

Catacel Corp.

Position Description – Application Engineer

Company Background

Based in Garrettsville, Ohio, about an hour southeast of Cleveland, Catacel is a venture-backed, high-growth company made up of experienced scientist-entrepreneurs. Catacel engineers and manufactures break-through, proprietary catalytic heat-exchanging materials that significantly reduce costs in the hydrogen production and fuel cell industries by increasing process output and improving energy efficiencies. Catacel employs proprietary technology to apply and bond high-performance catalysts to the surface of formed thin metal foils. These foil-based catalysts have superior heat transfer properties that reduce chemical reaction constraints, provide greater surface area that improves catalytic function, and deliver greater durability leading to overall cost savings of 10-25%. These savings are derived from improvements in production throughput, energy efficiency, and physical plant construction costs. Catacel materials, supported by 22 issued US patents, represent a disruptive technology for established multi-billion dollar markets, as well as emerging advanced energy industries.

Catacel offers a casual, supportive, team-oriented work environment. We work hard, we expect results, and we have fun doing it. We plan to grow at about 100% per year over the next several years, which will bring opportunity and reward to those who can grow with us.

Market Opportunity

According to the research organization Newry, the global catalyst support and substrate market was \$14.4 billion in 2005, and is growing at a rate of 4% annually. Catacel's materials can address approximately 30% of that market, an opportunity of more than \$4 billion. Catacel has initially focused its efforts on and has good traction in the fuel cell and hydrogen production markets. Catacel is a preferred and strategic supplier of catalyst materials to Bloom Energy, a leading producer of solid oxide fuel cells. Catacel also has installed catalyst materials in a hydrogen plant constructed by Linde Hydro-Chem in Turkey. The plant has been running successfully since July, 2008. Additional market opportunities abound in confined space air treatment, gas-to-liquid fuel production, gas separation, carbon capture, and refinery/petrochemical applications. These sectors represent additional explosive growth opportunities for Catacel.

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Status: Exempt

Reports to: Senior Engineer

Catacel is seeking an application engineer who can develop a thorough understanding of mechanical, chemical and manufacturing issues related to Catacel technology. The successful candidate will have an immediate impact on our technical solutions and customer interface by providing these essential functions:

- Review technical requirements of all sales leads and customer inquiries.
- Discuss technical requirements with potential customers to understand their needs.
- Work with in-house technical and manufacturing resources to devise and execute workable technical solutions that are responsive.
- Design and model basic heat exchangers sufficiently to confirm specifications and negotiate requirements with customers.

- Work with customer technical staff to resolve discrepancies.
- Develop proposal specifications and drawings.
- Develop cost estimates and project plans.
- Manage project work: product design, prototyping, testing
- May be assigned lead role on engineering studies for clients.

Key Success Factors include:

- Develop in-depth technical, cross-functional understanding of mechanical, chemical and manufacturing issues for Catacel's materials and technology.
- Ability to perform technical analysis.
- Ability to develop and recommend creative, cost-effective solutions.

Requirements

Technical requirements, education and experience include:

- Minimum Bachelors degree in Mechanical Engineering required, higher preferred.
- Five years experience in technical role in industry is required.
- Experience in Autocad, Microsoft Word, Excel and Power Point is required.
- Some familiarity of basic convection heat exchange, thermodynamics, and fluids modeling formulas is required
- Experience in sales/marketing or grant writing a plus.
- Working conditions are primarily office based, 5-10% travel required

Competencies:

- Calculations including heat transfer, chemical, stress-strain.
- Advanced computer skills ranging from 3-D modeling to Project Management.
- Communication and writing skills.
- Extrovert with strong peer relation skills.
- Creative technical imagination.
- Project team responsibilities.

Core Values:

- Self starting, driven towards results, comfortable making decisions.
- Takes initiative, bias towards action.
- Desire to collaborate and communicate with colleagues to insure that the best thinking prevails.
- Keeps the needs of the customer in mind at all times.
- Embraces change and continuous improvement.

The above statements are intended to describe the general nature and level of work being performed by people assigned to this position. Nothing in this job description restrictions management's right to assign or reassign duties to this job at any time. To perform this job successfully, an individual must be able to satisfactorily perform the essential functions of the job according to specific company requirements. Reasonable accommodations will be made to enable individuals with disabilities to perform the essential functions.

Compensation

Compensation will be competitive and commensurate with experience.

Contact Information

Qualified candidates should submit their resumes, with cover letter indicating availability and required compensation, to ehurley@catacel.com.