Query

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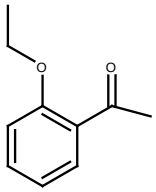
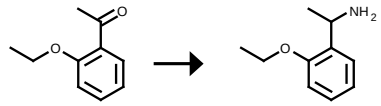
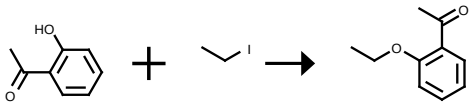
1. Query	 Search as: As drawn, No isotopes, No radicals	35 reactions	2011-09-12 10h:44m:30s (EST)



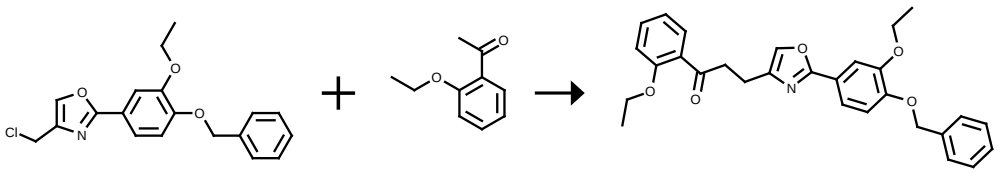
Rx-ID: 30426357 View in Reaxys

Yield	Conditions & References
	Example Name 4.1 Synthesis of N-ethyl-N-[1-(2-ethoxyphenyl)ethyl]-ethane-1,2-diamine (1) 2'-Ethoxyacetophenone (2.0 g) was dissolved in methanol (20 ml), ammonium acetate (9.4 g) was added to the solution, and the resulting mixture was stirred at room temperature for 1 hour. Sodium cyanoborohydride (536 mg) was added to the mixture, and the resulting mixture was stirred at room temperature for 2.5 days. Saturated aqueous sodium hydrogencarbonate and 5 N aqueous sodium hydroxide were added to the reaction mixture, and the resulting mixture was extracted with chloroform. The organic layer was dried over anhydrous sodium sulfate, and filtered. The filtrate was concentrated under reduced pressure, and the resulting residue was purified by silica gel column chromatography (chloroform to chloroform:methanol:28per-cent aqueous ammonia = 10:1:0.1) to obtain an amine compound (1.46 g) **Stage 1: With** ammonium acetate **in** methanol, Time= 1h, T= 20 °C **Stage 2: With** sodium cyanoborohydride **in** methanol, Time= 60h, T= 20 °C **Stage 3: With** water, sodium hydrogencarbonate, sodium hydroxide **in** methanol **Patent**; **Taisho Pharmaceutical Co., Ltd.; Meiji Seika Kaisha, Ltd.**; EP2287173; (2011); (A1) English View in Reaxys



Rx-ID: 2412788 View in Reaxys

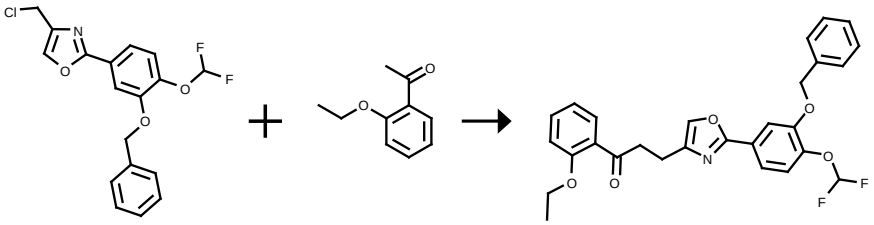
Yield	Conditions & References
89 %	**With** potassium phosphate **in** dimethyl sulfoxide, T= 60 °C **Horaguchi, Takaaki; Tsukada, Chikara; Hasegawa, Eietsu; Shimizu, Takahachi; Suzuki, Tsuneo; Tanemura, Kiyoshi**; Journal of Heterocyclic Chemistry; **vol.** 28; nb. 5; (1991); p. 1261 - 1272 View in Reaxys
	(i) aq. <Et_4N>F, DMF, (ii) /BRN= 505934/, Multistep reaction **Miller,J.M. et al.**; Canadian Journal of Chemistry; **vol.** 57; (1979); p. 1887 - 1889 View in Reaxys



Rx-ID: 10882459 View in Reaxys

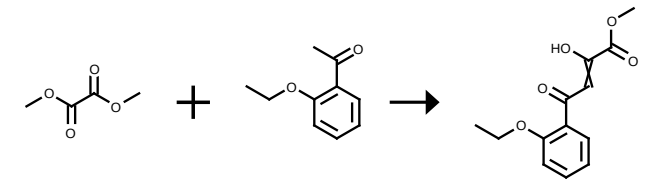
Yield	Conditions & References
	Example Name 190 A 2 g quantity of 4-chloromethyl-2- (4-benzyloxy-3- ethoxyphenyl)oxazole obtained in Reference Example 63 and 0.96 g of 1- (2-ethoxyphenyl) ethanone were dissolved in 20 ml of tetrahydrofuran, and 0.47 g sodium hydride was added thereto. After foaming, the reaction mixture was heated and refluxed for 3 hours. After cooling, the reaction mixture was added to ice water, and extraction was performed with ethyl acetate. The organic layer was washed with water, dried over magnesium sulfate, and concentrated under reduced pressure. The residue was purified by silica gel column chromatography (n-hexane : ethyl acetate = 3 : 1) to give 0.4 g of colorless powdery 3- [2- (4-benzyloxy-3- ethoxyphenyl) oxazol-4-yl] -1- (2-ethoxyphenyl) propan-1-one. ^{1}H-NMR ($CDCl_3$) δ: 7.70 (IH, dd, J = 7.5, 1.8 Hz), 7.55-7.30 (8H, <n="139"/>m), 6.97 (2H, t, J = 7.5 Hz), 6.93 (IH, d, J = 7.5 Hz), 5.19 (2H, s), 4.18 (2H, q, J = 6.9 Hz), 4.13 (2H, q, J = 6.9 Hz), 3.41 (2H, t, J = 6.9 Hz), 2.99 (2H, t, J = 6.9 Hz), 1.48 (3H, t, J = 6.9 Hz) , 1.47 (3H, t, J = 6.9 Hz)

	With sodium hydride **in** tetrahydrofuran, Time= 3h, Heating / reflux **Patent**; **OTSUKA PHARMACEUTICAL CO., LTD.**; WO2007/58338; (2007); (A2) English View in Reaxys



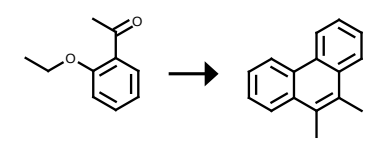
Rx-ID: 10882499 View in Reaxys

Yield	Conditions & References
	Example Name 228 A 65 mg quantity of sodium hydride was suspended in 5 ml of tetrahydrofuran. A 0.27 g quantity of l-(2- ethoxyphenyl) ethanone and 0.3 g of 2- (3-benzyloxy-4-difluoro methoxyphenyl)-4-chloromethyloxazole obtained in Reference Example 44 was successively added thereto with ice-cooling and stirring, and the mixture was stirred for 3 hours with heating and refluxing. An aqueous saturated ammonium chloride solution was added to the reaction mixture with ice-cooling and stirring. After stirring for 15 minutes, water was added thereto, and extraction was performed with ethyl acetate. The mixture was dried over anhydrous magnesium sulfate, and the solvent was removed. The obtained residue was purified by silica gel column chromatography (n-hexane : ethyl acetate = 4 : 1) to give 75 mg of colorless oily 3-[2- (3-benzyloxy-4-difluoromethoxyphenyl) oxazol-4-yl] -1- (2-ethoxyphenyl)propan-l-one. ^{1}H-NMR ($CDCl_3$) δ: 7.72-7.69 (2H, m) , 7.59 (IH, dd, J = 8.1, 1.8 Hz), 7.47-7.32 (7H, m) , 7.00-6.92 (3H, m) , 6.61 (IH, t, J = 74.7 Hz), 5.20 (2H, s), 4.15 (2H, q, J = 7.2 Hz), 3.43 (2H, t, J = 7.2 Hz), 3.00 (2H, t, J = 7.2 Hz), 1.48 (3H, t, J = 7.2 Hz) **With** sodium hydride **in** tetrahydrofuran, Time= 3h, Heating / reflux **Patent**; **OTSUKA PHARMACEUTICAL CO., LTD.**; WO2007/58338; (2007); (A2) English View in Reaxys



Rx-ID: 30732532 View in Reaxys

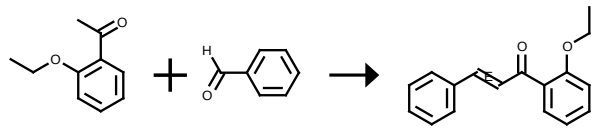
Yield	Conditions & References
46 %	**Stage 1: With** sodium methylate **in** methanol, Time= 0.25h, Claisen condensation **Stage 2: in** methanol, Time= 0.0833333h, T= 30 °C , Microwave irradiation, Claisen condensation **Reddy, Tummala R. K.; Li, Chan; Guo, Xiaoxia; Myrvang, Helene K.; Fischer, Peter M.; Dekker, Lodewijk V.**; Journal of Medicinal Chemistry; **vol.** 54; nb. 7; (2011); p. 2080 - 2094 View in Reaxys



Rx-ID: 2116259 View in Reaxys

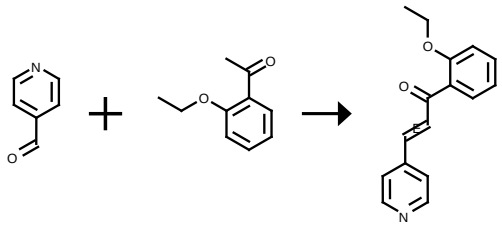
Yield	Conditions & References
80 %	**With** pyridine, titanium(III) chloride, lithium **in** tetrahydrofuran, Time= 16h, Heating **Kadam, Suresh M.; Nayak, Sandip K.; Banerji, Asoke**; Synthetic Communications; **vol.** 25; nb. 2; (1995); p. 135 - 142

	View in Reaxys
38 %	**With** titanium(III) chloride, lithium **in** tetrahydrofuran **Banerji, Asoke; Nayak, Sandip, K.**; Journal of the Chemical Society, Chemical Communications; nb. 20; (1991); p. 1432 - 1434 View in Reaxys



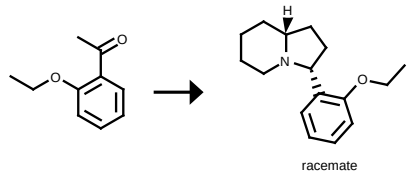
Rx-ID: 2680461 View in Reaxys

Yield	Conditions & References
69 %	**With** sodium hydroxide **in** ethanol, Time= 24h, Ambient temperature **Batt, Douglas G.; Goodman, Robin; Jones, David G.; Kerr, Janet S.; Mantegna, Lisa R.; et al.**; Journal of Medicinal Chemistry; **vol.** 36; nb. 10; (1993); p. 1434 - 1442 View in Reaxys



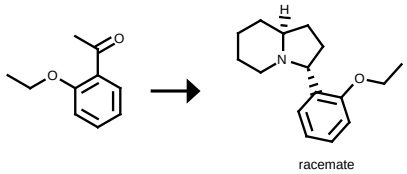
Rx-ID: 1524093 View in Reaxys

Yield	Conditions & References
43 %	**With** sodium hydroxide **in** ethanol, Time= 24h, Ambient temperature **Batt, Douglas G.; Goodman, Robin; Jones, David G.; Kerr, Janet S.; Mantegna, Lisa R.; et al.**; Journal of Medicinal Chemistry; **vol.** 36; nb. 10; (1993); p. 1434 - 1442 View in Reaxys



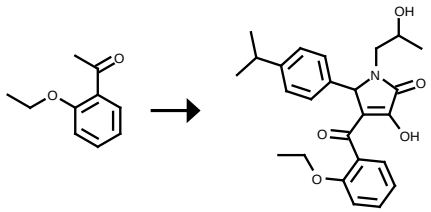
Rx-ID: 19593783 View in Reaxys

Yield	Conditions & References
	Reaction Steps: 2 1: 39 percent / 0.42 h / Heating 2: 21 percent / H_2 / Pt **With** hydrogen, platinum **Carson, John R.; Carmosin, Richard J.; Vaught, Jeffry L.; Gardocki, Joseph F.; Costanzo, Michael J.; et al.**; Journal of Medicinal Chemistry; **vol.** 35; nb. 15; (1992); p. 2855 - 2863 View in Reaxys



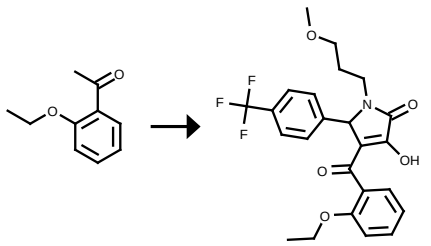
Rx-ID: 19593784 View in Reaxys

Yield	Conditions & References
	Reaction Steps: 2 1: 39 percent / 0.42 h / Heating 2: H_2 / Pt **With** hydrogen, platinum **Carson, John R.; Carmosin, Richard J.; Vaught, Jeffry L.; Gardocki, Joseph F.; Costanzo, Michael J.; et al.**; Journal of Medicinal Chemistry; **vol.** 35; nb. 15; (1992); p. 2855 - 2863 View in Reaxys



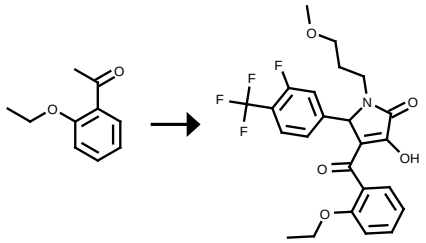
Rx-ID: 30732609 View in Reaxys

Yield	Conditions & References
	Reaction Steps: 2 1.1: sodium methylate / methanol / 0.25 h 1.2: 0.08 h / 30 °C / Microwave irradiation 2.1: 1,4-dioxane / 20 °C **With** sodium methylate **in** 1,4-dioxane, methanol, 1.1: Claisen condensation / 1.2: Claisen condensation **Reddy, Tummala R. K.; Li, Chan; Guo, Xiaoxia; Myrvang, Helene K.; Fischer, Peter M.; Dekker, Lodewijk V.**; Journal of Medicinal Chemistry; **vol.** 54; nb. 7; (2011); p. 2080 - 2094 View in Reaxys



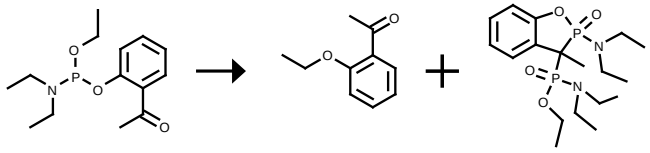
Rx-ID: 30732610 View in Reaxys

Yield	Conditions & References
	Reaction Steps: 2 1.1: sodium methylate / methanol / 0.25 h 1.2: 0.08 h / 30 °C / Microwave irradiation 2.1: 1,4-dioxane / 20 °C **With** sodium methylate **in** 1,4-dioxane, methanol, 1.1: Claisen condensation / 1.2: Claisen condensation **Reddy, Tummala R. K.; Li, Chan; Guo, Xiaoxia; Myrvang, Helene K.; Fischer, Peter M.; Dekker, Lodewijk V.**; Journal of Medicinal Chemistry; **vol.** 54; nb. 7; (2011); p. 2080 - 2094 View in Reaxys



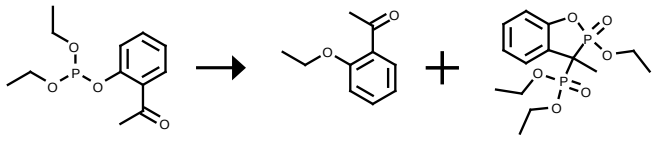
Rx-ID: 30732611 View in Reaxys

Yield	Conditions & References
	Reaction Steps: 2 1.1: sodium methylate / methanol / 0.25 h 1.2: 0.08 h / 30 °C / Microwave irradiation 2.1: 1,4-dioxane / 20 °C **With** sodium methylate **in** 1,4-dioxane, methanol, 1.1: Claisen condensation / 1.2: Claisen condensation **Reddy, Tummala R. K.; Li, Chan; Guo, Xiaoxia; Myrvang, Helene K.; Fischer, Peter M.; Dekker, Lodewijk V.**; Journal of Medicinal Chemistry; **vol.** 54; nb. 7; (2011); p. 2080 - 2094 View in Reaxys



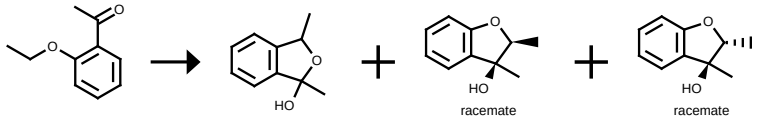
Rx-ID: 2225806 View in Reaxys

Yield	Conditions & References
72 %, 53 %	Time= 6.5h, T= 110 °C **Mukhametov, F. S.; Korshin, E. E.; Nekhoroshkov, V. M.; Efremov, Yu. Ya.**; J. Gen. Chem. USSR (Engl. Transl.); **vol.** 59; nb. 6.1; (1989); p. 1309 - 1320,1159 - 1169 View in Reaxys
53 %, 72 %	Time= 6.5h, T= 110 °C **Mukhametov, F. S.; Korshin, E. E.; Nekhoroshkov, V. M.; Efremov, Yu. Ya.**; J. Gen. Chem. USSR (Engl. Transl.); **vol.** 59; nb. 6.1; (1989); p. 1309 - 1320,1159 - 1169 View in Reaxys



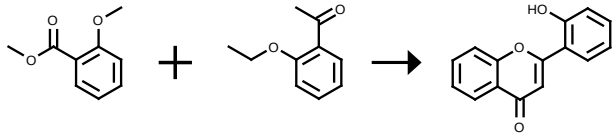
Rx-ID: 3663545 View in Reaxys

Yield	Conditions & References
60 %, 61.5 %	Time= 1.33333h, T= 100 - 110 °C **Mukhametov, F. S.; Korshin, E. E.; Korshunov, R. L.; Efremov, Yu. Ya.; Zyablikova, T. A.**; J. Gen. Chem. USSR (Engl. Transl.); **vol.** 56; nb. 8; (1986); p. 1781 - 1789,1574 - 1580 View in Reaxys



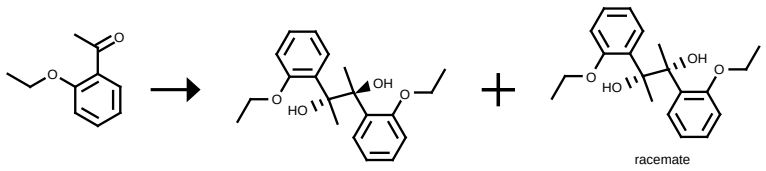
Rx-ID: 2116260 View in Reaxys

Yield	Conditions & References
46 %	**in** acetonitrile, Time= 1h, Irradiation, Yields of byproduct given **Horaguchi, Takaaki; Tsukada, Chikara; Hasegawa, Eietsu; Shimizu, Takahachi; Suzuki, Tsuneo; Tanemura, Kiyoshi**; Journal of Heterocyclic Chemistry; **vol.** 28; nb. 5; (1991); p. 1261 - 1272 View in Reaxys
46 %	**in** acetonitrile, Time= 1h, Irradiation, Yield given. Yields of byproduct given **Horaguchi, Takaaki; Tsukada, Chikara; Hasegawa, Eietsu; Shimizu, Takahachi; Suzuki, Tsuneo; Tanemura, Kiyoshi**; Journal of Heterocyclic Chemistry; **vol.** 28; nb. 5; (1991); p. 1261 - 1272 View in Reaxys



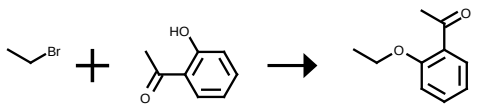
Rx-ID: 332971 View in Reaxys

Yield	Conditions & References
	With sodium, T= 130 °C , Behandeln des entstandenen 2-Methoxy-2'-aethoxy-dibenzoylmethans mit Jodwasserstoff-saeure **Pistermann; Tambor**; Chemische Berichte; **vol.** 45; (1912); p. 1241 View in Reaxys



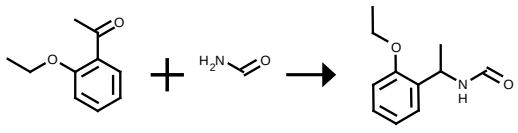
Rx-ID: 10402990 View in Reaxys

Yield	Conditions & References
115 mg, 100 mg	**With** triethylamine **in** ethanol, Irradiation **Singh, Rajinder; Garg, P. K.; Hundal, M. S.; Ishar, M. P. S.**; Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry; **vol.** 45; nb. 2; (2006); p. 506 - 509 View in Reaxys



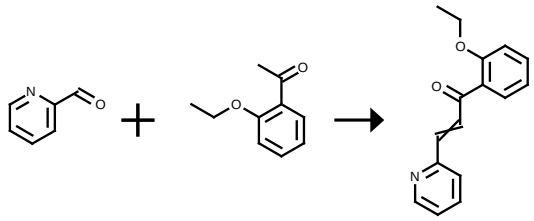
Rx-ID: 10414040 View in Reaxys

Yield	Conditions & References
2.5 g	**With** potassium carbonate **in** acetone, Time= 10h, Heating **Singh, Rajinder; Garg, P. K.; Hundal, M. S.; Ishar, M. P. S.**; Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry; **vol.** 45; nb. 2; (2006); p. 506 - 509 View in Reaxys



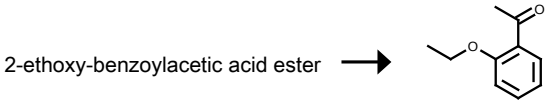
Rx-ID: 29783693 View in Reaxys

Yield	Conditions & References
	in formic acid, Time= 30h, T= 130 °C , Leuckart-Wallach reaction **Musatov, D. M.; Starodubtseva, E. V.; Turova, O. V.; Kurilov, D. V.; Vinogradov, M. G.; Rakishev, A. K.; Struchkova, M. I.**; Russian Journal of Organic Chemistry; **vol.** 46; nb. 7; (2010); p. 1021 - 1028; Zhurnal Organicheskoi Khimii; **vol.** 46; nb. 7; (2010); p. 1023 - 1029 View in Reaxys



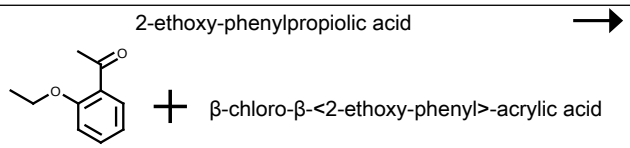
Rx-ID: 1523580 View in Reaxys

Yield	Conditions & References
39 %	Time= 0.416667h, Heating **Carson, John R.; Carmosin, Richard J.; Vaught, Jeffry L.; Gardocki, Joseph F.; Costanzo, Michael J.; et al.**; Journal of Medicinal Chemistry; **vol.** 35; nb. 15; (1992); p. 2855 - 2863 View in Reaxys



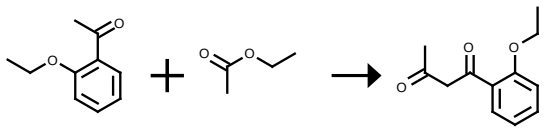
Rx-ID: 7388666 View in Reaxys

Yield	Conditions & References
	With sulfuric acid **Besthorn; Banzhaf; Jaegle**; Chemische Berichte; **vol.** 27; (1894); p. 3036 View in Reaxys



Rx-ID: 7388667 View in Reaxys

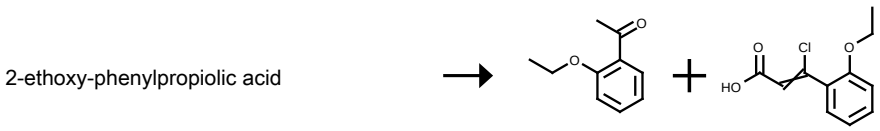
Yield	Conditions & References
	With hydrogenchloride **Fittig; Claus,R.**; Justus Liebigs Annalen der Chemie; **vol.** 269; (1892); p. 3 View in Reaxys



Rx-ID: 646579 View in Reaxys

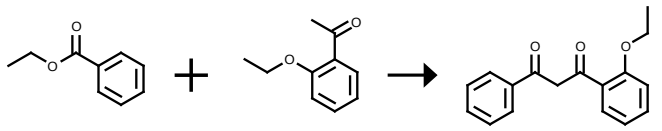
Yield	Conditions & References
	With sodium ethanolate, Zersetzen das Natriumsalz in waessr.Loesung mit Essigsaeure **Patent**; **Hoechster Farbw.**; DE79173; Fortschr. Teerfarbenfabr. Verw. Industriezweige; **vol.** 4; p. 1141

View in Reaxys
Besthorn; Banzhaf; Jaegle; Chemische Berichte; **vol.** 27; (1894); p. 3036
View in Reaxys



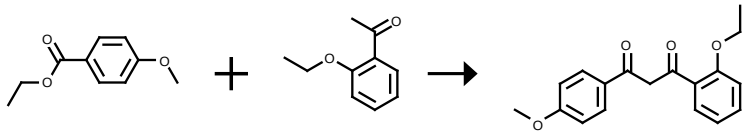
Rx-ID: 8071939 View in Reaxys

Yield	Conditions & References
	With hydrogenchloride **Fittig; Claus,R.**; Justus Liebigs Annalen der Chemie; **vol.** 269; (1892); p. 3 View in Reaxys



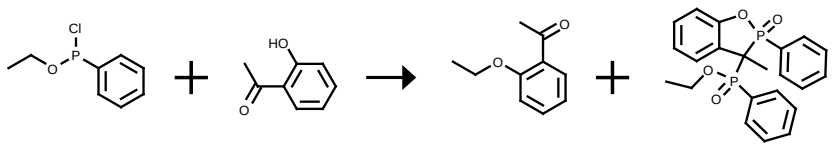
Rx-ID: 281441 View in Reaxys

Yield	Conditions & References
	With sodium **v.Kostanecki; Tambor**; Chemische Berichte; **vol.** 33; (1900); p. 333 Anm.2 View in Reaxys



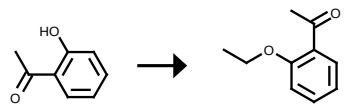
Rx-ID: 334429 View in Reaxys

Yield	Conditions & References
	With sodium **Tasaki**; Acta Phytochimica; **vol.** 3; (1927); p. 275; Chem. Zentralbl.; **vol.** 98; nb. II; (1927); p. 1949 View in Reaxys



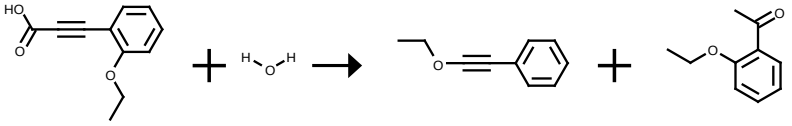
Rx-ID: 2412700 View in Reaxys

Yield	Conditions & References
	With triethylamine, 1.) ether, 1 d; 2.) 2 d, RT; 2 h, 80 deg C, Yield given. Multistep reaction. Yields of byproduct given **Mukhametov, F. S.; Korshin, E. E.; Korshunov, R. L.; Efremov, Yu. Ya.; Zyablikova, T. A.**; J. Gen. Chem. USSR (Engl. Transl.); **vol.** 56; nb. 8; (1986); p. 1781 - 1789,1574 - 1580 View in Reaxys



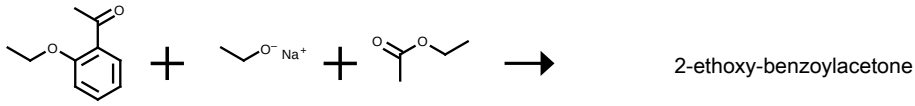
Rx-ID: 21973349 View in Reaxys

Yield	Conditions & References
	Reaction Steps: 2 1: 77.5 percent / 1) 8h, 50 deg C, 50 mm, 2) 1h, 0.05 mm 2: 53 percent / 6.5 h / 110 °C **Mukhametov, F. S.; Korshin, E. E.; Nekhoroshkov, V. M.; Efremov, Yu. Ya.**; J. Gen. Chem. USSR (Engl. Transl.); **vol.** 59; nb. 6.1; (1989); p. 1309 - 1320,1159 - 1169 View in Reaxys



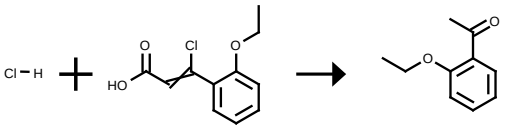
Rx-ID: 7990352 View in Reaxys

Yield	Conditions & References
	T= 140 - 150 °C **Fittig; Claus,R.**; Justus Liebigs Annalen der Chemie; **vol.** 269; (1892); p. 3 View in Reaxys



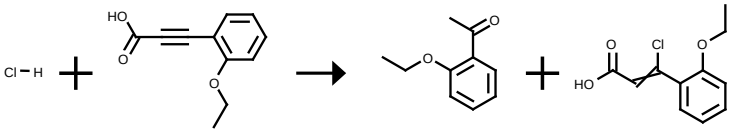
Rx-ID: 7434855 View in Reaxys

Yield	Conditions & References
	Besthorn; Banzhaf; Jaegle; Chemische Berichte; **vol.** 27; (1894); p. 3036 View in Reaxys



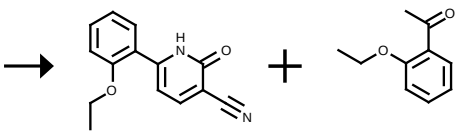
Rx-ID: 7990351 View in Reaxys

Yield	Conditions & References
	Fittig; Claus,R.; Justus Liebigs Annalen der Chemie; **vol.** 269; (1892); p. 3 View in Reaxys



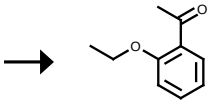
Rx-ID: 8071940 View in Reaxys

Yield	Conditions & References
	Fittig; Claus,R.; Justus Liebigs Annalen der Chemie; **vol.** 269; (1892); p. 3 View in Reaxys



Rx-ID: 24295662 View in Reaxys

Yield	Conditions & References
	Example Name 34 Example Title 3-Cyano-6-(2-ethoxyphenyl)-2(1H)-pyridinone EXAMPLE 34 3-Cyano-6-(2-ethoxyphenyl)-2(1H)-pyridinone In a similar manner to that of Example 26, 2-ethoxy-acetophenone (2 g) yielded the title compound, 0.32 g, m.p. 262.deg.-4.deg. C. (from dimethylformamide). **Patent**; **Cell Pathways, Inc.**; US6046216; (2000); (A1) English View in Reaxys



Rx-ID: 7388665 View in Reaxys

Yield	Conditions & References
	2-Acetyl-phenol, Et2SO4/NaOH **Dhami; Stothers**; Canadian Journal of Chemistry; **vol.** 43; (1965); p. 479,482 View in Reaxys