Catalytic partial oxidation of isoctane to hydrogen on rhodium catalysts: effect of tail-gas recycling

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SUPPLEMENTAL MATERIAL

Nomenclature:

- Figure counting (Figs. 3-7) corresponds to the counting in the paper. Here results for much more conditions are shown.
- Additional figures (Figs. 10-11) are given at the end.

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Fig. 1. Yield of H\textsubscript{2} and CO for cases 1-3 and the five different ReTG/C ratios. Full lines = all based C/H yield, symbol = fuel based C/H yield.
Fig. 2. Yield of H$_2$O and CO$_2$ for cases 1-3 and the five different ReTG/C ratios. Full lines = all based C/H yield, symbol = fuel based C/H yield.
Fig. 3. Yield of CH₄, C₂H₄, and C₃H₆ for cases 1-3 and the five different ReTG/C ratios. Full lines = all based C/H yield, symbol = fuel based C/H yield.
Fig. 6. Catalyst outlet temperature and fuel conversion for cases 1-3 and the five ReTG/C ratios.
Fig. 7. Mole fractions of H$_2$ and CO for cases 1-3 and the five different ReTG/C ratios. Full lines = calculated mole fractions at equilibrium for measured outlet temperatures, symbol = experiment.
Fig. 10. Molar flow rates of C$_1$-C$_3$ by-products for case 1-3 and the five ReTG/C ratios.
Fig. 11. Mole fractions of H$_2$O and CO$_2$ for case 1-3 and the five different ReTG/C ratios. Full lines = calculated mole fractions at equilibrium for measured outlet temperatures, symbol = experiment.