

## Trace Elements in Health and Disease

Edited by: A. Aitio, *Institute of Occupational Health, Finland*, A. Aro, *National Public Health Institute, Finland*, J. Järvisalo, *Social Insurance Institute, Finland*, V. Vainio, *International Agency for Research on Cancer, France*

During the past decade trace elements have been the focus of intensive research, especially with regard to toxicity and their essential role in human nutrition. There has long been a gap between toxicologists and nutrition researchers, even though they often cover common ground. This book is unique in covering both aspects of trace elements and is the first to bridge that gap.

**Trace Elements in Health and Disease** reviews the newest data available on both nutritional and toxicological aspects of trace elements and in doing so assesses the current state of knowledge on the relationship between trace elements and human health and disease.

The book looks at areas common to both such as analytical problems and mechanisms of action. In addition it provides the most up-to-date information on such topics as: the role of selenium and other micronutrients in protecting health; the carcinogenicity of different species of chromium and nickel; and the neurotoxicity of aluminium.

**Trace Elements in Health and Disease** is an essential addition to the libraries of nutrition researchers and toxicologists, worldwide.

**Hardcover x + 236 pages**

**234 x 156 mm**

**Price £45.00**

**ISBN 0 85186 976 9**

**January 1991**

## Food Polymers, Gels and Colloids

Edited by: Eric Dickinson, *University of Leeds*.  
Series: Special Publication No. 82.

**Food Polymers, Gels and Colloids** describes recent developments in the understanding of the role of food polymers in determining the properties of food colloids.

It provides a comprehensive and up-to-date account of current activity in the field and covers such topics as: interactions and aggregation behaviour of proteins and polysaccharides in solution; formation and stability of emulsions and foams; interfacial behaviour of food surfactants and macromolecules; and structure and rheology of solutions, gels and glasses. A major underlying theme is the importance of basic physico-chemical and colloid science principles in understanding the complex behaviour of multi-phase, multi-component foods.

The book is multi-disciplinary in approach and will appeal to researchers, technologists and lecturers involved with various aspects of polymers, gels and colloids.

**Hardcover xii + 576 pages**

**216 x 138 mm**

**Price £69.50**

**ISBN 0 85186 657 3**

**January 1991**

ROYAL  
SOCIETY OF  
CHEMISTRY



Information  
Services

**To Order, Please write to the:**

Royal Society of Chemistry, Turpin Transactions Ltd, Blackhorse Road, Letchworth, Herts SG6 1HN, UK.  
or telephone (0462) 672555 quoting your credit card details. We can now accept Access/Visa/MasterCard/Eurocard.

Turpin Transactions Ltd, distributors, is wholly owned by the Royal Society of Chemistry.

**For information on other books and journals, please write to:**

Royal Society of Chemistry, Sales and Promotion Department, Thomas Graham House, Science Park, Milton Road, Cambridge CB4 4WF, UK.

**RSC Members should obtain members prices and order from :**

The Membership Affairs Department at the Cambridge address above.

Fluka Prize

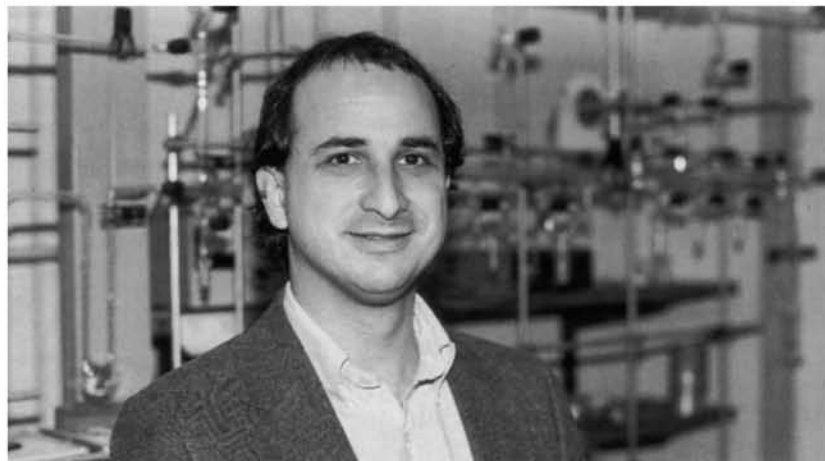
# Reagent of the Year 1991

93099 Triphenylphosphine-copper(I) hydride Hexamer, [PCuH], purum >97% (Cu)  
package sizes 1g, 5g.

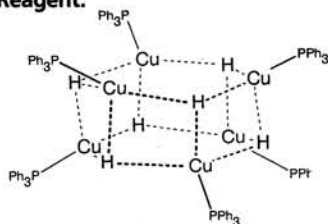
**The Prize Winner 1991:**  
Jeffrey M. Stryker

J. M. Stryker, born 1956, is a graduate of Harvard University. In 1983, he obtained his PhD at Columbia University under the direction of Gilbert Stork. As a postdoctoral fellow, he then worked in Robert Bergman's group at Berkeley.

In 1985, he joined Indiana University, Bloomington, as an assistant professor.



## The Reagent:



Triphenylphosphine-copper(I) hydride hexamer is a versatile regioselective reducing agent for  $\alpha,\beta$ -unsaturated carbonyls, showing high stereo-selectivity and exceptional chemo-selectivity. It also selectively reduces alkynes to cis-alkenes. Under anhydrous conditions and in the presence of additional phosphine, [PCuH] catalytically reduces  $\alpha,\beta$ -unsaturated ketones under hydrogen pressure.

The activity of triphenylphosphine-copper(I) hydride can be finely tuned by varying experimental conditions such as solvent, phosphine, additives, concentration, temperature and hydrogen pressure. [PCuH] is thermally stable. Its appreciable air stability in the solid state makes it very easy to handle.

## References:

- [1] S.A. Bezman, M.R. Churchill, J.A. Osborn, J. Wormald, *J. Am. Chem. Soc.* **93**, 2063 (1971).
- [2] G.V. Goeden, K.G. Caulton, *J. Am. Chem. Soc.* **103**, 7354 (1981).
- [3] W.S. Mahoney, D.M. Brestensky, J.M. Stryker, *J. Am. Chem. Soc.* **110**, 291 (1988).
- [4] T.M. Koenig, J.F. Daeuble, D.M. Brestensky, J.M. Stryker, *Tetrahedron Lett.* **30**, 5677 (1989).
- [5] J.F. Daeuble, C. McGettigan, J.M. Stryker, *Tetrahedron Lett.* **31**, 2397 (1990).
- [6] W.S. Mahoney, J.M. Stryker, *J. Am. Chem. Soc.* **111**, 8818 (1989).
- [7] J.M. Stryker in *Catalysis in Organic Synthesis*, W.E. Pascoe ed., Marcel Dekker: New York, in press.

## Prize Committee 1991:

Prof. Dr. D. Enders, Aachen  
Prof. Dr. H. J. Hansen, Zürich  
Prof. Dr. G. Helmchen, Heidelberg

Prof. Dr. G. Simchen, Stuttgart  
Dr. W. E. Keller, Buchs

## The Fluka Prize:

Since 1987, the Fluka Prize "Reagent of the Year" has been awarded annually to a research project, in which a new compound has been shown to be a reagent of prime importance, useful in organic chemistry, biochemistry or analytical chemistry. To be eligible for consideration the reagent should have been synthesized for the first time. In exceptional cases, a known compound which has been shown to be a reagent with particular new applications might be considered.

The winner will be awarded the sum of sFr. 10 000.-. He will be free of any obligations whatsoever.

Nominations for the Fluka Prize "Reagent of the Year" should be submitted to the Fluka Prize Committee c/o Fluka Chemie AG, CH-9470 Buchs/Switzerland no later than September 30th. Full details regarding the Fluka Prize are available upon request.

**Fluka**

Fluka Chemie AG  
Industriestrasse 25  
CH-9470 Buchs/Switzerland