

Space Research Results Purify Semiconductor Materials



Johnson Space Center

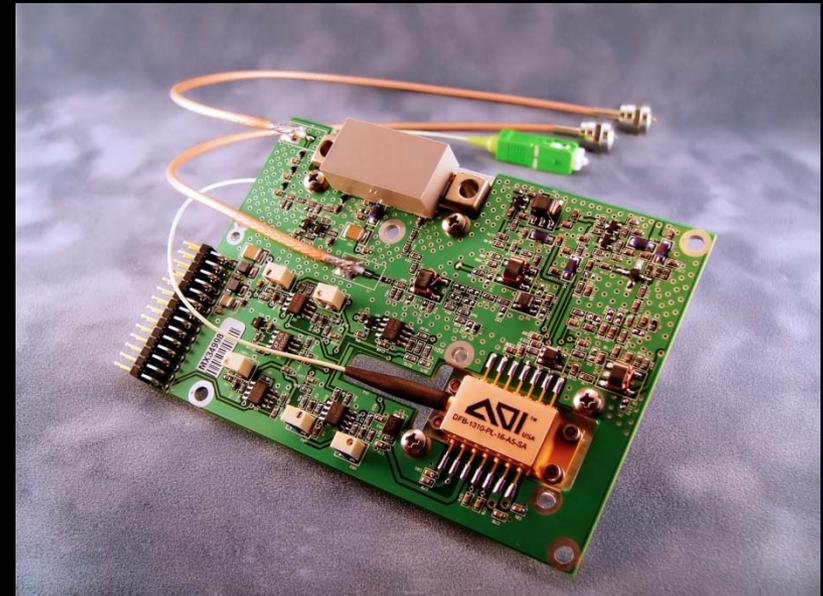
Applied Optoelectronics Incorporated (AOI) Sugar Land, Texas

Originating Technology/NASA Contribution

- ◆ The Space Vacuum Epitaxy Center (SVEC) at the University of Houston was one of 17 Commercial Space Centers established by NASA
- ◆ Researchers at the SVEC and NASA developed the Wake Shield Facility (WSF) to grow thin film materials in space

Partnership

- ◆ The partnership resulted in advancement of molecular beam epitaxy, a method of developing thin film materials
- ◆ SVEC researchers formed AOI to fabricate devices using the advanced techniques and knowledge from the WSF partnership



Product Outcome

- ◆ AOI manufactures a crystal material used to make laser diodes and photo diodes
- ◆ The company is now one of the largest developers and manufacturers of advanced optical devices, selling 1 million devices annually
- ◆ The technology is applied to fiber optic networks for cable television and communications