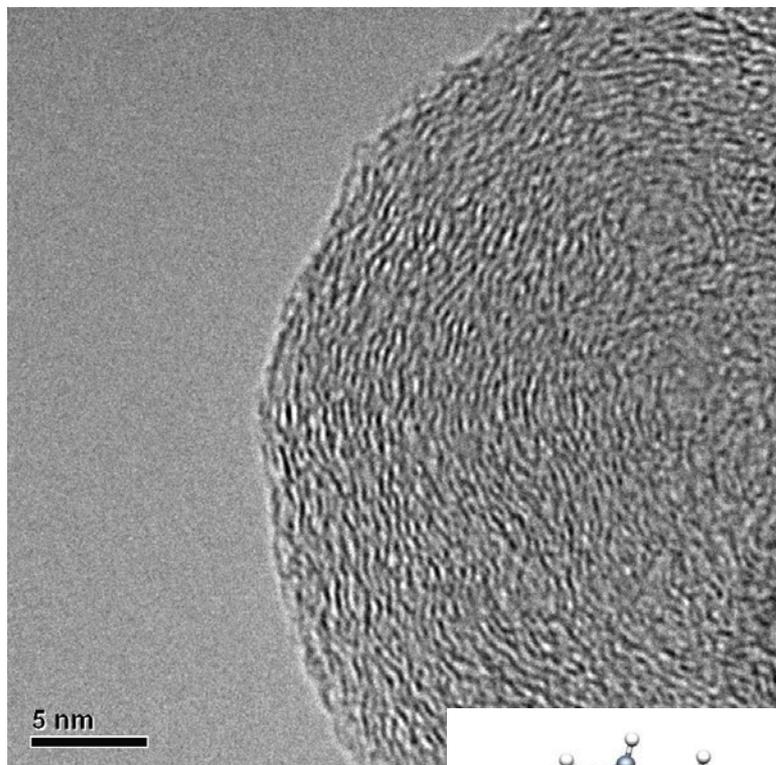


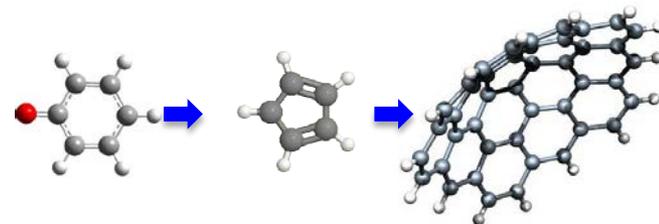
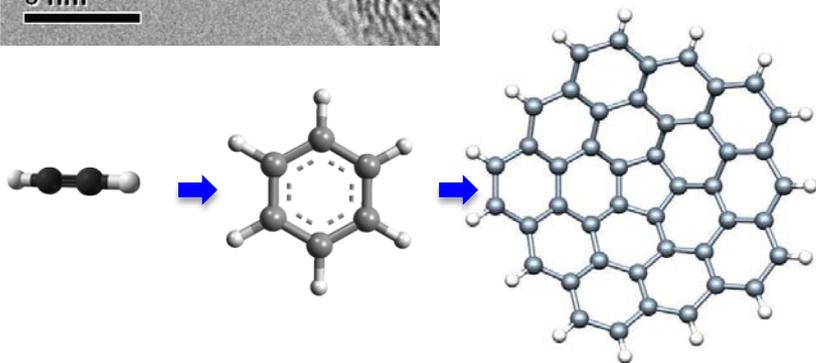
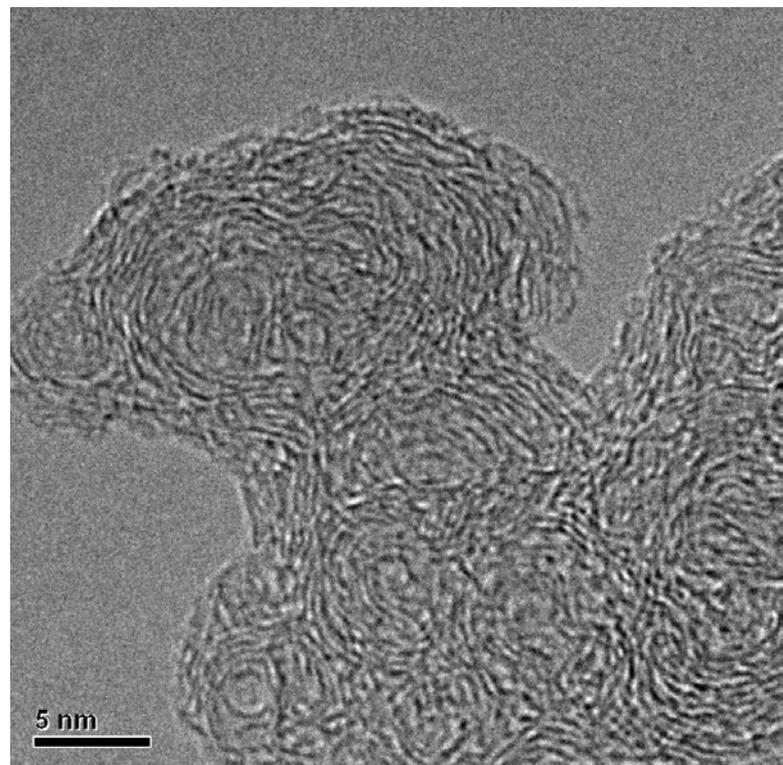
Forensics of Soot: C5-Related Nanostructure as a Diagnostic of In-Cylinder Chemistry

Randy L. Vander Wal¹, Andrea Strzelec², Todd J. Toops³ and Charles S. Daw³

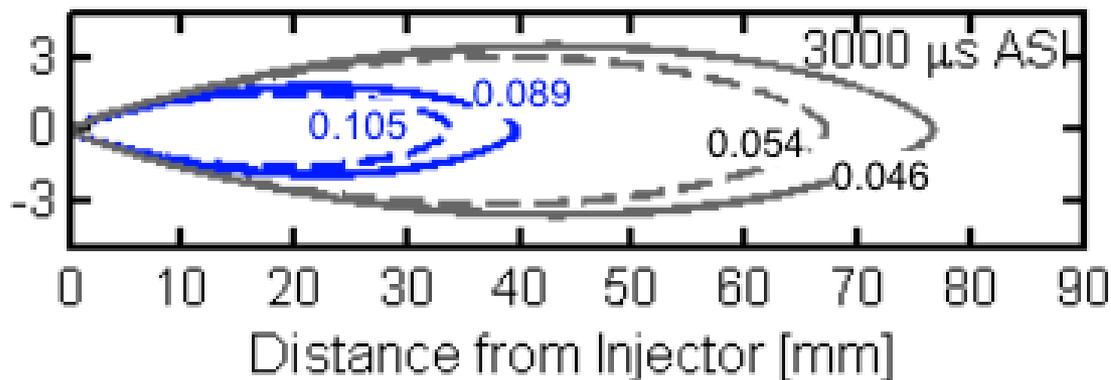
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HRTEM
characterization
of PM



Soot Calculations & Measurements



Spray Mixing Model
Predictions of critical mixture fractions: Z_{crit} , Z_{stoich}
Dash contours: BD
Solid contours: D2

Measured soot volume fraction distributions for U.S. #2 Diesel (D2) and Soy-derived biodiesel (BD)

