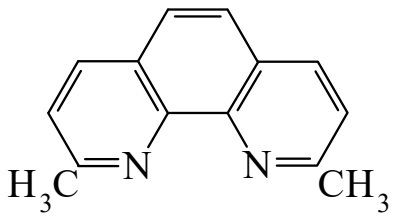
>>**Entry Name: 2,9-Dimethyl-1,10-phenanthroline**
Synonym(s): Neocuproine



CAS Registry Number: 484-11-7
Related CAS Registry Numbers(s): 7296-20-0 41066-08-4
Type of Compound Code(s): PA1920 PS8300 PA1450 PA4100 PS7700

Molecular Formula: $C_{14}H_{12}N_2$
Molecular Weight: 208.262
Accurate Mass: 208.100048
Percentage Composition: C 80.74%; H 5.81%; N 13.45%
Use/Importance: Used as a diagnostic aid in blood sugar determinations. Used as 0.02-0.1% soln. in EtOH for extraction-photometric detn. of Cu(*I*) (λ_{max} 545 nm, ε 7900, pH 5-10 isopentanol), indirect detn. of $S^{2(-)}$, $I^{(-)}$
Physical Description: Cryst. + ½H_2O
Melting Point: Mp 165° (158-160°)
Solubility: Sol. EtOH
pKa Value: pK_a 5.85 (25°, 0.1*M* KCl)

Fluka: 72080
Sigma: N1501

>>**Derivative:** *N*-Oxide

CAS Registry Number: 118896-77-8
Molecular Formula: $C_{14}H_{12}N_2O$
Molecular Weight: 224.262
Accurate Mass: 224.094963
Percentage Composition: C 74.98%; H 5.39%; N 12.49%; O 7.13%
Physical Description: Yellow cryst. + 2H_2O
Melting Point: Mp 131-132 dec.°

References:

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Lindsey, J.W. *et al.*, *Talanta*, 1969, **16**, 414, *(detn, Cu)*
Yamamoto, Y. *et al.*, *Anal. Chim. Acta*, 1974, **69**, 321, *(detn, $I^{(-)}$)*
Bhat, S.R. *et al.*, *Anal. Chim. Acta*, 1979, **108**, 293; 1981, **128**, 263, *(detn, $S^{2(-)}$)*
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