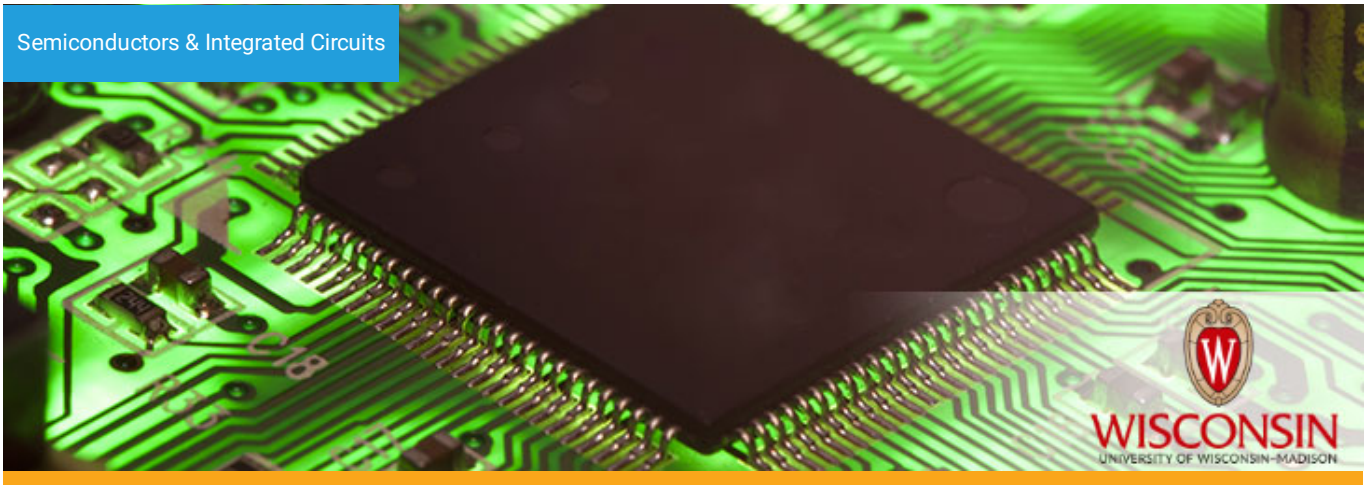

Continuous System For Fabricating Multilayer Heterostructures Via Hydride Vapor Phase Epitaxy

View U.S. Patent No. 10,190,234 in PDF format.

WARF: P180039US01

Inventors: Thomas Kuech, James Rawlings, Min Yao

The Invention

A Hydride Vapor Phase Epitaxy (HVPE) system is provided which comprises a deposition assembly comprising a plurality of deposition chambers and a plurality of separation chambers mounted together, each separation chamber having two opposing ends, each end mounted to a deposition chamber of the plurality of deposition chambers and in fluid communication with the deposition chamber via a fluid pathway, wherein each deposition chamber of the plurality of deposition chambers defines a deposition zone having a height hd, each separation chamber defines a separation zone having a height hs and a length ls, and each fluid pathway has a height hfp, wherein hfp, hs and ls are selected to provide a predetermined interfacial transition region value between different material layers of a multilayer heterostructure; and a moveable belt configured to continuously convey a substrate mounted thereon through the plurality of deposition chambers and the plurality of separation chambers. The system further comprises a gas delivery assembly configured to deliver reactant gas mixtures to the deposition assembly for deposition on the substrate via HVPE.

Additional Information

For More Information About the Inventors

- Thomas Kuech

Tech Fields

- Semiconductors & Integrated Circuits : Design & fabrication

For current licensing status, please contact Michael Carey at mcarey@warf.org or 608-960-9867