



VIRGINIA Diodes Inc.

June 6, 2008

Steward Observatory
University of Arizona
933 N. Cherry Ave.
Tucson, Arizona 85721

Dear Craig

I am writing to enthusiastically support your proposal "The High Elevation Antarctic THz Telescope (HEAT)" being submitted to the NSF Office of Polar Programs (OPP) under Solicitation 08-535 and that I intend to carry out all responsibilities identified for me in this proposal.

I believe that with my extensive experience in the design of Schottky-based submillimeter systems, including both sources and mixers, that I will be able to benefit the Instrument Team. Of particular relevance for this proposal is the experience I gained as the P.I. on a NASA SBIR Phase II grant ("Compact Terahertz Heterodyne Receivers," NAS5-02107) which involved the successful design and implementation of a series of state-of-the-art Schottky receivers up to 1 THz. These receivers are now being used in an airborne platform for monitoring the properties of ice-clouds in the atmosphere. The technical requirements of these receivers were similar in many ways to those needed for the HEAT program, including high sensitivity, ruggedness, stability and low DC power requirement. In addition, I have worked on the design of a wide variety of local oscillator systems for astronomical receivers (typically based on SIS or HEB cryogenic technology) at frequencies ranging from 100 GHz to 1.9 THz, experience which will also be quite relevant to this proposal.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Hesler', is written over a horizontal line.

Jeffrey L. Hesler
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