

Combustion Research: A Brief Look at Some *Hot* Topics

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Combustion has been an active field of research for over a century and is a key element in society's critical technologies in addition to being a vital part of our everyday lives. This talk will present an overview of current research in the field of combustion with a focus on some particular areas which are presently thriving. Such areas include, but are certainly not limited to combustion stability and control, low pollution technologies (lean, premixed and flameless combustion), alternative fuels and combustion modeling. I will discuss some driving factors behind current topics and some of the methodologies in the field. It is the intention of this talk to present a broad overview of the current state of affairs, highlighting when possible, areas where material science and combustion science may potentially merge.