Cleaner Combustion: Developing Detailed Chemical Kinetic Models

By -

Springer London Ltd, United Kingdom, 2016. Paperback. Book Condition: New. 235 x 155 mm. Language: English . Brand New Book ***** Print on Demand *****.This overview compiles the on-going research in Europe to enlarge and deepen the understanding of the reaction mechanisms and pathways associated with the combustion of an increased range of fuels. Focus is given to the formation of a large number of hazardous minor pollutants and the inability of current combustion models to predict the formation of minor products such as alkenes, dienes, aromatics, aldehydes and soot nano-particles which have a deleterious impact on both the environment and on human health. Cleaner Combustion describes, at a fundamental level, the reactive chemistry of minor pollutants within extensively validated detailed mechanisms for traditional fuels, but also innovative surrogates, describing the complex chemistry of new environmentally important bio-fuels. Divided into five sections, a broad yet detailed coverage of related research is provided. Beginning with the development of detailed kinetic mechanisms, chapters go on to explore techniques to obtain reliable experimental data, soot and polycyclic aromatic hydrocarbons, mechanism reduction and uncertainty analysis, and elementary reactions. This comprehensive coverage of current research provides a solid foundation for researchers, managers, policy makers and...

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Reviews

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Extremely helpful for all class of individuals. Better then never, though i am quite late in start reading this one. I realized this publication from my i and dad suggested this ebook to discover.
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