

VizData

VizData forms the basic foundation for simulations using VizGlow, VizSpark, VizFlow, VizGrain, and ChemZone within the OverViz Simulation Suite. VizData includes properties for an extensive range of gases, liquids, and solids.

Database Categories and Example Properties

- **Thermodynamic:** specific heat, enthalpy, Gibbs' free energy, partition functions, polynomials
- **Transport:** cross sections, mobility, diffusion coefficients, mixture specific heat, thermal conductivity, electrical conductivity
- **Finite-rate chemical reactions:** reaction mechanisms for electron impact, ion-neutral, neutral-neutral reactions, including pressure and specific discharge effects
- **Surface properties:** electron emission (secondary/field/thermionic), surface chemistry for plasma quenching, etching, and depositions
- **Solid materials:** density, thermal conductivity, electrical conductivity, specific heats

Sample Chemistries

Pure noble gas plasmas

- Helium
- Argon
- Xenon

Pure molecular gas plasmas

- Helium
- Nitrogen
- Oxygen

Metal vapors

- Iron, tungsten, copper

Combustion chemistries

- Methane-air
- Methane-air-exhaust
- GRI mechanism 3.0

Semiconductor process plasmas

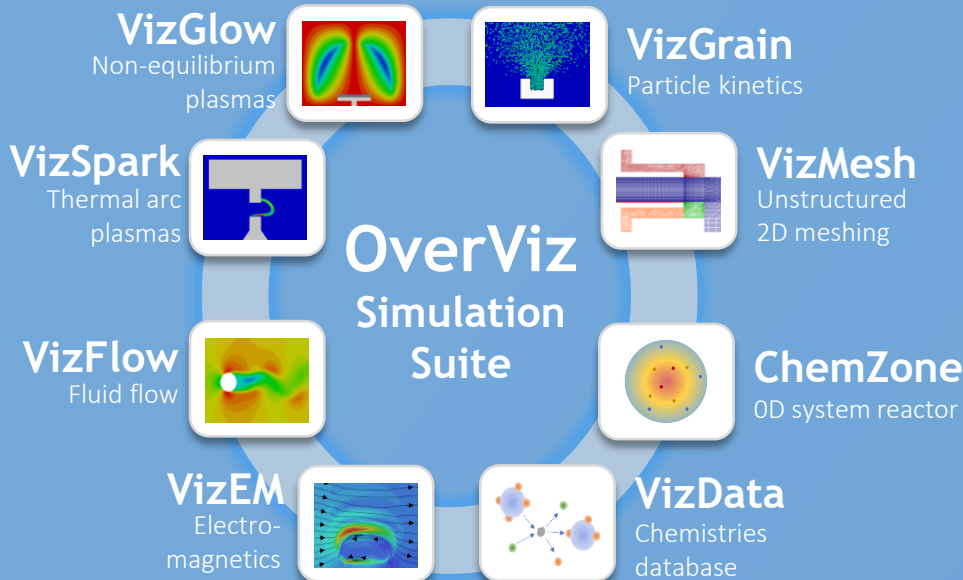
- Tetrafluoromethane
- Octafluorocyclobutane
- Trifluoromethane
- Hydrogen bromide
- Ammonia
- Nitrogen trifluoride
- Acetylene-argon
- Silane-nitrogen-oxygen
- Sulfur hexafluoride-oxygen

Arc equilibrium plasmas

- Argon-hydrogen
- Argon-oxygen-hydrogen
- Argon-carbon dioxide
- Air (nitrogen-oxygen)
- Air (nitrogen-oxygen-argon)

Polymers

- Polyamide 6,6, Teflon



Engineering Services

Esgee Technologies Inc. is dedicated to helping customers leverage the OverViz Suite to meet technical challenges, improve designs, reduce timelines, and improve manufacturing quality through:

- Customized training help customers maximize the utility of the OverViz tool suite
- Dedicated technical support for all licensed customers
- Consulting services utilizing a team of highly specialized domain experts