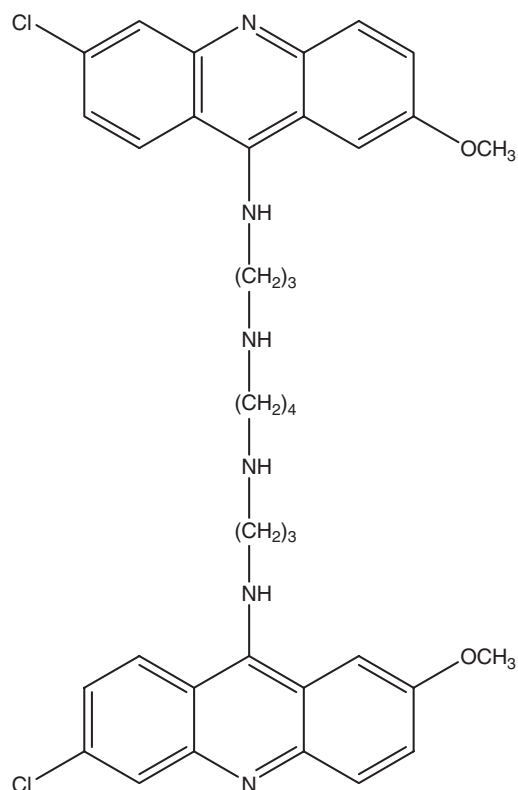


ACRIDINE HOMODIMER

CAS Registry Number 57576-49-5

Chemical Structure



CA Index Name 1,4-Butanediamine, *N,N'*-bis[3-[(6-chloro-2-methoxy-9-acridinyl)amino]propyl]-

Other Names Acridine homodimer; NSC 219743

Merck Index Number Not listed

Chemical/Dye Class Acridine

Molecular Formula C₃₈H₄₂Cl₂N₆O₂

Molecular Weight 685.69

Physical Form Orange-brown powder or yellow solid

Solubility Soluble in water, *N,N*-dimethylformamide, dimethyl sulfoxide, methanol

Melting Point 169–170 °C²

Boiling Point (Calcd.) 885.4 ± 65.0 °C Pressure: 760 Torr

pKa (Calcd.) 10.63 ± 0.19 Most Basic Temperature: 25 °C

Absorption (λ_{max}) 431 nm (H₂O/DNA); 418 nm (MeOH)

Emission (λ_{max}) 498 nm (H₂O/DNA); 500 nm (MeOH)

Molar Extinction Coefficient 12,000 cm⁻¹ M⁻¹ (MeOH)

Synthesis Synthetic methods¹⁻³

Imaging/Labeling Applications Nucleic acids;¹⁻⁹ chromosomes¹⁰

Biological/Medical Applications Detecting nucleic acids;¹⁻⁹ diagnosis and selective tissue necrosis;¹¹ treating cancer,¹¹ malformed proteins causing neurodegenerative disease,¹³ prion disease¹²

Industrial Applications Not reported

Safety/Toxicity Neurotoxicity¹³

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