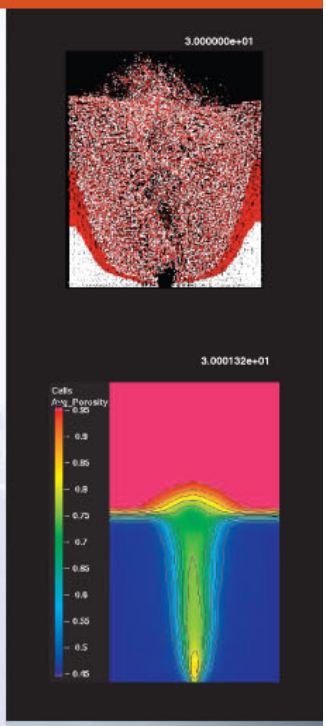
BARRACUDA™

CPFD® Technology

What is it?

- Computational-Particle-Fluid-Dynamics = CPFD®
  - Particles are *not* a fluid
  - That's what makes it different… and difficult!
- Particle physics is correct
  - Discrete solid materials
  - Size & Density distributions with multiple species
  - Closepacking
- Fluid can be either a gas or liquid
  - Compressible gas with true Equation of State
- Particle motions are solved with a Lagrangian approach
  - Gridless formulation gives infinite spatial resolution
  - Fully coupled to the fluid phase using complex spatial gradients
  - Robust stress tensor for forces near closepacking
  - Coefficients of friction – static + dynamic
  - Wall interaction correct
- Accurate and Fast 'solver'
  - Well validated
  - TiO_2 reactor simulated for 180 sec in 2 days



CPFD Software, LLC

www.cpfd-software.com