



Latest new compounds

D-Ala²-[tyrosyl]-3, 5-³H] enkephalin
(5-L-methioninamide)
TRK.564 15-30Ci/mmol

[G-³H] Kainic acid
TRK.566 2-10Ci/mmol

[methyl-1', 2'] Thymidine
TRK.565 70-100Ci/mmol

[11, 12(n)-³H] Chenodeoxycholic acid
TRK.562 25-50Ci/mmol

[11, 12(n)-³H] Lithocholic acid
TRK.560 25-50Ci/mmol

17 α -Hydroxy-11-deoxy [1, 2-³H] corticosterone
TRK.557 40-60Ci/mmol

Please enquire for further details



The Radiochemical Centre Amersham

The Radiochemical Centre Limited, Amersham, England.
Tel: Little Chalfont (024 04) 4444.

In the Americas: Amersham Corporation, Illinois 60005.
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In W. Germany: Amersham Buchler GmbH & Co, KG,
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Head of Medical Services

Laboratories Joint Research Centre, Northern Italy.

The Commission of the European Communities wishes to appoint a Head of Medical Services at the Laboratories Joint Research Centre in Ispra on Lake Maggiore.

Applicants must be doctors of medicine of British, Irish or Danish nationality, with appropriate postgraduate qualifications in and several years experience of one or more of the following: clinical laboratory work (biochemistry, haematology, etc); toxicology and industrial hygiene; radio-toxicology. They must also have held a position of responsibility in a laboratory where one or more of the above fields were covered; and they must have a reasonable knowledge of another Community language (English, French, German, Italian, Danish, Dutch) besides their own, but preferably French or Italian.

Full details of the salary and conditions of employment, which reflect the importance of such a post within an international organisation, will be given to those applicants short-listed.



To be considered, please send a detailed curriculum vitae to: The Commission of the European Communities, DG IX-A-2, 200, Rue de la Loi, 1049 Brussels, Belgium. Please quote ref JRC/MS. Closing date for applications: 30 September 1977.

**The Commission
of the European Communities.**

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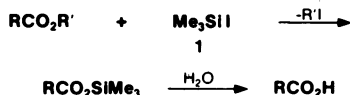
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Selective Cleaving Reagents



Iodotrimethylsilane

Iodotrimethylsilane (1) has recently been introduced by Jung¹ and Olah² as an efficient and convenient reagent for the cleavage of esters and ethers under neutral conditions. **Iodotrimethylsilane** has advantages over other dealkylating agents in that mild, homogeneous reaction conditions can be employed.² Hence, a mixture of **1** and a carboxylic ester, either neat² or in an aprotic solvent, gave the corresponding acid on heating and subsequent aqueous hydrolysis.

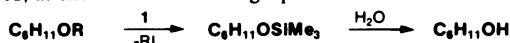


tert-Butyl and benzyl esters were rapidly dealkylated at 25°C, whereas methyl, ethyl, and isopropyl esters required higher reaction temperatures.

Iodotrimethylsilane has also been used to cleave alkyl and aryl ethers.^{2,3} Jung and Lyster³ have recently examined cleavage conditions for a wide variety of ethers. For example, heating an excess of **iodotrimethylsilane** with alkyl aryl ethers gave good yields of aromatic trimethylsilyl ethers (2). These may be converted to their respective alcohols by simple hydrolysis.



Certain alkyl ethers are selectively and quantitatively cleaved, as shown in the following equation:



R = *t*-Bu, CH₂Ph, CPh₃

The ester and ether cleavages with **iodotrimethylsilane** apparently do not affect isolated double bonds, ketones, thioethers, amines, or amides.¹

Aldrich offers **iodotrimethylsilane** in 5- and 25-g units, stored over copper.

References:

- 1) M.E. Jung and M.A. Lyster, *J. Am. Chem. Soc.*, **99**, 968 (1977).
- 2) T.-L. Ho and G.A. Olah, *Angew. Chem., Int. Ed. Engl.*, **15**, 774 (1976).
- 3) M.E. Jung and M.A. Lyster, *J. Org. Chem.*, in press.

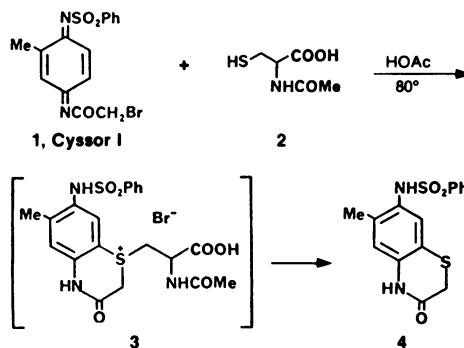
19,552-9 Iodotrimethylsilane 5g \$9.60; 25g \$32.00

Cyssor I

Cyssor I [2-methyl-*N*'-benzenesulfonyl-*N*'-(bromoacetyl)quinonediimide, **1**] is a new reagent designed by R.G. Lawton and T.J. Holmes for cysteine modification and selective cleavage of proteins.¹ The term **Cyssor I** is an acronym for "cysteine-specific scission by an organic reagent" which appropriately describes the reagent's function.

Cyssor I offers potential applications in protein modification and structure determination. It has the advantage that it can be employed under mildly acidic conditions, thereby suppressing complications arising from the use of strongly alkaline conditions.

The incubation of ovalbumin or reduced bovine pancreatic ribonuclease with **Cyssor I** resulted in fragmentation believed to occur at the sulfhydryl sites. Evidence for this selective protein cleavage is based on the reaction of **Cyssor I** with a model substrate, *N*-acetylcysteine (2). The reaction in-



volves regiospecific alkylation (easily monitored by ultraviolet spectroscopy) and subsequent cleavage to yield **4**, isolated as a solid in 75% yield. Degradation of **3** can occur via either of two proposed routes, both of which result in cysteine-specific cleavage.

Aldrich offers **Cyssor I** as a stable, yellow, crystalline solid.

Reference:

- 1) T.J. Holmes, Jr. and R.G. Lawton, *J. Am. Chem. Soc.*, **99**, 1984 (1977).

19,584-7 Cyssor I

1g \$12.00; 5g \$48.00

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