

1	$[HO_2]C_3H_8+HO_2 \Rightarrow npropyl+H_2O_2 \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]$
2	$[HO_2]C_3H_8+HO_2 \Rightarrow npropyl+H_2O_2 \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]prod_1 \Rightarrow frag_1+OH \rightarrow [frag_1]$
3	$[HO_2]C_3H_8+HO_2 \Rightarrow npropyl+H_2O_2 \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]prod_1 \Rightarrow frag_1+OH \rightarrow [frag_1]frag_1 \Rightarrow vinoxy+CH_2O \rightarrow [vinoxy]vinoxy+O_2 \Rightarrow CH_2O+CO+OH \rightarrow [CO]$
4	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh+C_3H_8 \Rightarrow ipropylooh+ipropyl \rightarrow [ipropylooh]ipropylooh \Rightarrow ipropyloxy+OH \rightarrow [ipropyloxy]$
5	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh \Rightarrow HO_2+C_3H_6 \rightarrow [HO_2]C_3H_8+HO_2 \Rightarrow npropyl+H_2O_2 \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]$
6	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh \Rightarrow HO_2+C_3H_6 \rightarrow [HO_2]C_3H_8+HO_2 \Rightarrow npropyl+H_2O_2 \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]prod_1 \Rightarrow frag_1+OH \rightarrow [frag_1]$
7	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh \Rightarrow HO_2+C_3H_6 \rightarrow [HO_2]C_3H_8+HO_2 \Rightarrow npropyl+H_2O_2 \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]prod_1 \Rightarrow frag_1+OH \rightarrow [frag_1]frag_1 \Rightarrow vinoxy+CH_2O \rightarrow [vinoxy]vinoxy+O_2 \Rightarrow CH_2O+CO+OH \rightarrow [CO]$
8	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [H_2O_2]H_2O_2(+M) \Rightarrow OH+OH(+M) \rightarrow [OH]$
9	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh \Rightarrow HO_2+C_3H_6 \rightarrow [C_3H_6]C_3H_6+HO_2 \Rightarrow propen1ol+OH \rightarrow [propen1ol]$
10	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [H_2O_2]H_2O_2+H \Rightarrow H_2O+OH \rightarrow [H_2O]$
11	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh \Rightarrow HO_2+C_3H_6 \rightarrow [C_3H_6]HO_2+C_3H_6 \Rightarrow OH+propoxide \rightarrow [propoxide]$
12	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh \Rightarrow HO_2+C_3H_6 \rightarrow [C_3H_6]C_3H_6+OH \Rightarrow allyl+H_2O \rightarrow [allyl]allyl+HO_2 \Rightarrow prod_2 \rightarrow [prod_2]prod_2 \Rightarrow allyloxy+OH \rightarrow [allyloxy]$
13	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [H_2O_2]H_2O_2+OH \Rightarrow HO_2+H_2O \rightarrow [HO_2]CH_3OO+HO_2 \Rightarrow CH_3OOH+O_2 \rightarrow [CH_3OOH]CH_3OOH \Rightarrow CH_3O+OH \rightarrow [CH_3O]$
14	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh+C_3H_8 \Rightarrow ipropylooh+npropyl \rightarrow [ipropylooh]ipropylooh \Rightarrow ipropyloxy+OH \rightarrow [ipropyloxy]$
15	$[HO_2]C_3H_8+HO_2 \Rightarrow npropyl+H_2O_2 \rightarrow [H_2O_2]H_2O_2(+M) \Rightarrow OH+OH(+M) \rightarrow [OH]$
16	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [H_2O_2]H_2O_2+acetylperoxy \Rightarrow HO_2+CH_3CO_3H \rightarrow [CH_3CO_3H]CH_3CO_3H \Rightarrow acetyloxy+OH \rightarrow [acetyloxy]$
17	$[HO_2]C_3H_8+HO_2 \Rightarrow npropyl+H_2O_2 \rightarrow [npropyl]npropylooh \Rightarrow OH+propoxide \rightarrow [propoxide]$
18	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh+C_3H_8 \Rightarrow ipropylooh+npropyl \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]$

19	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh+C_3H_8 \Rightarrow ipropylooh+npropyl \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]prod_1 \Rightarrow frag_1+OH \rightarrow [frag_1]$
20	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh+C_3H_8 \Rightarrow ipropylooh+npropyl \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]prod_1 \Rightarrow frag_1+OH \rightarrow [frag_1]frag_1 \Rightarrow vinoxy+CH_2O \rightarrow [vinoxy]vinoxy+O_2 \Rightarrow CH_2O+CO+OH \rightarrow [CO]$
21	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh \Rightarrow QOOH_3 \rightarrow [QOOH_3]QOOH_3 \Rightarrow OH+propoxide \rightarrow [propoxide]$
22	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [H_2O_2]H_2O_2(+M) \Rightarrow OH+OH(+M) \rightarrow [OH]C_3H_8+OH \Rightarrow npropyl+H_2O \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]$
23	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [H_2O_2]H_2O_2(+M) \Rightarrow OH+OH(+M) \rightarrow [OH]C_3H_8+OH \Rightarrow npropyl+H_2O \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]prod_1 \Rightarrow frag_1+OH \rightarrow [frag_1]$
24	$[HO_2]C_3H_8+HO_2 \Rightarrow npropyl+H_2O_2 \rightarrow [npropyl]npropylooh \Rightarrow QOOH_2 \rightarrow [QOOH_2]QOOH_2 \Rightarrow OH+propoxide \rightarrow [propoxide]$
25	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh \Rightarrow OH+propoxide \rightarrow [propoxide]$
26	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh \Rightarrow HO_2+C_3H_6 \rightarrow [C_3H_6]HO_2+C_3H_6 \Rightarrow QOOH_2 \rightarrow [QOOH_2]QOOH_2 \Rightarrow OH+propoxide \rightarrow [propoxide]$
27	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]O_2+ipropyl \Rightarrow HO_2+C_3H_6 \rightarrow [HO_2]C_3H_8+HO_2 \Rightarrow npropyl+H_2O_2 \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]$
28	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]O_2+ipropyl \Rightarrow HO_2+C_3H_6 \rightarrow [HO_2]C_3H_8+HO_2 \Rightarrow npropyl+H_2O_2 \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]prod_1 \Rightarrow frag_1+OH \rightarrow [frag_1]$
29	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]O_2+ipropyl \Rightarrow HO_2+C_3H_6 \rightarrow [HO_2]C_3H_8+HO_2 \Rightarrow npropyl+H_2O_2 \rightarrow [npropyl]well_1 \Rightarrow OH+prod_1 \rightarrow [prod_1]prod_1 \Rightarrow frag_1+OH \rightarrow [frag_1]frag_1 \Rightarrow vinoxy+CH_2O \rightarrow [vinoxy]vinoxy+O_2 \Rightarrow CH_2O+CO+OH \rightarrow [CO]$
30	$[HO_2]C_3H_8+HO_2 \Rightarrow npropyl+H_2O_2 \rightarrow [H_2O_2]H_2O_2+H \Rightarrow H_2O+OH \rightarrow [H_2O]$
31	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh \Rightarrow HO_2+C_3H_6 \rightarrow [HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh+C_3H_8 \Rightarrow ipropylooh+ipropyl \rightarrow [ipropylooh]ipropylooh \Rightarrow ipropyloxy+OH \rightarrow [ipropyloxy]$
32	$[HO_2]C_3H_8+HO_2 \Rightarrow ipropyl+H_2O_2 \rightarrow [ipropyl]ipropylooh \Rightarrow HO_2+C_3H_6 \rightarrow [C_3H_6]C_3H_6+OH \Rightarrow allyl+H_2O \rightarrow [allyl]allyl+HO_2 \Rightarrow allyloxy+OH \rightarrow [allyloxy]$

33	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[H_2O_2]H_2O_2(+M)=>OH+OH(+M)--$ $>[OH]C_3H_8+OH=>npropyl+H_2O-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]frag_1=>vinoxy+CH_2O--$ $>[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CO]$
34	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]O_2+ipropyl=>HO_2+C_3H_6--$ $>[C_3H_6]C_3H_6+HO_2=>propen1ol+OH-->[propen1ol]$
35	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]well_1=>OH+prod_1-->[prod_1]$
36	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]$
37	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]frag_1=>vinoxy+CH_2O--$ $>[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CO]$
38	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[H_2O_2]H_2O_2(+M)=>OH+OH(+M)-->[OH]$
39	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[C_3H_6]C_3H_6+HO_2=>allyl+H_2O_2-->[allyl]allyl+HO_2=>prod_2--$ $>[prod_2]prod_2=>allyloxy+OH-->[allyloxy]$
40	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[H_2O_2]H_2O_2+OH=>HO_2+H_2O--$ $>[HO_2]CH_3OO+HO_2=>CH_3OOH+O_2-->[CH_3OOH]CH_3OOH=>CH_3O+OH-->[CH_3O]$
41	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]O_2+ipropyl=>OH+propoxide-->[propoxide]$
42	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[H_2O_2]H_2O_2+OH=>HO_2+H_2O--$ $>[HO_2]ipropyloo+HO_2=>ipropylooh+O_2-->[ipropylooh]ipropylooh=>ipropyloxy+OH--$ $>[ipropyloxy]$
43	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo+C_3H_8=>ipropylooh+ipropyl--$ $>[ipropylooh]ipropylooh=>ipropyloxy+OH-->[ipropyloxy]ipropyloxy=>CH_3+acetaldehyde--$ $>[CH_3]CH_3OO+C_3H_8=>CH_3OOH+ipropyl-->[CH_3OOH]CH_3OOH=>CH_3O+OH-->[CH_3O]$

44	$[\text{HO}_2]\text{C}_3\text{H}_8+\text{HO}_2\Rightarrow\text{ipropyl}+\text{H}_2\text{O}_2\rightarrow[\text{ipropyl}]\text{ipropylOO}\Rightarrow\text{HO}_2+\text{C}_3\text{H}_6--$ $>[\text{HO}_2]\text{C}_3\text{H}_8+\text{HO}_2\Rightarrow\text{ipropyl}+\text{H}_2\text{O}_2\rightarrow[\text{ipropyl}]\text{ipropylOO}\Rightarrow\text{HO}_2+\text{C}_3\text{H}_6--$ $>[\text{C}_3\text{H}_6]\text{C}_3\text{H}_6+\text{HO}_2\Rightarrow\text{propen1ol}+\text{OH}\rightarrow[\text{propen1ol}]$
45	$[\text{HO}_2]\text{C}_3\text{H}_8+\text{HO}_2\Rightarrow\text{npropyl}+\text{H}_2\text{O}_2\rightarrow[\text{H}_2\text{O}_2]\text{H}_2\text{O}_2+\text{acetylperoxy}\Rightarrow\text{HO}_2+\text{CH}_3\text{CO}_3\text{H}--$ $>[\text{CH}_3\text{CO}_3\text{H}]\text{CH}_3\text{CO}_3\text{H}\Rightarrow\text{acetyloxy}+\text{OH}\rightarrow[\text{acetyloxy}]$
46	$[\text{HO}_2]\text{C}_3\text{H}_8+\text{HO}_2\Rightarrow\text{npropyl}+\text{H}_2\text{O}_2\rightarrow[\text{npropyl}]\text{well}_1\Rightarrow\text{OH}+\text{prod}_1--$ $>[\text{prod}_1]\text{prod}_1\Rightarrow\text{frag}_1+\text{OH}\rightarrow[\text{frag}_1]\text{frag}_1\Rightarrow\text{vinoxy}+\text{CH}_2\text{O}--$ $>[\text{CH}_2\text{O}]\text{CH}_3\text{OO}+\text{CH}_2\text{O}\Rightarrow\text{CH}_3\text{OOH}+\text{HCO}\rightarrow[\text{CH}_3\text{OOH}]\text{CH}_3\text{OOH}\Rightarrow\text{CH}_3\text{O}+\text{OH}\rightarrow[\text{CH}_3\text{O}]$
47	$[\text{HO}_2]\text{C}_3\text{H}_8+\text{HO}_2\Rightarrow\text{ipropyl}+\text{H}_2\text{O}_2\rightarrow[\text{H}_2\text{O}_2]\text{H}_2\text{O}_2(+\text{M})\Rightarrow\text{OH}+\text{OH}(+\text{M})--$ $>[\text{OH}]\text{C}_3\text{H}_8+\text{OH}\Rightarrow\text{npropyl}+\text{H}_2\text{O}\rightarrow[\text{npropyl}]\text{npropylOO}\Rightarrow\text{OH}+\text{propoxide}\rightarrow[\text{propoxide}]$
48	$[\text{HO}_2]\text{C}_3\text{H}_8+\text{HO}_2\Rightarrow\text{npropyl}+\text{H}_2\text{O}_2\rightarrow[\text{npropyl}]\text{well}_1\Rightarrow\text{OH}+\text{prod}_1--$ $>[\text{prod}_1]\text{prod}_1\Rightarrow\text{frag}_1+\text{OH}\rightarrow[\text{frag}_1]\text{frag}_1\Rightarrow\text{vinoxy}+\text{CH}_2\text{O}--$ $>[\text{CH}_2\text{O}]\text{CH}_2\text{O}+\text{OH}\Rightarrow\text{HCO}+\text{H}_2\text{O}\rightarrow[\text{HCO}]\text{HCO}+\text{O}_2\Rightarrow\text{CO}+\text{HO}_2--$ $>[\text{HO}_2]\text{CH}_3\text{OO}+\text{HO}_2\Rightarrow\text{CH}_3\text{OOH}+\text{O}_2\rightarrow[\text{CH}_3\text{OOH}]\text{CH}_3\text{OOH}\Rightarrow\text{CH}_3\text{O}+\text{OH}\rightarrow[\text{CH}_3\text{O}]$
49	$[\text{HO}_2]\text{C}_3\text{H}_8+\text{HO}_2\Rightarrow\text{ipropyl}+\text{H}_2\text{O}_2\rightarrow[\text{H}_2\text{O}_2]\text{H}_2\text{O}_2+\text{OH}\Rightarrow\text{HO}_2+\text{H}_2\text{O}--$ $>[\text{HO}_2]\text{npropylOO}+\text{HO}_2\Rightarrow\text{npropylOOH}+\text{O}_2\rightarrow[\text{npropylOOH}]\text{npropylOOH}\Rightarrow\text{npropyloxy}+\text{OH}--$ $>[\text{npropyloxy}]$
50	$[\text{HO}_2]\text{C}_3\text{H}_8+\text{HO}_2\Rightarrow\text{npropyl}+\text{H}_2\text{O}_2\rightarrow[\text{npropyl}]\text{well}_1\Rightarrow\text{HO}_2+\text{prod}_2--$ $>[\text{prod}_2]\text{prod}_2\Rightarrow\text{allyloxy}+\text{OH}\rightarrow[\text{allyloxy}]$
51	$[\text{HO}_2]\text{C}_3\text{H}_8+\text{HO}_2\Rightarrow\text{npropyl}+\text{H}_2\text{O}_2\rightarrow[\text{npropyl}]\text{npropylOO}+\text{C}_3\text{H}_8\Rightarrow\text{npropylOOH}+\text{npropyl}--$ $>[\text{npropylOOH}]\text{npropylOOH}\Rightarrow\text{npropyloxy}+\text{OH}\rightarrow[\text{npropyloxy}]$
52	$[\text{HO}_2]\text{C}_3\text{H}_8+\text{HO}_2\Rightarrow\text{ipropyl}+\text{H}_2\text{O}_2\rightarrow[\text{ipropyl}]\text{O}_2+\text{ipropyl}\Rightarrow\text{HO}_2+\text{C}_3\text{H}_6--$ $>[\text{C}_3\text{H}_6]\text{HO}_2+\text{C}_3\text{H}_6\Rightarrow\text{OH}+\text{propoxide}\rightarrow[\text{propoxide}]$
53	$[\text{HO}_2]\text{C}_3\text{H}_8+\text{HO}_2\Rightarrow\text{npropyl}+\text{H}_2\text{O}_2\rightarrow[\text{npropyl}]\text{well}_1\Rightarrow\text{OH}+\text{prod}_1--$ $>[\text{prod}_1]\text{prod}_1\Rightarrow\text{frag}_1+\text{OH}\rightarrow[\text{frag}_1]\text{frag}_1\Rightarrow\text{vinoxy}+\text{CH}_2\text{O}--$ $>[\text{CH}_2\text{O}]\text{CH}_3\text{CH}_2\text{OO}+\text{CH}_2\text{O}\Rightarrow\text{CH}_3\text{CH}_2\text{OOH}+\text{HCO}\rightarrow[\text{CH}_3\text{CH}_2\text{OOH}]\text{CH}_3\text{CH}_2\text{OOH}\Rightarrow\text{ethoxy}+\text{OH}--$ $\rightarrow[\text{ethoxy}]$
54	$[\text{HO}_2]\text{C}_3\text{H}_8+\text{HO}_2\Rightarrow\text{ipropyl}+\text{H}_2\text{O}_2\rightarrow[\text{ipropyl}]\text{O}_2+\text{ipropyl}\Rightarrow\text{HO}_2+\text{C}_3\text{H}_6--$ $>[\text{C}_3\text{H}_6]\text{C}_3\text{H}_6+\text{OH}\Rightarrow\text{allyl}+\text{H}_2\text{O}\rightarrow[\text{allyl}]\text{allyl}+\text{HO}_2\Rightarrow\text{prod}_2\rightarrow[\text{prod}_2]\text{prod}_2\Rightarrow\text{allyloxy}+\text{OH}--$ $\rightarrow[\text{allyloxy}]$
55	$[\text{HO}_2]\text{C}_3\text{H}_8+\text{HO}_2\Rightarrow\text{npropyl}+\text{H}_2\text{O}_2\rightarrow[\text{npropyl}]\text{well}_1\Rightarrow\text{OH}+\text{prod}_1--$ $>[\text{prod}_1]\text{prod}_1\Rightarrow\text{frag}_1+\text{OH}\rightarrow[\text{frag}_1]\text{frag}_1\Rightarrow\text{vinoxy}+\text{CH}_2\text{O}--$ $>[\text{CH}_2\text{O}]\text{ipropylOO}+\text{CH}_2\text{O}\Rightarrow\text{ipropylOOH}+\text{HCO}\rightarrow[\text{ipropylOOH}]\text{ipropylOOH}\Rightarrow\text{ipropyloxy}+\text{OH}--$ $>[\text{ipropyloxy}]$

56	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[H_2O_2]H_2O_2+OH=>HO_2+H_2O--$ $>[HO_2]CH_3CH_2OO+HO_2=>CH_3CH_2OOH+O_2-->[CH_3CH_2OOH]CH_3CH_2OOH=>ethoxy+OH--$ $>[ethoxy]$
57	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]npropyloo+C_3H_8=>npropylooh+ipropyl--$ $>[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]$
58	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]frag_1=>vinoxy+CH_2O--$ $>[CH_2O]npropyloo+CH_2O=>npropylooh+HCO--$ $>[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]$
59	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[H_2O_2]H_2O_2(+M)=>OH+OH(+M)--$ $>[OH]C_3H_8+OH=>npropyl+H_2O-->[npropyl]well_1=>OH+prod_1-->[prod_1]$
60	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[H_2O_2]H_2O_2(+M)=>OH+OH(+M)--$ $>[OH]C_3H_8+OH=>npropyl+H_2O-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]$
61	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[H_2O_2]H_2O_2+H=>H_2O+OH-->[H_2O]$
62	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[C_3H_6]HO_2+C_3H_6=>OH+propoxide-->[propoxide]$
63	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[H_2O_2]H_2O_2(+M)=>OH+OH(+M)--$ $>[OH]C_3H_6+OH=>allyl+H_2O-->[allyl]allyl+HO_2=>prod_2-->[prod_2]prod_2=>allyloxy+OH--$ $>[allyloxy]$
64	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[C_3H_6]C_3H_6+OH=>allyl+H_2O-->[allyl]allyl+HO_2=>prod_2-->[prod_2]prod_2=>allyloxy+OH--$ $>[allyloxy]$
65	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[C_3H_6]C_3H_6+HO_2=>allyl+H_2O_2-->[allyl]allyl+HO_2=>allyloxy+OH-->[allyloxy]$
66	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]npropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]well_1=>OH+prod_1-->[prod_1]$
67	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]npropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]$

68	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]npropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]frag_1=>vinoxy+CH_2O--$ $>[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CO]$
69	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[H_2O_2]H_2O_2+acetylperoxy=>HO_2+CH_3CO_3H--$ $>[CH_3CO_3H]CH_3CO_3H=>acetyloxy+OH-->[acetyloxy]acetyloxy+M=>CH_3+CO_2+M--$ $>[CH_3]CH_3OO+HO_2=>CH_3OOH+O_2-->[CH_3OOH]CH_3OOH=>CH_3O+OH-->[CH_3O]$
70	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[H_2O_2]H_2O_2+OH=>HO_2+H_2O--$ $>[HO_2]CH_3OO+HO_2=>CH_3OOH+O_2-->[CH_3OOH]CH_3OOH=>CH_3O+OH-->[CH_3O]$
71	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo+C_3H_8=>ipropylooh+ipropyl--$ $>[ipropylooh]ipropylooh=>ipropyloxy+OH-->[ipropyloxy]ipropyloxy=>CH_3+acetaldehyde--$ $>[CH_3]CH_3OO+C_3H_8=>CH_3OOH+npropyl-->[npropyl]well_1=>OH+prod_1-->[prod_1]$
72	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo+C_3H_8=>ipropylooh+ipropyl--$ $>[ipropylooh]ipropylooh=>ipropyloxy+OH-->[ipropyloxy]ipropyloxy=>CH_3+acetaldehyde--$ $>[CH_3]CH_3OO+C_3H_8=>CH_3OOH+npropyl-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]$
73	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo+C_3H_8=>ipropylooh+ipropyl--$ $>[ipropylooh]ipropylooh=>ipropyloxy+OH-->[ipropyloxy]ipropyloxy=>CH_3+acetaldehyde--$ $>[CH_3]CH_3OO+C_3H_8=>CH_3OOH+npropyl-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]frag_1=>vinoxy+CH_2O--$ $>[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CO]$
74	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]O_2+QOOH_1=>OH+OH+frag_1-->[frag_1]$
75	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]O_2+QOOH_1=>OH+OH+frag_1--$ $>[frag_1]frag_1=>vinoxy+CH_2O-->[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CO]$
76	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]frag_1=>vinoxy+CH_2O--$ $>[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CH_2O]CH_3OO+CH_2O=>CH_3OOH+HCO--$ $>[CH_3OOH]CH_3OOH=>CH_3O+OH-->[CH_3O]$

77	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[H_2O_2]H_2O_2(+M)=>OH+OH(+M)--$ $>[OH]C_3H_8+OH=>npropyl+H_2O-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]frag_1=>vinoxy+CH_2O--$ $>[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CO]$
78	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]frag_1=>vinoxy+CH_2O--$ $>[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CH_2O]CH_2O+OH=>HCO+H_2O--$ $>[HCO]HCO+O_2=>CO+HO_2-->[HO_2]CH_3OO+HO_2=>CH_3OOH+O_2--$ $>[CH_3OOH]CH_3OOH=>CH_3O+OH-->[CH_3O]$
79	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[H_2O_2]H_2O_2(+M)=>OH+OH(+M)--$ $>[OH]C_3H_8+OH=>npropyl+H_2O-->[npropyl]npropyloo+HO_2=>npropylooh+O_2--$ $>[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]$
80	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[H_2O_2]H_2O_2+acetylperoxy=>HO_2+CH_3CO_3H--$ $>[CH_3CO_3H]CH_3CO_3H=>acetyloxy+OH-->[acetyloxy]$
81	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[H_2O_2]H_2O_2(+M)=>OH+OH(+M)-->[OH]$
82	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo+C_3H_8=>ipropylooh+npropyl--$ $>[ipropylooh]ipropylooh=>ipropyloxy+OH-->[ipropyloxy]$
83	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]npropyloo=>OH+propoxide-->[propoxide]$
84	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[C_3H_6]H+C_3H_6=>npropyl-->[npropyl]well_1=>OH+prod_1-->[prod_1]$
85	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[C_3H_6]H+C_3H_6=>npropyl-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]$
86	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]frag_1=>vinoxy+CH_2O--$ $>[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CH_2O]CH_3CH_2OO+CH_2O=>CH_3CH_2OOH+HCO--$ $>[CH_3CH_2OOH]CH_3CH_2OOH=>ethoxy+OH-->[ethoxy]$
87	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[H_2O_2]H_2O_2+OH=>HO_2+H_2O--$ $>[HO_2]HO_2+HO_2=>H_2O_2+O_2-->[H_2O_2]H_2O_2(+M)=>OH+OH(+M)-->[OH]$

88	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]frag_1=>vinoxy+CH_2O--$ $>[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CH_2O]ipropyloo+CH_2O=>ipropylooh+HCO--$ $>[ipropylooh]ipropylooh=>ipropyloxy+OH-->[ipropyloxy]$
89	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]npropyloo=>HO_2+C_3H_6--$ $>[C_3H_6]C_3H_6+HO_2=>propen1ol+OH-->[propen1ol]$
90	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[C_3H_6]H+C_3H_6=>npropyl-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]frag_1=>vinoxy+CH_2O--$ $>[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CO]$
91	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[H_2O_2]H_2O_2(+M)=>OH+OH(+M)--$ $>[OH]C_3H_8+OH=>npropyl+H_2O-->[npropyl]npropyloo+CH_2O=>npropylooh+HCO--$ $>[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]$
92	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]O_2+ipropyl=>HO_2+C_3H_6--$ $>[C_3H_6]HO_2+C_3H_6=>QOOH_2-->[QOOH_2]QOOH_2=>OH+propoxide-->[propoxide]$
93	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[npropyl]well_1=>OH+prod_1--$ $>[prod_1]prod_1=>frag_1+OH-->[frag_1]frag_1=>vinoxy+CH_2O--$ $>[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CH_2O]npropyloo+CH_2O=>npropylooh+HCO--$ $>[npropylooh]npropylooh=>npropyloxy+OH-->[npropyloxy]$
94	$[HO_2]C_3H_8+HO_2=>npropyl+H_2O_2-->[H_2O_2]H_2O_2+OH=>HO_2+H_2O--$ $>[HO_2]ipropyloo+HO_2=>ipropylooh+O_2-->[ipropylooh]ipropylooh=>ipropyloxy+OH--$ $>[ipropyloxy]$
95	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo+C_3H_8=>ipropylooh+npropyl--$ $>[npropyl]well_1=>OH+prod_1-->[prod_1]$
96	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo+C_3H_8=>ipropylooh+npropyl--$ $>[npropyl]well_1=>OH+prod_1-->[prod_1]prod_1=>frag_1+OH-->[frag_1]$
97	$[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo=>HO_2+C_3H_6--$ $>[HO_2]C_3H_8+HO_2=>ipropyl+H_2O_2-->[ipropyl]ipropyloo+C_3H_8=>ipropylooh+npropyl--$ $>[npropyl]well_1=>OH+prod_1-->[prod_1]prod_1=>frag_1+OH--$ $>[frag_1]frag_1=>vinoxy+CH_2O-->[vinoxy]vinoxy+O_2=>CH_2O+CO+OH-->[CO]$

98	$[\text{HO}_2]\text{C}_3\text{H}_8 + \text{HO}_2 \Rightarrow \text{ipropyl} + \text{H}_2\text{O}_2 \rightarrow [\text{H}_2\text{O}_2]\text{H}_2\text{O}_2 + \text{OH} \Rightarrow \text{HO}_2 + \text{H}_2\text{O} \rightarrow [\text{HO}_2]\text{allyl} + \text{HO}_2 \Rightarrow \text{prod_2} \rightarrow [\text{prod_2}]\text{prod_2} \Rightarrow \text{allyloxy} + \text{OH} \rightarrow [\text{allyloxy}]$
99	$[\text{HO}_2]\text{C}_3\text{H}_8 + \text{HO}_2 \Rightarrow \text{ipropyl} + \text{H}_2\text{O}_2 \rightarrow [\text{ipropyl}]\text{ipropylooh} + \text{C}_3\text{H}_8 \Rightarrow \text{ipropylooh} + \text{ipropyl} \rightarrow [\text{ipropylooh}]\text{ipropylooh} \Rightarrow \text{ipropyloxy} + \text{OH} \rightarrow [\text{ipropyloxy}]\text{ipropyloxy} \Rightarrow \text{CH}_3 + \text{acetaldehyde} \rightarrow [\text{CH}_3]\text{CH}_3\text{OO} + \text{C}_3\text{H}_8 \Rightarrow \text{CH}_3\text{OOH} + \text{npropyl} \rightarrow [\text{CH}_3\text{OOH}]\text{CH}_3\text{OOH} \Rightarrow \text{CH}_3\text{O} + \text{OH} \rightarrow [\text{CH}_3\text{O}]$
100	$[\text{HO}_2]\text{C}_3\text{H}_8 + \text{HO}_2 \Rightarrow \text{ipropyl} + \text{H}_2\text{O}_2 \rightarrow [\text{H}_2\text{O}_2]\text{H}_2\text{O}_2 + \text{OH} \Rightarrow \text{HO}_2 + \text{H}_2\text{O} \rightarrow [\text{HO}_2]\text{C}_3\text{H}_6 + \text{HO}_2 \Rightarrow \text{propen1ol} + \text{OH} \rightarrow [\text{propen1ol}]$