

# Eltron Research & Development Contract Services

## Eltron Research & Development

Eltron's history is comprised of an excellent track record of developing commercial-ready technologies. Eltron has produced two spin off companies and over 75 patents - of which more than 25 have been licensed to industry.

Eltron has completed more than 250 independent projects over three decades for industrial clients and federal research programs. The staff of 50 scientists and engineers work in our advanced research facility in Boulder, Colorado.

## Contact

For more information on Eltron, our technologies, contract services, co-development and partnering opportunities, please contact:

303-530-0263 | [business@eltronresearch.com](mailto:business@eltronresearch.com)



4600 Nautilus Court South | Boulder, CO 80301 | Phone: 303-530-0263 | [www.eltronresearch.com](http://www.eltronresearch.com)  
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## Innovative People Drive Success





## Innovative People Solving Technical Problems

### Process Development & Modeling

Based on lab and pilot data, Eltron can help you develop complete block flow diagrams (BFDs), process flow diagrams (PFDs), and mass and energy balances. Modeling support may include process simulations, dynamic process modeling, mass transport and mechanical models.

### Engineering & Economic Analysis

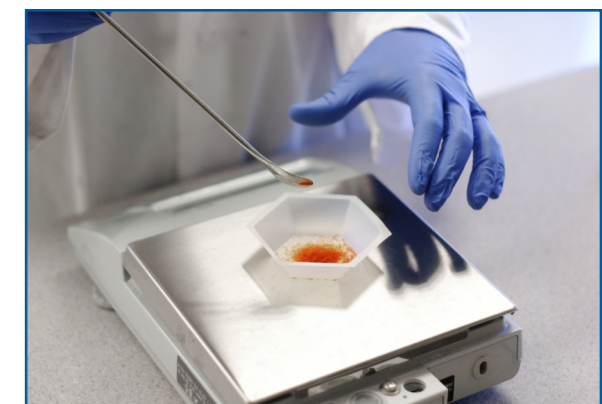
Eltron has deep experience designing, building and operating pilot plants that have advanced technology for the energy and chemical industries.

- Front End Engineering Design (FEED)
- Detailed Engineering Design
- Process & Instrumentation Diagrams
- Equipment sizing and specifications
- 3-D Layout Design & Drawings
- Design of safety systems & control systems
- Budgetary Quotes—Equipment cost, Labor Estimates, and Project Schedules



### Catalyst Services: Design, Synthesis, Scale-up & Evaluation

Eltron's Catalyst Services range from the design and synthesis of new materials to preparation of standard and complex materials. We have developed more than 30 proprietary catalytic materials, employed traditional catalyst synthesis techniques at bench-scale and have collaborated with catalyst vendors to scale-up recipes to commercial production. In addition to developing and producing catalysts, Eltron can evaluate catalysts on-site in lab-scale fixed and fluidized beds and continuous stirred tank reactors (CSTRs).



## Eltron is a leading R&D organization with a 30 year history of providing technology solutions to industry.

Eltron's Contract Services business unit advances client technologies from bench scale through pilot testing and commercial implementation. Customers and collaborators range from start-ups to more than a dozen Fortune 500 energy, chemical and catalyst companies. We offer the following services:

- Proof of Concept Chemistry
- Prototype Development
- Process Development & Modeling
- Engineering & Economic Analysis
- Catalyst Services

### Proof of Concept Chemistry

Eltron's staff of 50 scientists and engineers will take your idea and validate it in the lab. Our strengths include defining the questions and designing the experiments to expeditiously and quantitatively answer those questions at the bench. Eltron's lab experience spans advanced materials, gas separations and processing, catalysis, gasification and water treatment.

### Prototype Development

Throughout its 30 year history, Eltron has demonstrated lab reactions in breadboard and bench scale pilot units for energy, aerospace and environmental applications.