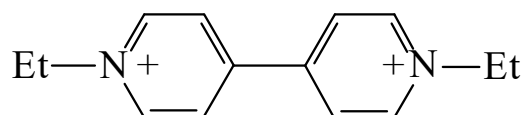




>>Entry Name: 1,1'-Diethyl-4,4'-bipyridinium(2+), 9Cl

Synonym(s): *N,N'*-Diethylviologen



CAS Registry Number: 46713-38-6

Related CAS Registry Numbers(s): 53721-12-3

Molecular Formula: $C_{14}H_{18}N_2^{2(+)}$

Molecular Weight: 214.31

Accurate Mass: 214.146998

Percentage Composition: C 78.46%; H 8.47%; N 13.07%

>>Derivative: Dichloride

CAS Registry Number: 3688-18-4

Molecular Formula: $C_{14}H_{18}Cl_2N_2$

Molecular Weight: 285.215

Accurate Mass: 284.084702

Percentage Composition: C 58.96%; H 6.36%; Cl 24.86%; N 9.82%

Use/Importance: Redox indicator (reduced form is blue). Used as a soln. in aq. AcOH

Physical Description: V. air-sensitive needles (C_6H_6 /EtOH)

Other Data: $E^\circ -0.449$ V (30°)

>>Derivative: Dibromide

Synonym(s): Ethyl viologen dibromide

CAS Registry Number: 53721-12-3

Molecular Formula: $C_{14}H_{18}Br_2N_2$

Molecular Weight: 374.118

Accurate Mass: 372.02367

Percentage Composition: C 44.95%; H 4.85%; Br 42.72%; N 7.49%

Melting Point: Mp 278° (dec.)

Aldrich: 38409-7

Fluka: 36792

>>Derivative: Diiodide

CAS Registry Number: 1983-61-5

Molecular Formula: $C_{14}H_{18}I_2N_2$

Molecular Weight: 468.119

Accurate Mass: 467.955944

Percentage Composition: C 35.92%; H 3.88%; I 54.22%; N 5.98%

Physical Description: Orange-red cryst. (Me_2CO aq. or MeOH)

Melting Point: Mp 273-274°

>>Derivative: Diperchlorate

CAS Registry Number: 36305-51-8

Molecular Formula: $C_{14}H_{18}Cl_2N_2O_8$

Molecular Weight: 413.21

Accurate Mass: 412.044022

Percentage Composition: C 40.69%; H 4.39%; Cl 17.16%; N 6.78%; O 30.98%

Melting Point: Mp 270° (dec.)

Aldrich: 38410-0

References:

Michaelis, L. *et al.*, *J. Gen. Physiol.*, 1933, **16**, 859, (*synth, use, chloride*)

Phillips, A.P. *et al.*, *J.A.C.S.*, 1955, **77**, 6393, (*synth, iodide*)

Bishop, E., *Indicators*, Pergamon, Oxford, 1972, (*use, chloride*)