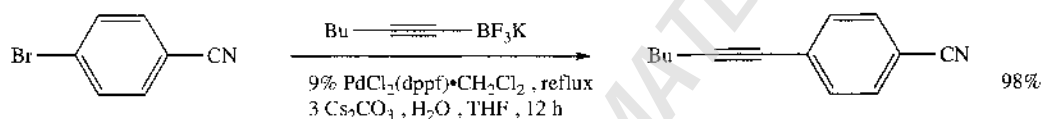


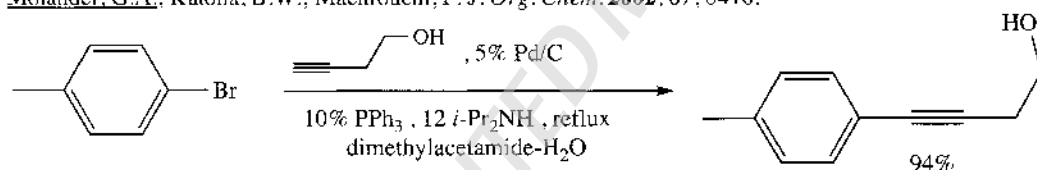
# CHAPTER 1

## PREPARATION OF ALKYNES

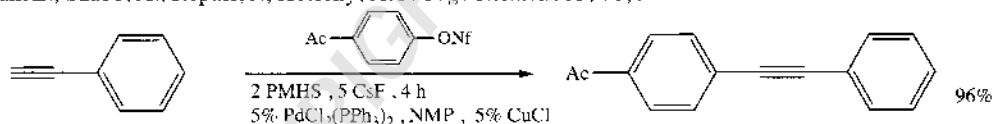
### SECTION 1: ALKYNES FROM ALKYNES



Molander, G.A.; Katona, B.W.; Machrouchi, F. *J. Org. Chem.* **2002**, *67*, 8416.

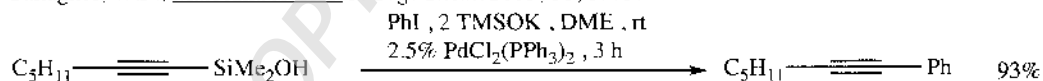


Novák, Z.; Szabó, A.; Répási, J.; Kotschy, A. *J. Org. Chem.* **2003**, *68*, 3327.

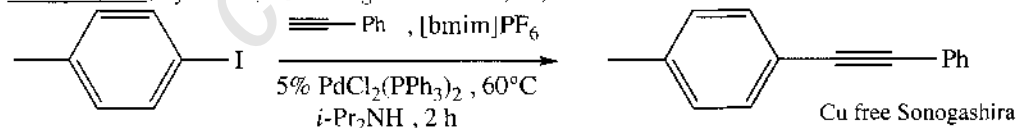


PMHS = poly(methylhydrosiloxane)

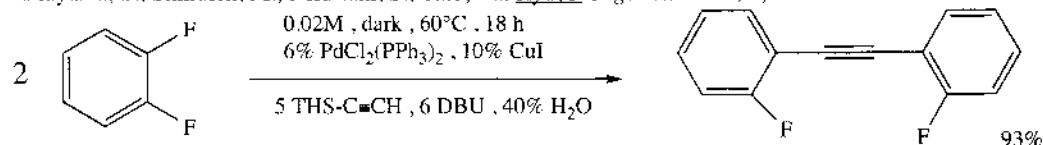
Gallagher, W.P.; Maleczka Jr., R.E. *J. Org. Chem.* **2003**, *68*, 6775.



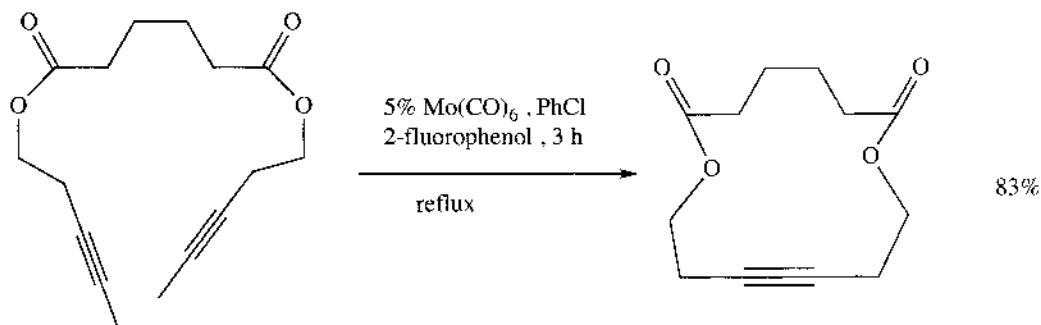
Denmark, S.E.; Tymonko, S.A. *J. Org. Chem.* **2003**, *68*, 9151.



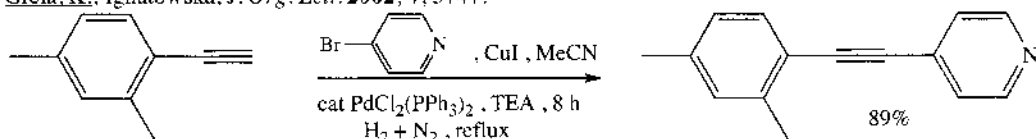
Fukuyama, T.; Shinmen, M.; Nishitani, S.; Sato, M.; Ryu, I. *Org. Lett.* **2002**, *4*, 1691.



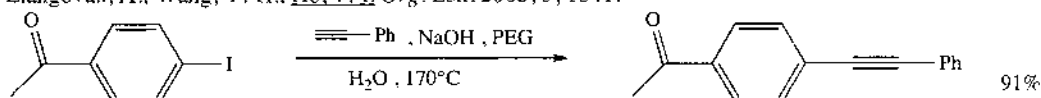
Mio, M.J.; Kopel, L.C.; Braun, J.B.; Gadzikwa, T.L.; Hull, K.L.; Brisbois, R.G.; Markworth, C.J.; Grieco, P.A. *Org. Lett.* **2002**, *4*, 3199.



Grela, K.; Ignatowska, J. *Org. Lett.* **2002**, *4*, 3747.

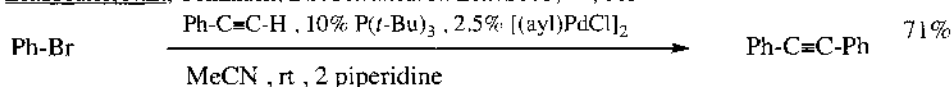


Elangovan, A.; Wang, Y.-H.; Ho, T.-J. *Org. Lett.* **2003**, *5*, 1841.

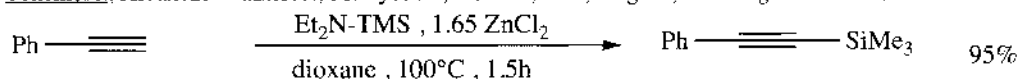


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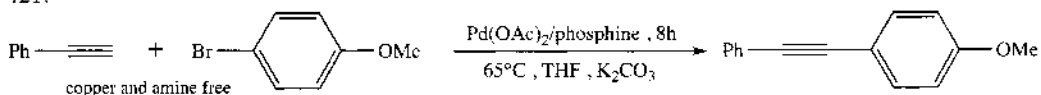
Leadbeater, N.E.; Tominack, B.J. *Tetrahedron Lett.* **2003**, *44*, 8653.



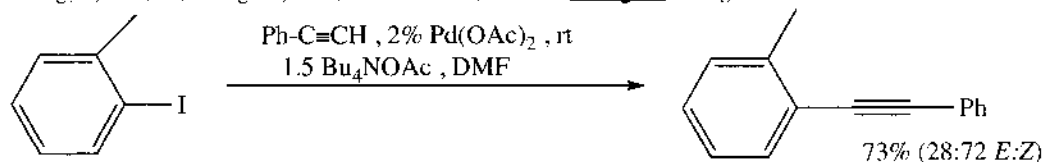
Sohcili, A.; Albanzeze-Walker, J.; Murry, J.A.; Dormer, P.G.; Hughes, D.L. *Org. Lett.* **2003**, *5*, 4191.



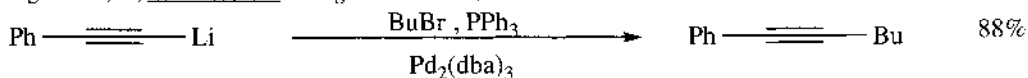
Andreev, A.A.; Konshin, V.V.; Komarov, N.V.; Rubin, M.; Brouwer, C.; Gevorgyan, V. *Org. Lett.* **2004**, *6*, 421.



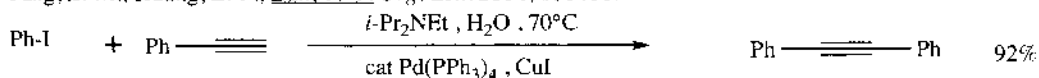
Cheng, J.; Sun, Y.; Wang, F.; Guo, M.; Xu, J.-H.; Pan, Y.; Zhang, Z. *J. Org. Chem.* **2004**, *69*, 5428.



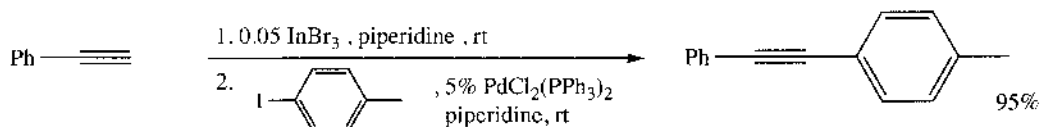
Urgaonkar, S.; Verkade, J.G. *J. Org. Chem.* **2004**, *69*, 5752.



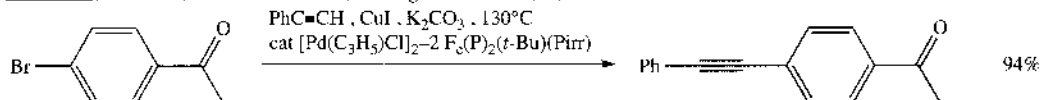
Yang, L.-M.; Huang, L.-F.; Luh, T.-Y. *Org. Lett.* **2004**, *6*, 1461.



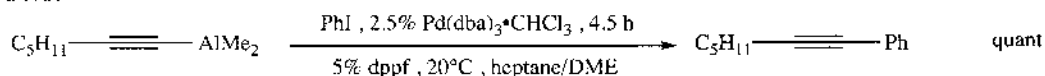
Bhattacharya, S.; Sengupta, S. *Tetrahedron Lett.* **2004**, *45*, 8733.



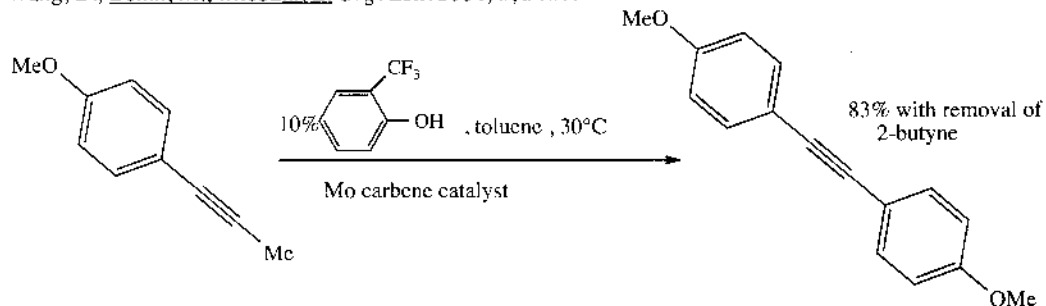
Sakai, N.; Annaka, K.; Konakahara, T. *Org. Lett.* **2004**, *6*, 1527.



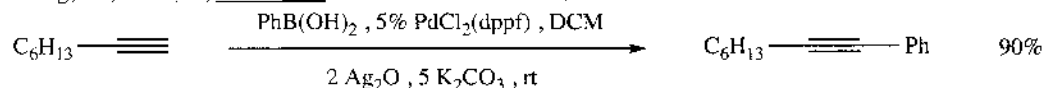
Hierso, J.-C.; Fihri, A.; Amardeil, R.; Meunier, P.; Doucet, H.; Santelli, M.; Ivanov, V.V. *Org. Lett.* **2004**, *6*, 3473.



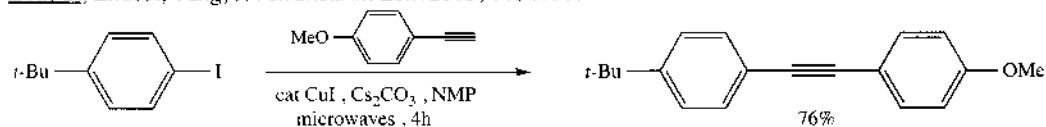
Wang, B.; Benin, M.; Micouin, L. *Org. Lett.* **2004**, *6*, 3481.



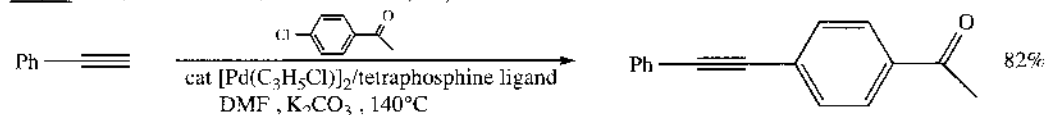
Zhang, W.; Kraft, S.; Moore, J.S. *J. Am. Chem. Soc.* **2004**, *126*, 329.



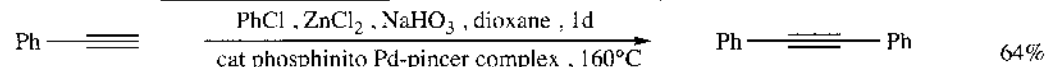
Zou, G.; Zhu, J.; Tang, J. *Tetrahedron Lett.* **2003**, *44*, 8709.



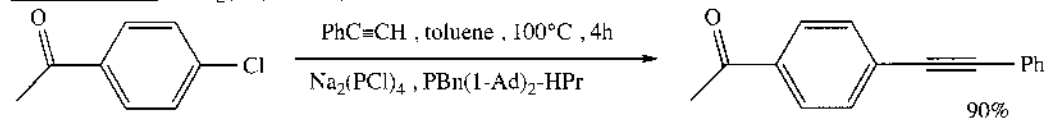
He, H.; Wu, Y.-J. *Tetrahedron Lett.* **2004**, *45*, 3237.



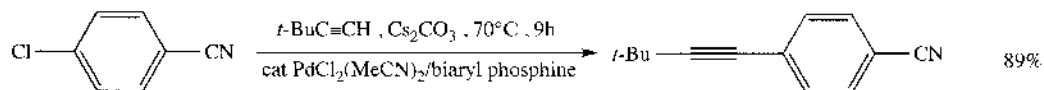
Feuerstein, M.; Doucet, H.; Santelli, M. *Tetrahedron Lett.* **2004**, *45*, 8443.



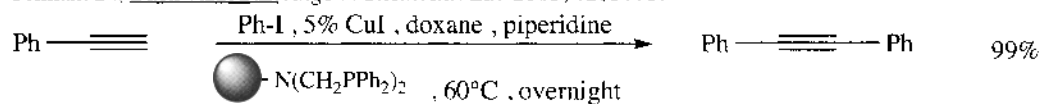
Eberhard, M.R.; Wang, Z.; Jensen, C.M. *Chem. Commun.* **2002**, 818.



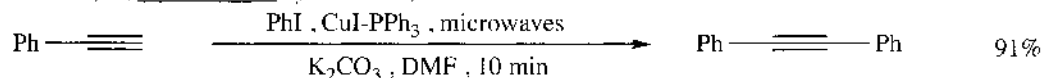
Köllhofer, A.; Pullmann, T.; Plenio, H. *Angew. Chem. Int. Ed.* **2003**, *42*, 1056.



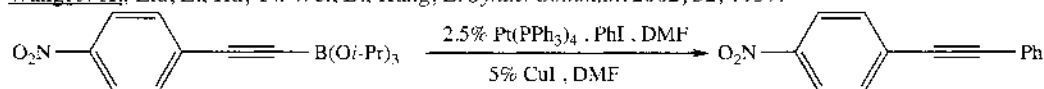
Gelman, D.; Buchwald, S.L. *Angew. Chem. Int. Ed.* **2003**, *42*, 5993.



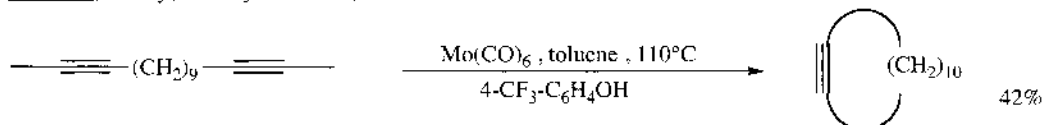
Gonthier, E.; Breinbauer, R. *Synlett* **2003**, 999.



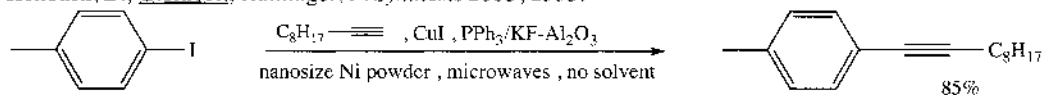
Wang, J.-X.; Liu, Z.; Hu, Y.; Wei, B.; Kang, L. *Synth. Commun.* **2002**, *32*, 1937.



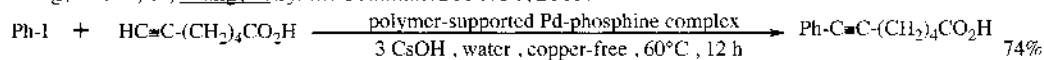
Oh, C.H.; Reddy, V.R. *Synlett* **2004**, 2091.



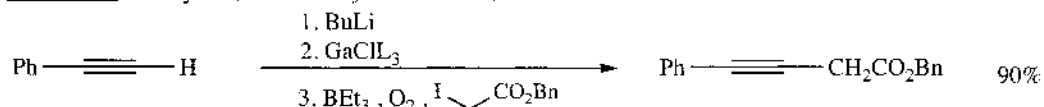
Hellbach, B.; Gleitr, R.; Rominger, F. *Synthesis* **2003**, 2535.



Wang, M.; Li, P.; Wang, L. *Synth. Commun.* **2004**, *34*, 2803.

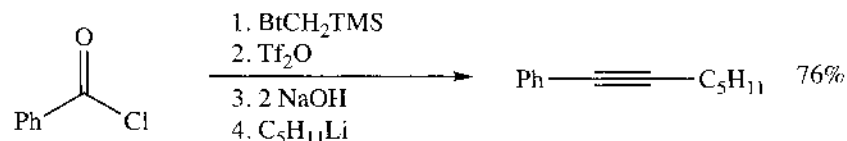


Uozumi, Y.; Kobayashi, Y. *Heterocycles* **2003**, *59*, 71.



Usugi, S.-i.; Yorimitsu, H.; Shinokubo, H.; Oshima, K. *Bull. Chem. Soc. Jpn.* **2002**, *75*, 2687.

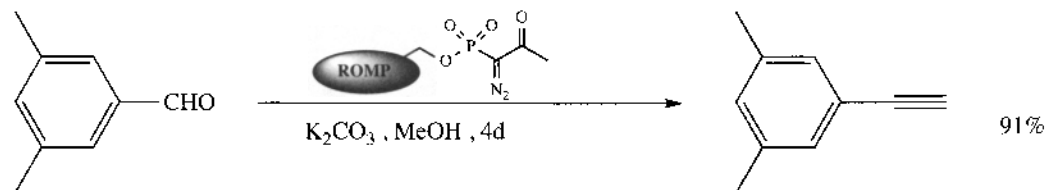
## SECTION 2: ALKYNES FROM ACID DERIVATIVES



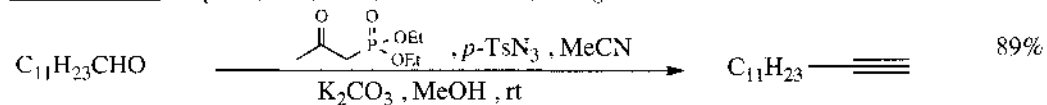
Katritzky, A.R.; Abdel-Fathah, A.A.A.; Wang, M. *J. Org. Chem.* **2002**, *67*, 7526.

## SECTION 3: ALKYNES FROM ALCOHOLS AND THIOLS

NO ADDITIONAL EXAMPLES

**SECTION 4: ALKYNES FROM ALDEHYDES**

Barrett, A.G.M.; Hopkins, B.T.; Love, A.C.; Tadeschi, L. *Org. Lett.* **2004**, *6*, 835.



Roth, G.J.; Liepold, B.; Müller, S.G.; Bestmann, H.J. *Synthesis* **2004**, 59.

**SECTION 5: ALKYNES FROM ALKYL, METHYLENES AND ARYLS**

NO ADDITIONAL EXAMPLES

**SECTION 6: ALKYNES FROM AMIDES**

NO ADDITIONAL EXAMPLES

**SECTION 7: ALKYNES FROM AMINES**

NO ADDITIONAL EXAMPLES

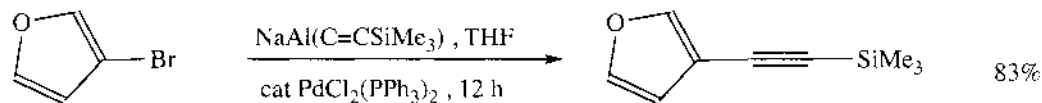
**SECTION 8: ALKYNES FROM ESTERS**

NO ADDITIONAL EXAMPLES

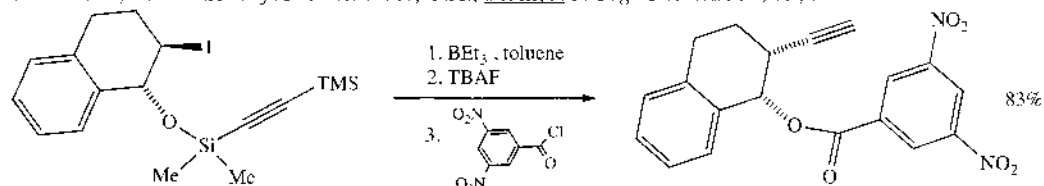
**SECTION 9: ALKYNES FROM ETHERS, EPOXIDES, AND THIOETHERS**

NO ADDITIONAL EXAMPLES

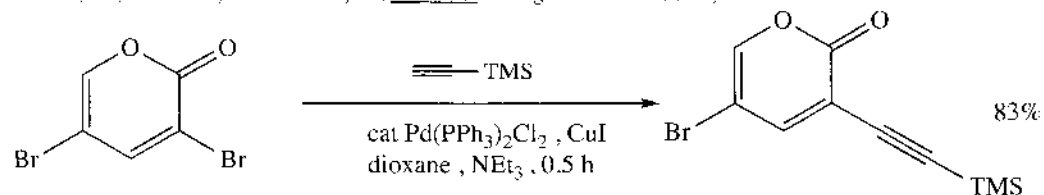
## SECTION 10: ALKYNES FROM HALIDES AND SULFONATES



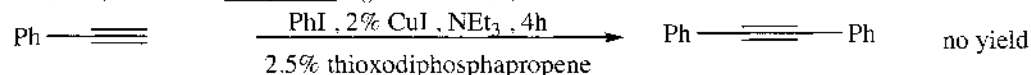
Gelman, D.; Tsvetikhovskiy, D.; Molander, G.A.; Blum, J. *J. Org. Chem.* **2002**, *67*, 6287.



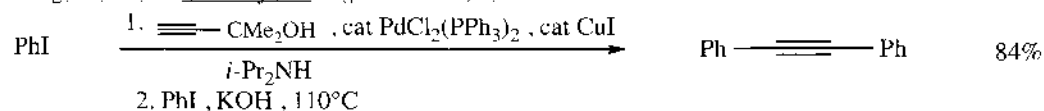
Sukeda, M.; Ichikawa, S.; Matsuda, A.; Shuto, S. *J. Org. Chem.* **2003**, *68*, 3465.



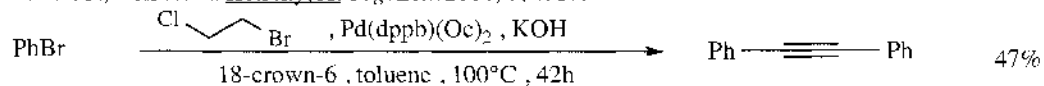
Lee, J.-H.; Park, J.-S.; Cho, C.-G. *Org. Lett.* **2002**, *4*, 1171.



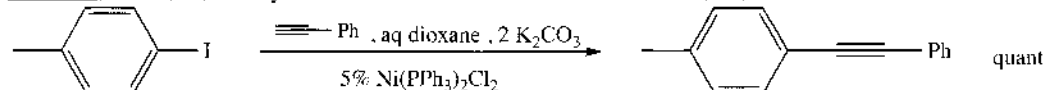
Liang, H.; Ito, S.; Yoshifuji, M. *Org. Lett.* **2004**, *6*, 425.



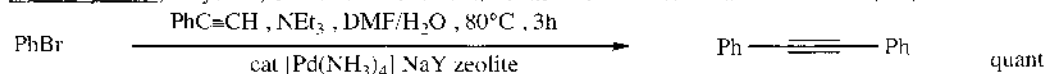
Novák, Z.; Nemes, P.; Kotschy, A. *Org. Lett.* **2004**, *6*, 4917.



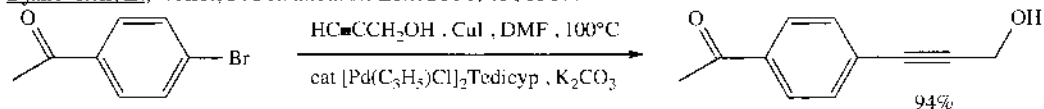
Abelc, E.; Abelc, R.; Arsenyan, P.; Kukevics, E. *Tetrahedron Lett.* **2003**, *44*, 3911.



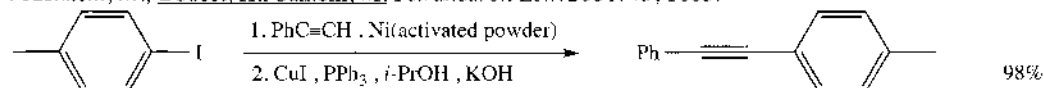
Beletskaya, I.P.; Latyshev, G.V.; Tsvetkov, A.V.; Lukashev, N.V. *Tetrahedron Lett.* **2003**, *44*, 5011.



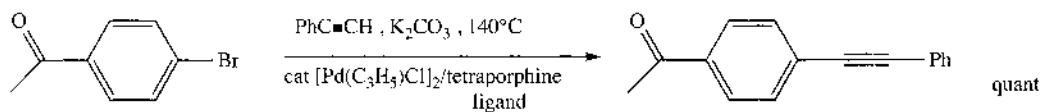
Djakovitch, L.; Rollet, P. *Tetrahedron Lett.* **2004**, *45*, 1367.



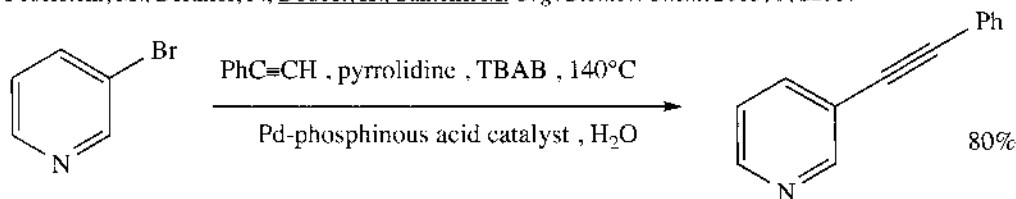
Feuerstein, M.; Doucet, H.; Santelli, M. *Tetrahedron Lett.* **2004**, *45*, 1603.



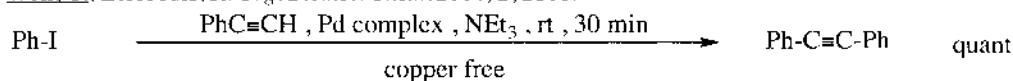
Wang, L.; Li, P.; Zhang, Y. *Chem. Commun.* **2004**, 514.



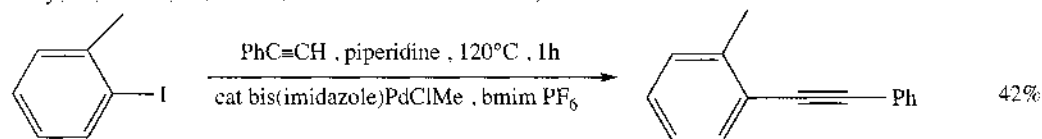
Feuerstein, M.; Berthiol, F.; Doucet, H.; Santelli, M. *Org. Biomol. Chem.* **2003**, *1*, 2235.



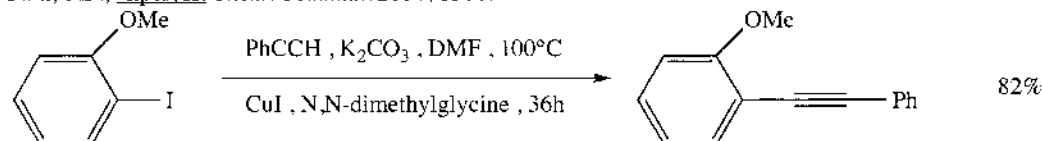
Wolf, C.; Lerebours, R. *Org. Biomol. Chem.* **2004**, *2*, 2161.



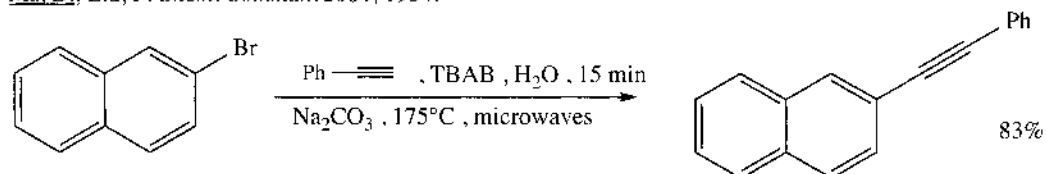
Méry, D.; Heuzé, K.; Astruc, D. *Chem. Commun.* **2003**, 1934.



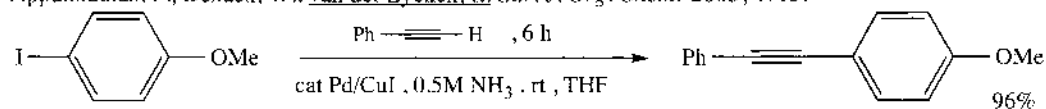
Park, S.B.; Alper, H. *Chem. Commun.* **2004**, 1306.



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Mori, A.; Ahmed, M.S.M.; Sekiguchi, A.; Masui, K.; Koike, T. *Chem. Lett.* **2002**, *31*, 756.

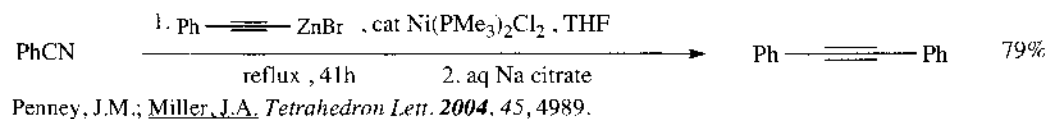
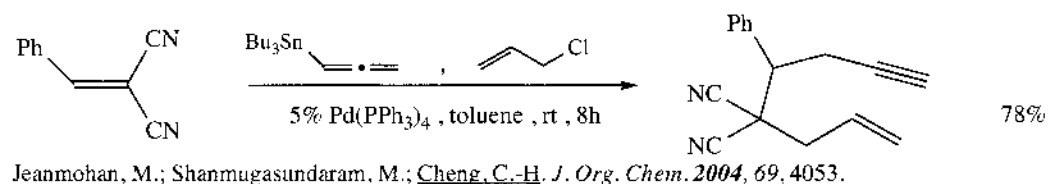
## SECTION 11: ALKYNES FROM HYDRIDES

For examples of the reaction  $\text{RC}\equiv\text{CH} \rightarrow \text{RC}\equiv\text{C-C}\equiv\text{CR}^1$ , see Section 300 (Alkyne-Alkyne).

NO ADDITIONAL EXAMPLES

**SECTION 12: ALKYNES FROM KETONES**

NO ADDITIONAL EXAMPLES

**SECTION 13: ALKYNES FROM NITRILES****SECTION 14: ALKYNES FROM ALKENES****SECTION 15: ALKYNES FROM MISCELLANEOUS COMPOUNDS**

NO ADDITIONAL EXAMPLES

**REVIEW:**

“One Century of Aryne Chemistry”  
 Wenk, H.H.; Winkler, M.; Sander, W. *Angew. Chem. Int. Ed.* **2003**, 42, 502.

**SECTION 15A: PROTECTION OF ALKYNES**

NO ADDITIONAL EXAMPLES