



## **Ice Chemistry – Astrobiology Postdoctoral Fellow – Institute for Astronomy, University of Hawai'i Manoa**

The Institute for Astronomy (IfA) invites applications for a postdoctoral fellowship with interests in the processing of primitive solar system ices to join the University of Hawai'i's NASA Astrobiology Institute lead team (<http://www.ifa.hawaii.edu/UHNAI/>). The Fellowship will be available in early 2009 upon availability of funds. The Fellowship is for three years assuming satisfactory progress and continued availability of funds. Fellows will receive a stipend of approximately \$4,800 per month, a small relocation allowance and basic research costs.

The UH lead team maintains an innovative and multi-disciplinary research environment linking astronomical, biological, microbiological, chemical, and geological sciences to investigate the origin, history, distribution and role of water as it relates to life in the universe. The program centers around interactions with an interdisciplinary group of postdoctoral fellows. We have a particular need for an individual interested in the study of the origin and survival of the precursor molecules to life, and the formation of carbon-, hydrogen-, oxygen-, and nitrogen-bearing molecules in ices of Kuiper belt objects and small icy outer solar system bodies by reproducing the space environment in an ultra-high vacuum laboratory facility.

The Fellow will use a state of the art surface scattering machine to mimic the interaction of ionizing radiation with low temperature ices, and will obtain NIR, mid-IR and UV-Vis spectra of radiated and non-radiated samples. The Fellow is expected to collaborate with other fellows and co-investigators in an interdisciplinary environment and to participate in group activities (*e.g.* seminars, meetings, discussion groups etc.)

Minimum qualifications include a Ph.D. in Physical Chemistry, or a related field, a record of research in physical chemistry as demonstrated by publications, good computer and software skills, and expertise in ultra high vacuum technology and scattering dynamics. Desirable qualifications include experience with ultra high vacuum machines, autocad modeling software, charged particle sources, and IR and UV-VIS spectrometers. Education and public outreach is an integral part of the Astrobiology program and experience with or interest in E/PO will be considered positively in an application.

Questions about the ice chemistry project may be directed to: Dr. Ralf Kaiser by email ([ralfk@hawaii.edu](mailto:ralfk@hawaii.edu)).

Questions about the UH Astrobiology lead team's program may be directed to Dr. K. J. Meech ([meech@ifa.hawaii.edu](mailto:meech@ifa.hawaii.edu)).

To Apply, please submit the following:

- Contact information - name, email, phone(s), fax, address.
- Current position and location
- Date of Ph.D and where and what field
- Date available if selected for Fellowship.
- If non-US citizen, visa status (note: funding only allows for support for fellows on J1-visas)
- Current CV and Bibliography
- Letters of recommendation – Please arrange to have 3 letters of recommendation sent separately.

Application materials should be sent (preferably via email) to:

Via snail mail to: Karen Ehrhorn, Institute for Astronomy, 2680 Woodlawn Drive, Honolulu, HI 96822.

Via e mail to: [ehrhorn@ifa.hawaii.edu](mailto:ehrhorn@ifa.hawaii.edu)

Via fax to: NAI Postdoc application, fax no. (808) 956-4644

Applications will be reviewed beginning February 1, 2009 and will remain open until the Fellowship is filled.