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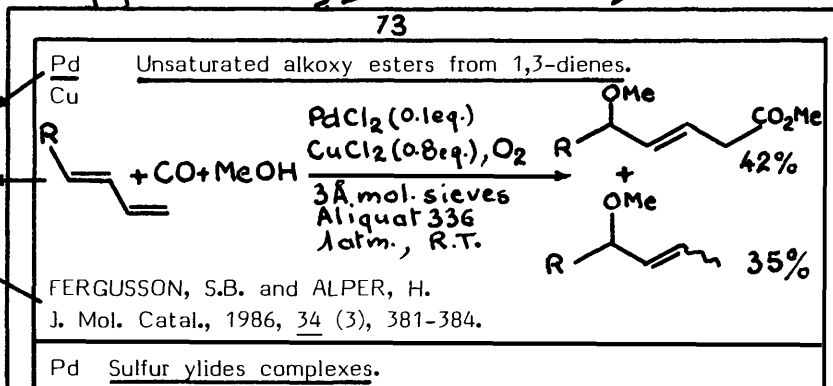
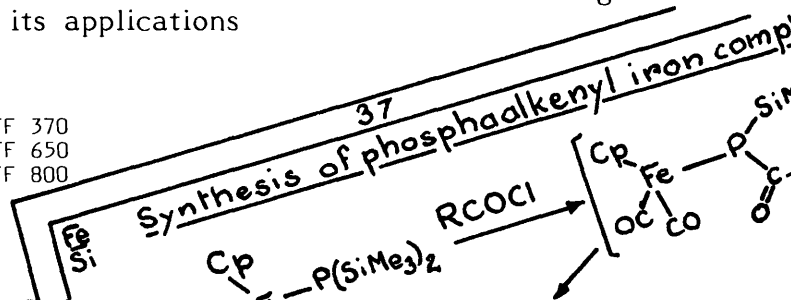
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Brief Contents:

PREFACE

1. Introduction

S. G. LUXON, CChem, FRSC, FIOH, Dip Occ Hyg

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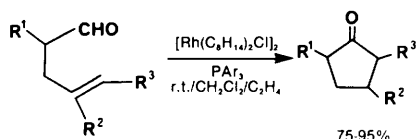


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Prostaglandin Synthons

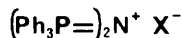


Cyclopentanones, important starting materials for the formation of prostaglandins, are prepared from 4-pentenals in high yields using a catalyst generated *in situ* from chlorobis(cyclooctene)rhodium(I) dimer and triarylphosphines such as tri-*p*-tolylphosphine.

Larock, R.C. U.S. Patent 4 288 613, 1981; *Chem. Abstr.* 1982, 96, 6262r.

- NEW** 30,247-3 Chlorobis(cyclooctene)-rhodium(I) dimer, 98%
100mg \$15.50; 500mg \$52.00
28,783-0 Tri-*p*-tolylphosphine, 98%
1g \$10.00; 5g \$30.00

PPN Salts



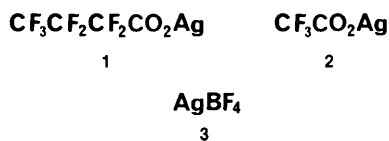
Bis(triphenylphosphoranylidene)ammonium acetate (PPN acetate) catalyzes the monosubstitution of triruthenium dodecacarbonyl with triphenylphosphine.¹ It also reacts with triruthenium dodecacarbonyl to form a trinuclear cluster.²

Bis(triphenylphosphoranylidene)ammonium nitrite (PPN nitrite) converts metal carbonyls to nitrosyl carbonyl complexes typically in high yields with no side products.³

(1) Lavigne, G.; Kaesz, H.D. *J. Am. Chem. Soc.* 1984, 106, 4647. (2) Darenbourg, D.J.; Pala, M.; Waller, J. *Organometallics* 1983, 2, 1285. (3) Stevens, R.E.; Gladfelter, W.L. *Inorg. Chem.* 1983, 22, 2034.

- 29,967-7 Bis(triphenylphosphoranylidene)ammonium acetate (X = OAc)
1g \$9.00; 5g \$35.00
26,505-5 Bis(triphenylphosphoranylidene)ammonium nitrite (X = NO₂)
1g \$7.00; 5g \$21.50
24,501-1 Triruthenium dodecacarbonyl
250mg \$12.30; 1g \$34.20; 5g \$115.00

Versatile Silver Salts



Silver heptafluorobutyrate (1) and silver trifluoroacetate (2) are each used for the preparation of heptafluoro- and 1-chlorohexafluoro-2-nitrosopropane, avoiding the use of nitrosyl fluoride. They also react with halobis(trifluoromethyl)phosphine to give the corresponding carboxylatobis(trifluoromethyl)phosphines.²

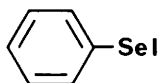
Silver heptafluorobutyrate (1) and silver tetrafluoroborate (3) catalyze the formation of tricyclanone from 3-diazocamphor.³

Mixtures of 1 and lanthanide (fod)₃ act as binuclear shift reagents for alkenes.⁴

(1) Banks, R.E.; Dickinson, N.; Morrissey, A.P.; Richards, A. *J. Fluorine Chem.* 1984, 26, 87. (2) McKennon, D.W.; Lustig, M. *ibid.* 1976, 7, 321. (3) Brown, F.C.; Morris, D.G.; Murray, A.M. *Synth. Commun.* 1975, 5, 477. (4) Evans, D.F.; Tucker, J.N.; deVillardi, G.C. *Chem. Commun.* 1975, 205.

- NEW** 30,742-4 Silver heptafluorobutyrate, 97% (1)
5g \$10.50; 25g \$32.00
T6,240-5 Silver trifluoroacetate, 98% (2)
5g \$16.50; 25g \$61.70
20,836-1 Silver tetrafluoroborate (3)
10g \$39.70; 50g \$132.30

Phenylselenenyl Iodide



Useful reagent for the selective formation of carbocyclic compounds from diolefins in good to excellent yields.

Toshimitsu, A.; Uemura, S.; Okano, M. *Chem. Commun.* 1982, 87.

- NEW** 30,259-7 Phenylselenenyl iodide, 98%
5g \$11.50; 25g \$39.00

Palladium(II) Trifluoroacetate



Catalyzes the selective allylic oxidation of geranylacetone and other olefins to their allyl acetates, which can then be converted to keto alcohols.

McMurry, J.E.; Kocovsky, P. *Tetrahedron Lett.* 1984, 25, 4187.

- 29,968-5 Palladium(II) trifluoroacetate
1g \$32.50; 5g \$123.00

Zinc Triflate



Catalyst for the synthesis of dithioketals; especially useful for hindered or sensitive ketone substrates.

Corey, E.J.; Shimoji, K. *Tetrahedron Lett.* 1983, 24, 169.

- 29,006-8 Zinc triflate, 98%
10g \$17.00; 50g \$59.00

Imides, Amides and Anhydrides

Sodium carboxylates and arenediazonium tetrafluoroborates react with acetonitrile to form the corresponding N-aryl imides in moderate to good yields.¹ When catalyzed by palladium acetate in the presence of carbon monoxide, these two components produce the corresponding mixed acid anhydrides (Ar-COOCOR) in good yields.² When R is *tert*-butyl, the resulting anhydride reacts with amines to produce the corresponding carboxamides.²

(1) Kikukawa, K. *et al. Bull. Chem. Soc. Jpn.* 1982, 55, 3671. (2) Kikukawa, K. *et al. J. Org. Chem.* 1981, 46, 4413.

- NEW** 30,959-1 Trimethylacetic acid, sodium salt hydrate, 99%
10g \$13.50; 50g \$45.00
28,089-5 4-Bromobenzenediazonium tetrafluoroborate
25g \$19.00; 100g \$68.75
29,443-8 4-Nitrobenzenediazonium tetrafluoroborate, 97%
10g \$14.70; 25g \$33.35
20,586-9 Palladium(II) acetate
2g \$31.00; 10g \$121.00



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