



## Research Scientist/Post-doctoral Researcher University of California Davis



### The ECE Department of University of California, Davis announces a research position in Energy Conversion Nanodevices

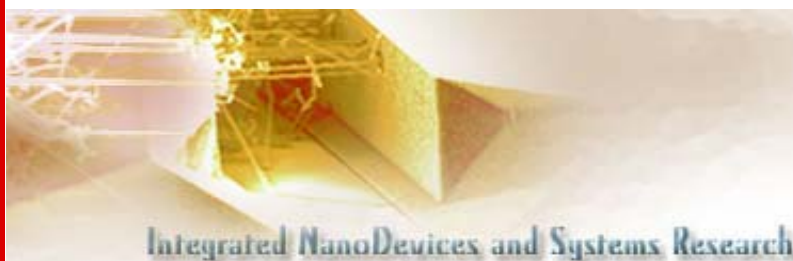
The ECE Department at UC Davis is accepting applications for the position of a Research Scientist/Postdoctoral Research Fellow specializing in design, fabrication, inorganic semiconductor (group IV) material growth/synthesis, surface coating/passivation and characterization of solar cell and other energy conversion devices.

This position requires the ability to think creatively and work well in multidisciplinary teams. The candidate must be able to exercise judgment on selections of work details and adaptations of technical alternatives and approaches. The candidate will have a fair amount of independence in establishing his or her research work, with the expectation that aligns with our strategic direction of nano-device development for energy conversion. The candidate will have considerable leeway in determining technical objectives of assignments, and is expected to be a technical resource and mentor to other research group members.

Our core research program is based on nano-materials synthesis, processing, fabrication, patterning and characterization. Current areas of active research interests include precision fabrication and assembly of nano-structures (both microscale and nanoscale), in different material systems (Si, Ge, GaAs, InP, several oxides etc), and applications of one-dimensional nanostructures for nano-phonic and electronic devices. We use physical and chemical vapor deposition (CVD, PVD), Langmuir Blodgett assembly, SAMs and other techniques for bottom-up synthesis of nanoscale materials and nano-devices and are working on combining the "bottom-up" techniques with the "top-down" approach of IC fabrication. The above efforts will closely link with the research activities of our collaborators at Hewlett-Packard Laboratories, Sandia National Labs, NIST and Army Research Labs.

A Ph.D. in Physical Sciences or Engineering (Material Science, Chemical Engineering, Chemistry, Physics or Electrical Engineering), with an emphasis in materials and devices, completed within the last three years or soon to be completed, is required. The candidate must possess nano-material growth (such as Si CVD) characterization skills (e.g., microscopy, mechanical testing, electrochemical, UV-Vis absorption and fluorescence, FTIR, SEM, TEM, single-crystal XRD) and subsequent data interpretation and reduction. Some understanding of micro/nanofabrication, characterization techniques for materials and devices will be important. The candidate is expected to supervise and closely interact with the graduate and undergraduate researchers, prepare scientific reports/papers, attend grant agency meetings and conferences, communicate well in English and be comfortable with leadership responsibilities. Initial appointment is for 1 year and could be extended to 2 to 3 years depending on the performance and available funding. Salary is negotiable, commensurate with qualifications and experience, and the position carries benefits.

Interested candidates should submit curriculum vitae, a list of publications, a statement of research interests and the names of three professional scientists who are familiar with the applicant's work and who could provide recommendation letters, if needed. Applications will be reviewed as received and the position kept open until filled. Electronic submissions are highly encouraged.



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