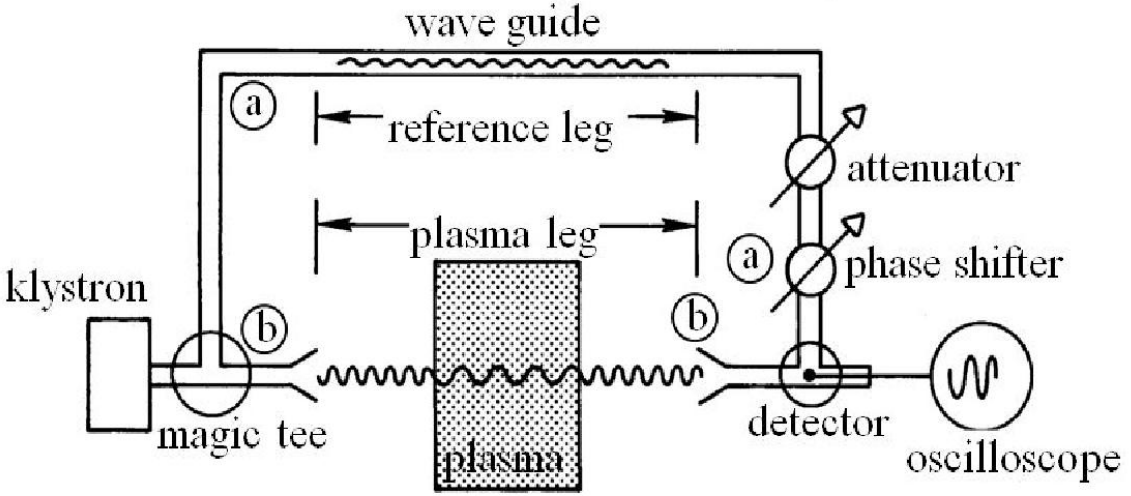
Electron denstity n_e measurement: basic strategy

4.13(2)

- Microwave interferometer for plasma density measurement

index of refraction $\tilde{n} = \frac{c}{v_{ph}} = \frac{ck}{\omega}$ >1 in glass, $=1$ in vacuum, <1 in plasma



A microwave interferometer for plasma density measurement.

1.without plasma, signals from path (a) and (b) are 180° out of phase.

2.with plasma, the phase in (b) changed as $\lambda\uparrow$, (by higher plasma density).

credit:[Unknown, 2016]


Unknown (2016). Waves in plasmas. https://slideplayer.com/slide/4645607/. [Online; accessed 2-January-2019].