



Advent Diamond, Inc.  
7700 S. River Parkway, Ste 2618  
Tempe, AZ 85284

**EMPLOYER NAME:** Advent Diamond, Inc.

**JOB TITLE:** Technology Development Engineer (Full time)

**JOB DUTIES:** Support the development, optimization, and implementation of advanced semiconductor fabrication processes for solid-state devices. Collaborate closely with cross-functional teams to execute experiments, analyze results, and contribute to the evolution of fabrication workflows. Duties include:

- (1) Design, execute, and meticulously analyze experiments to establish fabrication process flows for new solid-state device designs. (25%);
- (2) Collaborate closely with R&D team to refine process requirements based on device physics and simulation models. (25%);
- (3) Conduct detailed studies to optimize critical fabrication processes, such as plasma etching (RIE/ICP), specialized wet chemical treatments, photolithography, thermal anneals, and various passivation techniques to achieve optimal device structure, and identifying compatible packaging for high power semiconductor components to meet the performance metrics. (20%);
- (4) Coordinate projects and prepare detailed fabrication schedules for projects. (10%);
- (5) Present clear, concise technical reports, conclusions, and data-driven recommendations to the R&D team and leadership. (10%);
- (6) Mentor junior technicians on best practices for experimental execution, process training, safety, and lab procedures. (10%).

Travel maximum once every 6 months for 2 to 3 days each trip to attend semiconductor-related industry conferences in the United States.

**JOB REQUIREMENTS:** Master's degree in Electrical Engineering or Materials Engineering and 1 year of experience in any occupations in which the acquired experiences were gained. Must have:

- (1) 1 year of experience applying theoretical and practical knowledge of solid-state device architectures to the design, analysis and execution of semiconductor fabrication processes, including wet chemical treatments, photolithography, thermal anneals, passivation techniques, and etching.
- (2) 1 year of experience designing semiconductor fabrication experiments, developing end-to-end semiconductor fabrication process flow, and conducting process-optimization studies for semiconductor device fabrication.
- (3) Experience in evaluating technical characteristics of packages for high power semiconductor components.

**JOB LOCATION:** 7700 S. River Parkway, Suite 2618, Tempe, AZ 85284

**TO APPLY SEND RESUME TO:** resumes@adventdiamond.com (write "Technology Development Engineer" in subject line)