

### 1,10-Phenanthroline-*N,N'*-dioxide

R. D. GILLARD

Department of Chemistry, University College, P.O. Box 78,  
Cardiff CF11 1XL, U.K.

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This compound (abbreviated L here) has never been made. The methods [1] which give 2,2'-bipyridyl-*N,N'*-dioxide and 2,2':6',2''-terpyridine-tri-*N*-oxide (via isomers of mono-*N*- and di-*N*-oxides) give [2], with 1,10-phenanthroline, only the mono-*N*-oxide. More drastic conditions designed to force formation of the di-*N*-oxide gave [3] only mono-*N*-oxide.

An utterly clear statement [2] in this journal that 'several recent descriptions of its (*sic*) compounds with metal ions are in learned journals ... all such are wrong' has sadly escaped the attention of referees and of several authors, since papers purporting to describe this ligand and its complexes continue to appear.

Regrettably, recent papers [4-7] in this journal and elsewhere again confuse the oxidation of 1,10-phenanthroline with that of 2,2'-bipyridyl.

The existence of compounds of L with a variety of metal ions such as vanadyl, uranyl and thorium, and in lanthanide perrhenates has been claimed. These compounds cannot be as described, and the claims to their existence and descriptions of their properties should be withdrawn.

Since personal communications to the relevant authors have failed to elicit correction, I feel that it is necessary to publish this statement.

### References

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