

A NEW LABORATORY FOR TERAHERTZ CHARACTERIZATION OF COSMIC ANALOG DUSTS

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Two efforts have been underway to enable the laboratory study of cosmic analogs dusts in the frequency range 60–2000 GHz. They are: (1) the construction of a novel compact Fourier Transform Spectrometer (FTS) design coupled to a dry 4-K cryostat which houses a cooled sample exchanger (filter wheel) and a bolometer. (2) The production of Mg- and Fe-rich silicate dusts using sol-gel methods; various tests to determine their physical and chemical properties; embedding of samples in LDPE pellets for insertion into the novel FTS. This presentation will focus on the current status of the apparatus and data from its first few months of use.