

CONFIDENTIAL

Job Description
F-HR-005 rev A



Page 1 of 1

Research Scientist Semiconductor Sector

FLSA: Exempt
Revision Date: 2/15/2015

Department: R&D
Reports To: David Smith

Job Summary:

Research and develop new coating technologies allowing for improved capabilities of existing product surfaces and potential new surface coatings and treatments with primary application to the needs of the semiconductor market. Coordinate with Marketing, Production, the SilcoTek Sales team and direct customers and/or users to identify and support new and existing technologies, which can be utilized to improve existing products and/or to develop new products within the semiconductor fabrication market. Identify, develop, troubleshoot, and implement processes improvements and technologies to increase quality and utilization of equipment.

Essential Duties:

1. Identify and develop new sources of surface treatments and/or materials to provide increased revenue, consistent with SilcoTek's strategic plan with a primary focus on the semiconductor industry. This could include collaboration with universities and/or other companies to develop new technologies or transfer/license existing technologies.
2. Work closely, in conjunction with Sales and Marketing, with key customers, primarily in the semiconductor industry to provide high-level technical support for their coating and surface modification needs.
3. Assist in the definition of the scope and performance of new products (product definition) and circulate for review and approval. Perform research and experimentation to evaluate the performance of prototype products and measure product performance relative to product definition.
4. Work to identify and protect SilcoTek intellectual property (IP). Work closely with SilcoTek IP council to develop and write IP protection strategies as well as with SilcoTek employees to help educate the company on the value of maintaining IP security.
5. Maintain good records of experimentation and troubleshooting and communicate progress on projects through monthly reports and at staff meetings.
6. Train production technicians in the preparation of new products and/or processes.
7. Coordinate transfer of new products or processes to production including training of production personnel on new procedures, documentation of production procedures in ISO format and setting of new product QA specifications and providing technical and engineering support.

CONFIDENTIAL

Job Description
F-HR-005 rev A



Page 2 of 1

8. Generate publishable data including figures and tables to be used by the marketing department in promotional literature. Writing technical articles such as applications notes and white papers for company marketing materials.
9. Assist production in troubleshooting, process improvements, and streamlining of processes.
10. Responsible for answering specific customer inquiries in from semiconductor customers and interacting directly with customers on development and troubleshooting projects.

Additional Responsibilities:

1. Review SilcoTek technical literature before publication as requested.
2. Maintain contacts with sales representatives, customers, and research team to obtain input on new products and customers' needs.
3. Practice safe working procedures and follow guidelines specified by the safety committee, especially when working in the production and laboratory areas.
4. RPC
5. Assist in resolving product quality problems and improving process efficiency.
6. Represent SilcoTek at trade shows, seminars and customer visits as requested.
7. Responsible for the safe handling of materials and for the quality of processes under the domain of the job responsibilities.
8. Address and assist with safety concerns related to the SilcoTek work environment
9. Assist engineering with production issues and the development of future systems.
10. Continue educational development
11. Other duties as required

Qualifications:

Education/Experience:

- Advanced degree in the Sciences or 7 years job experience in surface chemistry, chemical vapor deposition and/or materials science.
- Minimum of 3 years developmental work in the related sciences fields.
- Experience in semiconductor industry and/or CVD industry is a plus.
- Experience with corrosion engineering is a plus.

Knowledge/Skills/Abilities:

- Competent use of computers: operating systems, email, spreadsheets, word processing and database applications
- Works well with others in a team environment
- Light/Medium manufacturing environment, Laboratory environment, General office environment.
- Knowledgeable in the use of apparatus and interpretation of data from surface characterization equipment such as FTIR, SEM, XPS, SIMS, and TEM.