

Journal of Organic Chemistry 1991 Statistics:**1571 Papers in Total****Top 3 Most Cited Papers:**

1) Kazlauskas R. J., Weissfloach, A. N. E., Rapport A. T.
A Rule to Predict Which Enantiomer of a Secondary Alcohol Reacts Faster in Reactions Catalyzed by Cholesterol Esterase, Lipase from *Pseudomonas Cepacia*, and Lipase from *Candida Rugosa*.

Cited 665 times.

2) Jaime C., Demendoza J., Prados P., Nieto P. M., Sanchez C.,
ChemInform Abstract: ^{13}C NMR Chemical Shifts. A Single Rule to Determine the Conformation of Calix(4)arenes.

Cited 481 times

3) Zhang E., Jacobsen E. N.
Asymmetric Olefin Epoxidation with Sodium Hypochlorite Catalyzed by Easily Prepared Chiral Mn(III) Salen Complexes.

Cited 433 times.

Notable Events of 1991:

Collapse of Soviet Union. Re-Establishment of Lithuania's Independence.

Phil S. Baran Goes to High School.

Gulf War Begins.

Richard R. Ernst Receives Nobel Prize in Chemistry "*for his contributions to the development of the methodology of high resolution nuclear magnetic resonance (NMR) spectroscopy*"

Start of Balkan War

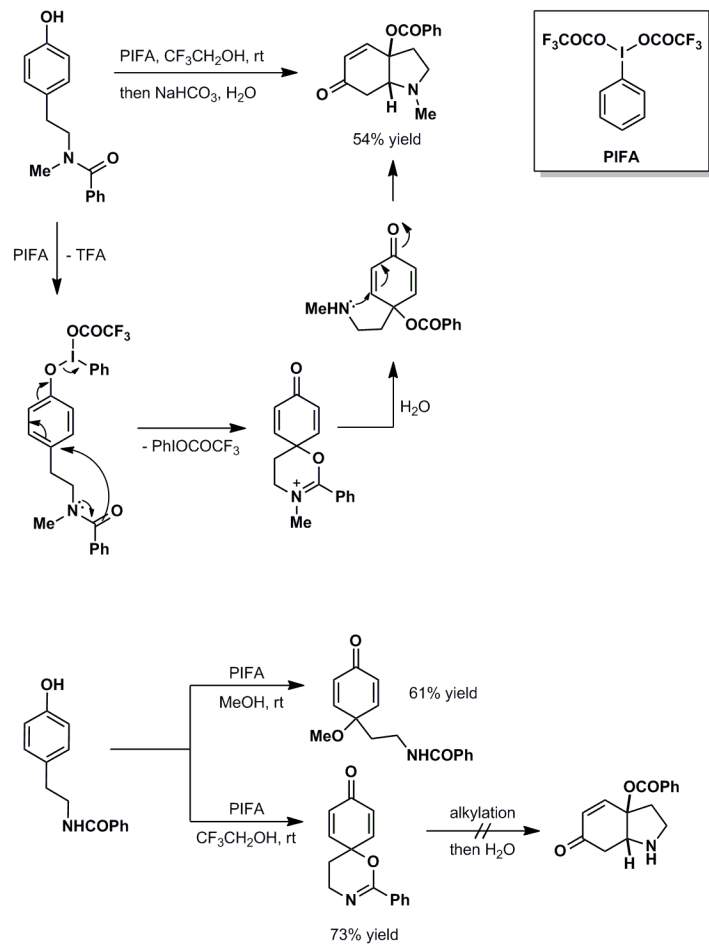
Freddie Mercury Dies.

The #1 single of the year "How Am I Supposed to Live Without You" by Michael Bolton

JOC | *The Journal of Organic Chemistry*

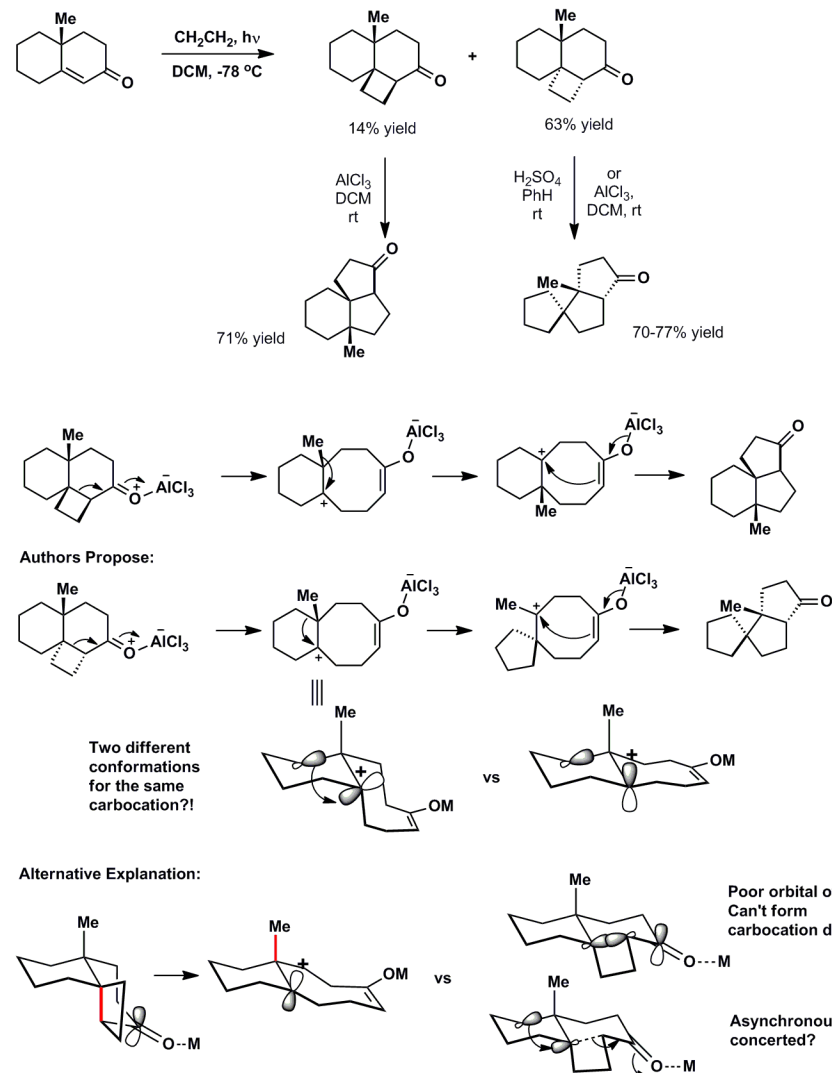
Hypervalent Iodine Oxidation of *N*-Acetyltyramines: Synthesis of Quinol Ethers, Spirohexadienones, and Hexahydroindol-6-ones

Kita Y., Tohma H., Kikuchi K., Inagaki M. and Yakura T., 435-438

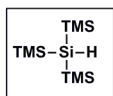


Novel Rearrangement of 8-Methyltricyclo[6.4.0.0^{1,4}]dodecan-5-ones to Angularly Fused and Spiro-Annulated Tricyclic Ketones

Kakiuchi K., Ohnishi Y., Kobiro K., Tobe Y. and Odaira Y., 463-466

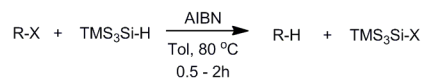


Tris(trimethylsilyl)silane as a Radical-Based Reducing Agent in Synthesis
 Clark K.B., Griller D., Giese B., Kopping B., Ballestri M., Chatgililoglu C., 678-683

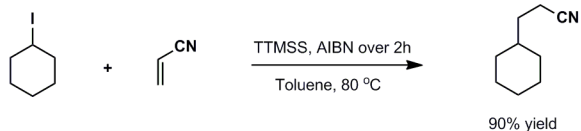


TTMSS - ecological and much less toxic alternative to Bu_3SnH

Bond strengths: $\text{Bu}_3\text{Sn-H}$ 74 kcal/mol, $\text{Et}_3\text{Si-H}$ 90 kcal/mol, $\text{TMS}_3\text{Si-H}$ 79 kcal/mol)



R-X	Yield of R-H	R-X	Yield of R-H
$\text{CH}_3(\text{CH}_2)_{14}\text{CH}_2\text{Cl}$	68%	$\text{CH}_3(\text{CH}_2)_{14}\text{CH}_2\text{I}$	98%
	82%		97%
	93%		86%
$\text{CH}_3(\text{CH}_2)_{14}\text{CH}_2\text{Br}$	96%		95%
	96%		95%
	93%	$\text{CH}_3(\text{CH}_2)_{14}\text{CH}_2\text{NC}$	85%
			99%

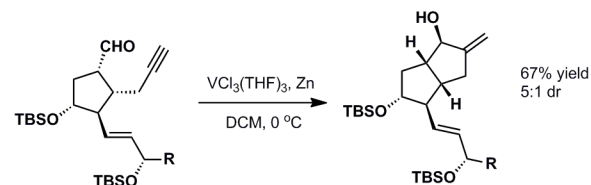
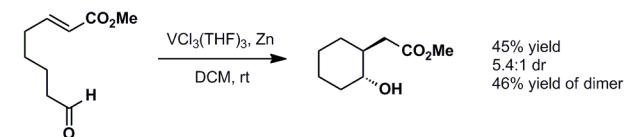
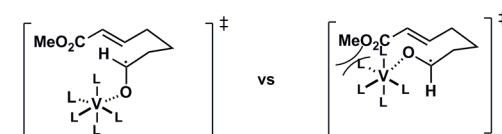
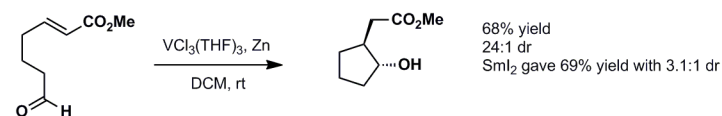
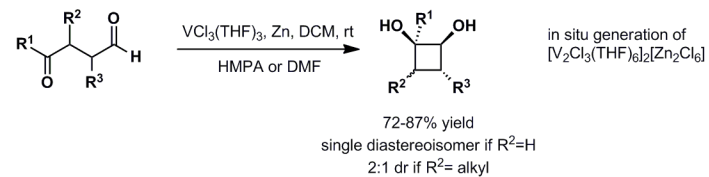


Synthesis of cis-1,2-Cyclobutanediols via Intramolecular Pinacol Coupling of 4-Oxo Aldehydes
 Raw A. S. and Pedersen S. F., 830-833

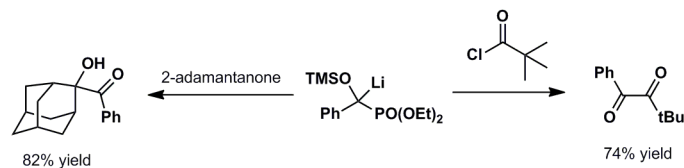
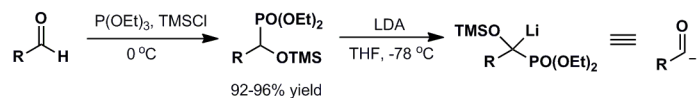
Vanadium(II)-Promoted Cyclization of 5,6-Enals or 5,6-Ynals. A Stereoselective Approach to trans-2-Alkyl- or trans-2-Alkylidencyclopentanols

Tsutomu Inokuchi, Hiroyuki Kawafuchi, Sigeru Torii, 4983-4985

$[\text{V}_2\text{Cl}_3(\text{THF})_6]_2[\text{Zn}_2\text{Cl}_6]$ is a one-electron reducing agent similar to SmI_2

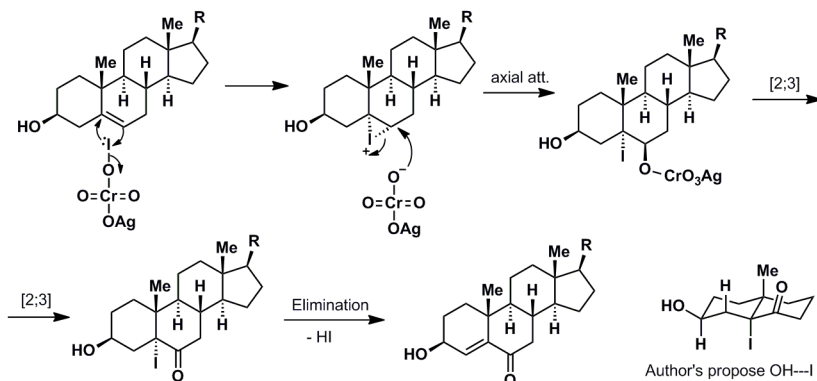
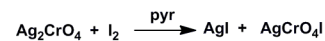
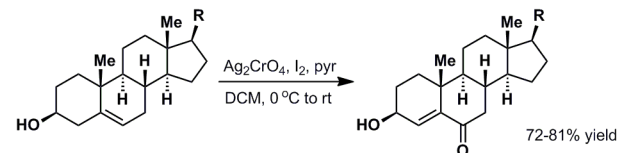


Synthetic methods and reactions. Preparation of 1,2-diketones from nonenolizable aliphatic and aromatic acyl chlorides with diethyl 1-alkyl(aryl)-1-(trimethylsiloxy)-methanephosphonates
Wu A. H. and Olah G. A., 902-904



Rather mild acyl anion equivalents. Will not react with esters.

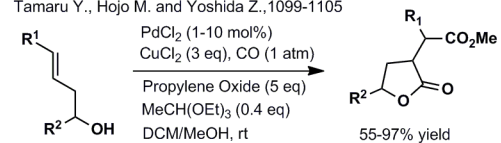
A convenient method for the synthesis of 3-β-hydroxy 4-en-6-one steroids
Shamsuzzaman, Ahmad S., Khan B. Z. and Shafiullah, 1936-1937



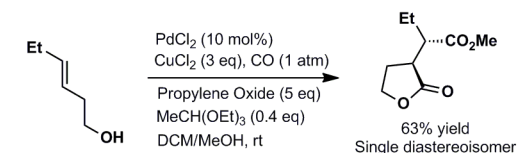
Author's propose OH---I bonding that facilitates elimination. However, OH and I are not properly aligned

Palladium(II)-Catalyzed Carbonylation of 3-Buten-1-ols and 3-Butyn-1-ols: an Efficient Synthesis of γ -Butyrolactones

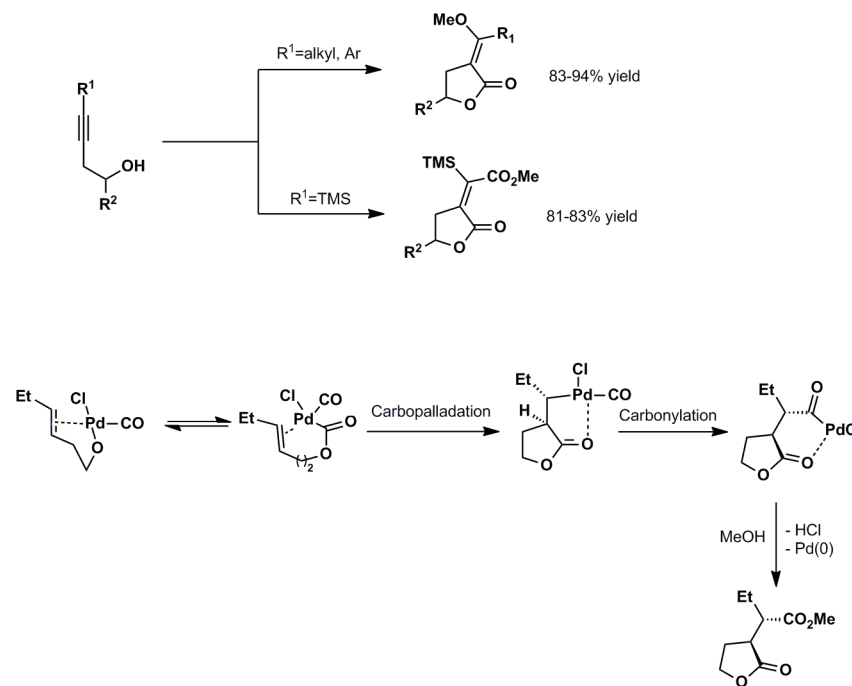
Tamaru Y., Hojo M. and Yoshida Z., 1099-1105



Propylene oxide is used to scavenge HCl
Orthoester as a drying agent

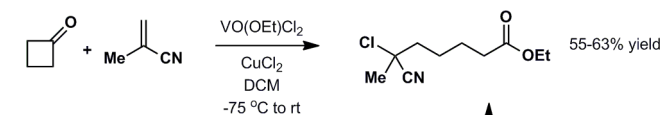
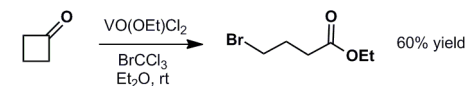
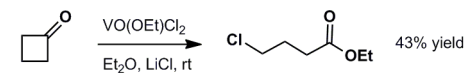


Mechanism?

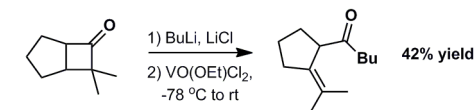
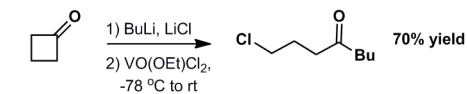
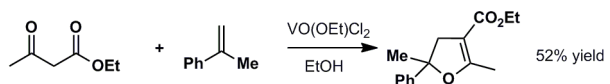
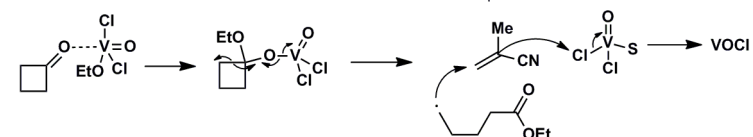


Oxovanadium(V)-Induced Oxidative Transformations of Cyclobutanones

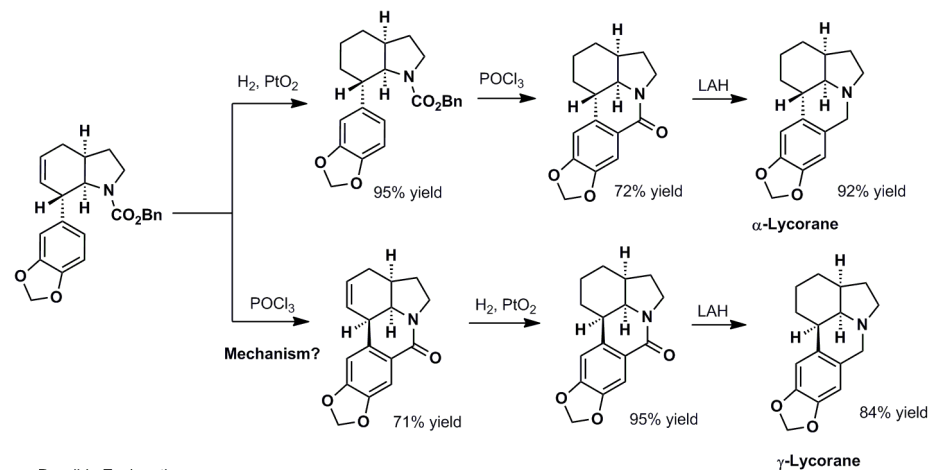
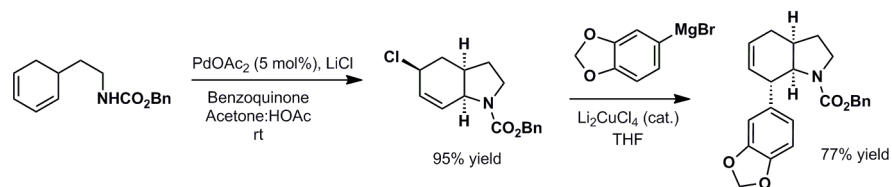
Hirao T., Fujii T., Miyata S. and Ohshiro Y., 2264–2266



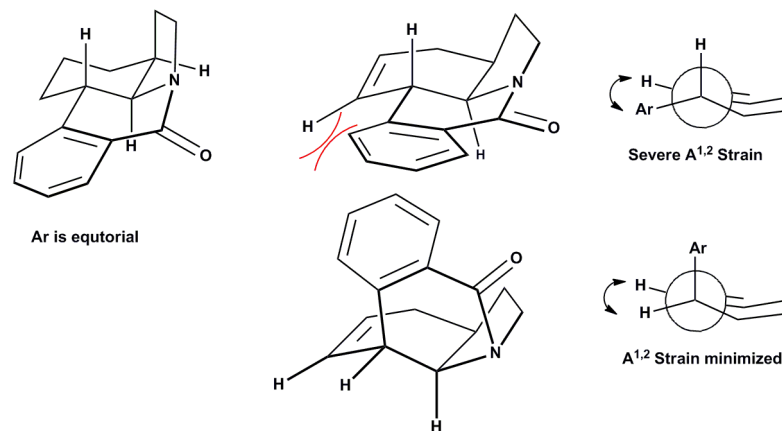
Possible Mechanism:

Synthesis of (+/-)- α - and (+/-)- γ -Lycorane via a Stereocontrolled Organopalladium Route

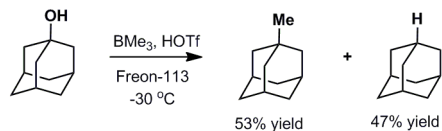
Baeckvall J. E., Andersson P. G., Stone G. B. and Adolf Gogoll A., 2988–2993



Possible Explanation:



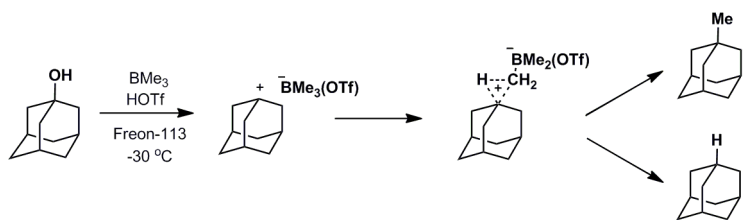
Reductive Alkylation and Reduction of Tertiary, Secondary, and Benzylic Alcohols with Trimethyl-(Triethyl-, and Triisopropyl)boron/Trifluoromethanesulfonic Acid
Wu A. H., Farooq O. and Olah G. A., 2759-2761



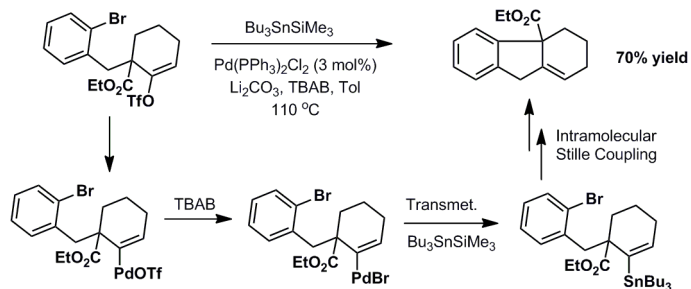
Me₃COH, PhCH₂OH, Ph₂CHOH and Ph₃COH gave almost identical results

BEt₃/HOTf gave around 10% yield of R'-Et and 90% R'-H for the same substrates under identical conditions

B(*i*Pr)₃/HOTf gave only traces (~0.1% yield) of R'-*i*Pr and almost exclusively R'-H

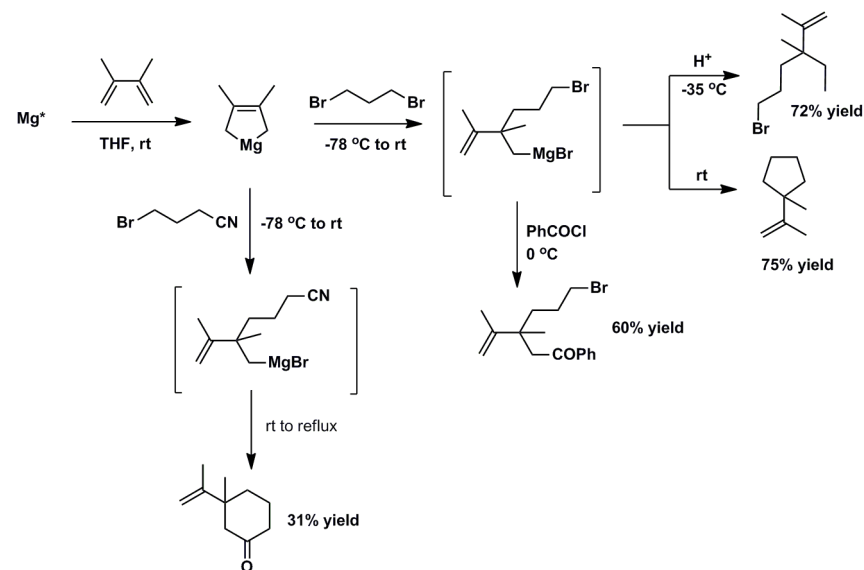
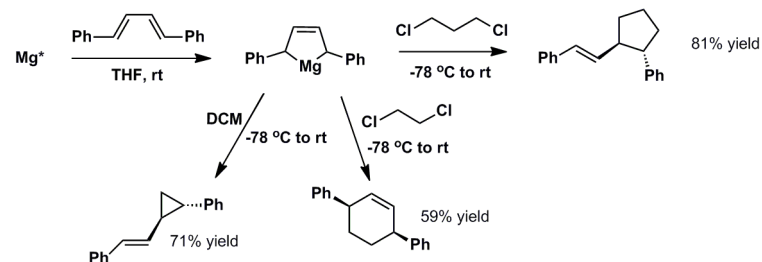


The Use of Silyltriorganostannanes, R₃SiSnR'₃, in Organic Synthesis. A Novel Palladium-Catalyzed Tandem Transmetalation-Cyclization Reaction
Mori M., Kaneta N., Shibasaki M., 3486-3493

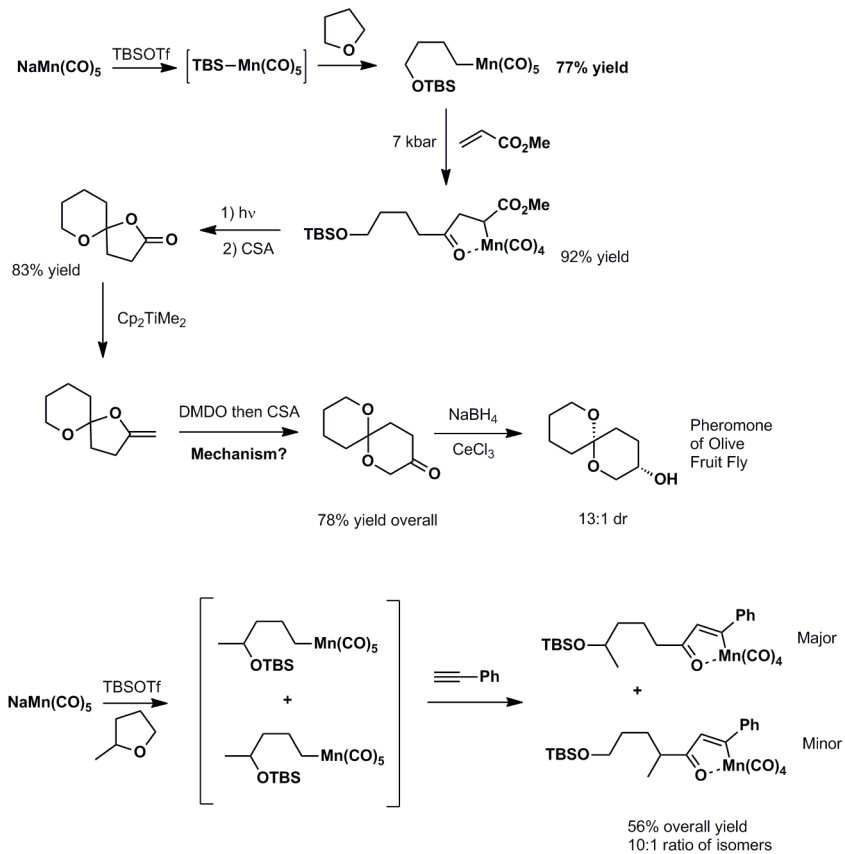


No reaction without TBAB as triflate is unstable under reaction conditions. Possible silicon "ate" complex formation?
Bu₃SnSnBu₃ gave inferior results.

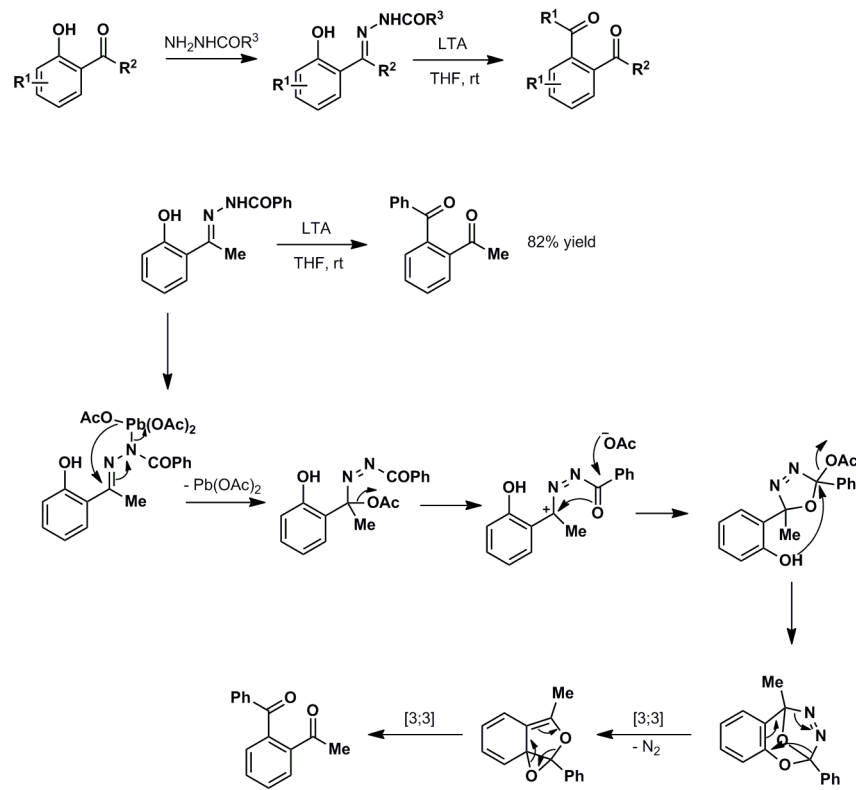
Chemistry of Substituted (2-Butene-1,4-diyl)magnesium: a Facile Approach to Complex Carbocycles, Functionalized Ketones and Alcohols, and Silicon-Containing Heterocycles
Rieke R. D., Xiong H., 3109-3118



A Novel Method for the Synthesis of Spiroketal Systems. Synthesis of the Pheromones of the Common Wasp and the Olive Fruit Fly
DeShong P. and Rybczynski P. J., 3207–3210

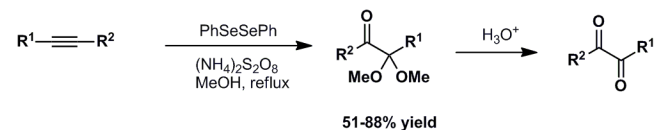


Mechanism of the Replacement of Phenolic Hydroxyl by Carbonyl on Lead Tetraacetate Treatment of o-Hydroxyaryl Ketone Acylhydrazones
Katritzky A. R., Harris P. A., Kotali A., 5049–5051

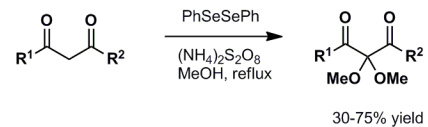
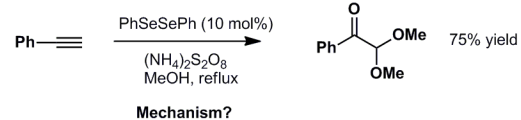


Selenium-Mediated Conversion of Alkynes into α -Dicarbonyl Compounds

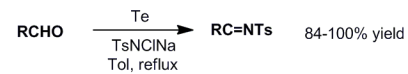
Tiecco M., Testaferrri L., Tingoli M., Chianelli D., Bartoli D., 4529-4534



Can be performed using catalytic amount of PhSeSePh (10 mol%)

**A Convenient Synthesis of *N*-Tosylimines**

M. Trost B. M., Marrs C., 6468-6470



Very large substrate scope

Purification is just filtration

