essentially quantitative, with an 88 per cent yield after recrystallisation.

Other work on nitrile hydration, not involving the platinum group metals, has been undertaken, but is not discussed here.

**Conclusion**

The hydration of nitriles, while being one of the classic reactions of organic chemistry, is, at present, used comparatively little in the fine chemicals industry. The discovery of extremely active platinum-containing homogeneous catalysts, in particular one derived from dimethylphosphine oxide, which can hydrate several nitriles in aqueous media and in particular, can hydrate acetonitrile with a turnover number of over 50,000, suggests that the fine chemical and pharmaceutical industries will in future be able to make use of this reaction much more widely.

**References**

23. J. Akisanya and A. W. Parkins, King's College London, unpublished work
24. D. R. Boyd and B. E. Byrne, Queen's University of Belfast, unpublished data

*Encyclopedia of Chemical Technology*

The Fourth Edition of the recently published Volume 19 of the Kirk-Othmer "Encyclopedia of Chemical Technology" contains sections covering the platinum group metals and their compounds. The first section overviews sources, mineralogy, recovery, refining and economic aspects, uses and physical properties, and is well illustrated by Tables. Co-ordination compounds and organometallic compounds have been the most actively researched areas in this half of the century. This is reflected by the second section covering platinum group metals compounds. The rich catalytic chemistry resulting from the relative ease of conversion between oxidation states is described along with the many other uses of these compounds. Both sections contain bibliographies.

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