



/. □ 201710782782.2

// □ 2017.09.03

3.2 □
□ CN 107669626 A

1.0 □ 2018.02.09

4.0 □
□ 453007
46

4./ □

4.1 □
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□

2.1

2.4

2,2

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3. 6 . 4 (2006.01)

3. 1 4 0 1 (2017.01)

3. 1 4 . (2006.01)

3. 0 . 1 4 1 2 (2006.01)

3. 0 2 (2006.01)

4 2 . 6 (2006.01)

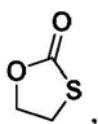
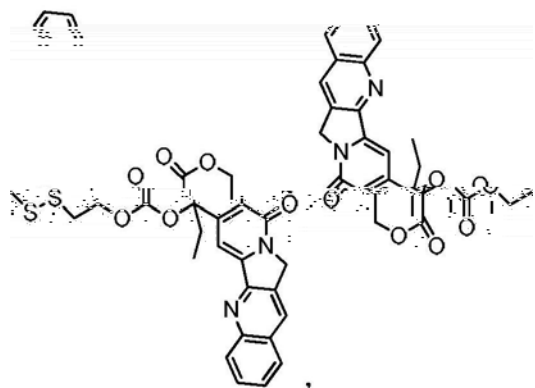
3. 1 4 2 2 (2017.01)

2.3

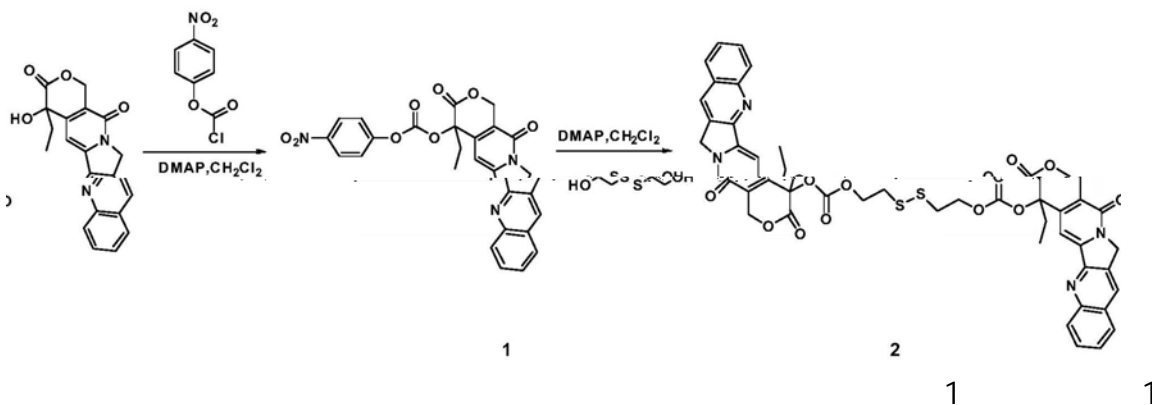
CN 101961494 A, 2011.02.02,
US 2013266508 A1, 2013.10.10,
CN 107375238 A, 2017.11.24,

□

1.
2,2-



6000-11000



2,2-

4-
1 4- 1 2,2-
48h 2. 1
3. 1
mPEG
2h

12.6wt

4.

3

14000

5.

1-4

(Camptothecin CPT)

10-

Pol y(ethyl eneglycol) -b-pol y(caprol actone) (PEG-b-PCL)

PEG-b-PCL

(DTT)

10

0

1

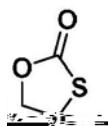
12.6

1

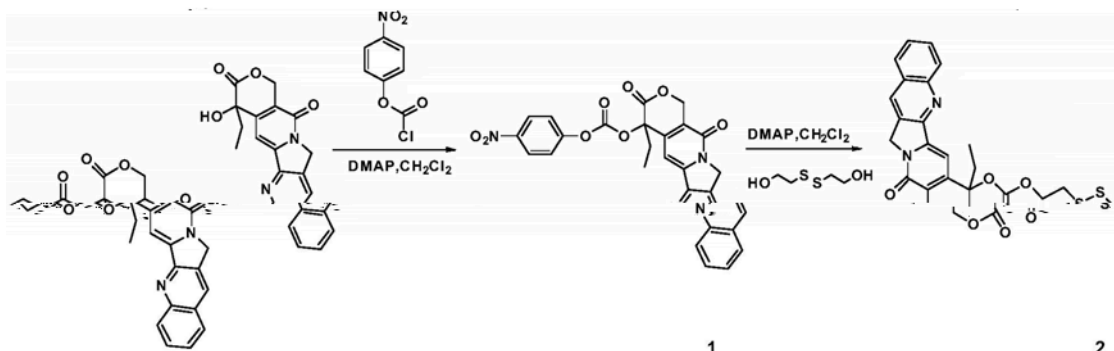
2,2-
(CPT-SS-CPT)
(mPEG-b-PCL)

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2



6000-11000



1 2,2-

2h

1
48h

4-

4-

1 2,2-

mPEG

12.6wt

14000

. 4 1

1 12.6

. 5 2

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. 6 3

/ 1 2

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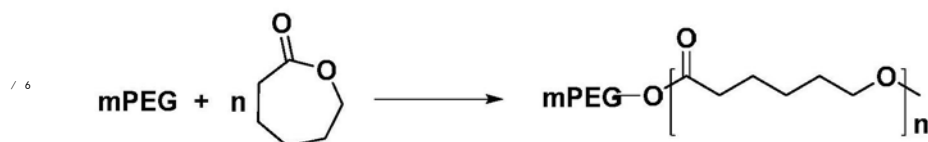
/ 1 100mL 0.5g (1.44mmol) 0.29g

0.39g DMAP 25mL CH₂Cl₂ Ar 2h 25mL 3
MgSO₄ 1

/ 2 2

/ 3 1 25mL CH₂Cl₂ 92.5mg2.5mL THF 7.5mL CH₂Cl₂ Ar 48h(CH₃OH/CH₂Cl₂) 0.23g 35.5/ 4 ¹H NMR(600MHz, CDCl₃) 8.39(s, 1H), 8.18(d, 1H), 7.93(d, 1H), 7.82(t, 1H), 7.66(t, 1H), 5.76(d, 1H), 5.41-5.18(m 1H), 5.46-5.14(m 1H), 4.00(d, 1H), 2.81(d, 1H), 2.23(d, 1H), 2.09(d, 1H), 0.97(t, 1H). ESI-MS for C₄₆H₃₈N₄O₁₂S₂[M⁺] [MNa⁺] cal cd: 902.1928, found: 903.2006 925.1786

/ 5 3

0 0.464g mPEG 0.204g CL2%Sn(Oct)₂ 38

1Pa 140 70h THF

MW 14000 48h

mPEG-b-PCL

0 ¹H NMR(400MHz, CDCl₃) 4.05(t, 1H), 3.64(s, 17H), 3.37(s, 1H), 2.39-2.23(m

1H), 1.71-1.57(m, 2H), 1.45-1.30(m, 1H)

0 / 4

0 0 100mg 30min mPEG-b-PCL 20mg (MW 3500) CPT-SS-CPT 10mL DMF 24h 4h

0 1 5

0 2 5mg (MW 3500) 3mL 0.1M pH 7.4 20mL 10mM DTT 37 3mL

0 3

