



>>Entry Name: **4,4'-Dihydroxy-2,2'-bipyridine**

Synonym(s): [2,2'-Bipyridine]-4,4'-diol. [2,2'-Bipyridine]-4,4'(*1H*,*1'H*)-dione. 2,2'-Bi-4-pyridone

Structure by analogy with 3,4'-Dihydroxy-2,3'-bipyridine, [CFM55-E](#)

Molecular Formula: C₁₀H₈N₂O₂

Molecular Weight: 188.185

Accurate Mass: 188.058578

Percentage Composition: C 63.83%; H 4.28%; N 14.89%; O 17.00%

Physical Description: Cryst. (H₂O)

Melting Point: Mp 342-343°

Other Data: Forms a hemihydrate

>>Derivative: 1,1'-Dioxide

Molecular Formula: C₁₀H₈N₂O₄

Molecular Weight: 220.184

Accurate Mass: 220.048408

Percentage Composition: C 54.55%; H 3.66%; N 12.72%; O 29.07%

Melting Point: Mp 308 dec.°

>>Derivative: Di-Me ether

Synonym(s): 4,4'-Dimethoxy-2,2'-bipyridine, 9CI

CAS Registry Number: 17217-57-1

Molecular Formula: C₁₂H₁₂N₂O₂

Molecular Weight: 216.239

Accurate Mass: 216.089878

Percentage Composition: C 66.65%; H 5.59%; N 12.95%; O 14.80%

Use/Importance: Cryst. (EtOH)

Melting Point: Mp 170-172°

>>Derivative: Di-Me ether, 1,1'-dioxide

CAS Registry Number: 84175-10-0

Molecular Formula: C₁₂H₁₂N₂O₄

Molecular Weight: 248.238

Accurate Mass: 248.079708

Percentage Composition: C 58.06%; H 4.87%; N 11.28%; O 25.78%

Physical Description: Cryst.

Melting Point: Mp 229 dec.°

>>Derivative: Di-Me ether, 1,1'-dioxide, picrate

Physical Description: Cryst.

Melting Point: Mp 190.5-192°

References:

Haginiwa, J., *Yakugaku Zasshi*, 1955, **75**, 733, (*dioxide*)

Case, F.H., *J.O.C.*, 1962, **27**, 640, (*synth*)

Stoesser, R. *et al.*, *Z. Chem.*, 1978, **18**, 187, (*epr*)

Wenkert, D. *et al.*, *J.O.C.*, 1983, **48**, 283, (*synth derivs, pmr, ir, uv*)

Connor, J.A. *et al.*, *J. Organomet. Chem.*, 1985, **282**, 349, (*pmr, deriv*)

Dehmlow, E.V. *et al.*, *Annalen*, 1992, 953, (*synth, uv*)