



SMITHSONIAN ASTROPHYSICAL OBSERVATORY

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Centennial Year 1990

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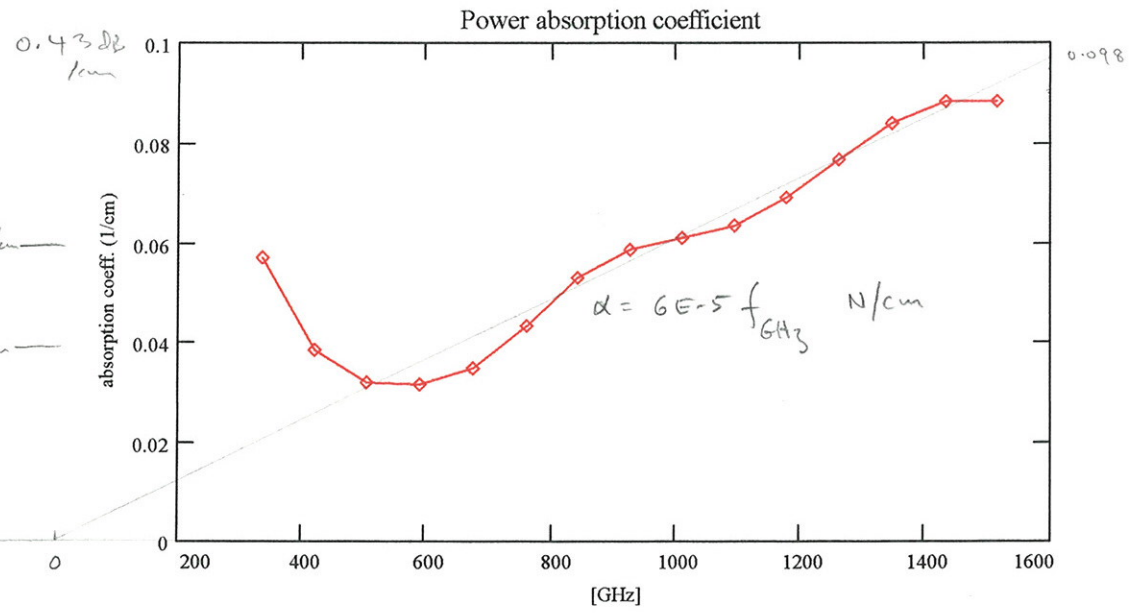
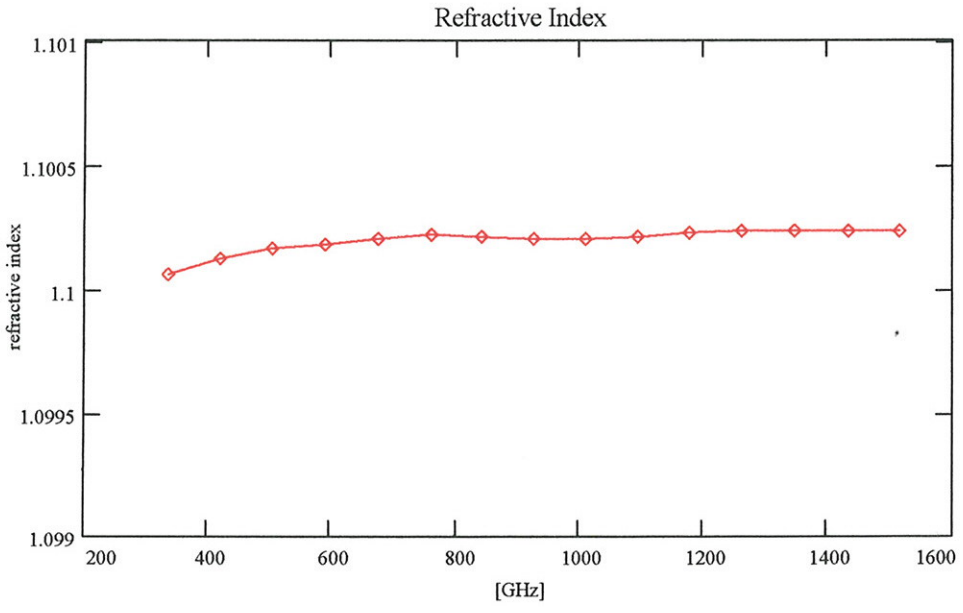
Dear Tony,

Here is the sample of Gore-Tex RA-7957 that you loaned us a year and a half ago. We finally installed the new sample fixture in our FTS which permits us to make a more accurate loss measurement, and eliminates some small systematic errors in the index measurement. The attached refractive index and loss data are the most recent measurement made by Jon Kawamura and myself. From the FTS interferogram, we calculated a thickness of 0.615 ± 0.002 cm, which agrees well with the thickness measured with a micrometer over the center area of the sample. We don't understand the loss behavior. In any case it is probably complicated by the combination of scattering and absorption effects.

Regards,

Scott Paine

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0.43 dB/cm

0.26 dB/cm

0.17 dB/cm

0.098

4.34 dB = 1 mpy