

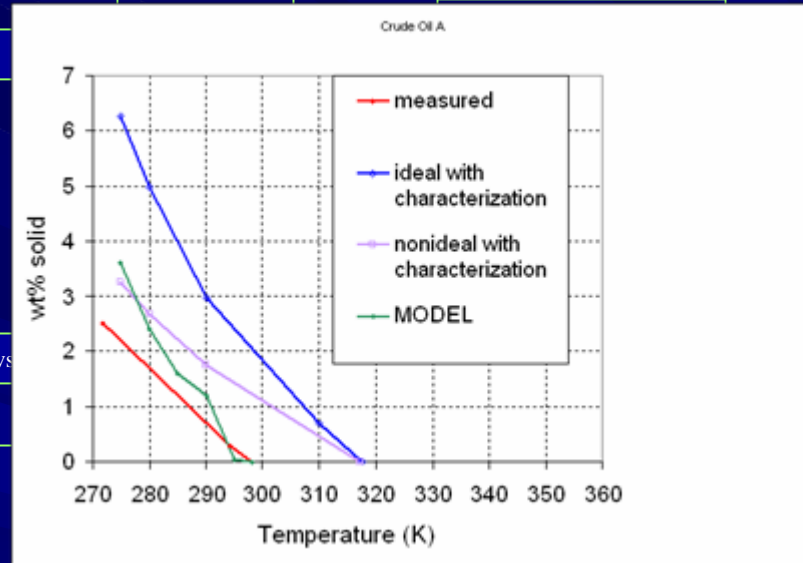
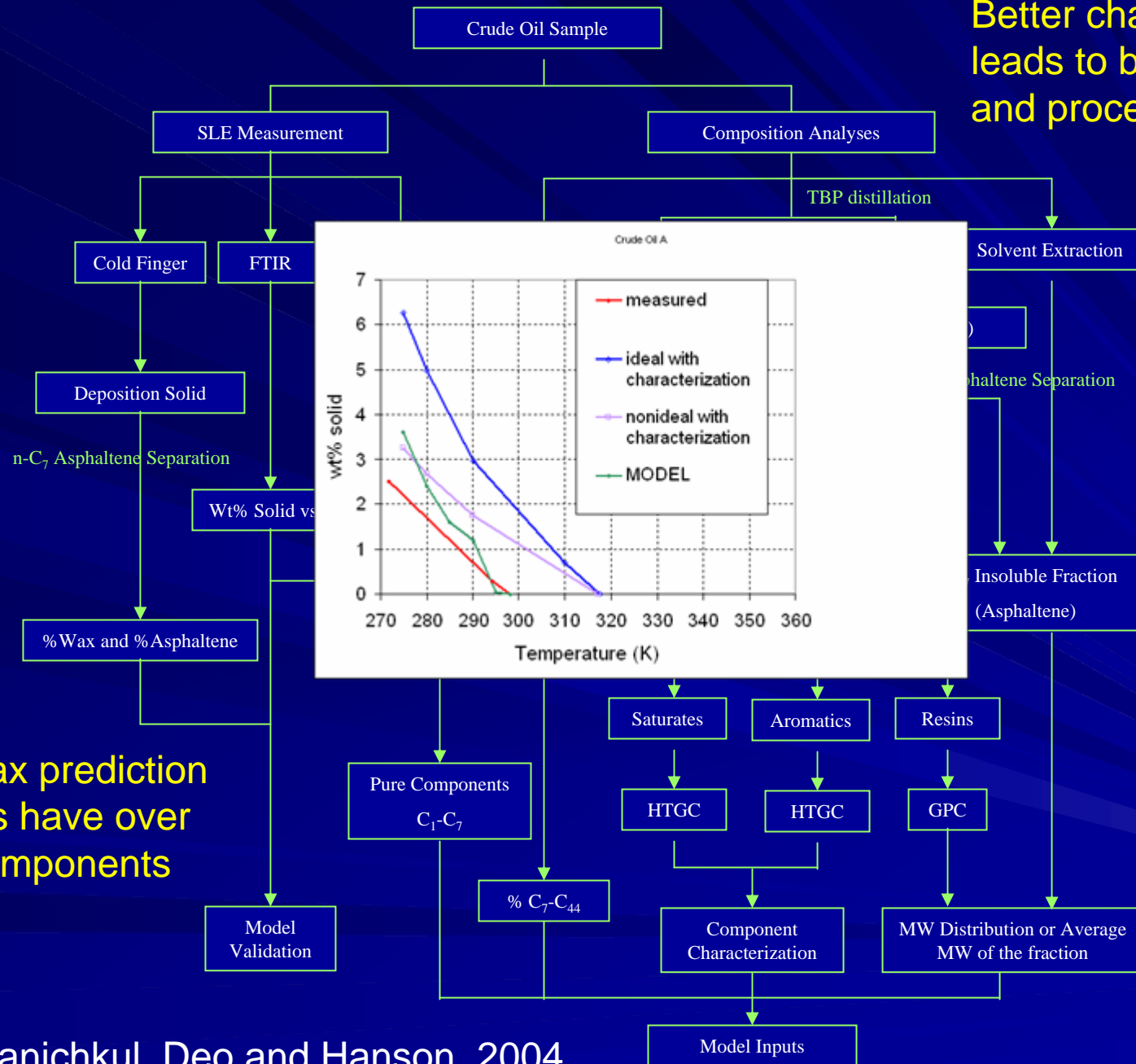
Flow Assurance Program at the University of Utah

Milind D. Deo, Professor

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Utah

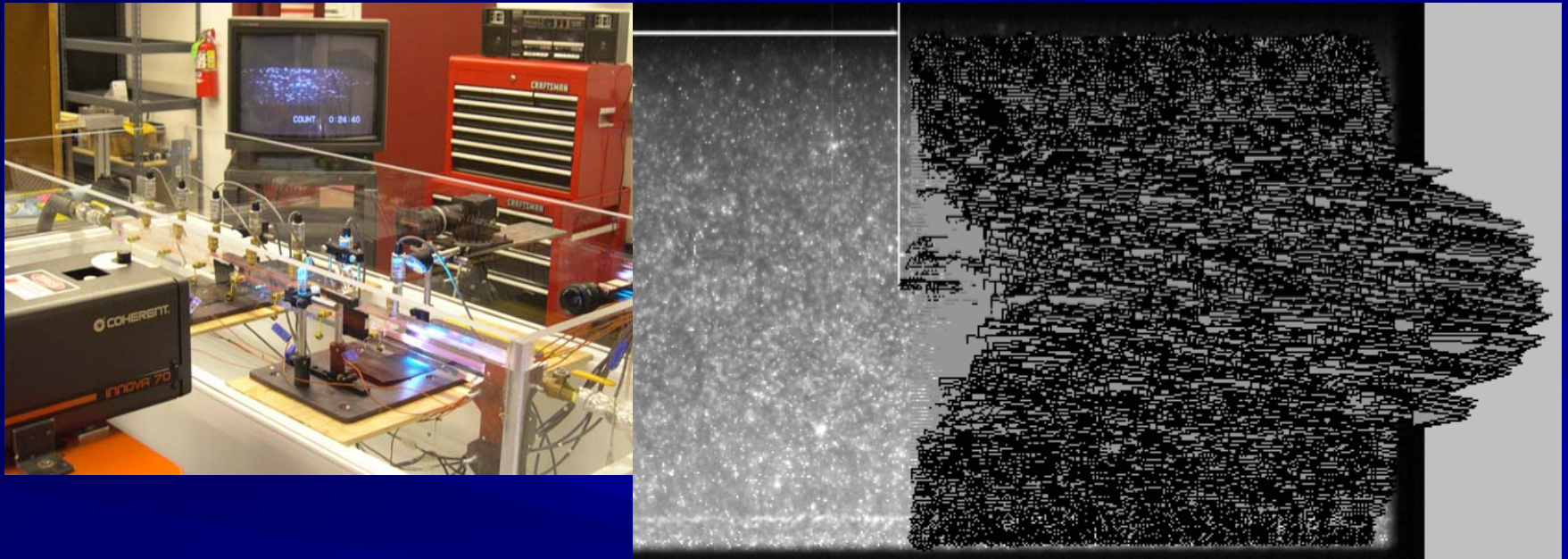
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Better characterization leads to better property and process predictions



Our wax prediction models have over 100 components

Wax deposition, gelling and restart experiments and modeling

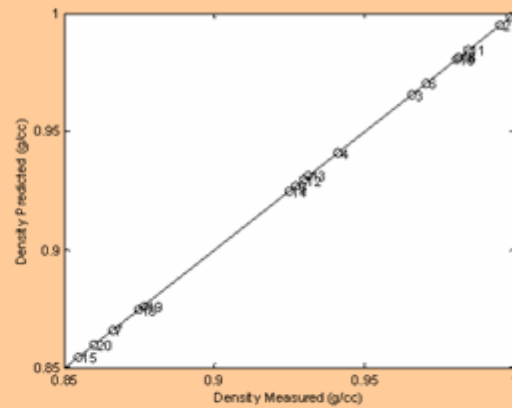
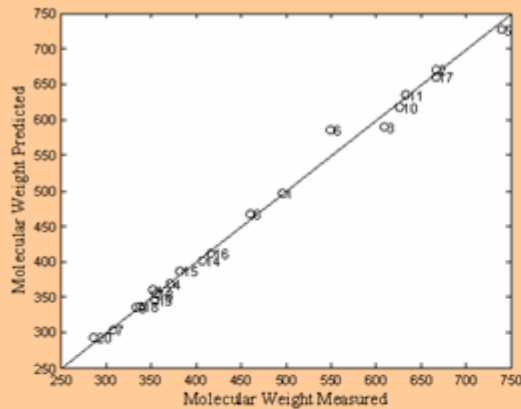


- Fundamentals of gelling; properties of waxy gels
- Rheological measurements – time-dependent yield stresses
- Understanding the relationship of laboratory measurements to field-scale phenomena
- Rheological and restart models

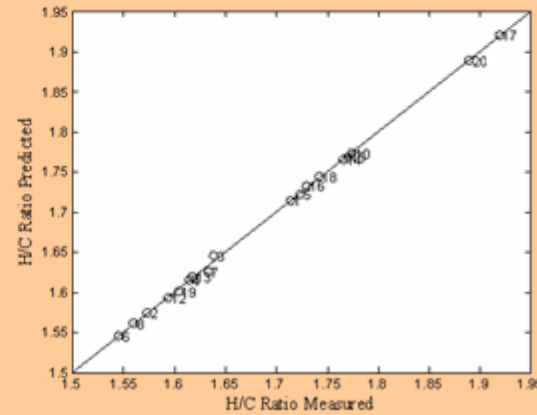
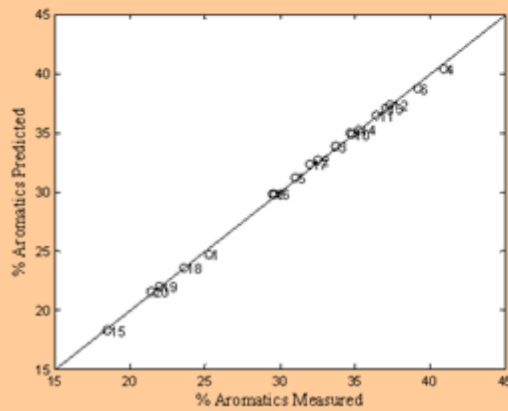
Heavy oils

- Characterization
- Transportation
- Viscosities

Defining properties



Chemometrics – Power of being able to predict properties with a single NIR Spectrum



- Chemometrics – online measurements of important properties
- Fluid compatibility studies – asphaltene and wax precipitation tendencies