THE ELTRON QUARTERLY

Eltron Research & Development Updates
Second Quarter Issue

Eltron Research & Development

Eltron Hires Staff to Keep Up With Growth

Eltron is pleased to announce the addition of 8 new employees. Due in part to the economy beginning to pick up speed, as well as the large DOE award from last fall, Eltron has been able to expand its staff's skill sets with 3 new engineers (process, mechanical and electrochemical), 2 new senior scientists, 1 new documentation specialist, and 2 new business developers.

Darcie Bailey: Process Engineer
Darcie joined Eltron in Feb. 2011. Her current responsibilities include the development (modeling and techno-economic analysis) of Eltron's advanced membrane system for hydrogen separation. Darcie spent her previous 17 years of engineering experience at Eastman Kodak/Carestream Health and Dow Chemical.

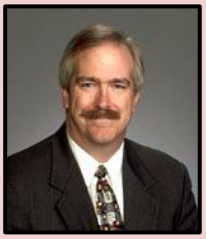
Julie Bannantine: Senior Mechanical Engineer
Julie joined Eltron in May 2011 and is helping with the development of the pre-commercial module for Eltron's hydrogen membrane project. Julie has a Ph.D. in Mechanical Engineering and is the primary author of a textbook on metal fatigue and has worked in the area of development, reliability and stress analysis in the ground vehicle and in electronics industries.

Pete Birkeland: Business Development Manager
Pete joined Eltron in July 2011 and has spent the past 20 years working in multiple industries including retail development, energy, biopower, technology, consumer products, beverages, community banking and steel fabrication. Pete has a Ph.D. in economic sociology and has been named as "one of the top ten minds in small business" by Fortune Magazine.

Peter Hagan: Business Development Manager
Peter joined Eltron in June 2011 and specializes in sales and marketing for Eltron's diverse water technologies. Throughout his 25 year career, Peter has demonstrated the ability to commercialize high-technology assets and enjoys getting to know his customers, understanding their challenges, and finding solutions. He credits his success to "listening for a living."

Michelle Livingston: Senior Scientist
Michelle joined Eltron in Dec. 2010 and works primarily on 2 projects: a nanofiltration membrane system and the Hydrogen Membrane Project. Michelle has a Ph.D in physical chemistry and had spent six years working at a clean energy technology company where she worked on the development of CO_2 capture technology as well as multi-pollutant control systems for coal-fired power plants.

A Note From Paul Grimmer, Eltron R&D's President



Throughout the Great Recession, most companies significantly cut back their R&D which affected Eltron in two ways, 1) there was little appetite for them to be our partners in scaling up our technologies and 2) the amount of value-added contract R&D we could do for others dried up. We have not laid any employees off but we certainly have been hurting like everyone else.

Over the past 9 months things have improved significantly. Some of our technologies are moving forward quickly. Other companies are starting to do more R&D and looking for external help to do it as their internal staffs have been trimmed or eliminated (we can provide "instant R&D"). Because of this we have been able to add to some of our skill sets and bring in new ones.

We remain very focused on working with industry on joint developments of Eltron technologies as well as contact R&D to help the other companies develop their own technologies.

Adding staff can be scary in these uncertain times but I am thrilled with the additions we have made to the Eltron

Alonso Lozano Morales: Electrochemical Engineer
Alonso joined Eltron in Dec. 2010. His current responsibilities include the development and scale-up of Eltron's advanced membrane system for hydrogen separation and CO_2 capture. Alonso has a Ph.D. in Chemical Engineering. Prior to joining Eltron, he was a Principal Scientist at Faraday Technology where he developed electrochemical engineering processes that enabled the deposition and/or removal of materials (metals, super alloys and ceramics), so as to be utilized in the manufacturing of products.

Jong-Hee Park: Senior Scientist
Jong-Hee joined Eltron in Dec. 2010 and works on the Hydrogen Membrane Project as well as in Eltron's energy technology areas. He has a Ph.D. in Material Science and Engineering and has a wide background in Physical Chemistry and Metallurgical and Ceramics Engineering. Previously he worked at the Argonne National Laboratory and was a Senior Science Advisor at Alion Science and Technology. Jong-Hee also was an editor for a text book on chemical vapor deposition (CVD) published by the ASM-International.

Cecilia Sherry: Document Specialist
Cecilia joined Eltron in March 2011 and brings with her over 25 years of experience of work with companies including the Red Rocks Community College, Ball Corporation, Rose Medical Center and the Colorado Department of Human Services. While working at the Colorado Department of Human Services, she won the 2002 State Employee of the Year Award.

family. All of them have specific projects to work on which is neat but I am just as interested in their long-term effects on our company.

Our overall skills will be deeper and broader than ever before. The only negative I see is that we still can't field a very good co-ed softball team but that's something we'll work on in the coming quarters…

If you have any questions or comments on our company or this newsletter, please let me know.

Sincerely,

Paul Grimmer

Meet Our Scientist/Engineer

Every quarterly newsletter, an Eltron scientist or engineer will be featured. This quarter meet: ***Dr. James (Jim) C. White****.*

Q: Jim, how long have you been working at Eltron and what do you do?

JW: I will have worked at Eltron for 21 years this September. I am a Research Fellow and focus on electro catalysis mostly, which cuts across a number of disciplines including surface science, electrochemistry, and computational material science.

Q: So I conducted a little bit of research before this interview and learned that over the past 20 years at Eltron, you have written 366 proposals and won 39 – more than anyone else in the history of Eltron. Some call you the "Proposal Wizard" or "Mr. SBIR". Do you enjoy writing proposals and how do you find inspiration for your proposal ideas?

JW: Well, despite what you may hear, I do not enjoy writing proposals. Writing proposals is kind of like being asleep with my eyes open. However, new ideas for proposals are always interesting. I find inspiration when there is

Recently Awarded Projects

The projects below have been selected or are being considered for award and are in the process of negotiation to be awarded.

- **U.S. Department of Energy** – SBIR Phase II – A Compact Integrated System for Air Capture on Atmospheric CO2
- **U.S. Environmental Protection Agency** – SBIR Phase II – Low Cost Retrofit Emissions Control In Off-Road Sources
- **U.S. Department of Defense** – SBIR Phase I – A Reactive Coating For Air Purification
- **U.S. Department of Energy** – SBIR Phase I – An Electrochemical Pathway to Fuels and Chemicals From CO2

a particular problem that might be susceptible to a particular idea. Of course all science is built on what came before it. I have plenty of moments of inspiration that occur in the shower or just before going to sleep.

Q: Do your wife and you have any pets?

JW: Yes, we have 3 cats and 1 dog (a Maltese named Polo). Back in my bachelor days, I never thought I'd be involved with a little dog, especially one that has more clothing than I do! I did put my foot down though on giving him the Maltese haircut – he's a male dog and that's enough.

Q: What are your hobbies outside of working at Eltron?

JW: I like to eat. My wife and I like to cook. She makes my one of my favorite dishes – a Romanian dish called "ostropel". It has garlic, bison, peppers, onions, and oh, did I say garlic? My other favorite food is hamburgers – the technicians know this though and try to bribe me – I'll emphasize the word "try". Besides that, my wife and I enjoy gardening as well as walking and hiking around local places like Bear Creek Trail and the Flatirons.

Interested in other Eltron technologies?
See Eltron's Book of Technologies

Eltron Contract R&D Services:

- Proof of Concept Chemistry
- Prototype Development
- Process Development & Modeling
- Engineering & Economic Analysis
- Catalyst Services: Design, Synthesis, Scale-up and Evaluation

To learn more about these services:
Eltron's Contract Services Brochure

Philanthropy: Muscular Dystrophy Association (MDA)

Eltron R&D participated in Boulder's 2011 MDA Lock-Up for its second year in a row. Paul Grimmer was "served" yet again to go behind bars for "good". It was with great help and generosity from the Eltron staff that he was able to post "bail". His daughter, Emily Grimmer, who headed the fundraising efforts, accompanied Paul downtown (in the back of a real police car) to the Rembrandt Yard in Boulder. Although she thought she was just there to smile and take pictures of her father in jail, they surprised her with a warrant for her arrest as well, and together, they went behind bars on July 14, 2011.

"I never thought I'd be behind bars, much less behind bars with my own father!" said Emily, "But hey, who knew going to jail could be so much fun?" Thankfully they didn't have to stay in the "slammer" for too long – they successfully were able to post "bail".

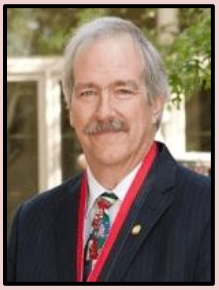
The bail money (besides releasing the Grimmer duo from the "clink") went towards supporting a local Coloradoan family with muscular Dystrophy. It helped sponsor flu shots, support groups, clinic visits, equipment repairs, and sent children to the MDA Summer Camp in Empire, Colorado.

Distinguished Engineer Award:

The Texas Tech University Edward E. Whitacre Jr. College of Engineering named Paul Grimmer as one of eight recipients of its 2011 Distinguished Engineer Award on April 15, 2011 at a luncheon on the Texas Tech campus.

Since the 1966-67 academic year, when this award was established, 199 graduates of the Whitacre College of Engineering have received this honor. Recipients of the award must be distinguished in their profession, an inspiration to their peers, and have demonstrated a continuing interest in areas outside the field of engineering.

Click here to view Paul Grimmer's 2011 Distinguished Engineers bio.



About Eltron Research & Development

Eltron is a leading R&D organization with a 30-year history of providing technology solutions to the energy and chemicals industries. Eltron's scientists and engineers have generated over 70 patents based on technology developed at the company's world class research facility in Boulder, CO.

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