

# First Demonstration (?) of Optical Harmonic Generation

VOLUME 7, NUMBER 4

PHYSICAL REVIEW LETTERS

AUGUST 15, 1961

## GENERATION OF OPTICAL HARMONICS\*

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(Received July 21, 1961)

- Ruby Laser:  $\lambda = 694.3 \text{ nm}$ ;  $P = 3 \text{ J}$ ;  $\tau = 1 \text{ ms} \Rightarrow E \sim 10^5 \text{ V/cm}$
- Quartz Sample: no phase matching
- Output analyzed with prism spectrometer/photographic plate

## Where is the evidence?

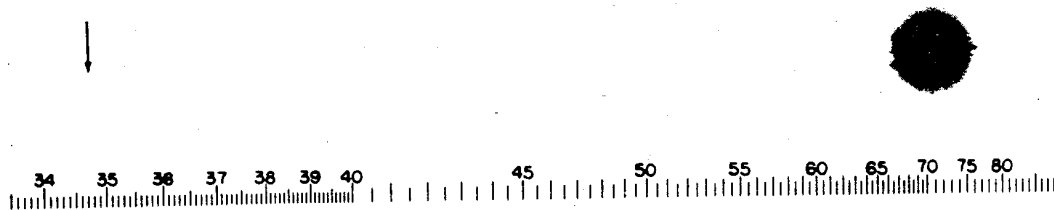


FIG. 1. A direct reproduction of the first plate in which there was an indication of second harmonic. The wavelength scale is in units of 100 Å. The arrow at 3472 Å indicates the small but dense image produced by the second harmonic. The image of the primary beam at 6943 Å is very large due to halation.