



## The IHP - Innovations for High Performance Microelectronics

invites applications for a PhD position in

### **Research in the area of “Alternative Semiconductor Integration on Silicon for Microelectronic Devices” (December 2008)**

The IHP consists of approximately 200 employees, primarily in the area of wireless communications, including SiGe-based technologies, diagnostics, and materials research. We are working in a multidisciplinary environment, spanning materials, process technology, circuits, and systems. The IHP is housed in a state-of-the-art building 55 minutes from Berlin, with ultra-modern facilities. Our innovations are in worldwide demand.

We are seeking a candidate with a Master degree in Physics, Chemistry, Crystallography or Electronics for research in the field of alternative semiconductor integration (i.e. Ge & III-V) on Silicon for future microelectronic device technologies. The PhD project is focused on the development of alternative semiconductor / Silicon heterostructures with excellent structural and electrical quality for potential applications in future Silicon-based Microelectronics. The PhD student will mainly participate in experimental materials science studies at our state-of-the-art in-house research facilities, including molecular beam epitaxy (MBE) and chemical vapour deposition (CVD) growth techniques as well as materials science characterization (photoelectron spectroscopy, X-ray based structure studies etc.). In addition, Synchrotron radiation techniques at modern third generation sources like BESSY II in Berlin and the ESRF in Grenoble will be regularly used. The successful candidate must have a well developed knowledge of solid state physics concepts at her / his disposal. Working experience in one or more of the following fields would be an advantage: semiconductor physics, surface science techniques, silicon IC technology. Further information about the heteroepitaxy project is available on the internet page of the Materials Research department (<http://www.ihp-microelectronics.com>).

The position offers a unique opportunity to work at the forefront of semiconductor technology in an upcoming new research field. We offer a challenging, multinational environment with excellent career prospects in science as well as industry to highly motivated individuals.

The position will be filled as quickly as possible. Salary will be paid according to the TVÖD scale. Please send your application letter / e-mail including CV, copies of (scanned) certificates, and addresses of two reference persons to:

Dr. Christel Quick  
IHP / Im Technologiepark 25  
15236 Frankfurt (Oder) / Germany  
Phone: +49 335 5625 330  
Telefax: +49 335 5625 666  
E-mail: <mailto:quick@ihp-microelectronics.com>

Dr. Thomas Schroeder  
IHP / Im Technologiepark 25  
15236 Frankfurt (Oder) / Germany  
Phone: +49 / 335 5625-318  
Telefax: +49 / 335 5625-681  
E-mail: [schroeder@ihp-microelectronics.com](mailto:schroeder@ihp-microelectronics.com)