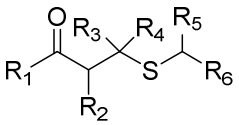
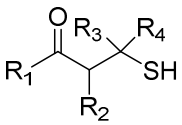
Claims

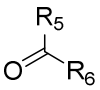
1. Use of a compound of formula (I) as a precursor for generating a compound of formula (II) and/or a compound of formula (III)



(I)



(II)



(III)

wherein

a) R_1 is selected from the group consisting of methyl, ethyl, n-propyl or iso-propyl~~H or C_{1-5}-alkyl~~; R_2 is H or C_{1-5}-alkyl; R_3 is H or C_{1-5}-alkyl; and R_4 is C_{1-6}-alkyl; or

b) R_1 and R_4 together with the carbon atoms to which they and R_2 are attached form a 5, 6 or 7 membered ~~ring, preferably a~~ hydrocarbon ring; R_2 is H or C_{1-4}-alkyl; and R_3 is H or C_{1-4}-alkyl; or

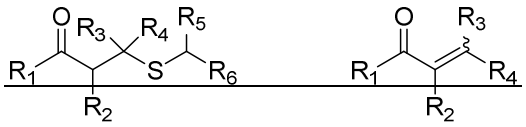
c) R_1 is H; R_2 is H; R_3 is H; and R_4 is methyl; or

d) R_1 is H; R_2 is H; R_3 is methyl; and R_4 is methyl;

and wherein

R_5 is H or a residue comprising 1 to 20 carbon atoms; and R_6 is a residue comprising 3 to 20 carbon atoms, wherein R_6 is a hydrocarbon residue.

~~2. A composition of matter comprising a compound of formula (I) and a compound of formula (A)~~



(I) (A)

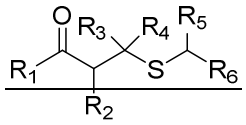
~~wherein R_1 is H or C_{1-5} alkyl; R_2 is H or C_{1-5} alkyl; R_3 is H or C_{1-5} alkyl; and R_4 is C_{1-6} alkyl; or~~

~~R_1 and R_4 together with the carbon atoms to which they and R_2 are attached form a 5, 6 or 7 membered ring, preferably a hydrocarbon ring; R_2 is H or C_{1-4} alkyl; and R_3 is H or C_{1-4} alkyl; and wherein~~

~~R_5 is H or a residue comprising 1 to 20 carbon atoms; and R_6 is a residue comprising 3 to 20 carbon atoms, wherein the amount of the compound of~~

~~formula (A) in relation to the total amount of the compound of formula (I) and the compound of formula (A) is 0.1 to 3.0 wt. %, preferably 0.3 to 1.2 wt. %, even more preferably 0.6 to 1.0 wt.-%.~~

~~3. A consumer product comprising a compound of formula (I)~~



(I)

~~wherein R_1 is H or C_{1-4} alkyl; R_2 is H or C_{1-4} alkyl; R_3 is H or C_{1-4} alkyl; and R_4 is C_{1-4} alkyl; or~~

~~R_1 and R_4 together with the carbon atoms to which they and R_2 are attached form a 5, 6 or 7 membered ring, preferably a hydrocarbon ring; R_2 is H or C_{1-4} alkyl; and R_3 is H or C_{1-4} alkyl; and wherein~~

~~R_5 is H or a residue comprising 1 to 20 carbon atoms; and R_6 is a residue comprising 6 to 20 carbon atoms; and wherein~~

~~the total combined number of carbon atoms of R_1, R_2, R_3 and R_4 is 1 to 4, preferably 1 to 3.~~

~~4.~~2. A use according to claim 1, wherein the total combined number of carbon atoms of R_1, R_2, R_3 and R_4 is 1 to 6, preferably 1 to 5, more preferably 1 to 4, even more preferably 1 to 3.

~~5. A use according to one of claims 1 or 4, wherein R_1 is H; R_2 is H; R_3 is H; and R_4 is methyl.~~

~~6. A use according to one of claims 1 or 4, wherein R_1 is H; R_2 is H; R_3 is methyl; and R_4 is methyl.~~

~~7.~~3. A use according to one of claims 1 or ~~4~~2, wherein R_1 is methyl; R_2 is H; R_3 is H; and R_4 is methyl.

~~8.~~4. A use according to one of claims 1 or ~~4~~2, wherein R_1 is methyl; R_2 is H; R_3 is methyl; and R_4 is methyl.

~~9.~~5. A use according to one of claims ~~4~~ 2 to ~~8~~4, wherein R_6 is a residue comprising 7 to 16 carbon atoms, preferably 8 to 14 carbon atoms, even more preferably 9 to 13 carbon atoms.

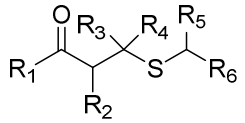
~~10.~~6. A use according to one of claims ~~4~~ 2 to ~~9~~5, wherein R_6 is an alkyl, alkenyl, or aromatic residue.

~~11.~~7. A use according to claim ~~4~~2, wherein the compound of formula (I) is selected from the group consisting of 3-(octylthio)butanal, 4-methyl-4-(octylthio)pentan-2-one, 3-(decylthio)butanal, 4-(decylthio)-4-methylpentan-2-one, 4-(dodecylthio)pentan-2-one, 4-(dodecylthio)-4-methylpentan-2-one, 4-(dodecylthio)-3-methylpentan-2-one, 3-(dodecylthio)-3-methylbutanal, 3-(dodecylthio)butanal, 3-(dodecylthio)-3-methylcyclohexan-1-one, 3-(dodecylthio)-3-methylcyclopentan-1-one, 3-(tetradecylthio)butanal and 4-methyl-4-(tetradecylthio)pentan-2-one, 4-methyl-4-((6-methyloctyl)thio) pentan-2-one, 3-((3-(4-isobutyl-2-methylphenyl)propyl)thio)butanal and 4-((3-(4-isobutyl-2-methylphenyl)propyl)thio)-4-methylpentan-2-one.

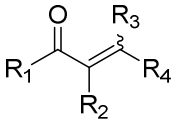
~~12. A consumer product comprising a composition of matter according to claim 2.~~

~~13. A consumer product according to claim 3 or 12, wherein the concentration of the compound of formula (I) is 0.1 % to 10 %, preferably 0.2 % to 5%, even more preferably 0.5 % to 3%.~~

8. A composition of matter comprising a compound of formula (I) and a compound of formula (A)



(I)



(A)

wherein

a) R_1 is selected from the group consisting of methyl, ethyl, n-propyl or iso-propyl; R_2 is H or C_{1-5}-alkyl; R_3 is H or C_{1-5}-alkyl; and R_4 is C_{1-6}-alkyl; or

b) R_1 and R_4 together with the carbon atoms to which they and R_2 are attached form a 5, 6 or 7 membered hydrocarbon ring; R_2 is H or C_{1-4}-alkyl; and R_3 is H or C_{1-4}-alkyl; or

c) R_1 is H; R_2 is H; R_3 is H; and R_4 is methyl; or

d) R_1 is H; R_2 is H; R_3 is methyl; and R_4 is methyl;

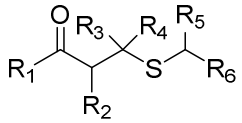
and wherein

R_5 is H or a residue comprising 1 to 20 carbon atoms; and R_6 is a residue comprising 3 to 20 carbon atoms, wherein R_6 is a hydrocarbon residue;

wherein the amount of the compound of formula (A) in relation to the total amount of the compound of formula (I) and the compound of formula (A) is 0.1 to 3.0 wt.-%, preferably 0.3 to 1.2 wt.-%, even more preferably 0.6 to 1.0 wt.-%.

9. A consumer product comprising a composition of matter according to claim 8, wherein the consumer product is a personal care product, a laundry care product or a household care product.

10. A consumer product comprising a compound of formula (I)



(I)

wherein

a) R_1 is selected from the group consisting of methyl, ethyl, n-propyl and iso-propyl; R_2 is H or C_{1-4} alkyl; R_3 is H or C_{1-4} alkyl; and R_4 is C_{1-4}-alkyl; or

b) R_1 and R_4 together with the carbon atoms to which they and R_2 are attached form a 5 or 6 membered hydrocarbon ring; R_2 is H or C_{1-4}-alkyl; and R_3 is H or C_{1-4}-alkyl; or

c) R_1 is H; R_2 is H; R_3 is H; and R_4 is methyl; or

d) R_1 is H; R_2 is H; R_3 is methyl; and R_4 is methyl;

and wherein

R_5 is H or a residue comprising 1 to 20 carbon atoms; and R_6 is a residue comprising 6 to 20 carbon atoms, wherein R_6 is a hydrocarbon residue; and wherein

the total combined number of carbon atoms of R_1, R_2, R_3 and R_4 is 1 to 4, preferably 1 to 3,

wherein the consumer product is a personal care product, a laundry care product or a household care product.

11. A consumer product according to claim 10, wherein the concentration of the compound of formula (I) is 0.1 wt.-% to 10 wt.-%, preferably 0.2 wt.-% to 5 wt.-%, even more preferably 0.5 wt.-% to 3 wt.-%.