

# Catacel Corp.

## Position Description – Lab Technician

### 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.

### Position Description – Lab Technician

Reports to: Reaction Technology Manager

Status: Non-Exempt

Catacel is seeking a Lab Technician who can make samples and operate tests to support customer applications and R&D efforts. The successful candidate will have an immediate impact on our prototyping and testing capability by providing these essential functions:

- Operate and maintain test equipment in a lab. Equipment includes low and high temperature flow reactors, high temperature exposure reactors, various flow benches, gas chromatographs, and supporting instruments.
- Install catalyst or sorbent samples in the test rigs, set up the equipment and test sequence, operate the tests, record results, derive conclusions, maintain data files, and report.
- Prepare and analyze novel catalyst or sorbent samples using common lab techniques such as blending, titrating, milling, and coating.
- Be detail oriented, and have the ability to notice, capture, record, and report minor nuances in samples and test results. Must have ability to organize, capture, and report test results from a variety of tests.
- Must understand the operating principles of all equipment, as well as the reactions or processes they operate with. Must document operating procedures and make suggestions for and implement improvements.
- Must be able to handle multiple inputs from a variety of people, prioritize the work, and maintain a balance so that all are reasonably satisfied.

## Requirements

Technical requirements, educations, and experience:

- Associates Degree in a technical discipline required: Chemistry, Geology, Biology, Chemical Engineering, or similar. Bachelors Degree preferred.
- Three to five years relevant experience in an industry setting is preferred, or a combination of education and experience.
- Strong computer skills, particularly in MS excel and word.
- Strong verbal and written communication skills.
- Demonstrated ability to make observations, reach conclusions, and keep records.
- Experience with reforming reactions, carbon capture, catalysts, and sorbents a plus.
- Experience operating catalysis reactors and analytical instruments in an academic or industry setting is a plus.

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. The requirements listed above are representative of the minimum knowledge, skill, and/or ability required. 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](mailto:Ehurley@catacel.com).