



>>Entry Name: [2,2'-Bipyridine]-5,5'-dicarboxylic acid, 9CI
Synonym(s): 2,2'-Bipyridyl-5,5'-dicarboxylic acid. 6,6'-Binicotinic acid

CAS Registry Number: 1802-30-8

Molecular Formula: $C_{12}H_8N_2O_4$
Molecular Weight: 244.206
Accurate Mass: 244.048408
Percentage Composition: C 59.02%; H 3.30%; N 11.47%; O 26.21%
Melting Point: Mp 360°

>>Derivative: Di-Me ester

CAS Registry Number: 1762-45-4
Molecular Formula: $C_{14}H_{12}N_2O_4$
Molecular Weight: 272.26
Accurate Mass: 272.079708
Percentage Composition: C 61.76%; H 4.44%; N 10.29%; O 23.51%
Physical Description: Cryst. (dioxan)
Melting Point: Mp 261-262°

>>Derivative: Di-Et ester

CAS Registry Number: 1762-46-5
Molecular Formula: $C_{16}H_{16}N_2O_4$
Molecular Weight: 300.313
Accurate Mass: 300.111008
Percentage Composition: C 63.99%; H 5.37%; N 9.33%; O 21.31%
Physical Description: Cryst. (EtOH)
Melting Point: Mp 149°

>>Derivative: Diamide

CAS Registry Number: 4444-36-4
Molecular Formula: $C_{12}H_{10}N_4O_2$
Molecular Weight: 242.237
Accurate Mass: 242.080376
Percentage Composition: C 59.50%; H 4.16%; N 23.13%; O 13.21%
Physical Description: Cryst.
Melting Point: Mp 310°

>>Derivative: Dihydrazide

CAS Registry Number: 63361-67-1
Molecular Formula: $C_{12}H_{12}N_6O_2$
Molecular Weight: 272.266
Accurate Mass: 272.102174
Percentage Composition: C 52.94%; H 4.44%; N 30.87%; O 11.75%
Melting Point: Mp 360°

>>Derivative: Dinitrile

Synonym(s): 5,5'-Dicyano-2,2'-bipyridine

CAS Registry Number: 1802-29-5
Molecular Formula: $C_{12}H_6N_4$
Molecular Weight: 206.206
Accurate Mass: 206.059246
Percentage Composition: C 69.90%; H 2.93%; N 27.17%
Physical Description: Cryst. (DMF)
Melting Point: Mp 272-273°

References:

- Badger, G.M. *et al.*, *J.C.S.*, 1956, 616-620, (*synth*)
Whittle, C.P. *et al.*, *J. Het. Chem.*, 1977, **14**, 191-194, (*amide, nitrile, synth*)
Newkome, G.R. *et al.*, *J.O.C.*, 1997, **62**, 3013-3014, (*di-Et ester, synth, ir, pmr, cmr*)
Berthault, P. *et al.*, *Chem. Eur. J.*, 1998, **4**, 2237-2250, (*synth, ir, pmr*)
Janiak, C. *et al.*, *Synth. Commun.*, 1999, **29**, 3341-3352, (*diamide, dinitrile*)