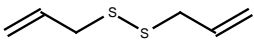
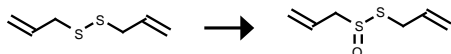


Query

	Query	Results	Date
1. Query	 Search as: Starting material, As drawn, No salts, No mixtures	74 reactions	2011-05-08 17h:17m:04s (EST)


 Rx-ID: 177093 [View in Reaxys](#)

Yield	Conditions & References
90 %	<p>With peracetic acid, sodium carbonate in chloroform, T= 0 °C , 1.) 30 min; 2.) 30 min</p> <p>Block, Eric; Ahmad, Saleem; Catalfamo, James L.; Jain, Mahendra K.; Apitz-Castro, Rafael; Journal of the American Chemical Society; vol. 108; nb. 22; (1986); p. 7045 - 7055 View in Reaxys</p>
61 %	<p>With 3-chloro-benzenecarboxoperoxoic acid in dichloromethane, Time= 1h, T= 40 °C</p> <p>Waag, Thilo; Schirmeister, Tanja; Gelhaus, Christoph; Leippe, Matthias; Rath, Jennifer; Stich, August; Bioorganic and Medicinal Chemistry Letters; vol. 20; nb. 18; (2010); p. 5541 - 5543 View in Reaxys</p>
	<p>With dihydrogen peroxide, acetic acid</p> <p>Stoll; Seebeck; Experientia; vol. 3; (1947); p. 114; Helvetica Chimica Acta; vol. 32; (1949); p. 198 View in Reaxys</p>
	<p>With meta-chloroperoxybenzoic acid, chloroform</p> <p>Small; Bailey; Cavallito; Journal of the American Chemical Society; vol. 69; (1947); p. 1711; Journal of the American Chemical Society; vol. 71; (1949); p. 3566 View in Reaxys</p>
	<p>With peracetic acid</p> <p>Block, Eric; Ahmad, Saleem; Jain, Mahendra K.; Crecely, Roger W.; Apitz-Castro, Rafael; Cruz, Maria R.; Journal of the American Chemical Society; vol. 106; nb. 26; (1984); p. 8295 - 8296 View in Reaxys</p>
	<p>With dihydrogen peroxide in acetic acid, 1.) 0 deg C, 2 h, 2.) r.t., 4 h, Yield given</p> <p>Freeman, Fillmore; Huang, Bao-Guo; Lin, Robert I-San; Journal of Organic Chemistry; vol. 59; nb. 11; (1994); p. 3227 - 3229 View in Reaxys</p>
	<p>With dihydrogen peroxide, acetic acid, Time= 5h, T= 23 °C</p> <p>Freeman, Fillmore; Kodera, Yukihiko; Journal of Agricultural and Food Chemistry; vol. 43; nb. 9; (1995); p. 2332 - 2338 View in Reaxys</p>
	<p>With dihydrogen peroxide, Oxidation</p> <p>Kaye, Alan D.; Nossaman, Bobby D.; Ibrahim, Ikhlass N.; Feng, Chang J.; McNamara, Dennis B.; et al.; European Journal of Pharmacology; vol. 276; nb. 1-2; (1995); p. 21 - 26 View in Reaxys</p>
	<p>With dihydrogen peroxide in acetic acid, T= 13 °C , Kinetics, Further Variations: Temperatures</p> <p>Nikolic, V.; Stankovic, M.; Nikolic, Lj.; Cvetkovic, D.; Pharmazie; vol. 59; nb. 1; (2004); p. 10 - 14 View in Reaxys</p>
	<p>Example Name 7.2.3.2</p> <p>7.2.3.2 Allicin Formation within the Cell Membrane Because allicin is known to react rapidly with thiols (and AllylSH is a thiol), the formation of allicin from AllylSH in the presence of H₂O₂ was suspected of being limited by a significant reverse formation of DADS from the allicin: allicin+2 AllylSH->2 DADS+H₂O The environment within the membrane had now been determined to have a higher concentration of DADS than AllylSH, due to the lipophilic nature of DADS, so it was decided to perform another experiment to see if less H₂O₂ was needed for allicin production when the starting DADS concentration was significantly higher than the starting AllylSH concentration (which is the opposite of the starting condition of the experiment with H₂O₂ that was previously performed). An experiment starting with 0.2 mM of DADS in the presence of 5.0 mM of H₂O₂ and performed at room temperature proved this to be the case (FIG. 12). In the absence</p>

of AllylSH the rate of allicin formation was increased and was essentially linear with time. Another experiment was performed at approximate body temperature (37 degrees C.) and calculated membrane AllylSH concentration. Starting with 0.2 mM of DADS and 0.022 mM of AllylSH in the presence of 5.0 mM of H₂O₂ the allicin yield was 0.015 mM at 11 minutes (FIG. 13). In comparison with the previous experimental discovery of significant allicin formation from AllylSH in the presence of high H₂O₂ (e.g. in the extracellular environment adjacent to an activated neutrophil, see section 7.2.2), this new aspect of the present invention indicates the potential use of the formation of allicin (or other form of thiosulfinate) within the cell membrane as a defense against H₂O₂ and other ROS, particularly during oxidative stress events. The production of allicin has now been shown to occur at a significantly lower H₂O₂ concentration than was used in the previous experiment, which would extend the anti-inflammatory range to a significantly greater distance from the source of ROS than was calculated in section 7.2.2.

With dihydrogen peroxide in acetonitrile, Time= 1h, T= 20 °C , Aqueous phosphate buffer, Reactivity

Patent: Ott, David M.; US2005/260250; (2005); (A1) English

[View in Reaxys](#)

Example Name 7.2.3.2

7.2.3.2 Allicin Formation within the Cell Membrane Because allicin is known to react rapidly with thiols (and AllylSH is a thiol), the formation of allicin from AllylSH in the presence of H₂O₂ was suspected of being limited by a significant reverse formation of DADS from the allicin: allicin+2 AllylSH->2 DADS+H₂O The environment within the membrane had now been determined to have a higher concentration of DADS than AllylSH, due to the lipophilic nature of DADS, so it was decided to perform another experiment to see if less H₂O₂ was needed for allicin production when the starting DADS concentration was significantly higher than the starting AllylSH concentration (which is the opposite of the starting condition of the experiment with H₂O₂ that was previously performed). An experiment starting with 0.2 mM of DADS in the presence of 5.0 mM of H₂O₂ and performed at room temperature proved this to be the case (FIG. 12). In the absence of AllylSH the rate of allicin formation was increased and was essentially linear with time. Another experiment was performed at approximate body temperature (37 degrees C.) and calculated membrane AllylSH concentration. Starting with 0.2 mM of DADS and 0.022 mM of AllylSH in the presence of 5.0 mM of H₂O₂ the allicin yield was 0.015 mM at 11 minutes (FIG. 13). In comparison with the previous experimental discovery of significant allicin formation from AllylSH in the presence of high H₂O₂ (e.g. in the extracellular environment adjacent to an activated neutrophil, see section 7.2.2), this new aspect of the present invention indicates the potential use of the formation of allicin (or other form of thiosulfinate) within the cell membrane as a defense against H₂O₂ and other ROS, particularly during oxidative stress events. The production of allicin has now been shown to occur at a significantly lower H₂O₂ concentration than was used in the previous experiment, which would extend the anti-inflammatory range to a significantly greater distance from the source of ROS than was calculated in section 7.2.2.

With 2-propene-1-thiol, dihydrogen peroxide in acetonitrile, Time= 0.183333h, T= 37 °C , Aqueous phosphate buffer, Reactivity

Patent: Ott, David M.; US2005/260250; (2005); (A1) English

[View in Reaxys](#)

Stage 1: With 3-chloro-benzenecarboxylic acid in chloroform, Time= 1h, T= 0 °C

Stage 2: With sodium carbonate in chloroform, Time= 1h, T= 0 °C

Vaidya, Vipraja; Pratt, Derek A.; Ingold, Keith U.; Angewandte Chemie, International Edition; **vol.** 48; nb. 1; (2009); p. 157 - 160

[View in Reaxys](#)

Example Name 6

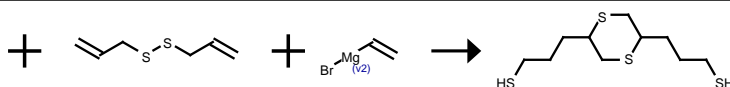
Example 6; 10ml of diallyl disulphide (DADS) were stirred into 100ml ethanol/water (1 :1). 20 grams of potassium peroxymonosulfate (Oxone RTM) was added slowly over 2 hours, and stirred at below 10°C until no further reaction was observed. The resultant solution was then filtered, and then extracted with diethyl ether (2 x 50 ml). The diethyl ether layers were combined and washed with 10 percent brine solution 2 x 50 ml. The ether layer was dried with magnesium sulfate then reduced to under vacuum. Removal of the solvent produced a yellow oil of pure allicin better than 90percent (expressed as a percent of pure material). The pure allicin may then be treated as per Example 1 for conversion to ajoene.

With Oxone.(R). in ethanol, water, T= 10 °C

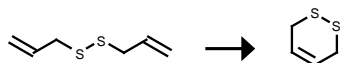
Patent: NEEM BIOTECH LIMITED; WILLIAMS, David Michael; SAUNDERS, Robert Alun; EVANS, Gareth James Street; WO2010/100486; (2010); (A2) English

[View in Reaxys](#)

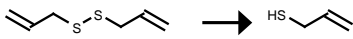
1.0 M-tetrahydrofuran

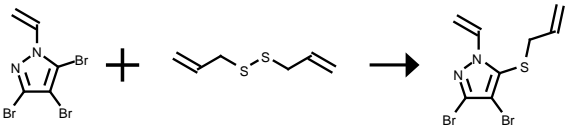

 Rx-ID: 24507066 [View in Reaxys](#)

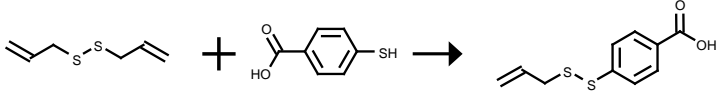
Yield	Conditions & References
61%	<p>Example Name 3 Example Title Example 3 Example 3 Preparation of 2,5-bis(3-mercaptopropyl)-1,4-dithian as a polythiol compound of this invention (a compound of this invention (a compound of formula [1] in which X=H ($n_2=0$), Y=H and $n_1=3$)) 25.0 Grams (0.157 mol) of bromine was added to a solution of 22.9 g (0.157 mol) of diallyldisulfide in 780 ml of dichloromethane at -78.deg. C. over 1 hour. And, the temperature of the mixture was elevated up to -20.deg. C., the mixture was stirred at said temperature for 8 hours, and then, dichloromethane was removed under reduced pressure. 300 Milliliters of dry tetrahydrofuran was added to the residue, the resultant mixture was cooled to -10.deg. C., and while the mixture was stirred. 329 ml of a 1.0 M-tetrahydrofuran solution of vinylmagnesium bromide was added dropwise. Thereafter, the mixture was stirred at 0.deg. C. for 2 hours and at room temperature for 12 hours. The reaction mixture was poured into water and subjected to extraction with benzene, and benzene was distilled off under reduced pressure. Then, the resultant residue was dissolved in 200 ml of benzene, and while hydrogen sulfide was blown into the mixture, the mixture was allowed to react at room temperature for 4 hours. Thereafter, benzene was distilled off under reduced pressure to give 25.7 g of an intended product, 2,5-bis(3-mercaptopropyl)-1,4-dithian (yield 61percent).</p> <p>With bromine in tetrahydrofuran, dichloromethane, benzene</p> <p>Patent; Hoya Corporation; US5403938; (1995); (A1) English View in Reaxys</p>



 Rx-ID: 4764620 [View in Reaxys](#)

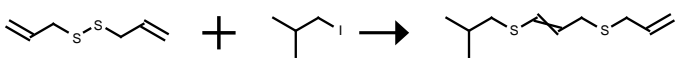
Yield	Conditions & References
100 %	<p>With Grubb's 2nd generation catalyst, T= 90 °C</p> <p>Trapp, Oliver; Weber, Sven K.; Bauch, Sabrina; Hofstadt, Werner; Angewandte Chemie, International Edition; vol. 46; nb. 38; (2007); p. 7307 - 7310; Angewandte Chemie; vol. 119; nb. 38; (2007); p. 7447 - 7451 View in Reaxys</p>
77 % Spectr.	<p>With {(2-methyl-2-phenyl-propylidene)((2,6-diisopropylphenyl)imido)molybdenum(VI)bis(hexafluoro-tert-butoxide)} in benzene-d6, Time= 1h, T= 20 °C , further catalyst, variation of the reaction time; catalytic ring-closing metathesis of further acyclic dienes, Product distribution</p> <p>Shon, Young-Seok; Lee, T. Randall; Tetrahedron Letters; vol. 38; nb. 8; (1997); p. 1283 - 1286 View in Reaxys</p>
77 % Spectr.	<p>With {(2-methyl-2-phenyl-propylidene)((2,6-diisopropylphenyl)imido)molybdenum(VI)bis(hexafluoro-tert-butoxide)} in benzene-d6, Time= 1h, T= 20 °C</p> <p>Shon, Young-Seok; Lee, T. Randall; Tetrahedron Letters; vol. 38; nb. 8; (1997); p. 1283 - 1286 View in Reaxys</p>
100 % Spectr.	<p>With Grubb's 2nd generation catalyst in dichloromethane-d2, Time= 4h, Heating</p> <p>Spagnol, Gaele; Heck, Marie-Pierre; Nolan, Steven P.; Mioskowski, Charles; Organic Letters; vol. 4; nb. 10; (2002); p. 1767 - 1770 View in Reaxys</p>

		Rx-ID: 4670776 View in Reaxys
Yield	Conditions & References	
95 %	With indium, ammonium chloride in ethanol, Time= 1h, Heating, Reduction Reddy, G. Vidya Sagar; Rao, G. Venkat; Iyengar, D. S.; Synthetic Communications; vol. 30; nb. 5; (2000); p. 859 - 862 View in Reaxys	
83 %	With magnesium in methanol, benzene, Time= 1.66667h, Ambient temperature Sridhar, Madabhushi; Vadivel, Subramanian K.; Bhalerao, Uday T.; Synthetic Communications; vol. 27; nb. 8; (1997); p. 1347 - 1350 View in Reaxys	

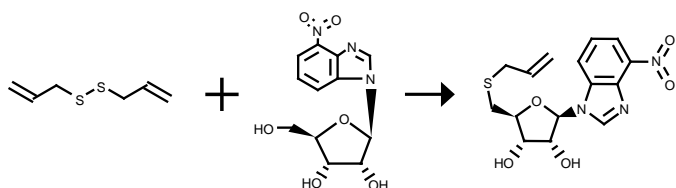
		Rx-ID: 10390496 View in Reaxys
Yield	Conditions & References	
77 %	Stage 1: With n-butyllithium in tetrahydrofuran, hexane, Time= 0.0333333h, T= -78 °C Stage 2: in tetrahydrofuran, hexane, Time= 2h, T= -78 - 20 °C Iddon, Brian; Toender, Janne Ejrnaes; Hosseini, Masood; Begtrup, Mikael; Tetrahedron; vol. 63; nb. 1; (2007); p. 56 - 61 View in Reaxys	

		Rx-ID: 28851949 View in Reaxys
Yield	Conditions & References	
74.3 %	With triethylamine, Time= 8h, T= 60 °C , pH= 4 Takeda, Kohei; Kuwahara, Atsushi; Ohmori, Kohei; Takeuchi, Toshifumi; Journal of the American Chemical Society; vol. 131; nb. 25; (2009); p. 8833 - 8838 View in Reaxys	

		Rx-ID: 1858103 View in Reaxys
Yield	Conditions & References	
78 %	With n-butyllithium in tetrahydrofuran, diethyl ether, 2 h, < -95 deg C, 1.5 h Jorritsma, R.; Steinberg, H.; Boer, Th. J. de; Recueil: Journal of the Royal Netherlands Chemical Society; vol. 100; nb. 5; (1981); p. 184 - 194 View in Reaxys	

		Rx-ID: 1858099 View in Reaxys
Yield	Conditions & References	
65.6 %	With potassium hydroxide in dimethyl sulfoxide, Time= 2h, T= 40 °C	

Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Sinegovskaya, L. M.; Trofimov, B. A.; Zhurnal Organicheskoi Khimii; **vol.** 22; nb. 5; (1986); p. 957 - 964,856 - 861
[View in Reaxys](#)



Rx-ID: 11255122 [View in Reaxys](#)

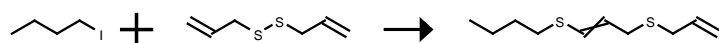
Yield Conditions & References

48 %

With triphenylphosphine in pyridine, Time= 24h, T= 20 °C

Srivastava, Richa; Bhargava, Anudita; Singh, Ramendra K.; Bioorganic and Medicinal Chemistry Letters; **vol.** 17; nb. 22; (2007); p. 6239 - 6244

[View in Reaxys](#)



Rx-ID: 1781581 [View in Reaxys](#)

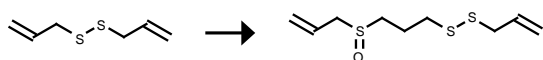
Yield Conditions & References

61.2 %

With potassium hydroxide in dimethyl sulfoxide, Time= 2h, T= 40 °C

Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Sinegovskaya, L. M.; Trofimov, B. A.; Zhurnal Organicheskoi Khimii; **vol.** 22; nb. 5; (1986); p. 957 - 964,856 - 861

[View in Reaxys](#)



Rx-ID: 19226541 [View in Reaxys](#)

Yield Conditions & References

Reaction Steps: 2

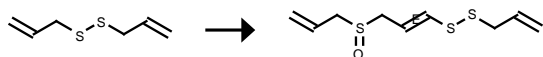
1: 90 percent / 1.) 35 percent peracetic acid; 2.) sodium carbonate / CHCl₃ / 0 °C / 1.) 30 min; 2.) 30 min

2: 0.220 g / 10 percent acetic acid / 120 h / 25 °C

With peracetic acid, sodium carbonate, acetic acid in chloroform

Block, Eric; Ahmad, Saleem; Catalfamo, James L.; Jain, Mahendra K.; Apitz-Castro, Rafael; Journal of the American Chemical Society; **vol.** 108; nb. 22; (1986); p. 7045 - 7055

[View in Reaxys](#)



Rx-ID: 19226542 [View in Reaxys](#)

Yield Conditions & References

Reaction Steps: 2

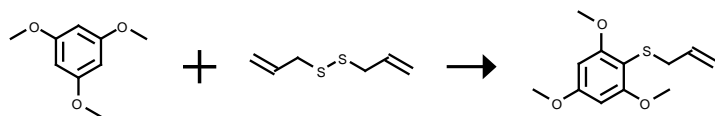
1: 90 percent / 1.) 35 percent peracetic acid; 2.) sodium carbonate / CHCl₃ / 0 °C / 1.) 30 min; 2.) 30 min

2: 0.024 g / 10 percent acetic acid / 120 h / 25 °C

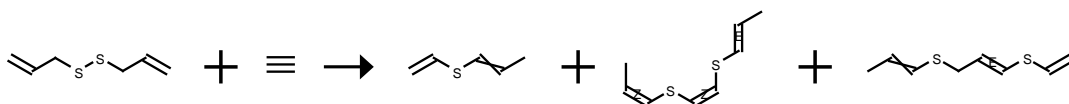
With peracetic acid, sodium carbonate, acetic acid in chloroform

Block, Eric; Ahmad, Saleem; Catalfamo, James L.; Jain, Mahendra K.; Apitz-Castro, Rafael; Journal of the American Chemical Society; **vol.** 108; nb. 22; (1986); p. 7045 - 7055

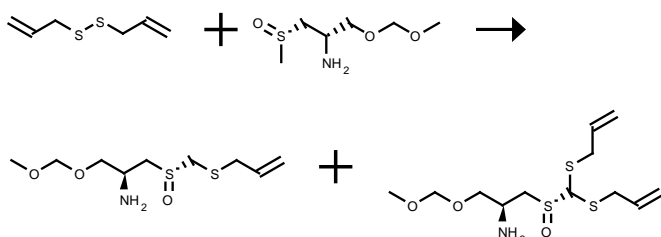
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 Rx-ID: 29889236 [View in Reaxys](#)

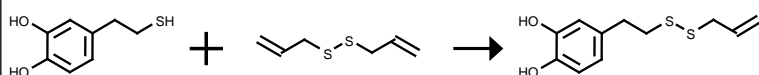
Yield	Conditions & References
25 %	<p>With copper(I) iodide, oxygen in N,N-dimethyl-formamide, Time= 24h, T= 120 °C</p> <p>Zhang, Shouhui; Qian, Pengcheng; Zhang, Manli; Hu, Maolin; Cheng, Jiang; Journal of Organic Chemistry; vol. 75; nb. 19; (2010); p. 6732 - 6735</p> <p>View in Reaxys</p>


 Rx-ID: 3851008 [View in Reaxys](#)

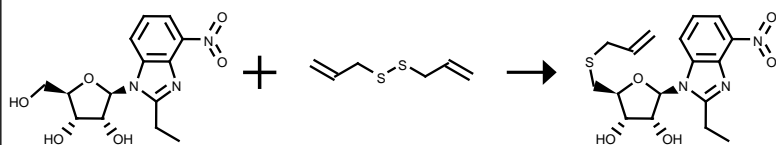
Yield	Conditions & References
9.7 %, 8.8 %, 38.6 %	<p>With potassium hydroxide, N,N'-di-beta-naphthyl-p-phenylenediamine in water, dimethyl sulfoxide, Time= 4h, T= 40 - 45 °C , p= 6840 - 13680Torr , Title compound not separated from byproducts</p> <p>Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Zhurnal Organicheskoi Khimii; vol. 25; nb. 2.1; (1989); p. 270 - 274,239 - 243</p> <p>View in Reaxys</p>
38.6 %, 9.7 %, 8.8 %	<p>With potassium hydroxide, N,N'-di-beta-naphthyl-p-phenylenediamine in water, dimethyl sulfoxide, Time= 4h, T= 40 - 45 °C , p= 6840 - 13680Torr</p> <p>Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Zhurnal Organicheskoi Khimii; vol. 25; nb. 2.1; (1989); p. 270 - 274,239 - 243</p> <p>View in Reaxys</p>


 Rx-ID: 10390497 [View in Reaxys](#)

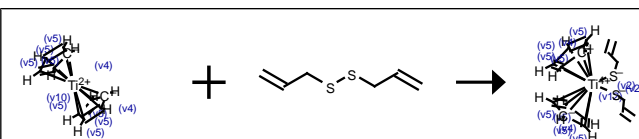
Yield	Conditions & References
25 %, 20 %	<p>With lithium diisopropyl amide in tetrahydrofuran, hexane, Time= 1h, T= 0 °C</p> <p>Nakajima, Noriyuki; Enomoto, Takeshi; Watanabe, Takehiro; Matsuura, Nobuyasu; Ubukata, Makoto; Bio-science, Biotechnology, and Biochemistry; vol. 67; nb. 12; (2003); p. 2556 - 2566</p> <p>View in Reaxys</p>


 Rx-ID: 11037688 [View in Reaxys](#)

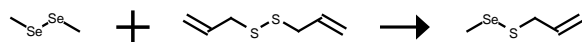
Yield	Conditions & References
46 %	<p>With triethylamine, Time= 8h, T= 60 °C</p> <p>Takeuchi, Toshifumi; Murase, Nobuo; Maki, Hideshi; Mukawa, Takashi; Shinmori, Hideyuki; Organic and Bio-molecular Chemistry; vol. 4; nb. 3; (2006); p. 565 - 568</p>

[View in Reaxys](#)

 Rx-ID: 11255123 [View in Reaxys](#)

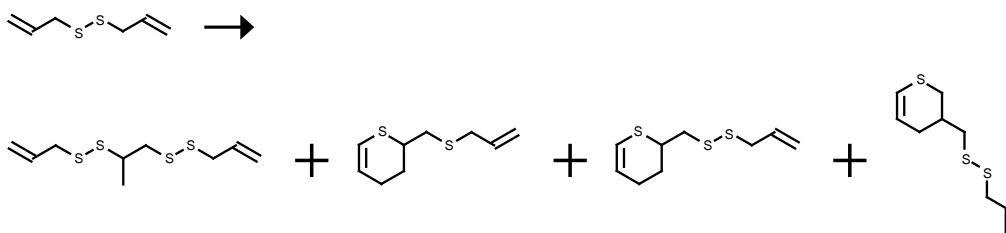
Yield	Conditions & References
58 %	<p>With pyridine, triphenylphosphine, Time= 24h, T= 20 °C</p> <p>Srivastava, Richa; Bhargava, Anudita; Singh, Ramendra K.; Bioorganic and Medicinal Chemistry Letters; vol. 17; nb. 22; (2007); p. 6239 - 6244</p> <p>View in Reaxys</p>


 Rx-ID: 27258208 [View in Reaxys](#)

Yield	Conditions & References
49 %	<p>in not given, ligand was added to soln. of Ti-complex, stirred at room temp. for 2 h under Ar; solvent was removed under vac., dissolved in CH₂Cl₂, filtered through alumina, solvent was removed, recrystd. from CH₂Cl₂-C₆H₁₄; elem. anal.</p> <p>Song, Li-Cheng; Liu, Peng-Chong; Han, Cong; Hu, Qing-Mei; Journal of Organometallic Chemistry; vol. 648; (2002); p. 119 - 125 ; (from Gmelin)</p> <p>View in Reaxys</p>

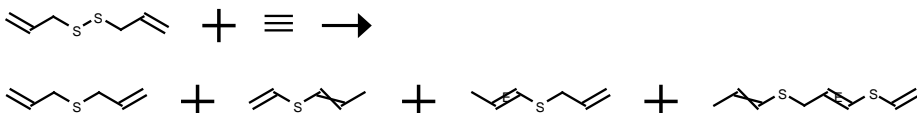

 Rx-ID: 4071210 [View in Reaxys](#)

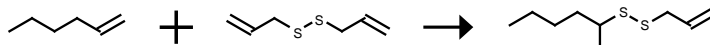
Yield	Conditions & References
	<p>With bromine in chloroform</p> <p>Cai, Xiao-Jia; Uden, Peter C.; Block, Eric; Zhang, Xing; Quimby, Bruce D.; Sullivan, James J.; Journal of Agricultural and Food Chemistry; vol. 42; nb. 10; (1994); p. 2081 - 2084</p> <p>View in Reaxys</p>

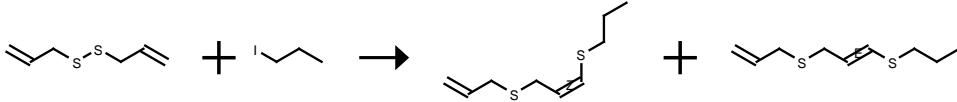

 Rx-ID: 1858120 [View in Reaxys](#)

Yield	Conditions & References
2 %, 2 %, 0.53 %, 5 %	<p>Time= 0.666667h, T= 150 °C , Further byproducts given</p> <p>Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P.; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827</p> <p>View in Reaxys</p>
2 %, 5 %, 2 %, 0.53 %	<p>Time= 0.666667h, T= 150 °C , Further byproducts given</p>

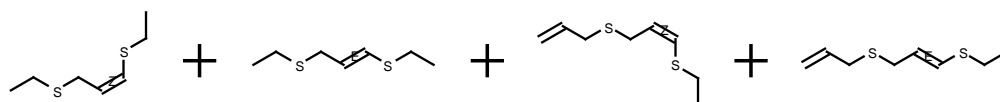
	Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P.; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys
5 %, 2 %, 0.53 %, 2 %	Time= 0.666667h, T= 150 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P.; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys
2 %, 5 %, 0.53 %, 2 %	Time= 0.666667h, T= 150 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P.; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys

	
Rx-ID: 3851007 View in Reaxys	
Yield	Conditions & References
17.8 %, 1.4 %, 0.7 %, 19.6 %	With potassium hydroxide, hydroquinone in water, dimethyl sulfoxide, Time= 4h, T= 40 - 45 °C , p= 9880 - 15200Torr , Further byproducts given Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Zhurnal Organicheskoi Khimii; vol. 25; nb. 2.1; (1989); p. 270 - 274,239 - 243 View in Reaxys

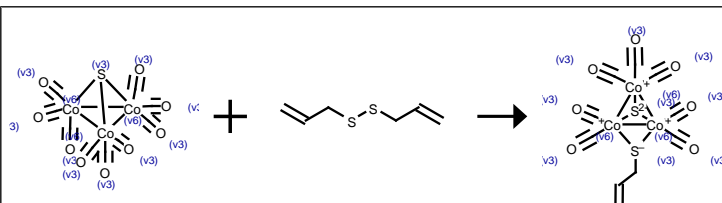
	
Rx-ID: 1691003 View in Reaxys	
Yield	Conditions & References
10 %	Time= 1.5h, T= 150 °C Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P.; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys

	
Rx-ID: 2856002 View in Reaxys	
Yield	Conditions & References
	With potassium hydroxide in dimethyl sulfoxide, Time= 2h, T= 40 °C , Yield given. Title compound not separated from byproducts Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Sinegovskaya, L. M.; Trofimov, B. A.; Journal of Organic Chemistry USSR (English Translation); vol. 22; nb. 5; (1986); p. 856 - 861; Zhurnal Organicheskoi Khimii; vol. 22; nb. 5; (1986); p. 957 - 964 View in Reaxys

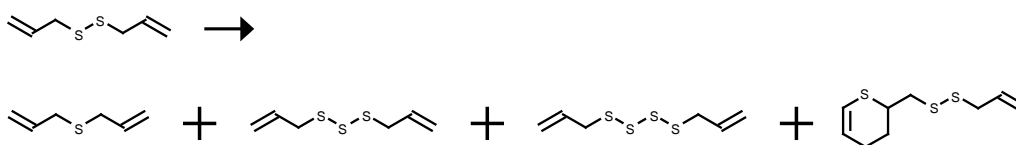
	
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 Rx-ID: 1669667 [View in Reaxys](#)

Yield	Conditions & References
	With potassium hydroxide in dimethyl sulfoxide, Time= 2h, T= 50 °C , Title compound not separated from byproducts Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Sinegovskaya, L. M.; Trofimov, B. A.; Journal of Organic Chemistry USSR (English Translation); vol. 22 ; nb. 5; (1986); p. 856 - 861; Zhurnal Organicheskoi Khimii; vol. 22 ; nb. 5; (1986); p. 957 - 964 View in Reaxys
	With potassium hydroxide in dimethyl sulfoxide, Time= 2h, T= 50 °C , Yield given. Title compound not separated from byproducts Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Sinegovskaya, L. M.; Trofimov, B. A.; Journal of Organic Chemistry USSR (English Translation); vol. 22 ; nb. 5; (1986); p. 856 - 861; Zhurnal Organicheskoi Khimii; vol. 22 ; nb. 5; (1986); p. 957 - 964 View in Reaxys

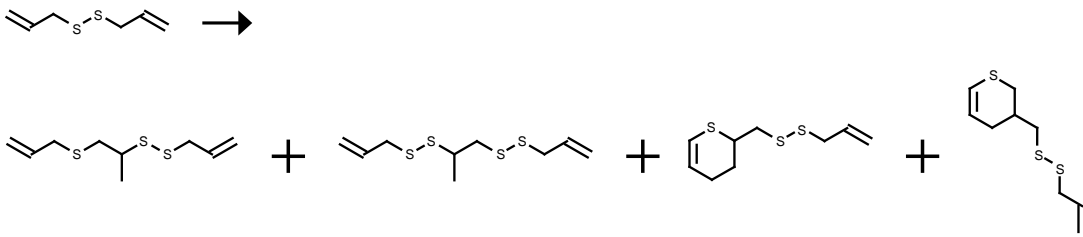

 Rx-ID: 27294169 [View in Reaxys](#)

Yield	Conditions & References
	in dichloromethane, byproducts: CO; Ar-atmosphere; 0.6 equiv. of disulfide, stirring for 2-4 h; evapn., dissoln. (hexane); IR spectroscopy Vastag, Sandor; Gervasio, Giuliana; Marabello, Domenica; Szalontai, Gabor; Marko, Laszlo; Organometallics; vol. 17 ; (1998); p. 4218 - 4225 ; (from Gmelin) View in Reaxys

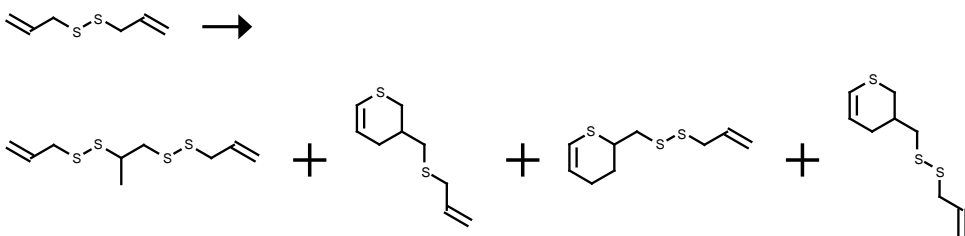

 Rx-ID: 1858113 [View in Reaxys](#)

Yield	Conditions & References
18 % Chromat., 5.5 % Chromat., 2.3 % Chromat., 20 % Chromat.	Time= 240h, T= 80 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P.; Journal of the American Chemical Society; vol. 110 ; nb. 23; (1988); p. 7813 - 7827 View in Reaxys
20 % Chromat., 5.5 % Chromat., 2.3 % Chromat., 18 % Chromat.	Time= 240h, T= 80 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P.; Journal of the American Chemical Society; vol. 110 ; nb. 23; (1988); p. 7813 - 7827 View in Reaxys

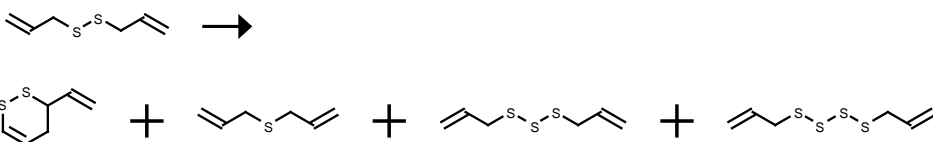
20 % Chromat., 18 % Chromat., 2.3 % Chromat., 5.5 % Chromat.	Time= 240h, T= 80 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys
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Rx-ID: 1858119 View in Reaxys	

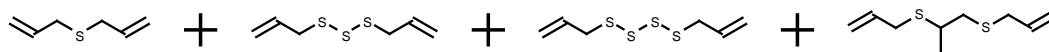
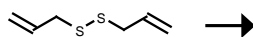
Yield	Conditions & References
2 %, 5 %, 2 %, 0.35 %	Time= 0.666667h, T= 150 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys

	
Rx-ID: 1858121 View in Reaxys	

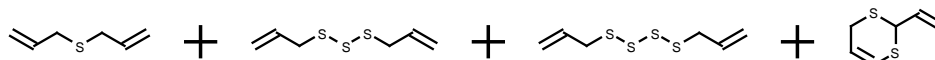
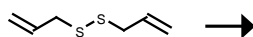
Yield	Conditions & References
2 %, 5 %, 2 %, 0.35 %	Time= 0.666667h, T= 150 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys

	
Rx-ID: 1858105 View in Reaxys	

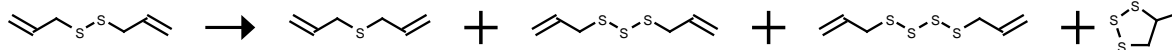
Yield	Conditions & References
9.7 % Chromat., 3 % Chromat., 0.47 % Chromat., 0.7 % Chromat.	Time= 168h, T= 50 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys


 Rx-ID: 1858106 [View in Reaxys](#)

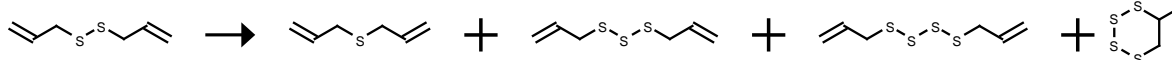
Yield	Conditions & References
20 % Chromat., 18 % Chromat., 5.5 % Chromat., 0.45 % Chromat.	Time= 240h, T= 80 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys


 Rx-ID: 1858107 [View in Reaxys](#)

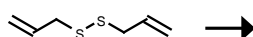
Yield	Conditions & References
9.7 % Chromat., 3 % Chromat., 0.47 % Chromat., 0.3 % Chromat.	Time= 168h, T= 50 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys

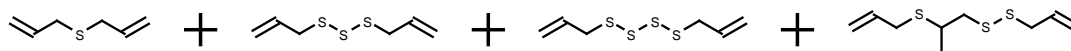

 Rx-ID: 1858108 [View in Reaxys](#)

Yield	Conditions & References
20 % Chromat., 18 % Chromat., 5.5 % Chromat., 0.68 % Chromat.	Time= 240h, T= 80 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys

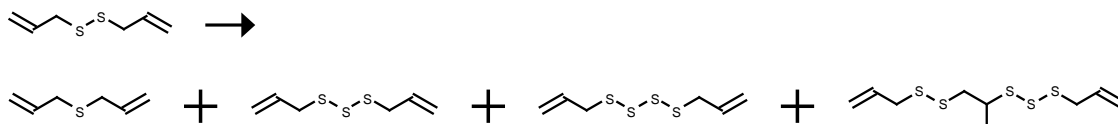

 Rx-ID: 1858109 [View in Reaxys](#)

Yield	Conditions & References
20 % Chromat., 18 % Chromat., 5.5 % Chromat., 0.42 % Chromat.	Time= 240h, T= 80 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys

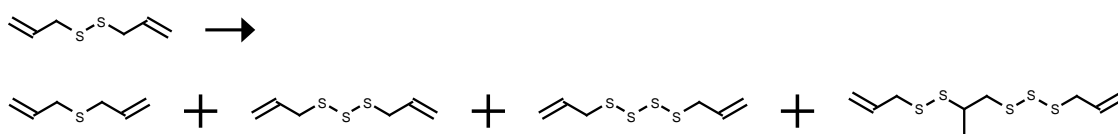



 Rx-ID: 1858110 [View in Reaxys](#)

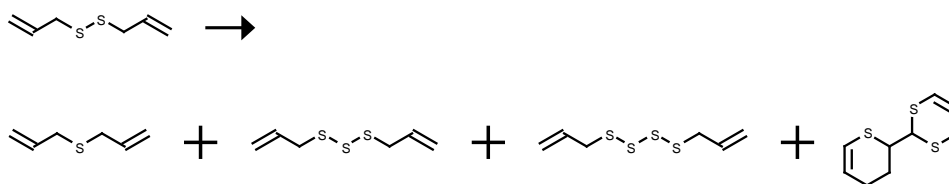
Yield	Conditions & References
20 % Chromat., 18 % Chromat., 5.5 % Chromat., 0.86 % Chromat.	Time= 240h, T= 80 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys


 Rx-ID: 1858111 [View in Reaxys](#)

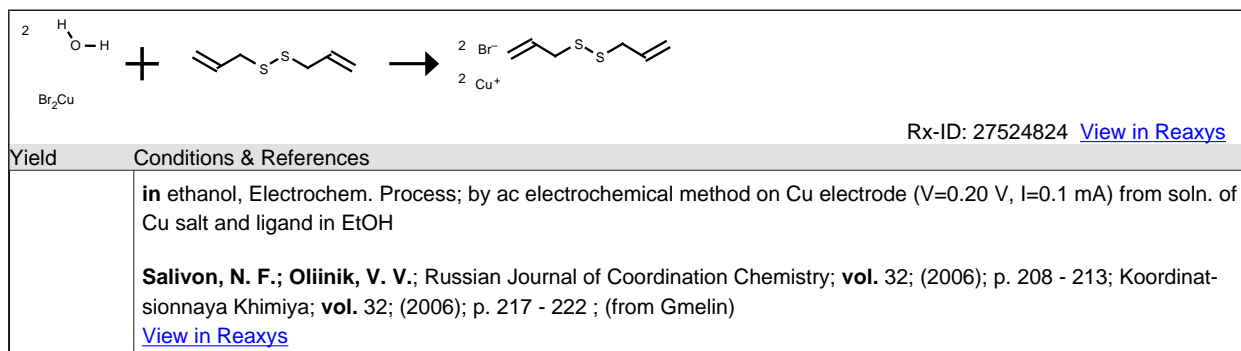
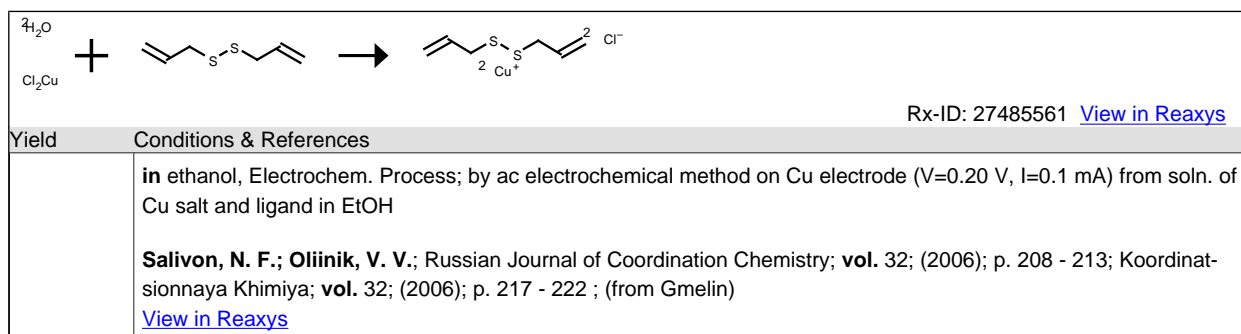
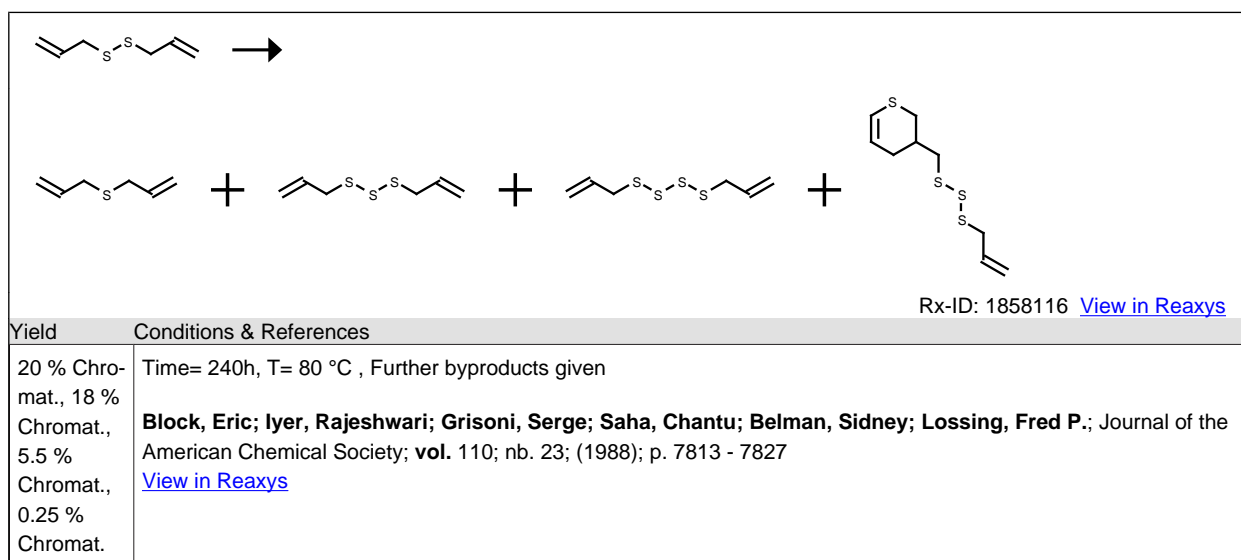
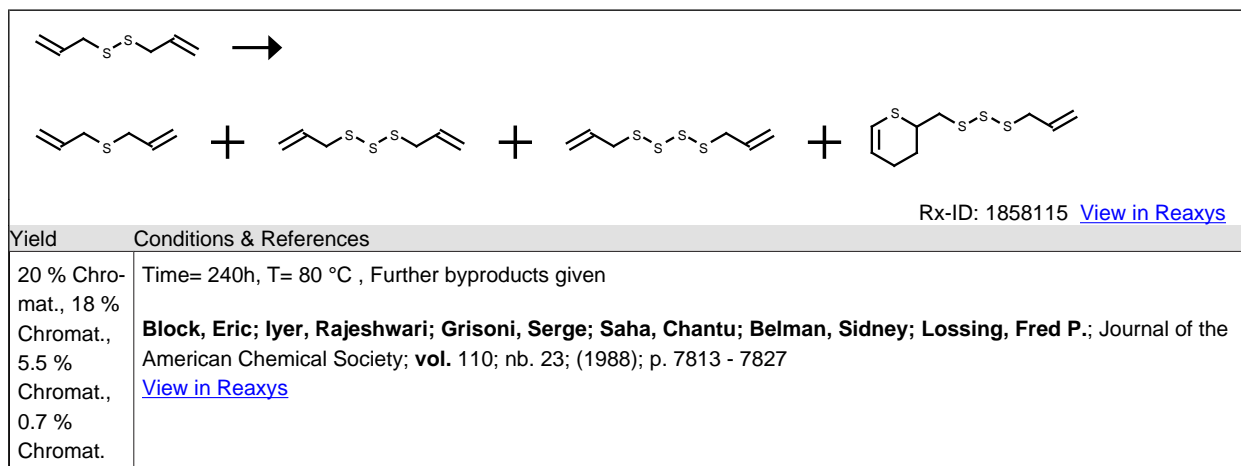
Yield	Conditions & References
20 % Chromat., 18 % Chromat., 5.5 % Chromat.	Time= 240h, T= 80 °C , Yield given. Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys

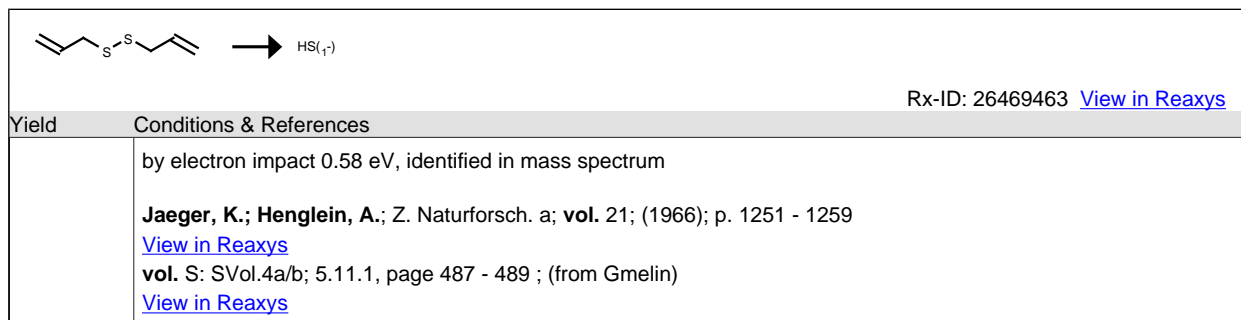
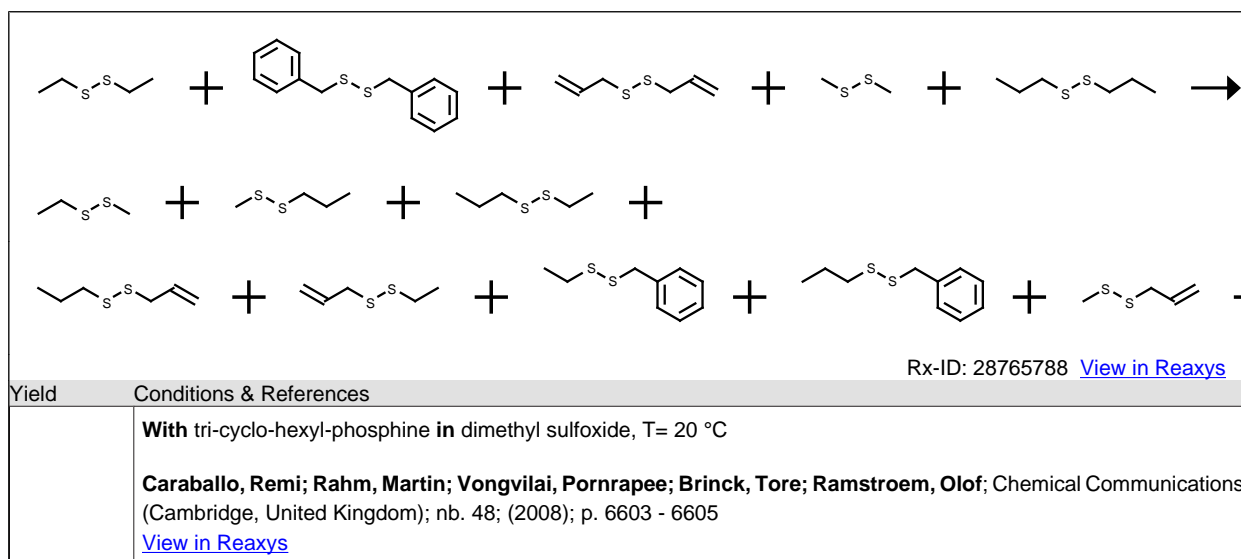
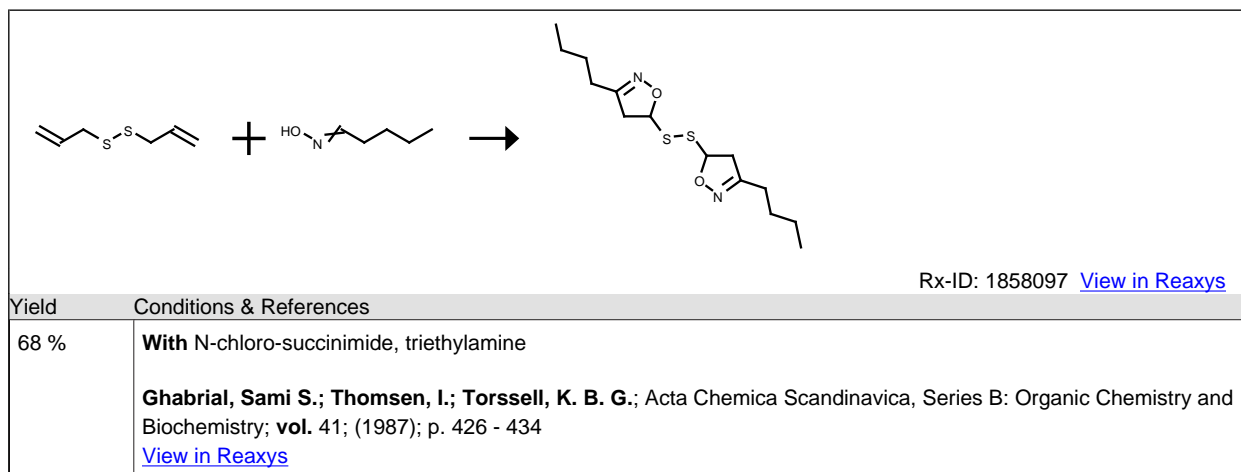

 Rx-ID: 1858112 [View in Reaxys](#)

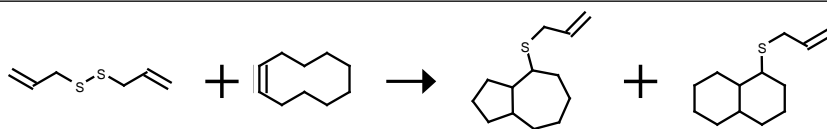
Yield	Conditions & References
20 % Chromat., 18 % Chromat., 5.5 % Chromat.	Time= 240h, T= 80 °C , Yield given. Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys


 Rx-ID: 1858114 [View in Reaxys](#)

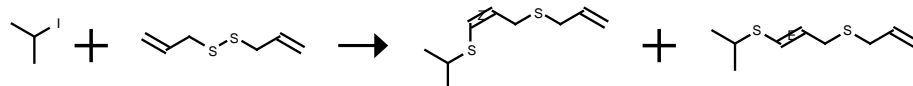
Yield	Conditions & References
20 % Chromat., 18 % Chromat., 5.5 % Chromat., 0.2 % Chromat.	Time= 240h, T= 80 °C , Further byproducts given Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys



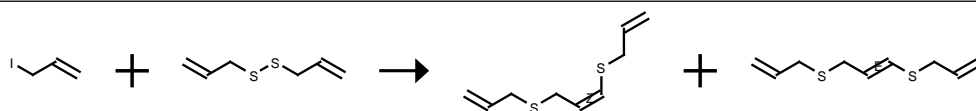



 Rx-ID: 29807444 [View in Reaxys](#)

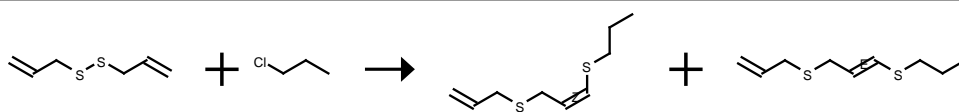
Yield	Conditions & References
	UV-irradiation, Inert atmosphere
	Tan, Kristine J.; Wille, Uta; White, Jonathan M. ; European Journal of Organic Chemistry; nb. 25; (2010); p. 4902 - 4911 View in Reaxys


 Rx-ID: 1605204 [View in Reaxys](#)

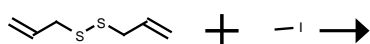
Yield	Conditions & References
	With potassium hydroxide in dimethyl sulfoxide, Time= 2h, T= 40 °C , Yield given. Title compound not separated from byproducts
	Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Sinegovskaya, L. M.; Trofimov, B. A. ; Journal of Organic Chemistry USSR (English Translation); vol. 22; nb. 5; (1986); p. 856 - 861; Zhurnal Organicheskoi Khimii; vol. 22; nb. 5; (1986); p. 957 - 964 View in Reaxys

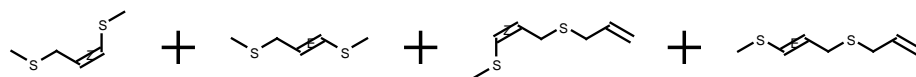

 Rx-ID: 1853349 [View in Reaxys](#)

Yield	Conditions & References
	With potassium hydroxide in dimethyl sulfoxide, Time= 2h, T= 40 °C , Title compound not separated from byproducts
	Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Sinegovskaya, L. M.; Trofimov, B. A. ; Journal of Organic Chemistry USSR (English Translation); vol. 22; nb. 5; (1986); p. 856 - 861; Zhurnal Organicheskoi Khimii; vol. 22; nb. 5; (1986); p. 957 - 964 View in Reaxys

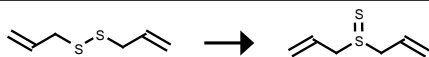

 Rx-ID: 1858098 [View in Reaxys](#)

Yield	Conditions & References
	With potassium hydroxide in dimethyl sulfoxide, Time= 2h, T= 40 °C , other propyl halides, Product distribution, Mechanism
	Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Sinegovskaya, L. M.; Trofimov, B. A. ; Zhurnal Organicheskoi Khimii; vol. 22; nb. 5; (1986); p. 957 - 964, 856 - 861 View in Reaxys

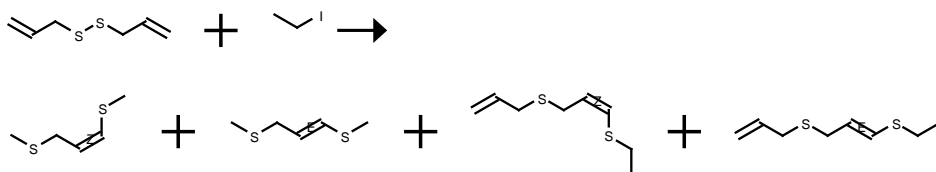



 Rx-ID: 3885480 [View in Reaxys](#)

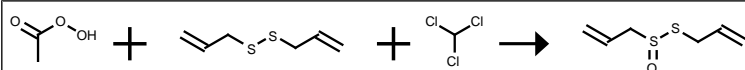
Yield	Conditions & References
	<p>With potassium hydroxide in dimethyl sulfoxide, Time= 2h, T= 40 °C , Title compound not separated from byproducts</p> <p>Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Sinegovskaya, L. M.; Trofimov, B. A.; Journal of Organic Chemistry USSR (English Translation); vol. 22; nb. 5; (1986); p. 856 - 861; Zhurnal Organicheskoi Khimii; vol. 22; nb. 5; (1986); p. 957 - 964 View in Reaxys</p>
	<p>With potassium hydroxide in dimethyl sulfoxide, Time= 2h, T= 40 °C , Yield given. Title compound not separated from byproducts</p> <p>Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Sinegovskaya, L. M.; Trofimov, B. A.; Journal of Organic Chemistry USSR (English Translation); vol. 22; nb. 5; (1986); p. 856 - 861; Zhurnal Organicheskoi Khimii; vol. 22; nb. 5; (1986); p. 957 - 964 View in Reaxys</p>


 Rx-ID: 11074621 [View in Reaxys](#)

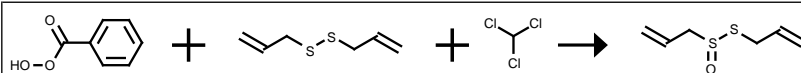
Yield	Conditions & References
	<p>in phosphate buffer, Time= 0.5h, T= 37 °C , pH= 7.4, Product distribution</p> <p>Iciek, Malgorzata; Marcinek, Joanna; Mleczko, Urszula; Wlodek, Lidia; European Journal of Pharmacology; vol. 569; nb. 1-2; (2007); p. 1 - 7 View in Reaxys</p>


 Rx-ID: 2851997 [View in Reaxys](#)

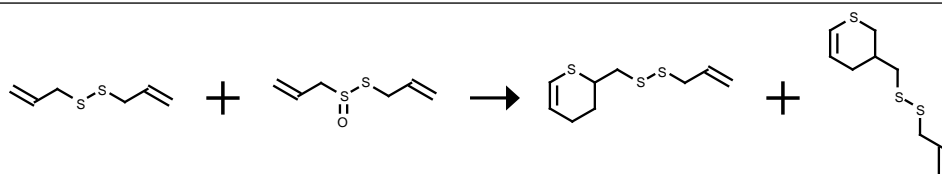
Yield	Conditions & References
	<p>With potassium hydroxide in dimethyl sulfoxide, Time= 2h, T= 60 °C , other temperatures; other hydroxides; other solvent; other reaction time, Product distribution</p> <p>Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Sinegovskaya, L. M.; Trofimov, B. A.; Zhurnal Organicheskoi Khimii; vol. 22; nb. 5; (1986); p. 957 - 964,856 - 861 View in Reaxys</p>


 Rx-ID: 63459 [View in Reaxys](#)

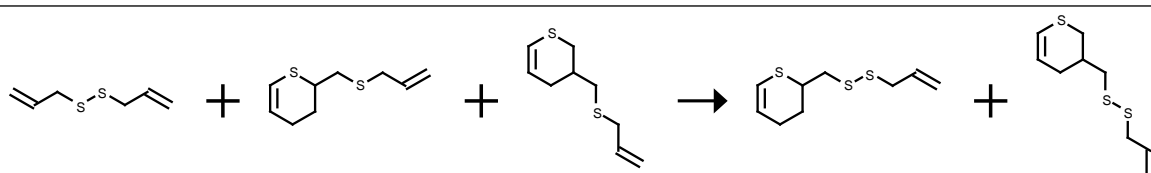
Yield	Conditions & References
	<p>Small; Bailey; Cavallito; Journal of the American Chemical Society; vol. 69; (1947); p. 1711; Journal of the American Chemical Society; vol. 71; (1949); p. 3566 View in Reaxys</p>


 Rx-ID: 103299 [View in Reaxys](#)

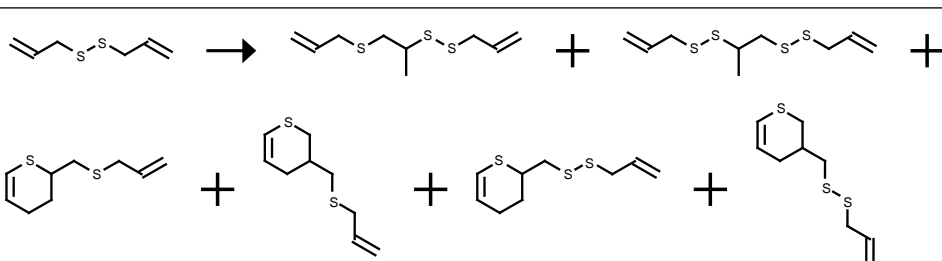
Yield	Conditions & References
	Small; Bailey; Cavallito ; Journal of the American Chemical Society; vol. 69; (1947); p. 1711; Journal of the American Chemical Society; vol. 71; (1949); p. 3566 View in Reaxys


 Rx-ID: 1858102 [View in Reaxys](#)

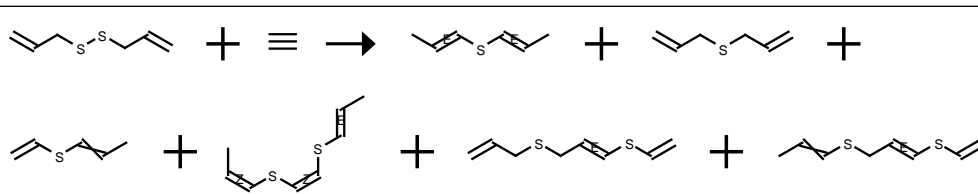
Yield	Conditions & References
0.22 % Chromat., 0.26 % Chromat.	Time= 0.25h, T= 100 °C , copolyolysis, Product distribution, Mechanism Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys


 Rx-ID: 1858104 [View in Reaxys](#)

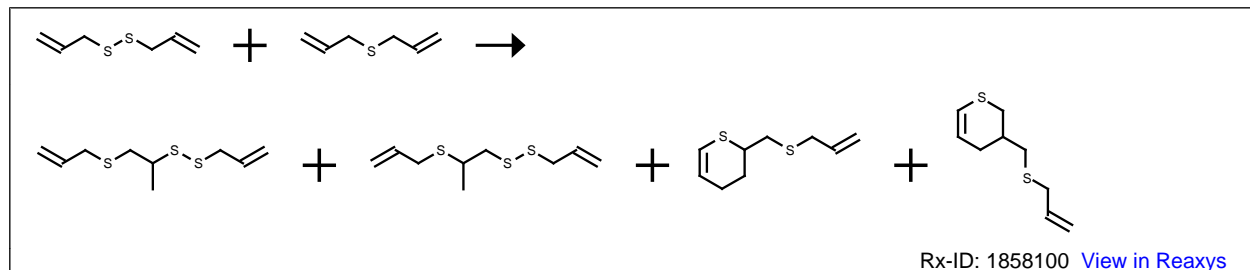
Yield	Conditions & References
	Time= 1.5h, T= 150 °C , copolyolysis, Product distribution, Mechanism Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys


 Rx-ID: 1858118 [View in Reaxys](#)

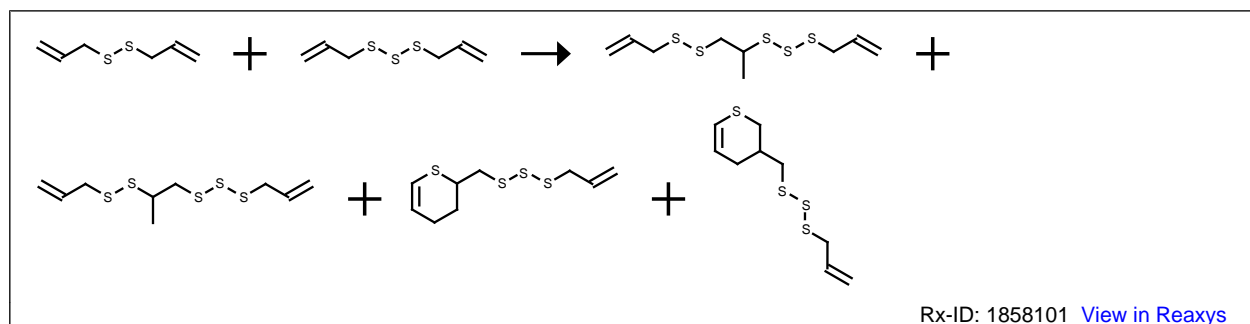
Yield	Conditions & References
5 %, 2 %, 2 %, 0.35 %, 0.53 %, 0.35 %	Time= 0.666667h, T= 150 °C , further times and temperatures, Product distribution, Mechanism Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P. ; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827 View in Reaxys


 Rx-ID: 3851006 [View in Reaxys](#)

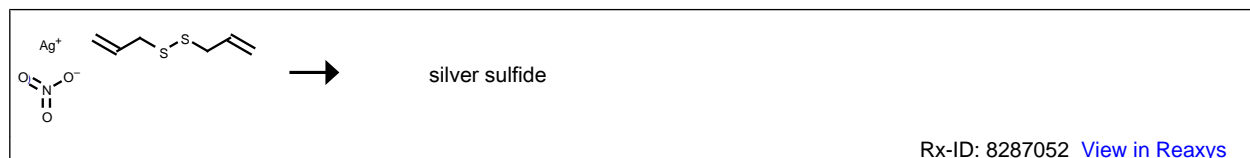
Yield	Conditions & References
	<p>With potassium hydroxide, hydroquinone in dimethyl sulfoxide, Time= 4h, T= 40 °C , p= 6840 - 13680Torr , other temperatures, times, amount of potassium hydroxide, inhibitors and the conc. of water in DMSO, Product distribution</p> <p>Amosova, S. V.; Nosyreva, V. V.; Musorin, G. K.; Sigalov, M. V.; Zhurnal Organicheskoi Khimii; vol. 25; nb. 2.1; (1989); p. 270 - 274,239 - 243</p> <p>View in Reaxys</p>



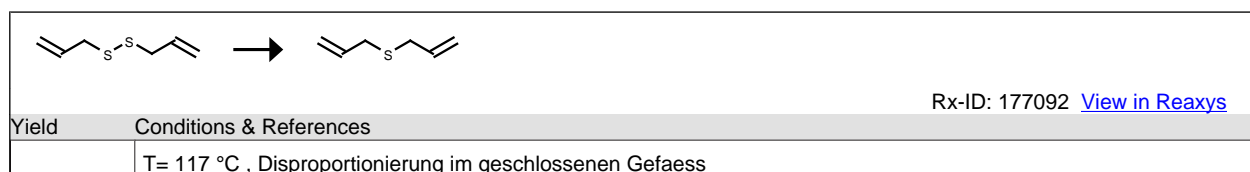
Yield	Conditions & References
	<p>Time= 0.0833333h, T= 150 °C , copolylysis, Product distribution, Mechanism</p> <p>Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P.; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827</p> <p>View in Reaxys</p>



Yield	Conditions & References
	<p>Time= 0.0833333h, T= 150 °C , copolylysis, Product distribution, Mechanism</p> <p>Block, Eric; Iyer, Rajeshwari; Grisoni, Serge; Saha, Chantu; Belman, Sidney; Lossing, Fred P.; Journal of the American Chemical Society; vol. 110; nb. 23; (1988); p. 7813 - 7827</p> <p>View in Reaxys</p>



Yield	Conditions & References
	<p>sich raschen</p> <p>Thomas; Riding; Journal of the Chemical Society; vol. 125; (1924); p. 2463</p> <p>View in Reaxys</p>



Yield	Conditions & References
	<p>T= 117 °C , Disproportionierung im geschlossenen Gefaess</p>

Tinjakowa et al.; Zhurnal Obshchei Khimii; **vol. 25**; (1955); p. 1387,1391; engl. Ausg. S. 1333, 1336
[View in Reaxys](#)

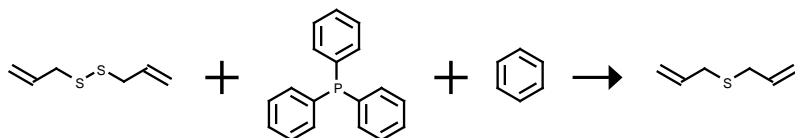


Rx-ID: 6952402 [View in Reaxys](#)

Yield Conditions & References

T= 120 °C

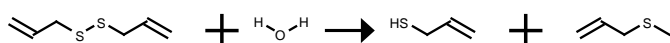
Challenger; Greenwood; Journal of the Chemical Society; (1950); p. 26,28, 29
[View in Reaxys](#)



Rx-ID: 737432 [View in Reaxys](#)

Yield Conditions & References

Challenger; Greenwood; Journal of the Chemical Society; (1950); p. 26,28, 29
[View in Reaxys](#)

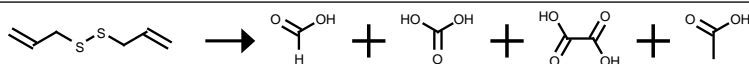


Rx-ID: 6952342 [View in Reaxys](#)

Yield Conditions & References

unter der Einw. von Penicillium brevicaula

Challenger; Greenwood; Biochemical Journal; **vol. 44**; (1949); p. 89
[View in Reaxys](#)

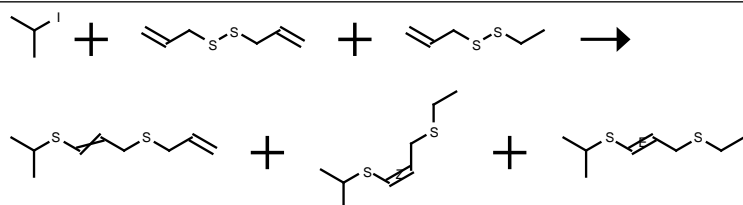


Rx-ID: 7058549 [View in Reaxys](#)

Yield Conditions & References

Oxydation

Blanksma; Recueil des Travaux Chimiques des Pays-Bas; **vol. 20**; (1901); p. 127; Recueil des Travaux Chimiques des Pays-Bas; **vol. 28**; (1909); p. 108
[View in Reaxys](#)

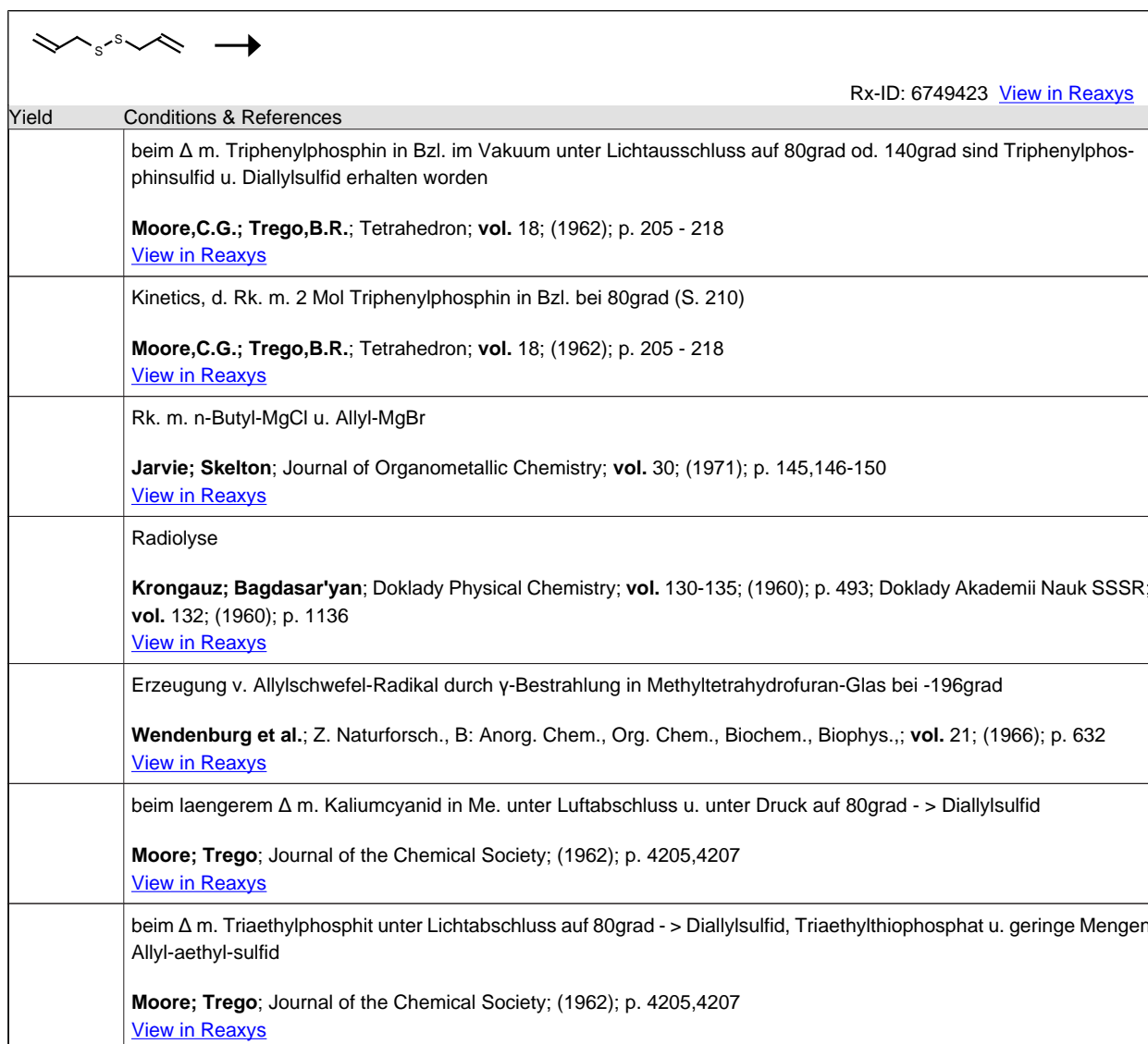
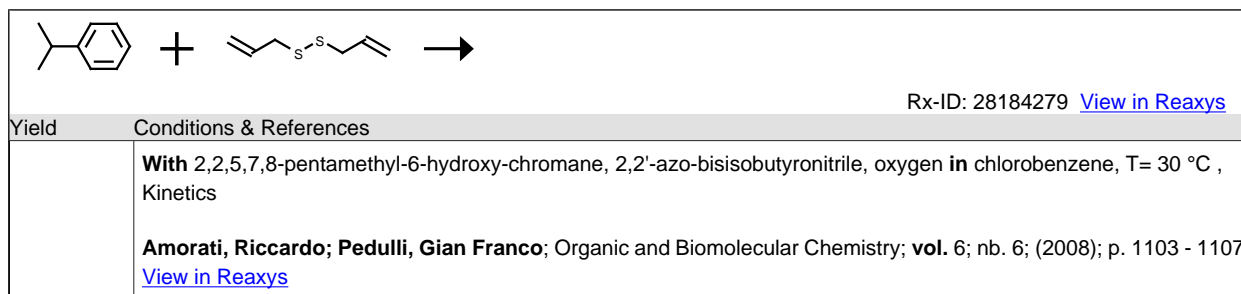
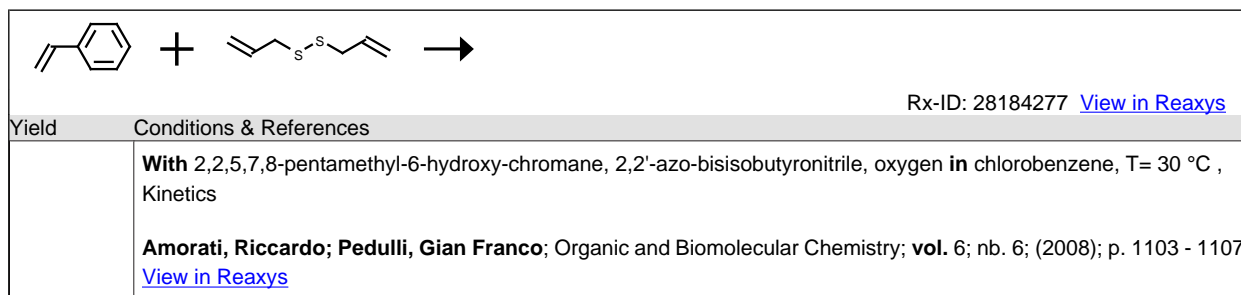


Rx-ID: 1605203 [View in Reaxys](#)

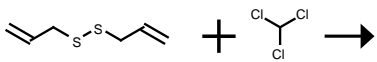
Yield Conditions & References

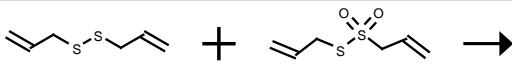
With potassium hydroxide, dimethyl sulfoxide, Time= 2h, T= 40 °C , other alkyl allyl disulfide


Amosova, S. V.; Nosyreva, V. V.; Miptakhova, L. M.; Klimchuk, A. F.; Sigalov, M. V.; Zhurnal Organicheskoi Khimii; **vol. 28**; nb. 8.1; (1992); p. 1569 - 1572,1249 - 1251
[View in Reaxys](#)

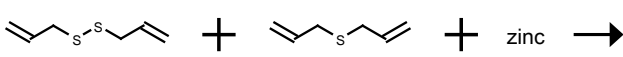


	<p>Rk. m. Diimid <intermediaer aus p-Toluolsulfonyl-hydrazin durch Δ in Aethylenglykol o. aus Azodicarbonsaeure (i. Orig. 'acetic acid')> -> Propylsulfid</p> <p>v.Tamelen et al.; Journal of the American Chemical Society; vol. 83; (1961); p. 4302 View in Reaxys</p>
	<p>Reduktion mit Triphenylphosphin, Kinetik, Geschw.-Konst.</p> <p>Hoefle,G.; Baldwin,J.E.; Journal of the American Chemical Society; vol. 93; (1971); p. 6307 - 6308 View in Reaxys</p>
	<p>Evans et al.; Chemistry and Industry (London, United Kingdom); (1960); p. 897 View in Reaxys</p>

		Rx-ID: 6755006 View in Reaxys
Yield	Conditions & References	
	<p>Die Loesung addiert 4 Atome Brom</p> <p>Thomas; Riding; Journal of the Chemical Society; vol. 125; (1924); p. 2217 View in Reaxys</p> <p>Blanksma; Recueil des Travaux Chimiques des Pays-Bas; vol. 20; (1901); p. 127; Recueil des Travaux Chimiques des Pays-Bas; vol. 28; (1909); p. 108 View in Reaxys</p>	

		Rx-ID: 6762248 View in Reaxys
Yield	Conditions & References	
	<p>T= 20 °C , Austausch eines Allylthiyl-Restes</p> <p>Grischko; Gur'janowa; Zhurnal Obshchei Khimii; vol. 29; (1959); p. 878,881;engl.Ausg.S.862,865; Chem.Abstr.; (1959); p. 13705 View in Reaxys</p>	
	<p>T= 20 °C , Austausch von Allylmercapto-Gruppen</p> <p>Grischko; Gur'janowa; Zhurnal Obshchei Khimii; vol. 29; (1959); p. 878,881;engl.Ausg.S.862,865; Chem.Abstr.; (1959); p. 13705 View in Reaxys</p>	

		Rx-ID: 6792710 View in Reaxys
Yield	Conditions & References	
	<p>Thomas; Riding; Journal of the Chemical Society; vol. 125; (1924); p. 2463 View in Reaxys</p> <p>Thomas; Jones; Journal of the Chemical Society; vol. 125; (1924); p. 2213 View in Reaxys</p>	

		Rx-ID: 6796142 View in Reaxys
Yield	Conditions & References	
	<p>Blanksma; Recueil des Travaux Chimiques des Pays-Bas; vol. 20; (1901); p. 127; Recueil des Travaux Chimiques des Pays-Bas; vol. 28; (1909); p. 108 View in Reaxys</p>	

