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|  | Reaction | Probability | SOHR Index | Chemkin Index |
| 1 | RH+O2=>nR+HO2 | 1.00E+00 | 726 | 370 |
| 2 | RH+O2=>iR+HO2 | 1.00E+00 | 724 | 369 |
| 3 | RH+OH=>nR+H2O | 2.61E-01 | 736 | 375 |
| 4 | RH+OH=>iR+H2O | 2.61E-01 | 738 | 376 |
| 5 | RH+HO2=>iR+H2O2 | 1.23E-01 | 740 | 377 |
| 6 | iROO=>O2+iR | 1.01E-01 | 1097 | -565 |
| 7 | O2QOOH1=>O2+QOOH1 | 6.26E-02 | 1117 | -575 |
| 8 | RH+HO2=>nR+H2O2 | 3.99E-02 | 742 | 378 |
| 9 | O2+iR=>HO2+C3H6 | 3.22E-02 | 1100 | 567 |
| 10 | nROO=>O2+nR | 2.05E-02 | 1069 | -549 |
| 11 | O2QOOH1=>OH+OQ′OOH1 | 1.91E-02 | 1162 | 598 |
| 12 | nROO+RH=>nROOH+iR | 9.00E-03 | 710 | 362 |
| 13 | iROO+RH=>iROOH+iR | 8.73E-03 | 712 | 363 |
| 14 | iROO+RH=>iROOH+nR | 7.91E-03 | 708 | 361 |
| 15 | HO2+HO2=>H2O2+O2 | 7.08E-03 | 34 | 18 |
| 16 | iROO=>HO2+C3H6 | 5.76E-03 | 1106 | 570 |
| 17 | iROOH=>iRO+OH | 5.54E-03 | 716 | 365 |
| 18 | OQ′OOH1=>OQ′O1+OH | 5.14E-03 | 1214 | 624 |
| 19 | CH3OO+RH=>CH3OOH+iR | 4.74E-03 | 768 | 391 |
| 20 | nROOH=>nRO+OH | 4.72E-03 | 714 | 364 |
| 21 | nROO+RH=>nROOH+nR | 3.24E-03 | 706 | 360 |
| 22 | OQ′O1=>vinoxy+CH2O | 3.02E-03 | 1222 | 628 |
| 23 | iRO=>CH3+acetaldehyde | 2.73E-03 | 997 | -505 |
| 24 | CH3CH2OO+RH=>CH3CH2OOH+iR | 2.48E-03 | 772 | 393 |
| 25 | nRO=>C2H5+CH2O | 2.41E-03 | 993 | -503 |
| 26 | CH3OO+RH=>CH3OOH+nR | 1.47E-03 | 766 | 390 |
| 27 | vinoxy+O2=>CH2O+CO+OH | 1.28E-03 | 452 | 233 |
| 28 | O2+nR=>HO2+C3H6 | 1.01E-03 | 1074 | 553 |
| 29 | CH3CH2OO+RH=>CH3CH2OOH+nR | 7.98E-04 | 770 | 392 |
| 30 | CH3OO(+M)=>CH3+O2(+M) | 7.19E-04 | 133 | -69 |
| 31 | CH3CH2OO=>C2H5+O2 | 4.73E-04 | 349 | -180 |
| 32 | nROO=>HO2+C3H6 | 3.77E-04 | 1082 | 558 |
| 33 | QOOH1=>O2+nR | 3.34E-04 | 1073 | -551 |
| 34 | C2H5+O2=>C2H4+HO2 | 2.66E-04 | 364 | 188 |
| 35 | iROO+HO2=>iROOH+O2 | 1.80E-04 | 924 | 469 |
| 36 | O2+QOOH1=>OH+OH+OQ′O1 | 1.72E-04 | 1118 | 576 |
| 37 | nROO+HO2=>nROOH+O2 | 1.03E-04 | 922 | 468 |
| 38 | O2+iR=>OH+propoxide | 8.26E-05 | 1102 | 568 |
| 39 | CH3OO+HO2=>CH3OOH+O2 | 7.63E-05 | 142 | 74 |
| 40 | CH3OOH=>CH3O+OH | 3.30E-05 | 154 | 80 |
| 41 | O2QOOH1=>HO2+prod2 | 2.55E-05 | 1164 | 599 |
| 42 | CH3CH2OOH=>ethoxy+OH | 2.03E-05 | 360 | 186 |
| 43 | H+RH=>H2+iR | 2.01E-05 | 728 | 371 |
| 44 | QOOH3=>OH+propoxide | 1.19E-05 | 1112 | 573 |
| 45 | O2+iR=>QOOH3 | 1.19E-05 | 1098 | 566 |
| 46 | ethoxy=>CH3+CH2O | 1.17E-05 | 345 | -178 |
| 47 | H+O2(+M)=>HO2(+M) | 8.92E-06 | 24 | 13 |
| 48 | CH3O+M=>CH2O+H+M | 5.56E-06 | 180 | 94 |
| 49 | iRO=>acetone+H | 3.36E-06 | 615 | -314 |
| 50 | O2+nR=>OH+propoxide | 2.23E-06 | 1076 | 554 |
| 51 | O2+QOOH1=>HO2+prod2 | 8.60E-07 | 1120 | 577 |
| 52 | RH+CH3O=>nR+CH3OH | 6.77E-07 | 762 | 388 |
| 53 | nROO=>OH+propoxide | 6.21E-08 | 1084 | 559 |
| 54 | iROO+iROO=>O2+iRO+iRO | 1.00E-09 | 966 | 490 |
| 55 | O2QOOH3=>O2 + QOOH3 | 1.00E-10 | 1147 | -590 |
| 56 | O2 + QOOH3=>O2QOOH3 | 1.00E-10 | 1146 | 590 |
| 57 | O2QOOH2=>O2 + QOOH2 | 1.00E-10 | 1125 | -579 |
| 58 | O2 + QOOH2=>O2QOOH2 | 1.00E-10 | 1124 | 579 |
| 59 | O2+QOOH1=>O2QOOH1 | 1.00E-10 | 1116 | 575 |
| 60 | O2+iR=>iROO | 1.00E-10 | 1096 | 565 |
| 61 | QOOH1=>nROO | 1.00E-10 | 1081 | -556,-557 |
| 62 | nROO=>QOOH1 | 1.00E-10 | 1080 | 556,557 |
| 63 | O2+nR=>nROO | 1.00E-10 | 1068 | 549 |
| 64 | vinoxylmethyl=>allyloxy | 1.00E-10 | 1043 | -536 |
| 65 | allyloxy=>vinoxylmethyl | 1.00E-10 | 1042 | 536 |
| 66 | CH2CH2OH+O2=>O2C2H4OH | 1.00E-10 | 587 | -300 |
| 67 | O2C2H4OH=>CH2CH2OH+O2 | 1.00E-10 | 586 | 300 |
| 68 | acetylperoxy=>acetyl+O2 | 1.00E-10 | 435 | -224 |
| 69 | acetyl+O2=>acetylperoxy | 1.00E-10 | 434 | 224 |
| 70 | C2H5+O2=>CH3CH2OO | 1.00E-10 | 348 | 180 |
| 71 | CH3+O2(+M)=>CH3OO(+M) | 1.00E-10 | 132 | 69 |
| 72 | CH3OO+CH2O=>CH3OOH+HCO | 1.00E-10 | 134 | 70 |
| 73 | CH3CH2OO+CH2O=>CH3CH2OOH+HCO | 1.00E-10 | 350 | 181 |
| 74 | iROO+CH2O=>iROOH+HCO | 1.00E-10 | 918 | 466 |
| 75 | nROO+CH2O=>nROOH+HCO | 1.00E-10 | 914 | 464 |
| 76 | HO2+C3H6=>OH+propoxide | 1.00E-10 | 1114 | 574 |
| 77 | CH3CH2OO+HO2=>CH3CH2OOH+O2 | 1.00E-10 | 356 | 184 |