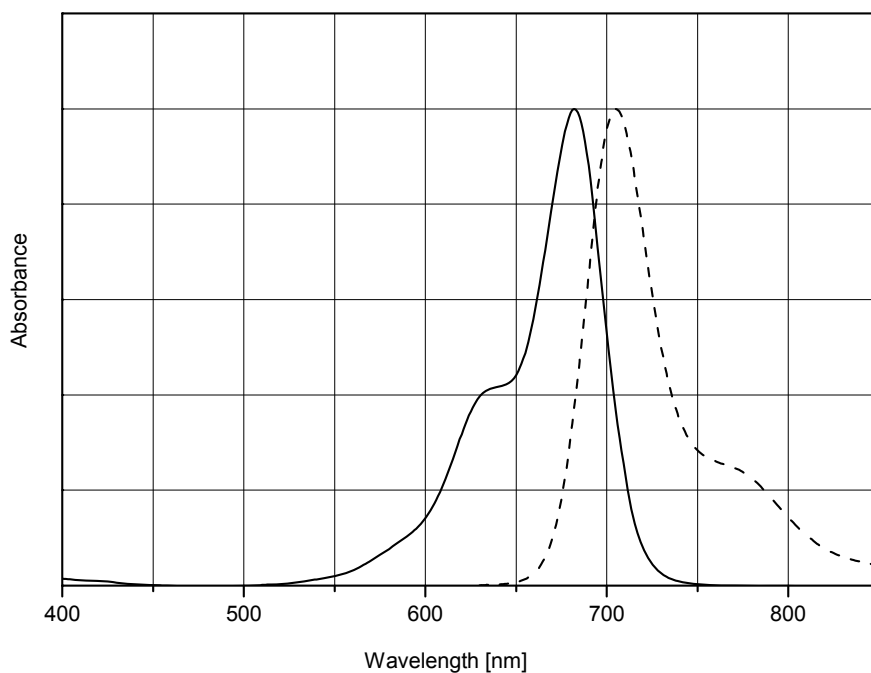
0.19

Total formula $C_{41}H_{45}N_2NaO_6S_2$ **Molecular weight**748.93 g mol⁻¹**CAS #**

64285-36-5

Name

2-[5-[1,1-Dimethyl-3-(4-sulfobutyl)-1,3-dihydro-benzo[e]indol-2-ylidene]-penta-1,3-dienyl]-1,1-dimethyl-3-(4-sulfobutyl)-1H-benzo[e]indolium hydroxide, inner salt, sodium salt

Structure**Spectrum**

Absorption maximum

747 nm (MeOH)

Emission maximum

775 nm

Quantum yield

0.27

Total formula

$C_{35}H_{43}N_2NaO_6S_2$

Molecular weight

674.85 g mol⁻¹

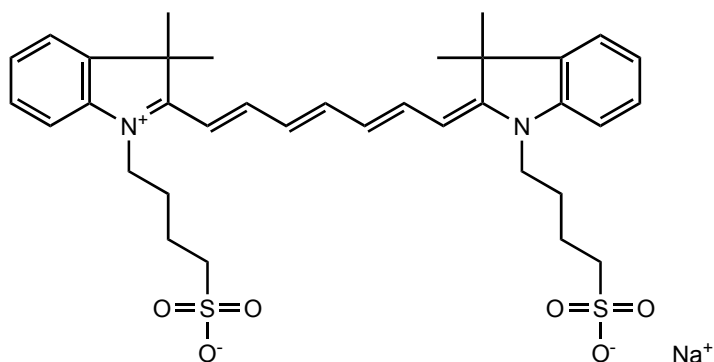
CAS

120724-85-8

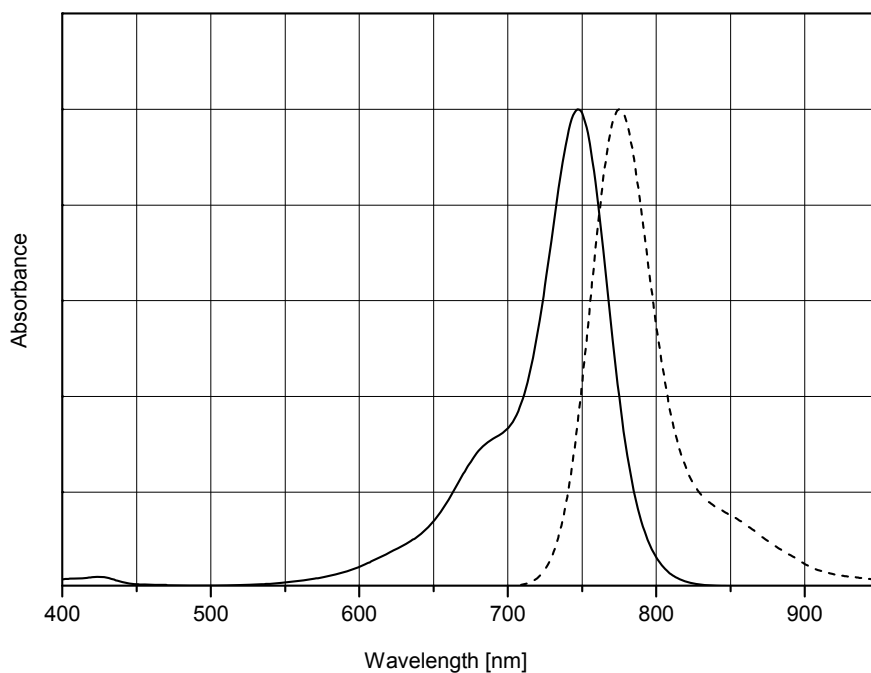
Name

2-[7-[1,3-Dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-hepta-1,3,5-trienyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt, sodium salt

Structure



Spectrum



Absorption maximum

768 nm (MeOH)

Emission maximum

786 nm

Quantum yield

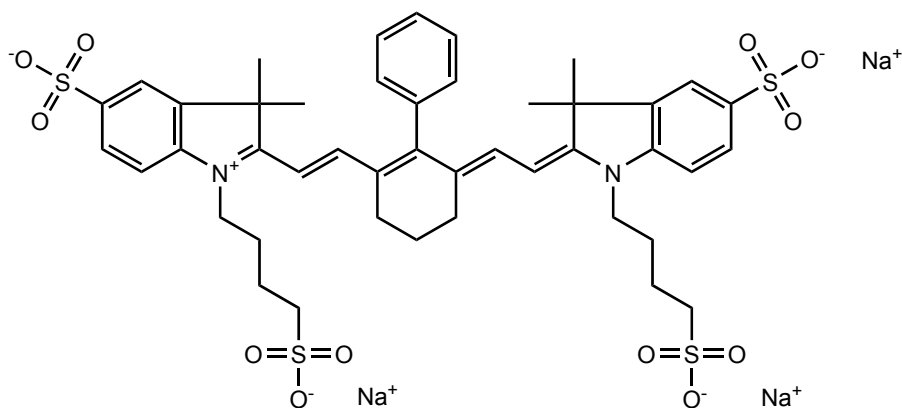
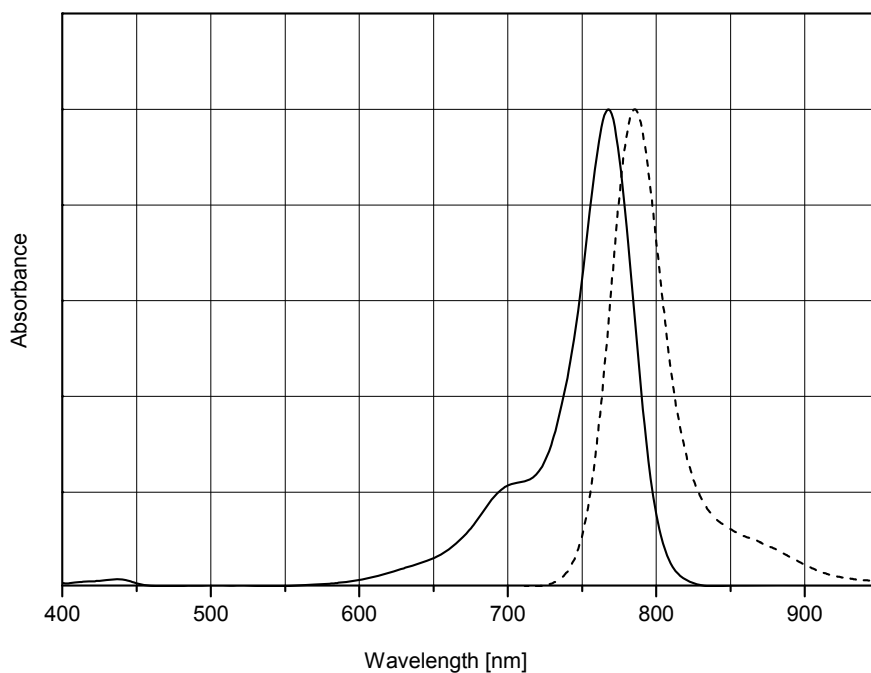
0.19

Total formula $C_{44}H_{49}N_2Na_3O_{12}S_4$ **Molecular weight**995.09 g mol⁻¹**CAS #**

897625-36-4

Name

2-[2-(3-[2-[3,3-Dimethyl-5-sulfo-1-(4-sulfobutyl)-1,3-dihydro-indol-2-ylidene]-ethylidene]-2-phenyl-cyclohex-1-enyl)-vinyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-3H-indolium hydroxide, inner salt, trisodium salt

Structure**Spectrum**

Absorption maximum

789 nm (MeOH)

Emission maximum

807 nm

Quantum yield

0.11

Total formula

$C_{38}H_{44}ClN_2Na_3O_{12}S_4$

Molecular weight

953.44 g mol⁻¹

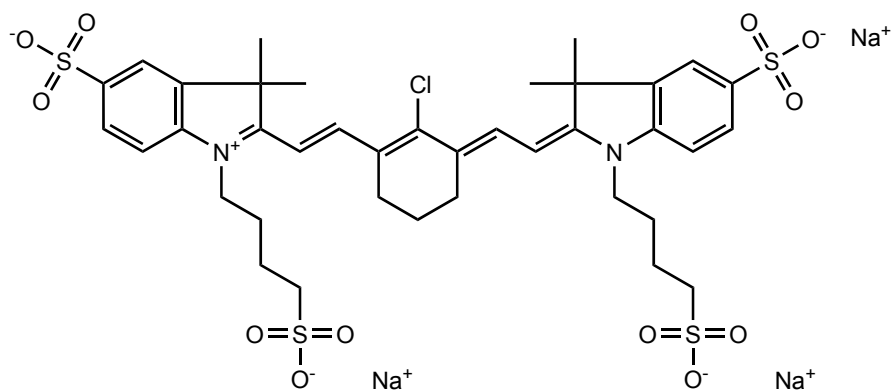
CAS

162093-39-2

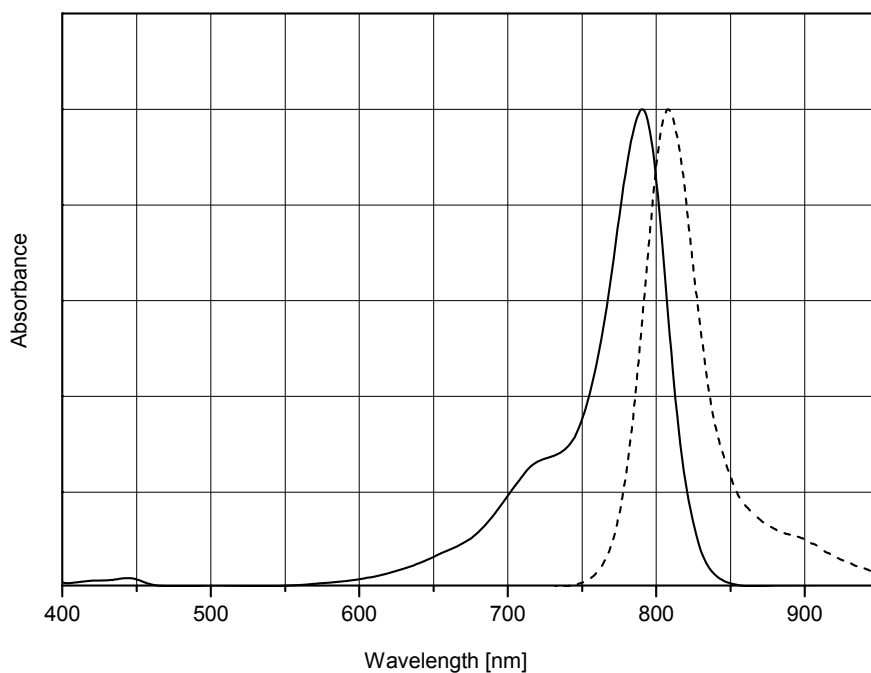
Name

3,3-Dimethyl-2-[2-[2-chloro-3-[2-[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]-ethylidene]-1-cyclohexen-1-yl]-ethenyl]-5-sulfo-1-(4-sulfobutyl)-3H-indolium hydroxide, innersalt, trisodium salt

Structure



Spectrum





Hemicyanine Dyes

Absorption maximum

481 nm (MeOH)

Emission maximum

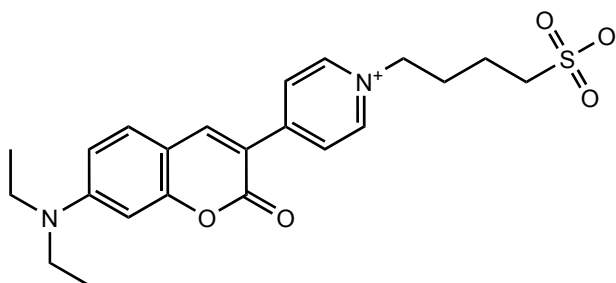
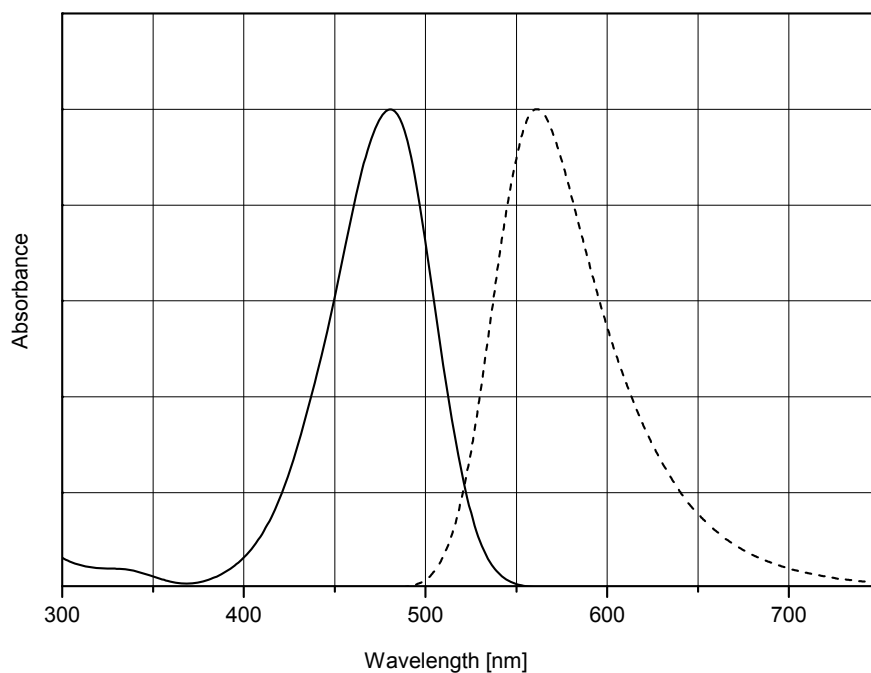
561 nm

Quantum yield

0.39

Total formula $C_{22}H_{26}N_2O_5S$ **Molecular weight**430.52 g mol⁻¹**CAS #****Name**

4-(4-(7-(Diethylamino)-2-oxo-2H-chromen-3-yl)pyridinium-1-yl)butane-1-sulfonate

Structure**Spectrum**

Absorption maximum

494 nm (CH₂Cl₂)

Emission maximum

549 nm

Quantum yield

0.63

Total formula

C₂₂H₂₆N₂O₅S

Molecular weight

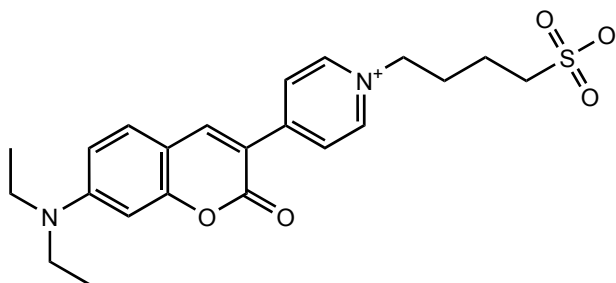
430.52 g mol⁻¹

CAS

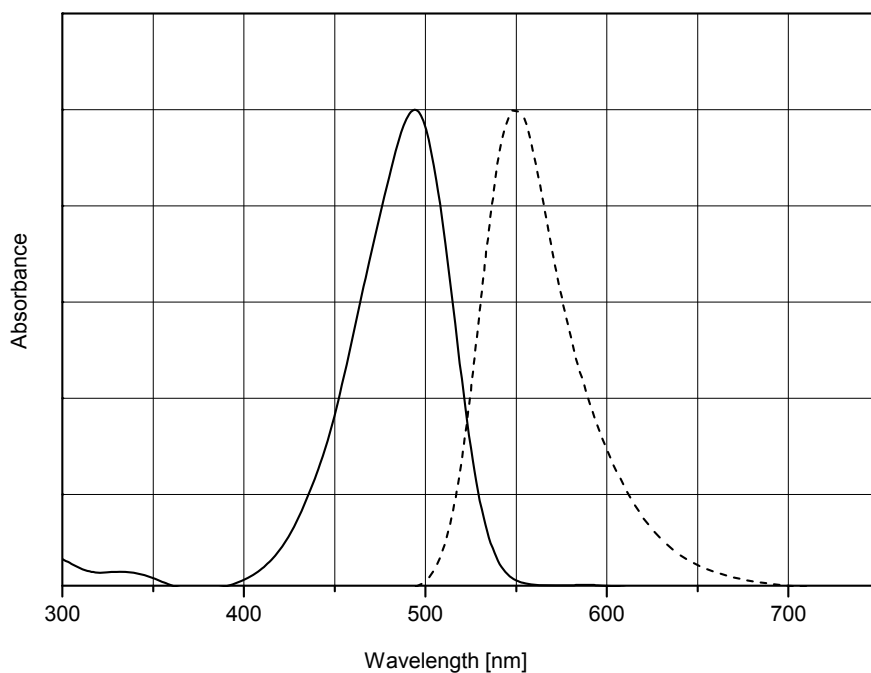
Name

4-(4-(7-(Diethylamino)-2-oxo-2H-chromen-3-yl)pyridinium-1-yl)butane-1-sulfonate

Structure



Spectrum



Absorption maximum

490 nm (MeOH)

Emission maximum

573 nm

Quantum yield

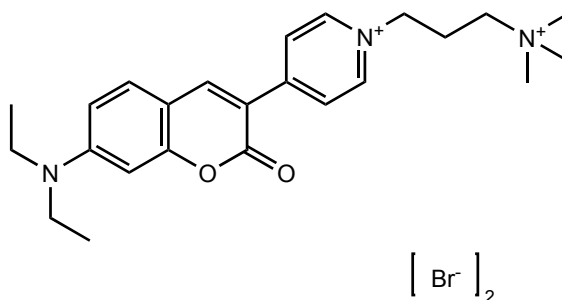
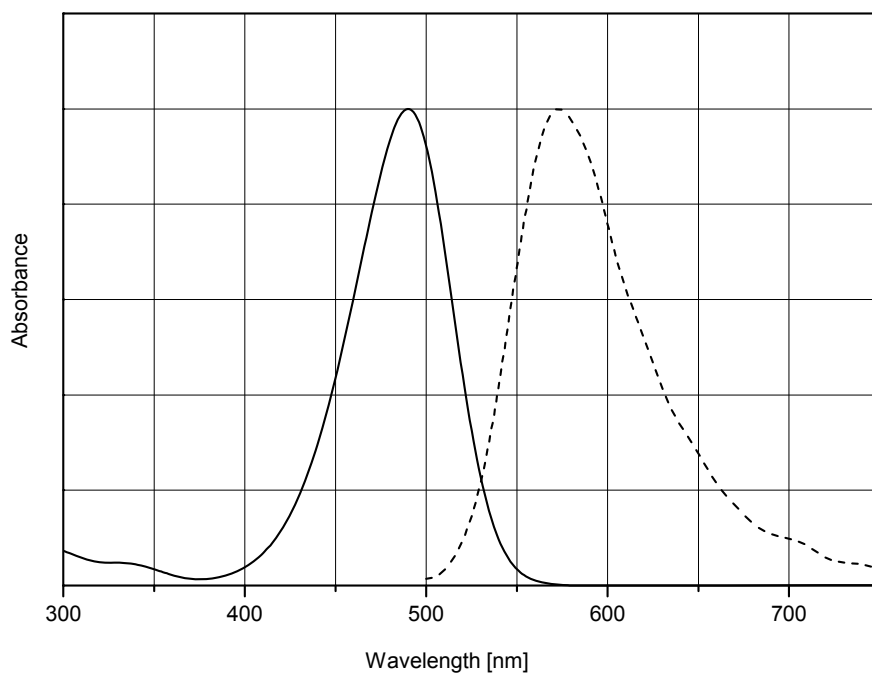
0.08

Total formula $C_{24}H_{33}Br_2N_3O_2$ **Molecular weight**555.35 g mol⁻¹**CAS #**

1622203-91-1

Name

4-(7-(Diethylamino)-2-oxo-2H-chromen-3-yl)-1-(3-(trimethylammonio)propyl)pyridinium dibromide

Structure**Spectrum**

Absorption maximum

493 nm (CH₂Cl₂)

Emission maximum

553 nm

Quantum yield

0.90

Total formula

C₂₄H₃₃Br₂N₃O₂

Molecular weight

555.35 g mol⁻¹

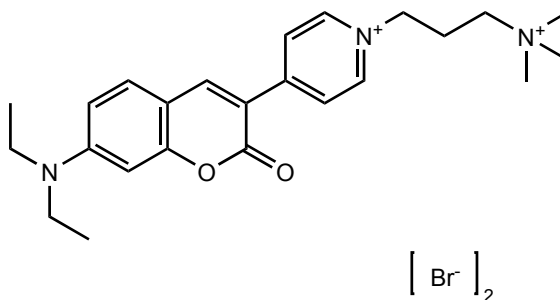
CAS

1622203-91-1

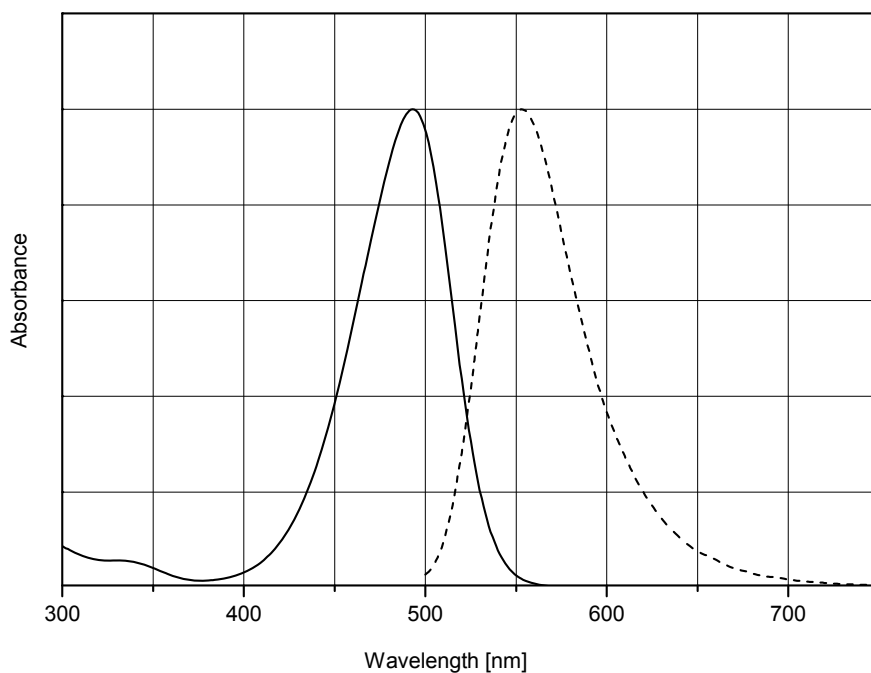
Name

4-(7-(Diethylamino)-2-oxo-2H-chromen-3-yl)-1-(3-(trimethylammonio)propyl)pyridinium dibromide

Structure



Spectrum



Absorption maximum

497 nm (MeOH)

Emission maximum

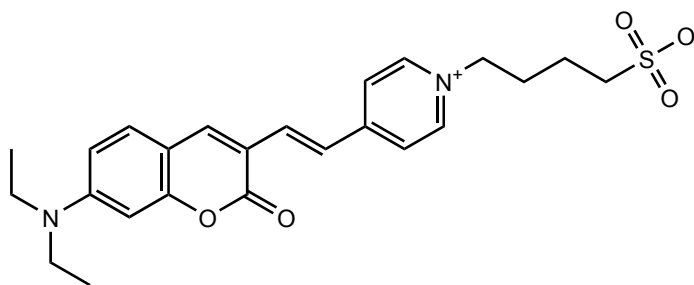
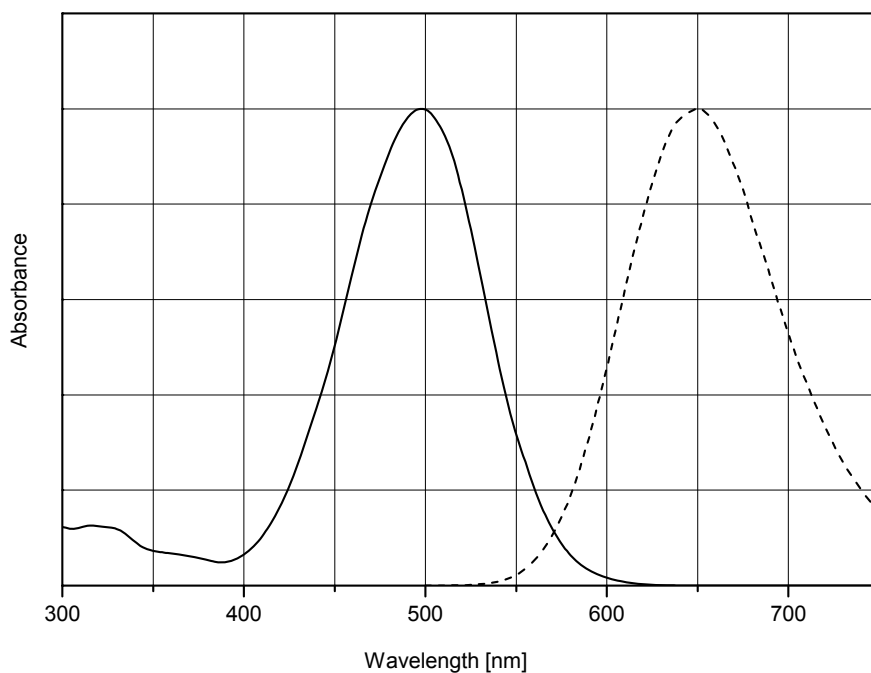
650 nm

Quantum yield

0.57

Total formula $C_{24}H_{28}N_2O_5S$ **Molecular weight**456.56 g mol⁻¹**CAS #****Name**

4-(4-(2-(7-(Diethylamino)-2-oxo-2H-chromen-3-yl)vinyl)pyridinium-1-yl)butane-1-sulfonate

Structure**Spectrum**

S 2305

Absorption maximum

519 nm (CH₂Cl₂)

Emission maximum

619 nm

Quantum yield

0.53

Total formula

C₂₄H₂₈N₂O₅S

Molecular weight

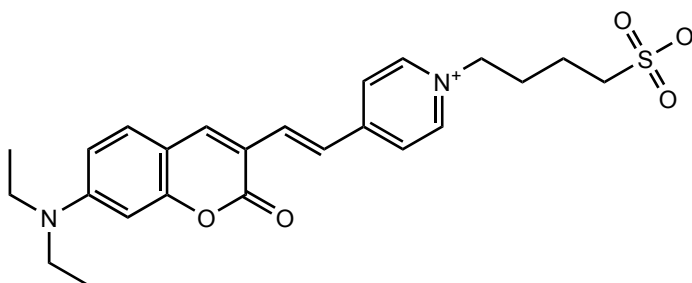
456.56 g mol⁻¹

CAS

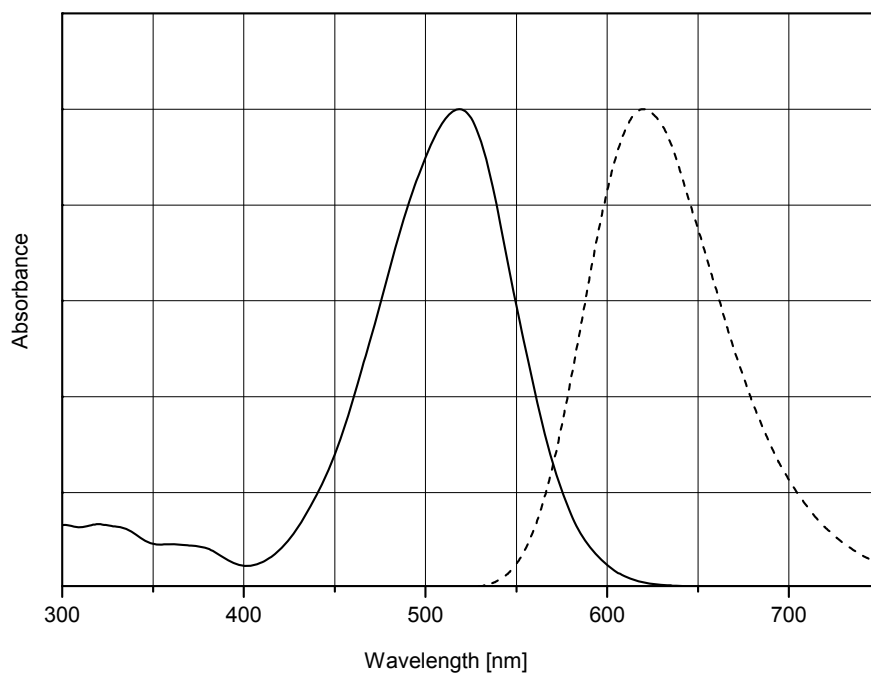
Name

4-(4-(2-(7-(Diethylamino)-2-oxo-2H-chromen-3-yl)vinyl)pyridinium-1-yl)butane-1-sulfonate

Structure



Spectrum



Absorption maximum

509 nm (MeOH)

Emission maximum

667 nm

Quantum yield

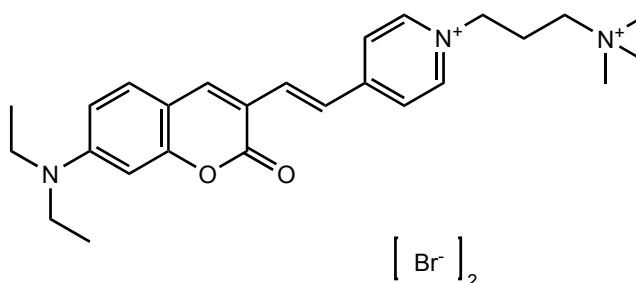
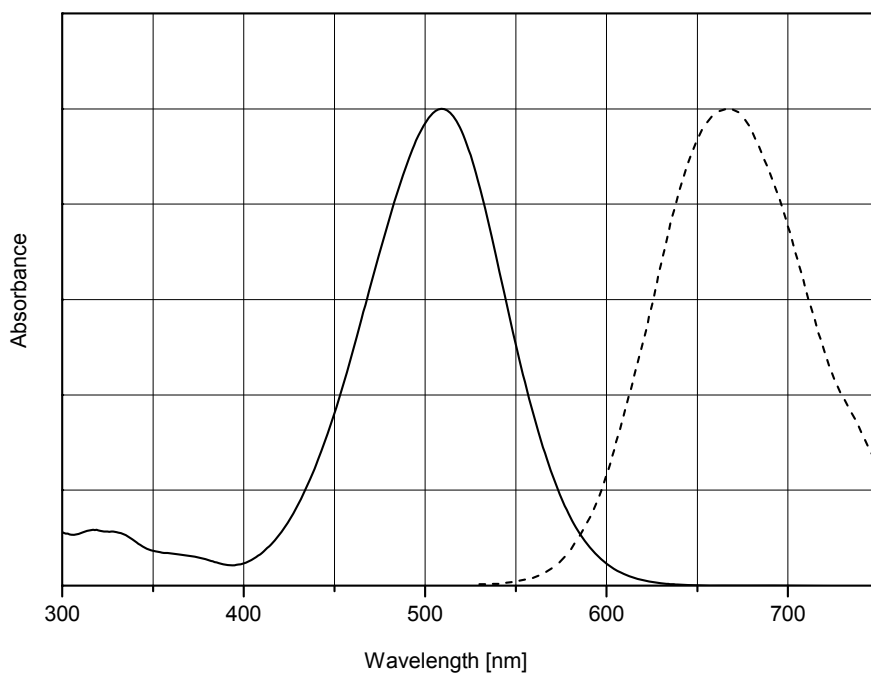
0.21

Total formula $C_{26}H_{35}Br_2N_3O_2$ **Molecular weight**581.39 g mol⁻¹**CAS #**

1884694-87-4

Name

4-(2-(7-(Diethylamino)-2-oxo-2H-chromen-3-yl)vinyl)-1-(3-(trimethylammonio)propyl)pyridinium dibromide

Structure**Spectrum**

Absorption maximum

514 nm (CH₂Cl₂)

Emission maximum

625 nm

Quantum yield

0.43

Total formula

C₂₆H₃₅Br₂N₃O₂

Molecular weight

581.39 g mol⁻¹

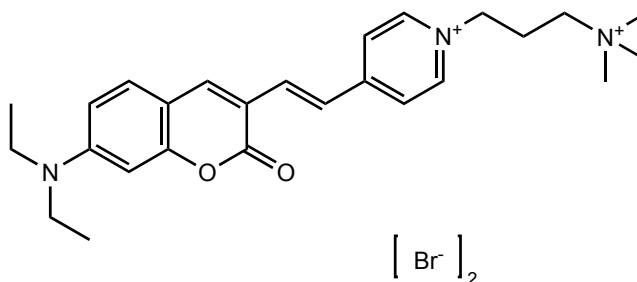
CAS

1884694-87-4

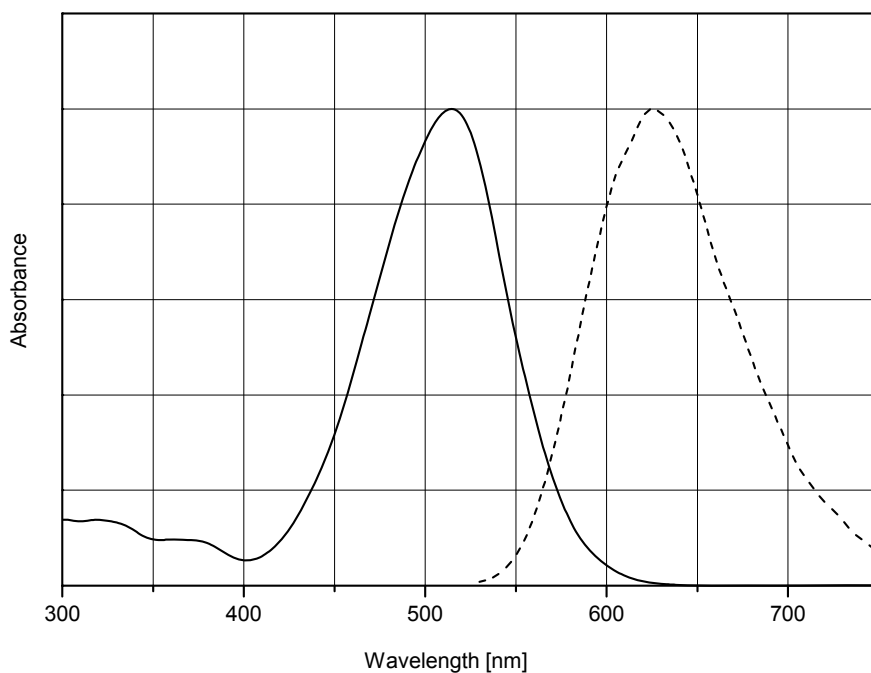
Name

4-(2-(7-(Diethylamino)-2-oxo-2H-chromen-3-yl)vinyl)-1-(3-(trimethylammonio)propyl)pyridinium dibromide

Structure



Spectrum



Absorption maximum

540 nm (MeOH)

Emission maximum

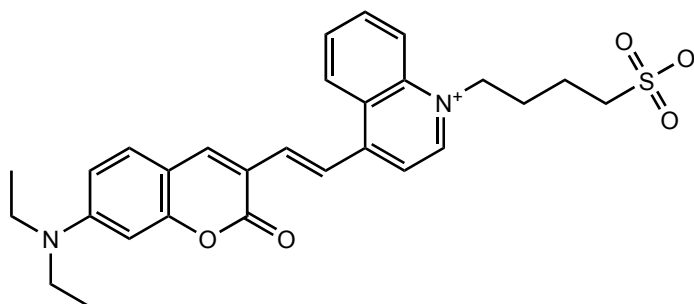
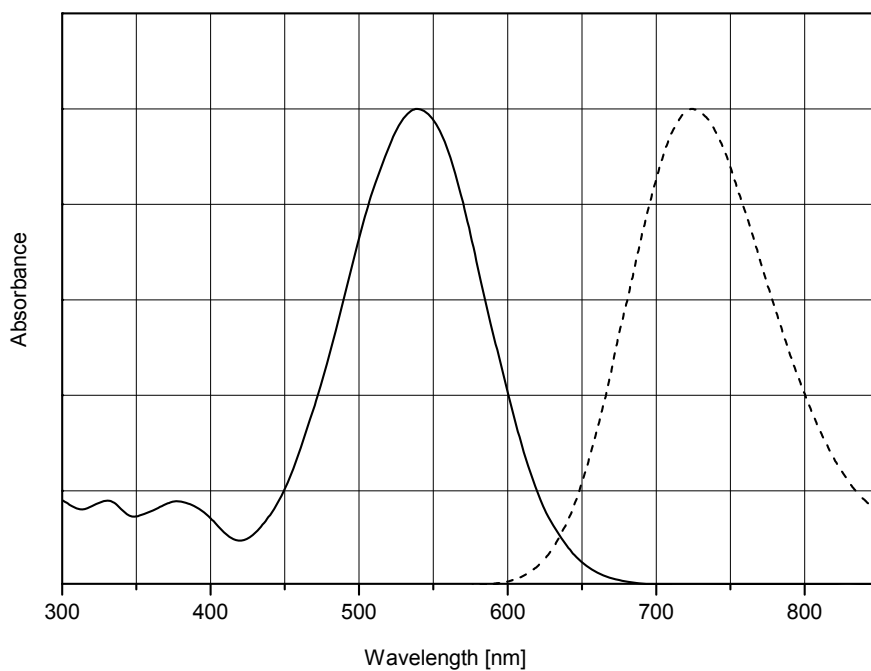
724 nm

Quantum yield

0.08

Total formula $C_{28}H_{30}N_2O_5S$ **Molecular weight**506.62 g mol⁻¹**CAS #****Name**

4-(4-(2-(7-(Diethylamino)-2-oxo-2H-chromen-3-yl)vinyl)quinolinium-1-yl)butane-1-sulfonate

Structure**Spectrum**

S 2304

Absorption maximum

555 nm (CH₂Cl₂)

Emission maximum

689 nm

Quantum yield

0.61

Total formula

C₂₈H₃₀N₂O₅S

Molecular weight

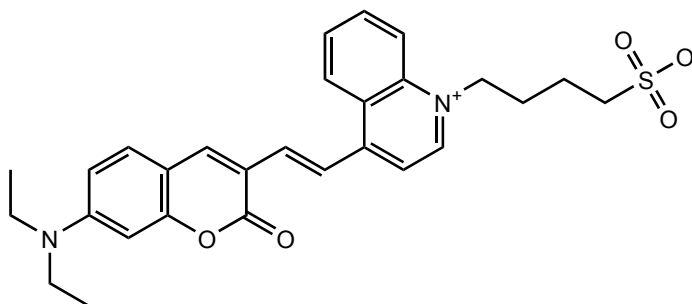
506.62 g mol⁻¹

CAS

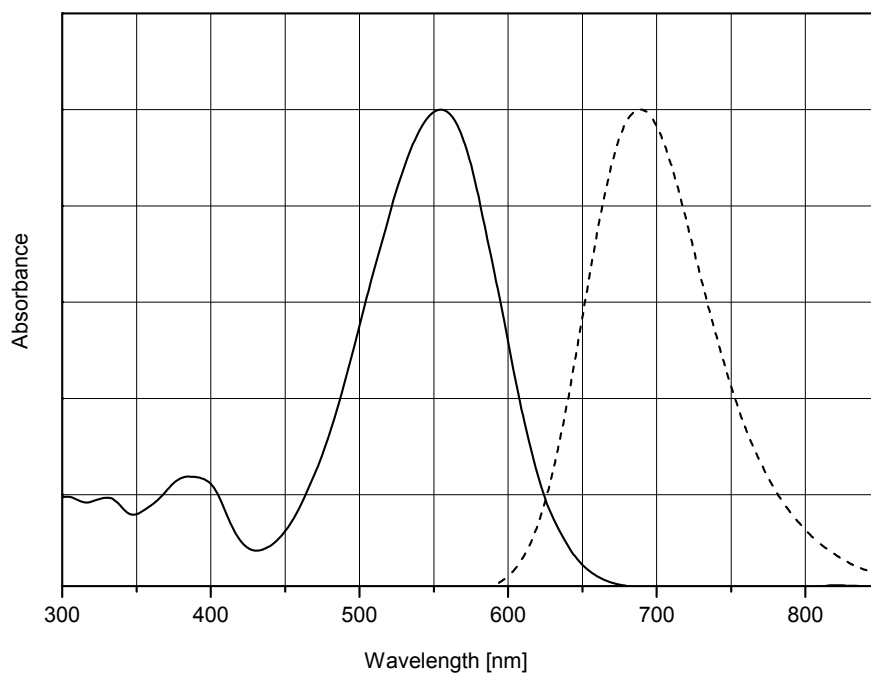
Name

4-(4-(2-(7-(Diethylamino)-2-oxo-2H-chromen-3-yl)vinyl)quinolinium-1-yl)butane-1-sulfonate

Structure



Spectrum



Absorption maximum

558 nm (MeOH)

Emission maximum

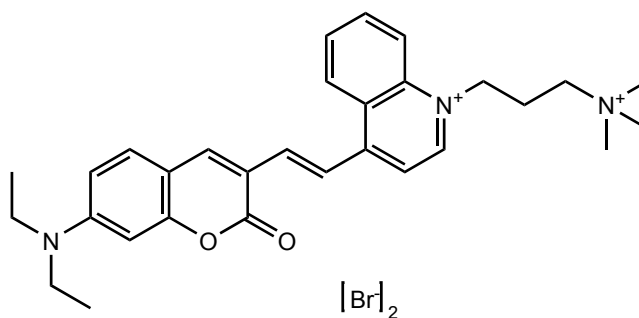
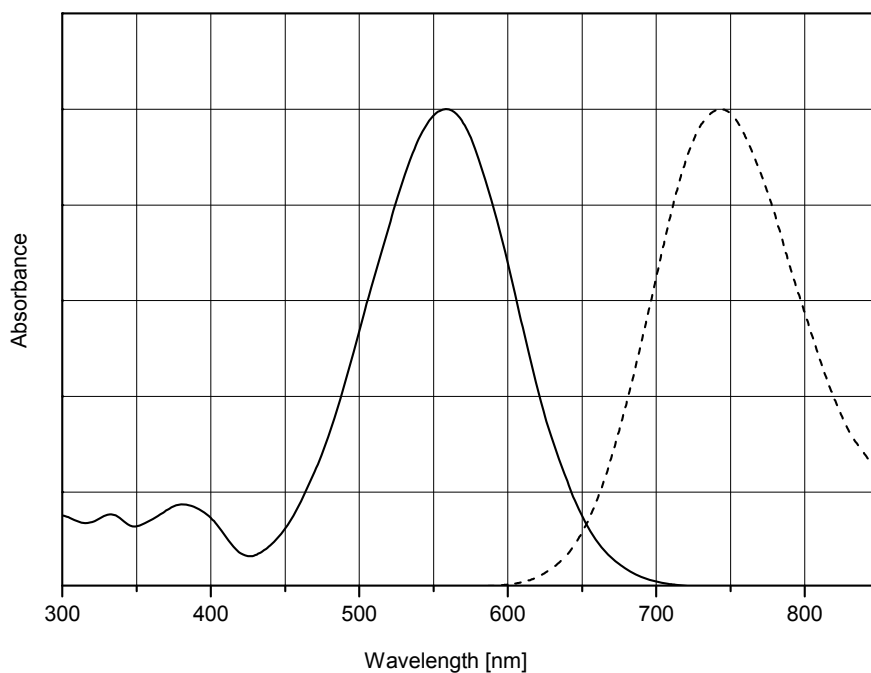
743 nm

Quantum yield

0.02

Total formula $C_{30}H_{37}Br_2N_3O_2$ **Molecular weight**631.45 g mol⁻¹**CAS #****Name**

4-(2-(7-(Diethylamino)-2-oxo-2H-chromen-3-yl)vinyl)-1-(3-(trimethylammonio)propyl)-quinolinium dibromide

Structure**Spectrum**

Absorption maximum

556 nm (CH₂Cl₂)

Emission maximum

693 nm

Quantum yield

0.44

Total formula

C₃₀H₃₇Br₂N₃O₂

Molecular weight

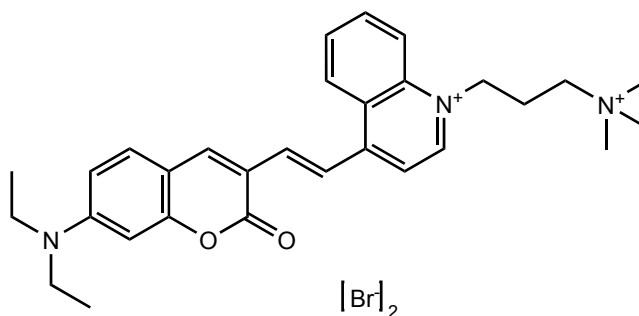
631.45 g mol⁻¹

CAS

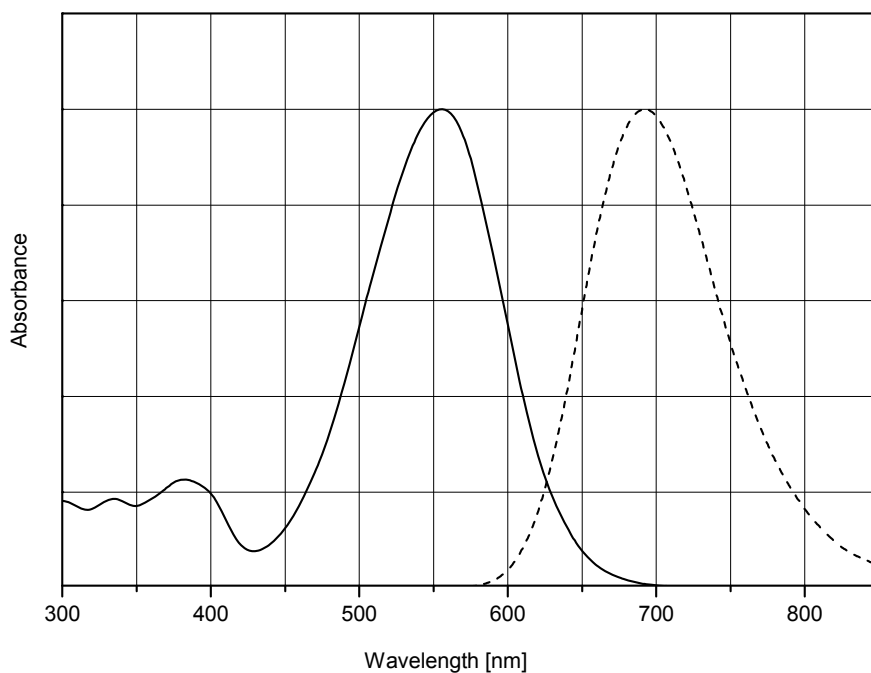
Name

4-(2-(7-(Diethylamino)-2-oxo-2H-chromen-3-yl)vinyl)-1-(3-(trimethylammonio)propyl)-quinolinium dibromide

Structure



Spectrum





Coumarins and related Dyes

Absorption maximum

380 nm (MeOH)

Emission maximum

464 nm

Quantum yield

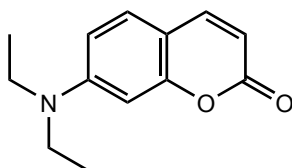
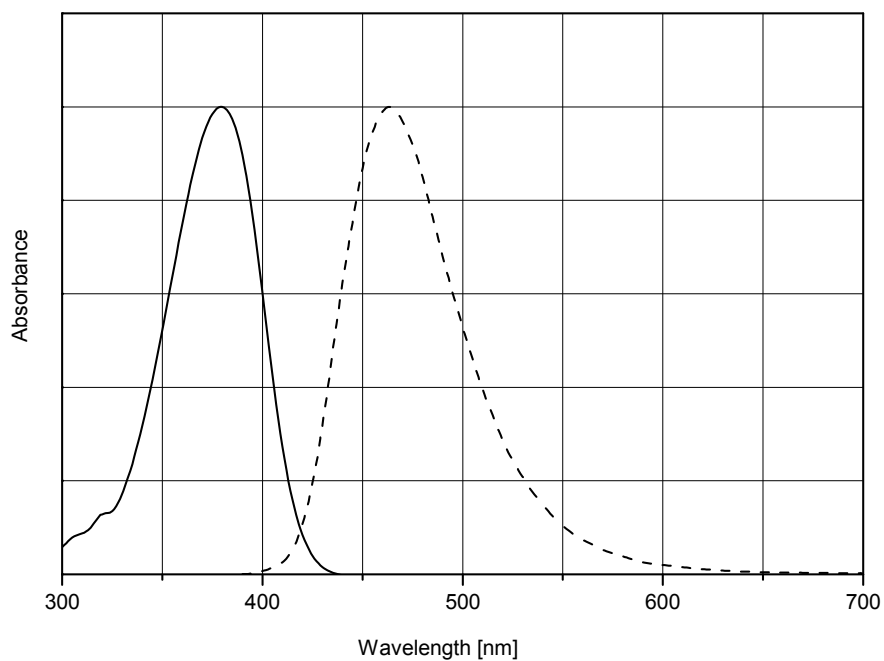
0.35

Total formula $C_{13}H_{15}NO_2$ **Molecular weight**217.27 g mol⁻¹**CAS #**

20571-42-0

Name

7-Diethylamino-chromen-2-one

Structure**Spectrum**

Absorption maximum

375 nm (MeOH)

Emission maximum

454 nm

Quantum yield

0.64

Total formula

C₁₄H₁₇NO₂

Molecular weight

231.29 g mol⁻¹

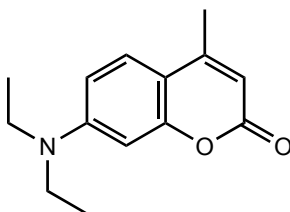
CAS

91-44-1

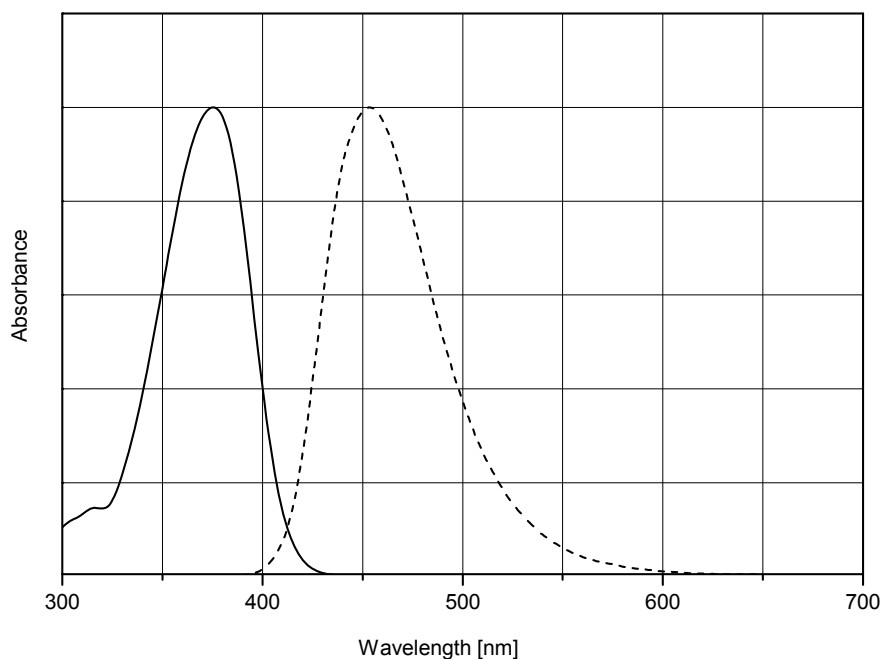
Name

7-Diethylamino-4-methyl-chromen-2-one

Structure



Spectrum



Absorption maximum

403 nm (MeOH)

Emission maximum

516 nm

Quantum yield

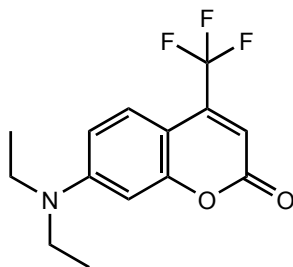
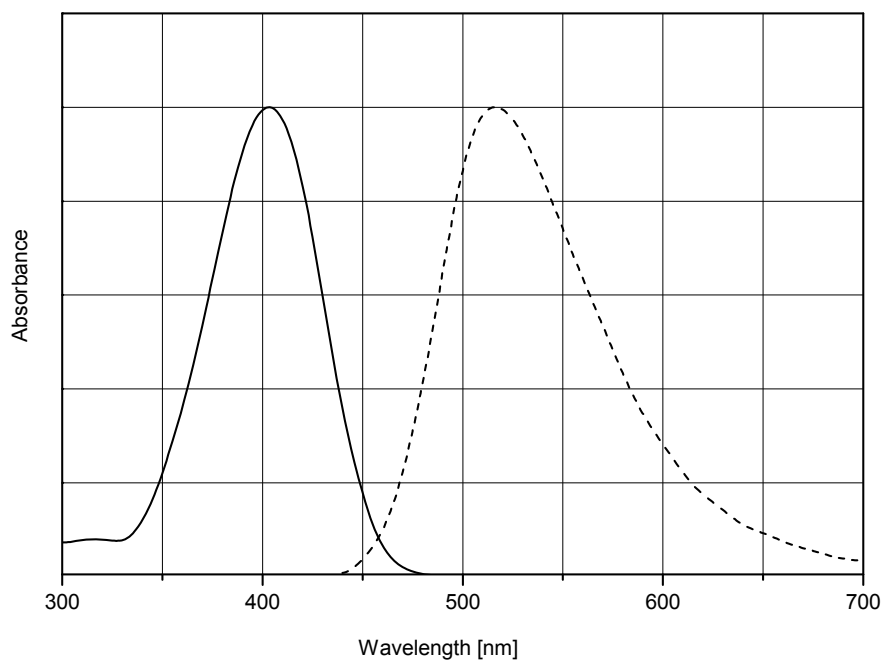
0.07

Total formula $C_{14}H_{14}F_3NO_2$ **Molecular weight**285.27 g mol⁻¹**CAS #**

41934-47-8

Name

7-Diethylamino-4-trifluoromethyl-chromen-2-one

Structure**Spectrum**

Absorption maximum

400 nm (MeOH)

Emission maximum

480 nm

Quantum yield

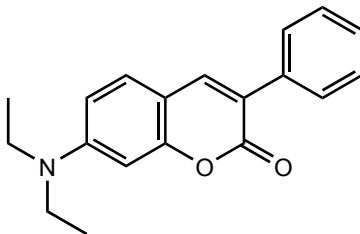
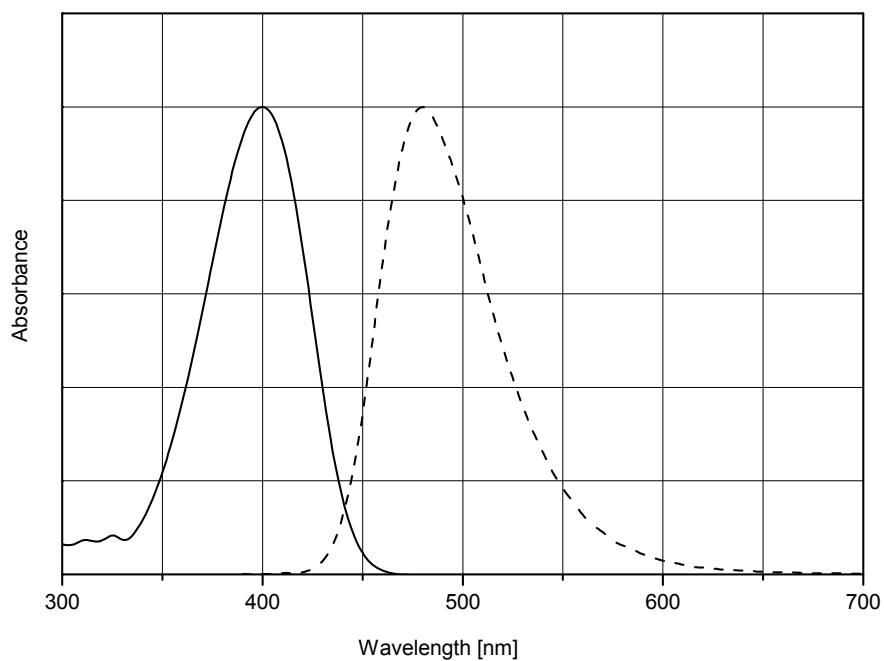
~1

Total formula $C_{19}H_{19}NO_2$ **Molecular weight**293.37 g mol⁻¹**CAS #**

84865-19-0

Name

7-Diethylamino-3-phenyl-chromen-2-one

Structure**Spectrum**

Absorption maximum

419 nm (MeOH)

Emission maximum

486 nm

Quantum yield

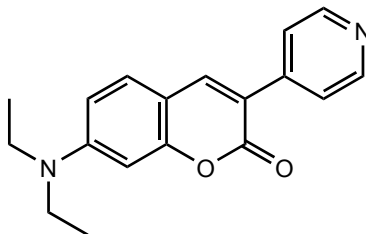
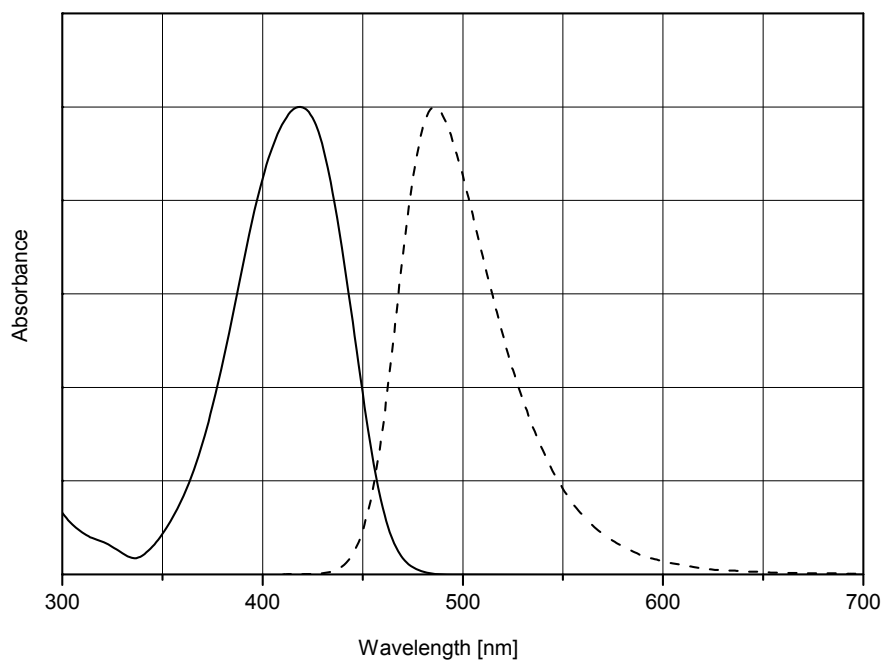
0.72

Total formula $C_{18}H_{18}N_2O_2$ **Molecular weight**294.35 g mol⁻¹**CAS #**

55470-51-4

Name

7-Diethylamino-3-pyridin-4-yl-chromen-2-one

Structure**Spectrum**

Absorption maximum

423 nm (MeOH)

Emission maximum

502 nm

Quantum yield

~1

Total formula

C₁₇H₁₇NO₂S

Molecular weight

299.39 g mol⁻¹

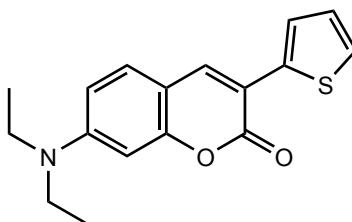
CAS

117850-52-9

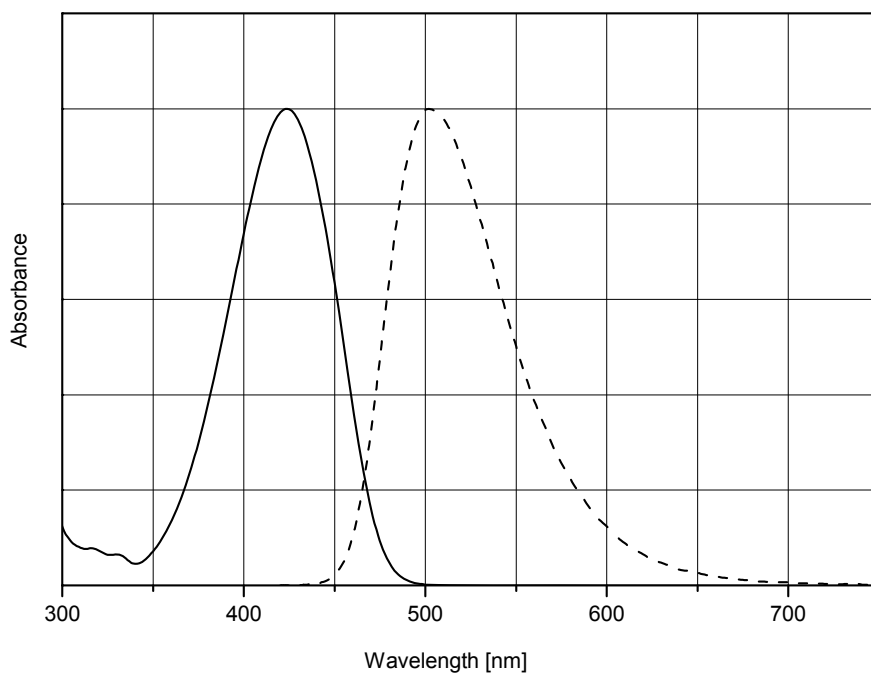
Name

7-Diethylamino-3-thiophen-2-yl-chromen-2-one

Structure



Spectrum



Absorption maximum

419 nm (MeOH)

Emission maximum

465 nm

Quantum yield

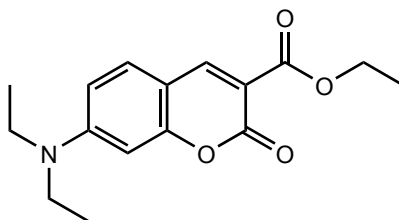
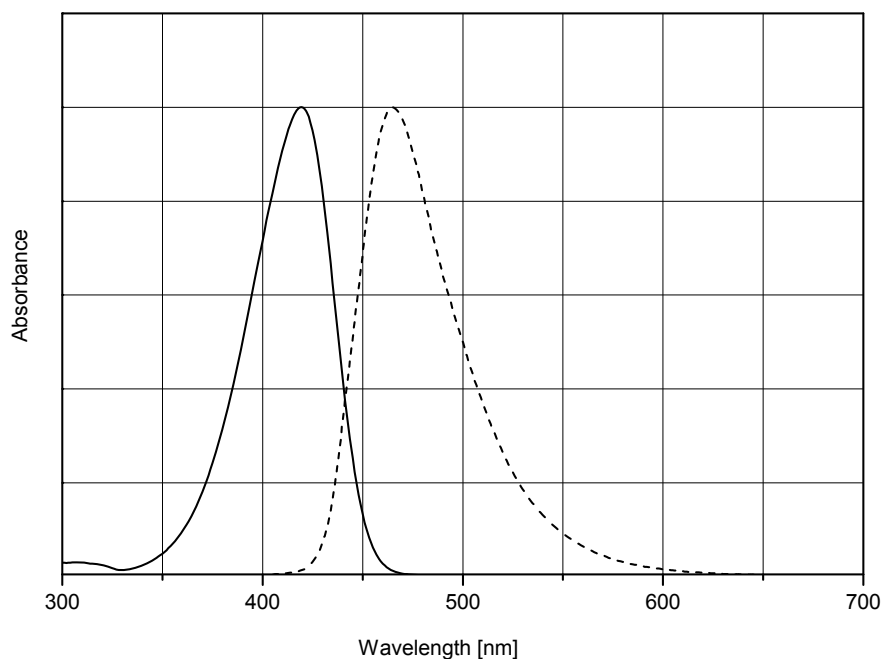
0.03

Total formula $C_{16}H_{19}NO_4$ **Molecular weight**289.33 g mol⁻¹**CAS #**

28705-46-6

Name

7-Diethylamino-2-oxo-2H-chromene-3-carboxylic acid ethyl ester

Structure**Spectrum**

S 2408

Absorption maximum

423 nm (MeOH)

Emission maximum

455 nm

Quantum yield

0.08

Total formula

C₁₄H₁₅NO₄

Molecular weight

261.28 g mol⁻¹

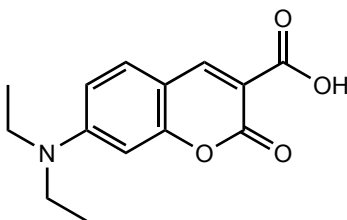
CAS

50995-74-9

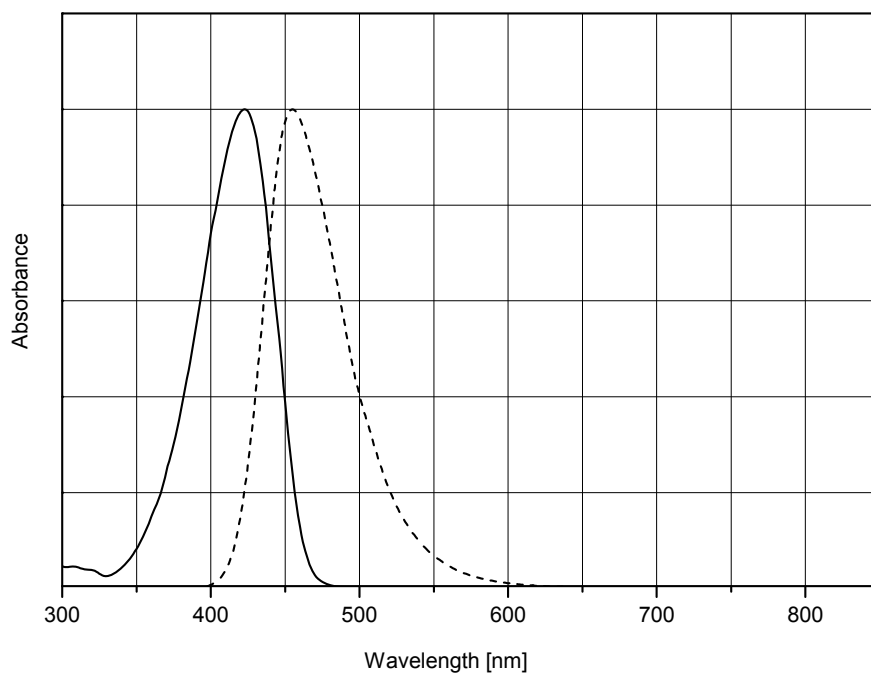
Name

7-Diethylamino-2-oxo-2H-chromene-3-carboxylic acid

Structure



Spectrum



Absorption maximum

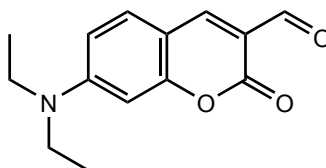
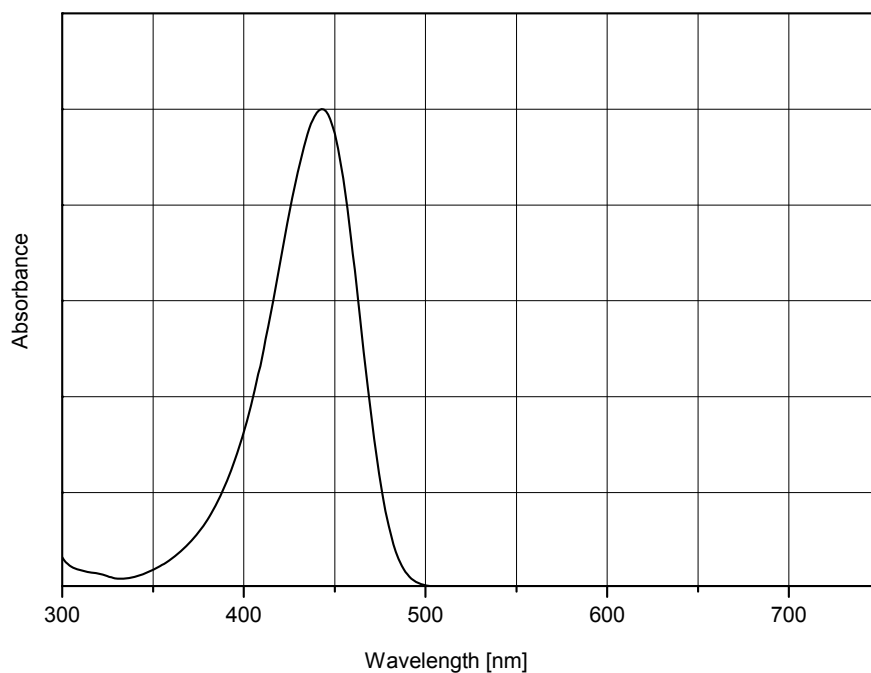
443 nm (MeOH)

Emission maximum**Quantum yield****Total formula** $C_{14}H_{15}NO_3$ **Molecular weight**245.28 g mol⁻¹**CAS #**

57597-64-5

Name

7-Diethylamino-2-oxo-2H-chromene-3-carbaldehyde

Structure**Spectrum**

S 2145

Absorption maximum

425 nm (MeOH)

Emission maximum

474 nm

Quantum yield

0.02

Total formula

C₁₄H₁₄N₂O₂

Molecular weight

242.28 g mol⁻¹

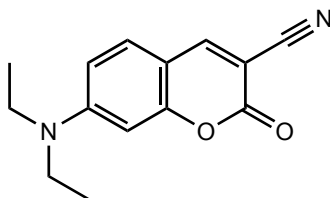
CAS

51473-74-6

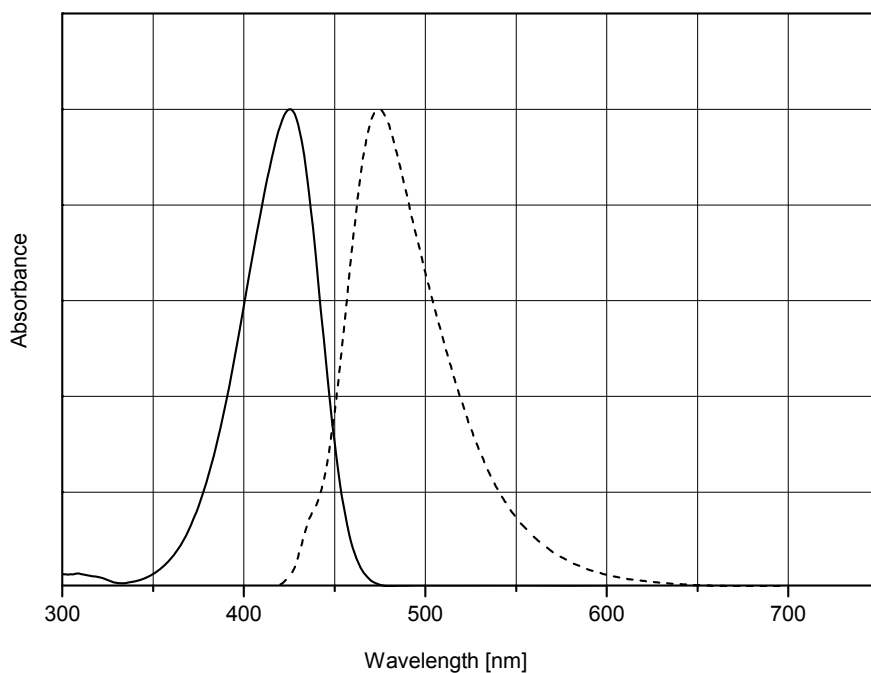
Name

7-Diethylamino-2-oxo-2H-chromene-3-carbonitrile

Structure



Spectrum



Absorption maximum

438 nm (MeOH)

Emission maximum

493 nm

Quantum yield

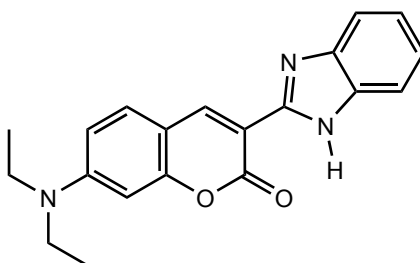
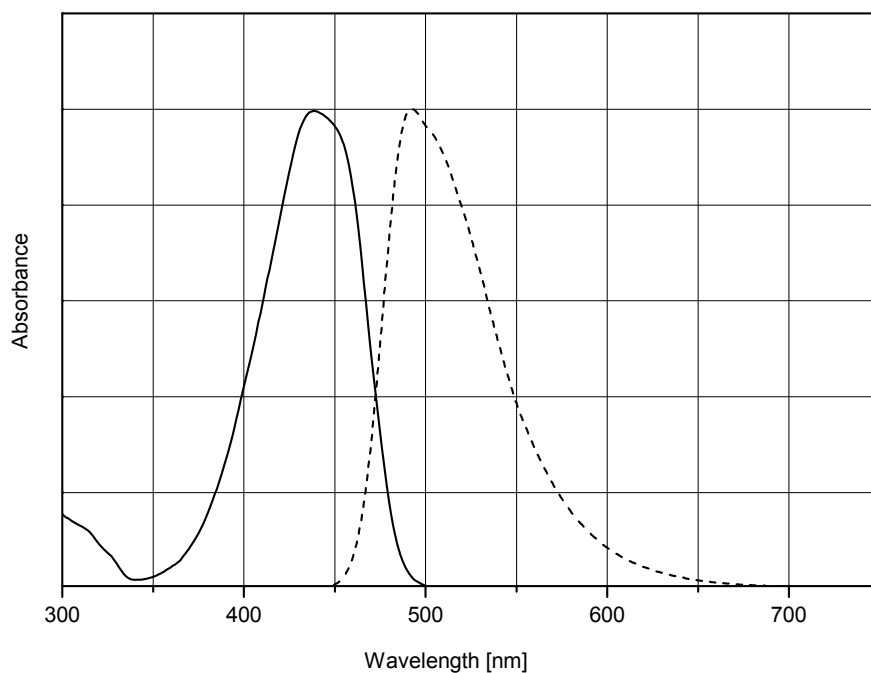
0.96

Total formula $C_{20}H_{19}N_3O_2$ **Molecular weight**333.39 g mol⁻¹**CAS #**

27425-55-4

Name

3-(1H-Benzimidazol-2-yl)-7-diethylamino-chromen-2-one

Structure**Spectrum**

Absorption maximum

549 nm (MeOH)

Emission maximum

572 nm

Quantum yield

~1

Total formula

C₂₃H₁₉N₅O

Molecular weight

381.44 g mol⁻¹

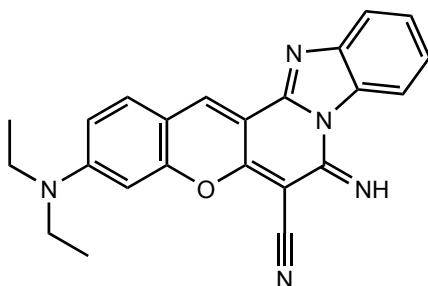
CAS

52372-39-1

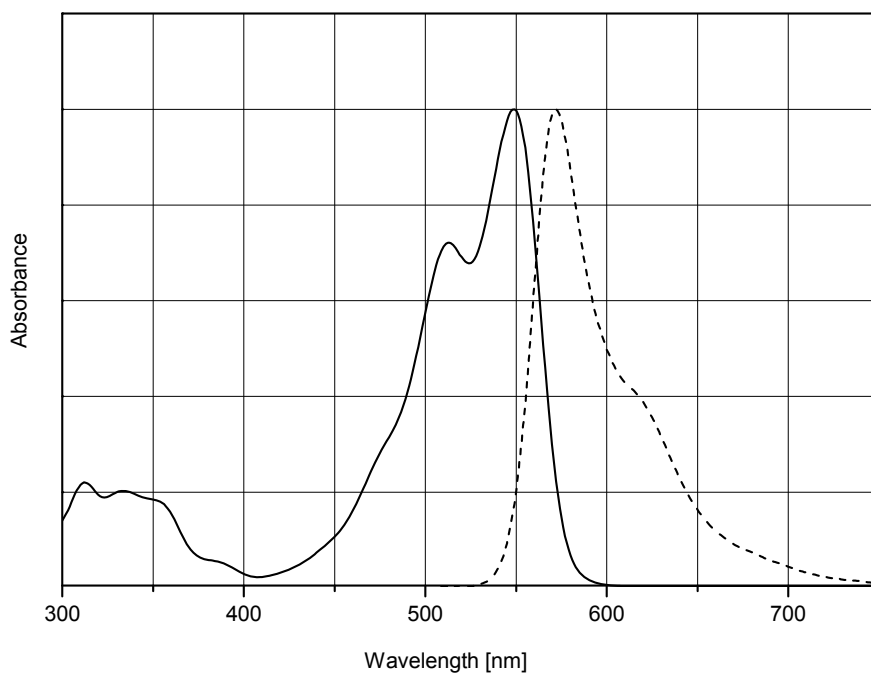
Name

3-Diethylamino-7-imino-7H-[1]benzopyrano[3',2':3,4]pyrido[1,2-a]benzimidazole-6-carbonitrile

Structure



Spectrum



Absorption maximum

544 nm (Toluene)

Emission maximum

559 nm

Quantum yield

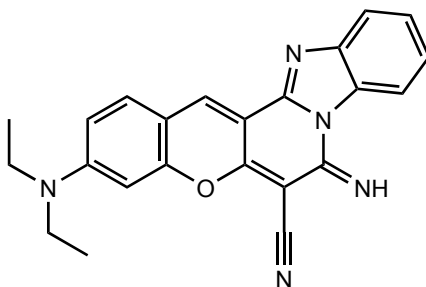
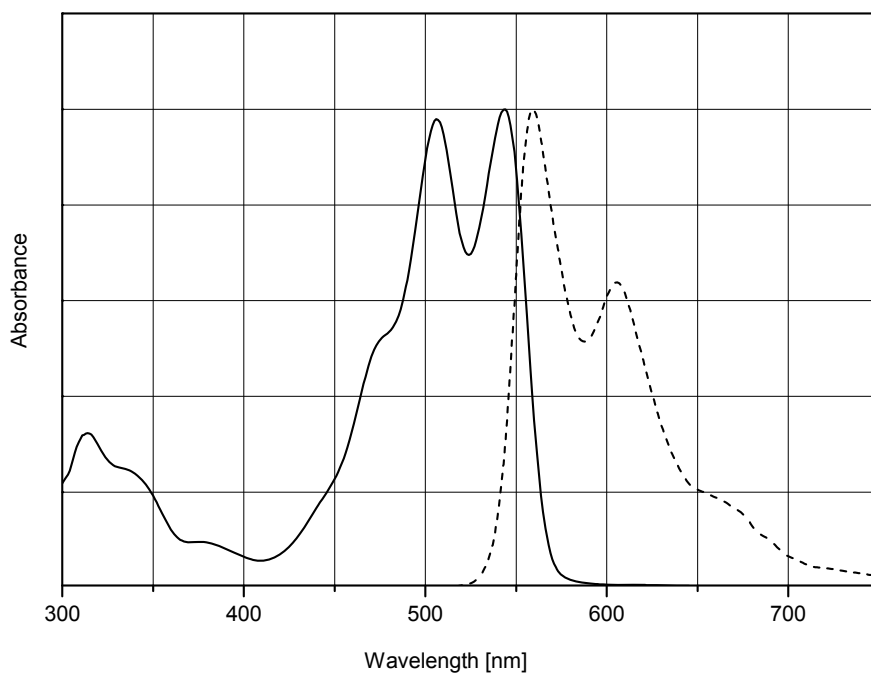
0.95

Total formula $C_{23}H_{19}N_5O$ **Molecular weight**381.44 g mol⁻¹**CAS #**

52372-39-1

Name

3-Diethylamino-7-imino-7H-[1]benzopyrano[3',2':3,4]pyrido[1,2-a]benzimidazole-6-carbonitrile

Structure**Spectrum**

Absorption maximum

389 nm (MeOH)

Emission maximum

472 nm

Quantum yield

~1

Total formula

$C_{20}H_{25}NO_2$

Molecular weight

311.42 g mol⁻¹

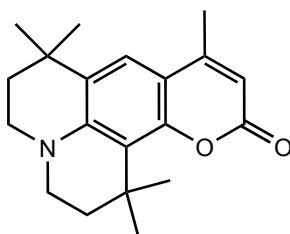
CAS

113869-04-8

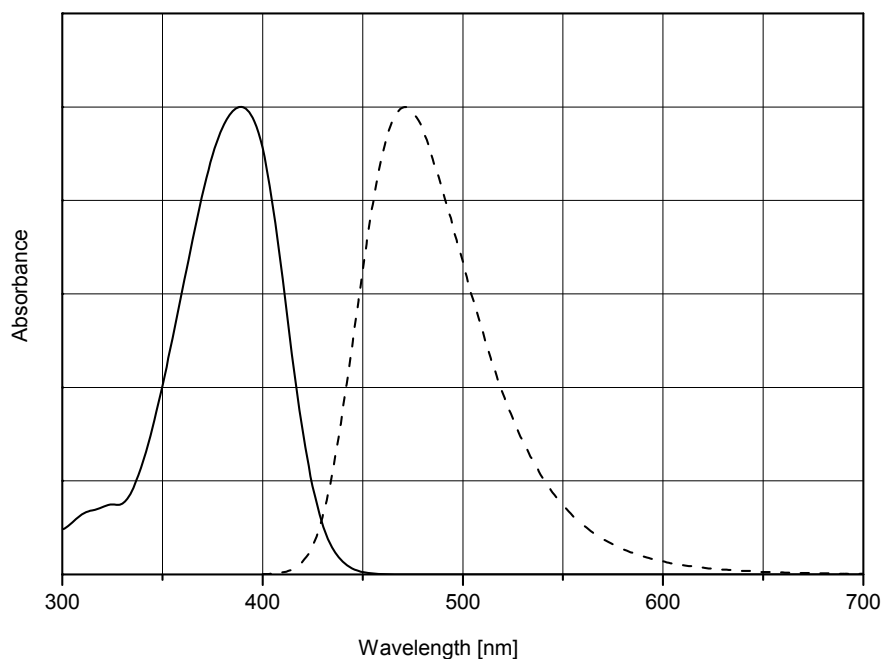
Name

1,1,6,6,8-Pentamethyl-2,3,5,6-tetrahydro-1H,4H-11-oxa-3a-aza-benzo[de]anthracen-10-one

Structure



Spectrum



Absorption maximum

423 nm (MeOH)

Emission maximum

535 nm

Quantum yield

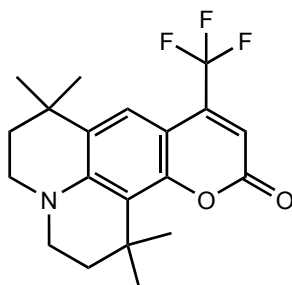
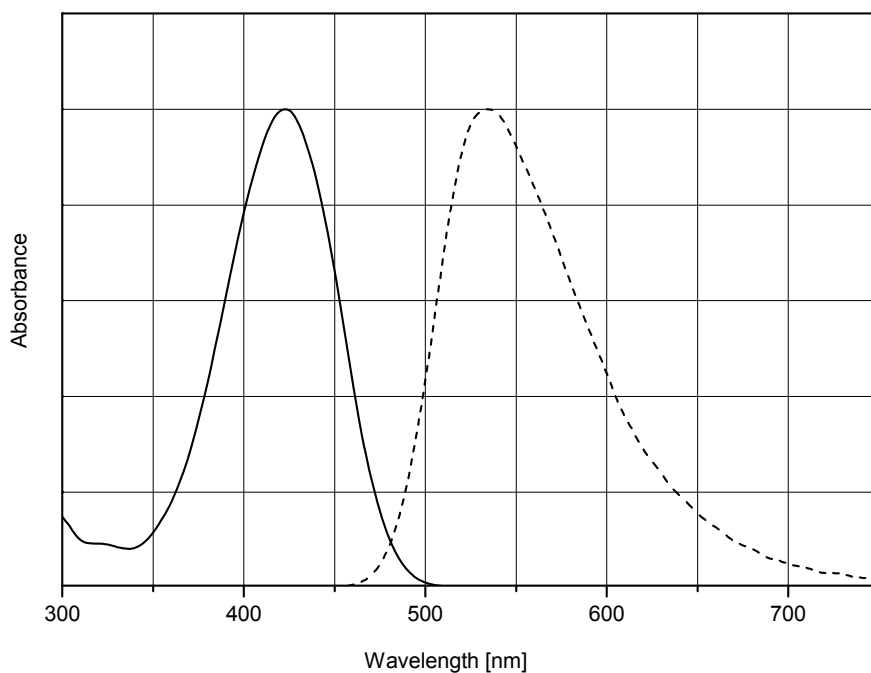
0.54

Total formula $C_{20}H_{22}F_3NO_2$ **Molecular weight**365.40 g mol⁻¹**CAS #**

113869-07-1

Name

11,6,6-Tetramethyl-8-trifluoromethyl-2,3,5,6-tetrahydro-1H,4H-11-oxa-3a-aza-benzo[de]anthracen-10-one

Structure**Spectrum**

Absorption maximum

436 nm (MeOH)

Emission maximum

480 nm

Quantum yield

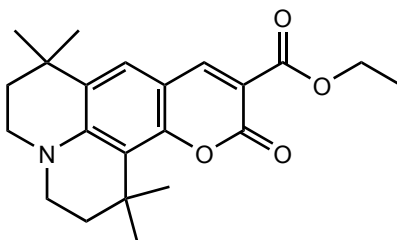
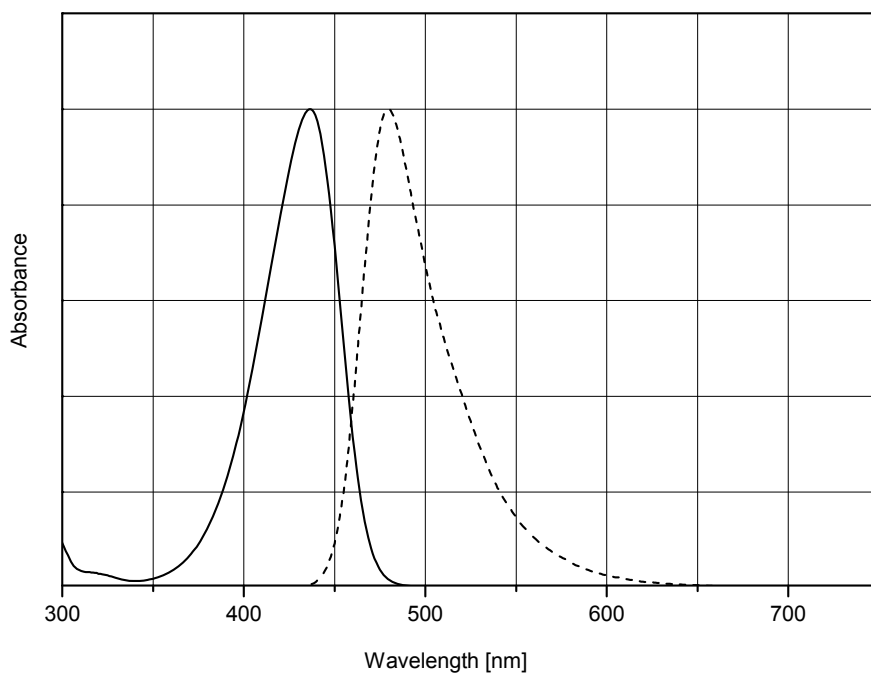
~1

Total formula $C_{22}H_{27}NO_4$ **Molecular weight**369.46 g mol⁻¹**CAS #**

113869-06-0

Name

1,1,6,6-Tetramethyl-10-oxo-2,3,5,6-tetrahydro-1H,4H,10H-11-oxa-3a-aza-benzo[de]anthracene-9-carboxylic acid ethyl ester

Structure**Spectrum**

Absorption maximum

443 nm (MeOH)

Emission maximum

489 nm

Quantum yield

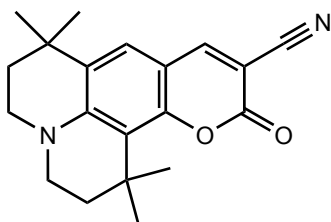
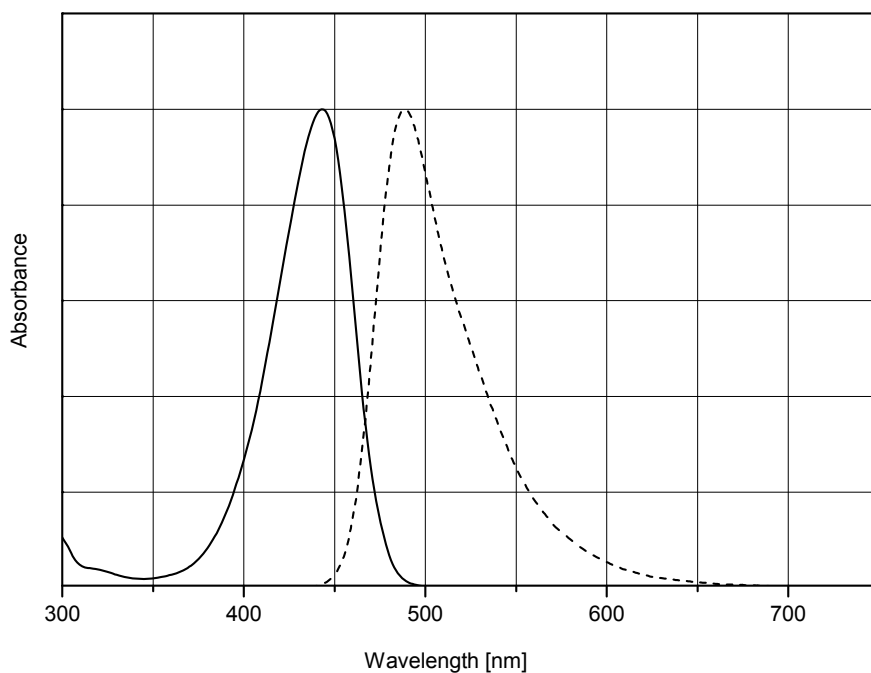
~1

Total formula $C_{20}H_{22}N_2O_2$ **Molecular weight**322.41 g mol⁻¹**CAS #**

115662-11-8

Name

1,1,6,6-Tetramethyl-10-oxo-2,3,5,6-tetrahydro-1H,4H,10H-11-oxa-3a-aza-benzo[de]anthracene-9-carbonitrile

Structure**Spectrum**

Absorption maximum

463 nm (MeOH)

Emission maximum

505 nm

Quantum yield

~1

Total formula

C₂₆H₂₇N₃O₂

Molecular weight

413.52 g mol⁻¹

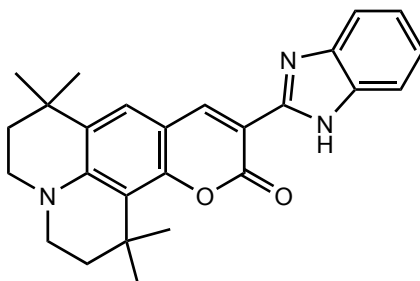
CAS

155306-73-3

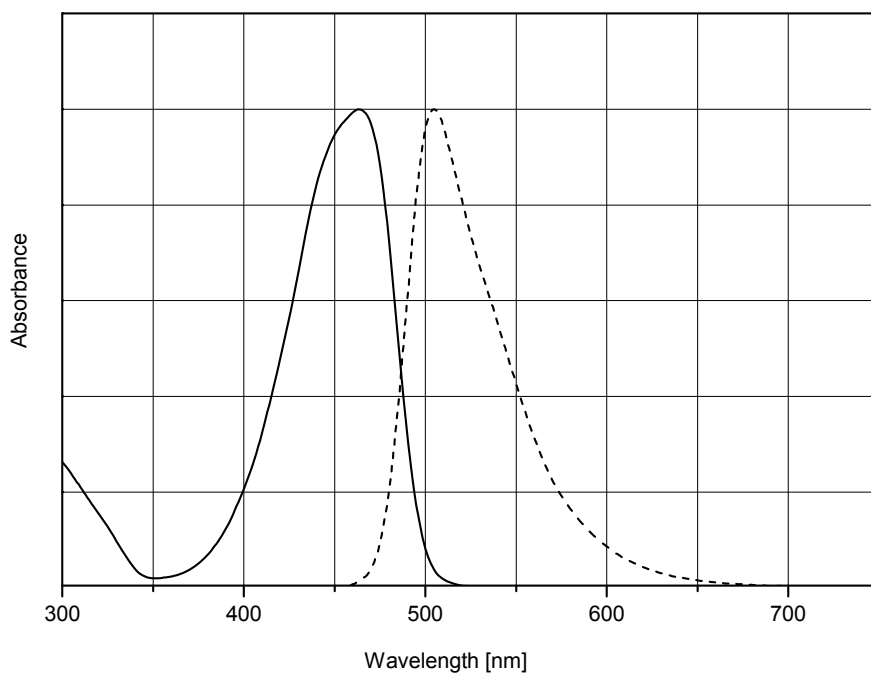
Name

9-(1H-Benzoimidazol-2-yl)-1,1,6,6-tetramethyl-2,3,5,6-tetrahydro-1H,4H-11-oxa-3a-aza-benzo[de]anthracen-10-one

Structure



Spectrum



Absorption maximum

565 nm (MeOH)

Emission maximum

583 nm

Quantum yield

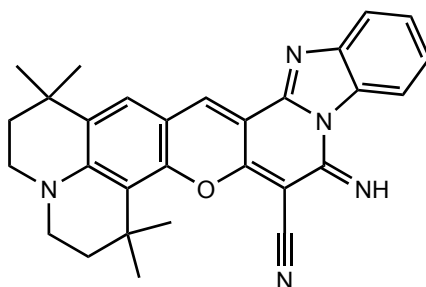
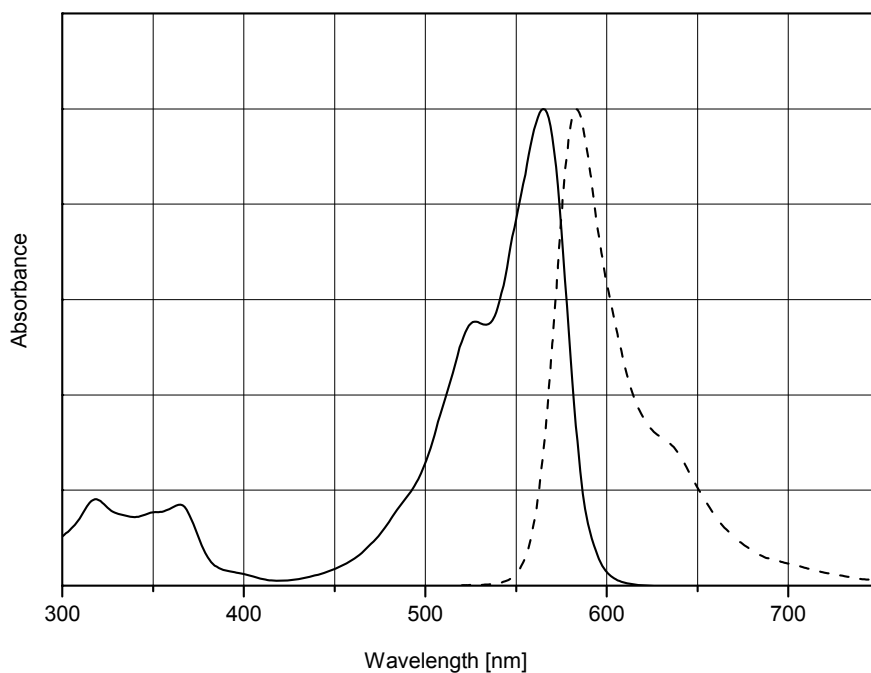
~1

Total formula $C_{29}H_{27}N_5O$ **Molecular weight**461.57 g mol⁻¹**CAS #**

203381-28-6

Name

10,11,14,15-Tetrahydro-6-imino-9,9,15,15-tetramethyl-6H,9H,13H-benzimidazo[1'',2'':1',2']pyrido[4',3':2,3][1]benzopyrano[6,7,8-ij]quinolizine-7-carbonitrile

Structure**Spectrum**

Absorption maximum

558 nm (Toluene)

Emission maximum

571 nm

Quantum yield

~1

Total formula

C₂₉H₂₇N₅O

Molecular weight

461.57 g mol⁻¹

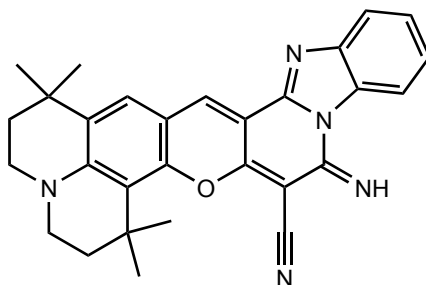
CAS

203381-28-6

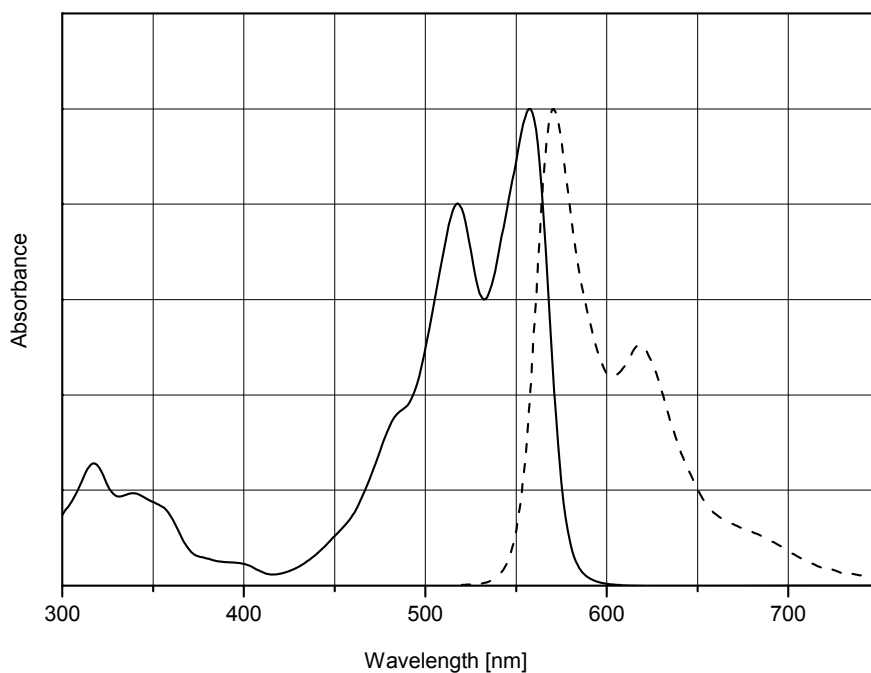
Name

10,11,14,15-Tetrahydro-6-imino-9,9,15,15-tetramethyl-6H,9H,13H-benzimidazo[1'',2'':1',2']pyrido[4',3':2,3][1]benzopyrano[6,7,8-ij]quinolizine-7-carbonitrile

Structure



Spectrum





Squarylium Dyes

Absorption maximum

640 nm (MeOH)

Emission maximum

654 nm

Quantum yield

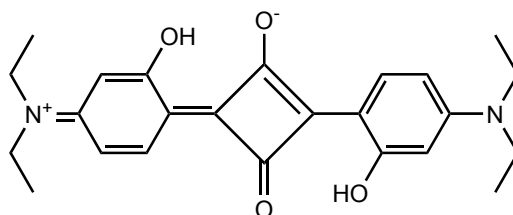
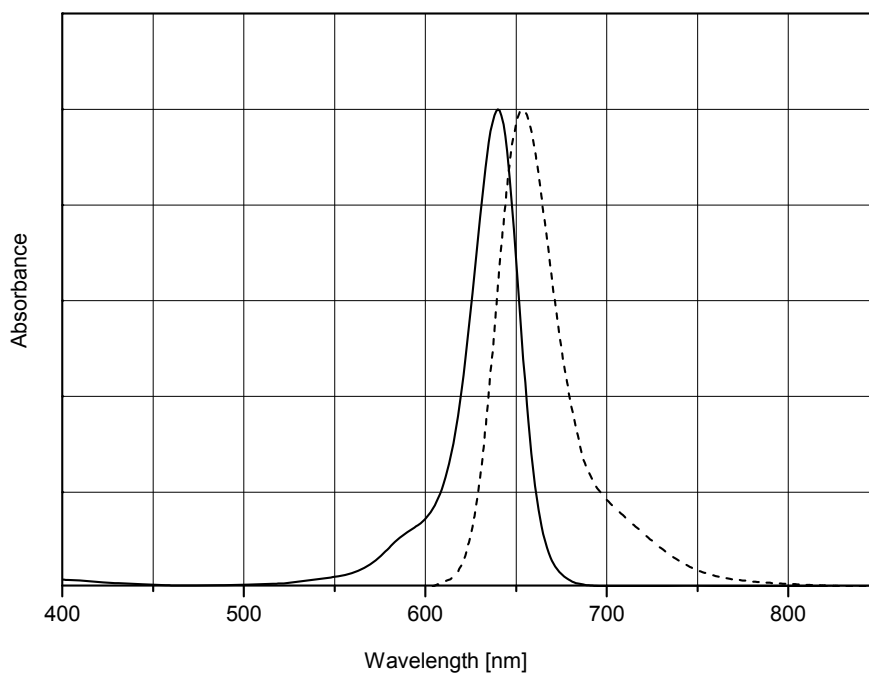
0.79

Total formula $C_{24}H_{28}N_2O_4$ **Molecular weight**408.50 g mol⁻¹**CAS #**

68842-66-0

Name

1,3-Bis[4-(diethylamino)-2-hydroxyphenyl]-2,4-dihydroxy-cyclobutenediylum bis(inner salt)

Structure**Spectrum**

Absorption maximum

668 nm (MeOH)

Emission maximum

683 nm

Quantum yield

0.66

Total formula

C₃₆H₄₄N₂O₄

Molecular weight

568.76 g mol⁻¹

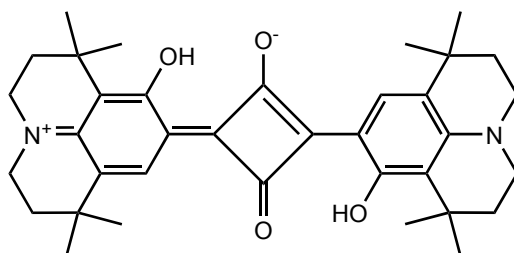
CAS

358727-55-6

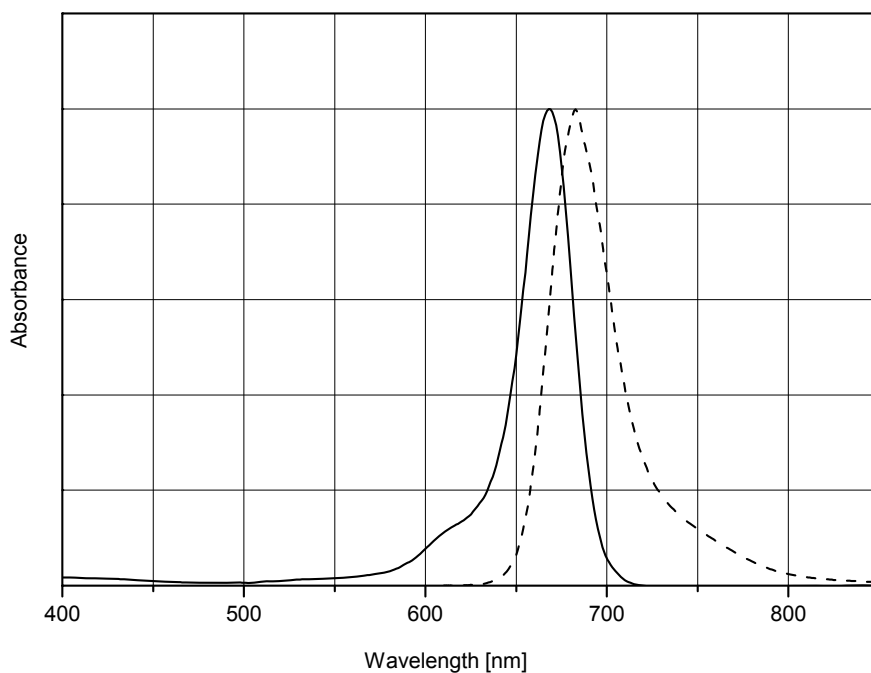
Name

1,3-Dihydroxy-2,4-bis(2,3,6,7-tetrahydro-8-hydroxy-1,1,7,7-tetramethyl-1H,5H-benzo[*ij*]quinolizin-9-yl)-cyclobutenediylum bis(inner salt)

Structure



Spectrum



Absorption maximum

670 nm (Toluene)

Emission maximum

680 nm

Quantum yield

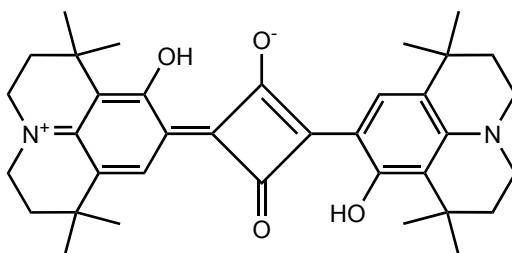
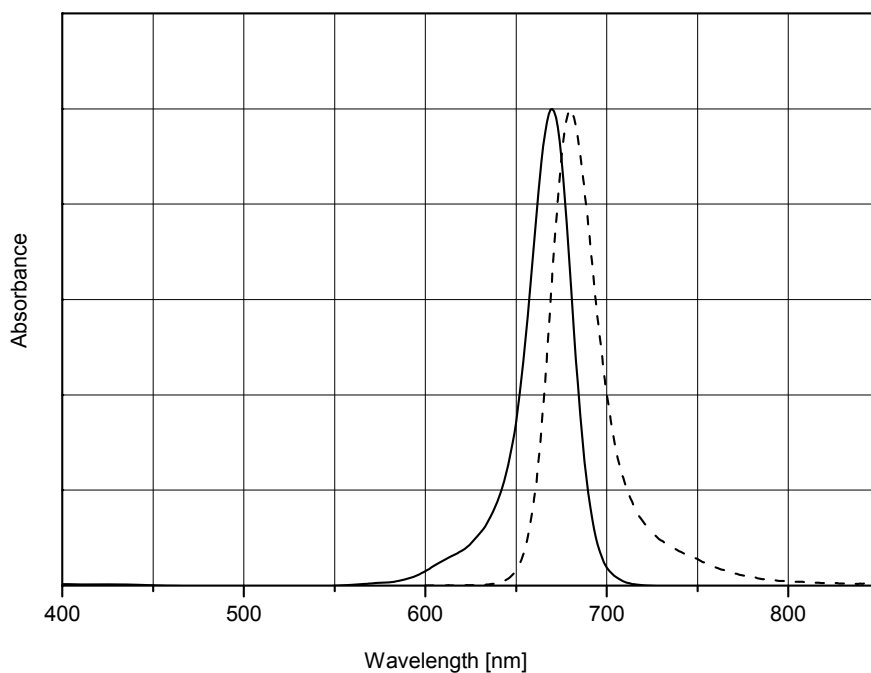
0.88

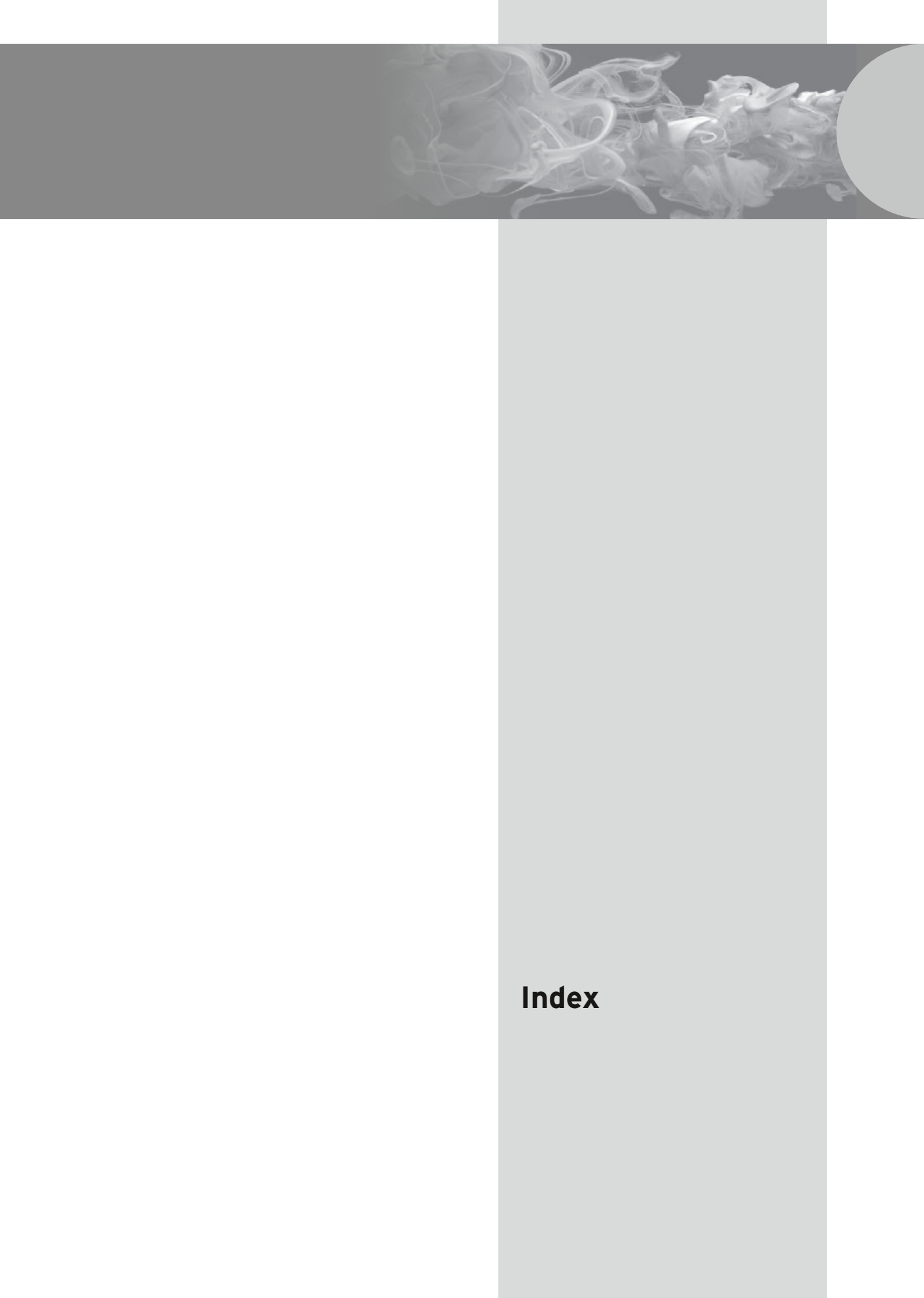
Total formula $C_{36}H_{44}N_2O_4$ **Molecular weight**568.76 g mol⁻¹**CAS #**

358727-55-6

Name

1,3-Dihydroxy-2,4-bis(2,3,6,7-tetrahydro-8-hydroxy-1,1,7,7-tetramethyl-1H,5H-benzo[*ij*]quinolizin-9-yl)-cyclobutenediylum bis(inner salt)

Structure**Spectrum**



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