

Interactive comment on “Electron heating by HF-pumping of high-latitude ionospheric F-region plasma near magnetic zenith” by Thomas B. Leyser et al.

Anonymous Referee #1

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This is a well written and clear manuscript, introducing the idea that L-mode radio wave propagation may play an important role in ionospheric modification experiments and in the magnetic zenith effect in particular. In the past, only O-mode radio wave propagation was considered. I can recommend this manuscript for publication. I have only two relatively minor comments:

L56: The authors should include the Heater beam width please. The UHF radar beam width is explicitly mentioned, but the Heater beam width is only discovered by the reader when they get to Figure 6.

L216-217: This sentence regarding L-mode versus O-mode radio wave propagation

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requires a little more explanation or at least a reference please. Otherwise, the reader is forced to simply accept the authors' words.

Interactive comment on Ann. Geophys. Discuss., <https://doi.org/10.5194/angeo-2019-159>, 2019.

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