



**Job Title:** Development Engineer II

**Reports To:** Staff Engineer- Development

**Job Status:** Exempt

#### **Basic Job Functions:**

- Perform material and device research to enhance thin film solar cell performance and stability, and to reduce manufacturing cost.
- Plan, execute and characterize development engineering experiments in the laboratory and manufacturing environment.
- Screen new materials and collect characterization data for cell performance enhancement.
- Comply with the company's Environmental, Quality, Safety or any other policies that have been enforced.

#### **Experience:**

- At least 3 years process development experience in semiconductor material processing with fundamental understanding of semiconductor and metal material properties, and hand-on experience in thin film deposition processes
- Experience in II-VI solar cell processing and device integration is preferred
- Experience in physical vapor deposition (such as evaporation and sputtering) is strongly preferred

#### **Education:**

- Bachelor's Degree required in an engineering discipline or similar technical discipline, with 5 years of technical work experience as an Engineer or 2 years as a Development Engineer I with First Solar;
- Master Degree in an engineering discipline or similar technical discipline, with 3 years of technical work experience as an Engineer or 2 years as a Development Engineer I with First Solar;
- PhD in an in the fields of Materials Science, Chemical Engineering, Surface Science, Applied Physics, Physics, Mechanical Engineering, or a related field without experience.

#### **Required Skills/Competencies:**

- Hand-on experience in surface treatment and thin film deposition techniques
- Familiar with statistical data analysis and process control
- Familiar with hetero-junction semiconductor device physics fundamentals and device characterization
- Good communication skills. Can produce clear data, presentations, and reports, as well as oral presentations.
- Good interpersonal skills, including working with cross-functional teams. Other behaviors include, integrative thinking, results oriented, self-awareness, mentor others, and willing to make changes

#### **Essential Responsibilities:**

- Define and execute experiments, and multi-experimental plans
- Drive process optimization and device integration to improve solar cell device performance
- Analyze and interpret data from material and optoelectronics measurements and device physics fundamentals to determine device and materials issues with solar cells, films, and surfaces
- Identify opportunities for improvement in solar cell efficiency, material selection, and process and equipment design
- Ensure adherence to all Safety Procedures and Housekeeping standards

8/30/17



- Other duties as assigned
- Job description subject to change at any time

### Reporting Relationships:

- This position will report to the Staff Engineer

### Travel:

- 5 -10% travel required

### US Physical Requirements:

#### Hybrid Physical Requirements:

- Will sit, stand or walk short distances for up to the entire duration of a shift
- Will climb stairs on an occasional basis
- Will lift, push or pull up to 27 pounds on an occasional basis
- Required to use hands to grasp, lift, handle, carry or feel objects on a frequent basis
- 20/40 vision in each eye, with or without correction, is required
- Must be able to comply with all safety standards and procedures
- May reach above shoulder heights and below the waist on a frequent basis
- May stoop, kneel, or bend, on an occasional basis
- Ability to wear personal protective equipment is required (including but not limited to; steel toed shoes, gloves, safety glasses, hearing protection, protective jacket or apron and arm guards)
- All associates working on the production floor may be required to wear a respirator at any given time and thus, the ability to wear a respirator is a condition of employment and continued employment (requires little or no facial hair)

*Potential candidates will meet the education and experience requirements provided on the above job description and excel in completing the listed responsibilities for this role. All candidates receiving an offer of employment must successfully complete a background check and any other tests that may be required.*

*Equal Opportunity Employer Statement: First Solar is an Equal Opportunity Employer that values and respects the importance of a diverse and inclusive workforce. It is the policy of the company to recruit, hire, train and promote persons in all job titles without regard to race, color, religion, sex, age, national origin, veteran status, disability, sexual orientation, or gender identity. We recognize that diversity and inclusion is a driving force in the success of our company.*

