

Technical Page

Proposal Type: Regular
 General Category: Astronomy
 Sub-Category: Spectroscopy
 Observation Category: Solar System
 Total Time Requested: 48 Hours

Proposal Title: OH Observations of Three Comets in 2004

ABSTRACT:

We propose to observe three comets, C/2003 K4 (LINEAR), C/2002 T7 (LINEAR) and C/2001 Q4 (NEAT) during the spring of 2004. These comets are all expected to be bright enough to produce strong OH radio lines, so that we can map the strength of the line flux both at the nucleus and in the surrounding coma. Arecibo observations of OH at high spatial and velocity resolution help to determine the gas velocity in the coma, and the maps will allow us to detect any asymmetry in the outgassing from this comet. These three comets are predicted to have gas production rates in an ideal range to provide valuable constraints on the existence of and value of a production rate threshold for quenching.

Name	Institution	E-mail	Phone	Student
Ellen S Howell	Arecibo Observatory	ehowell@naic.edu	787 878-2612 x282	no

Service Observing Request

- None
- All of the observing run.
- Part of the observing run.
- Queue Observing

Remote Observing Request

- No
- Maybe
- Yes

Instrument Setup

L-wide

Atmospheric Observation Instruments:

Special Equipment or setup: none

RFI Considerations

Frequency Ranges Planned

1665-1667