

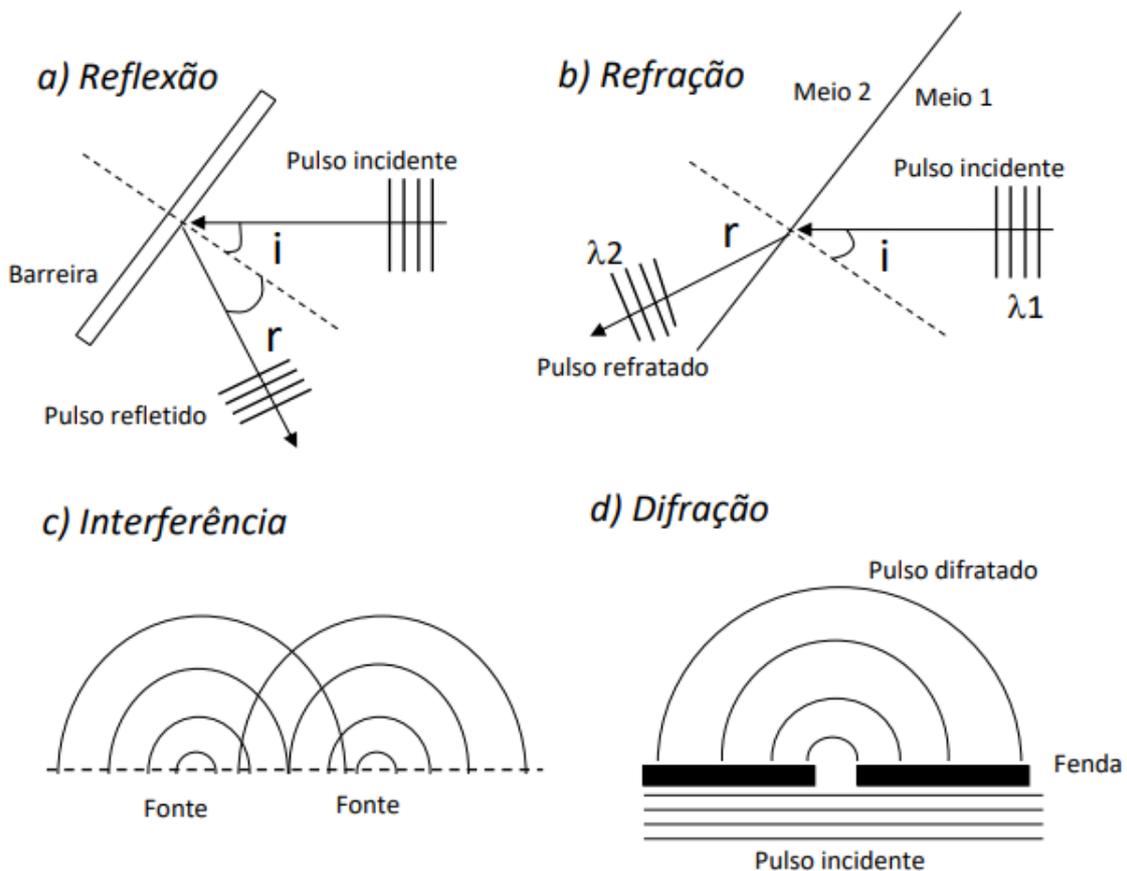
## ANEXOS

**TABELA 1:** Valores de frequência (em Hz), comprimento de onda  $\lambda$  (em m) e velocidade de propagação (em m/s) para cada onda.

Tabela corrigida na  
folha extra

Frequência (Hz)	comprimento de onda (m)	Velocidade (m/s)
10	0,0431	0,431
20	0,0227	0,454
30	0,0180	0,540

**FIGURA 1:** Representação dos fenômenos ondulatórios.

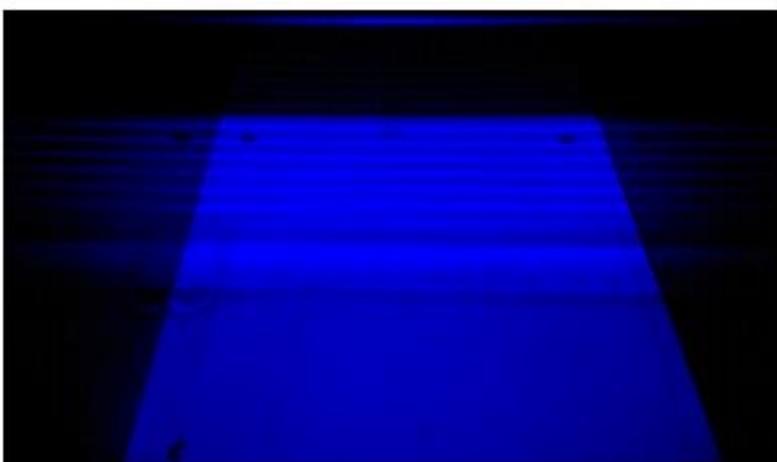


## FIGURA 2: Fotos dos fenômenos ondulatórios

### A – REFLEXÃO

- Frequência fixa de 30 Hz

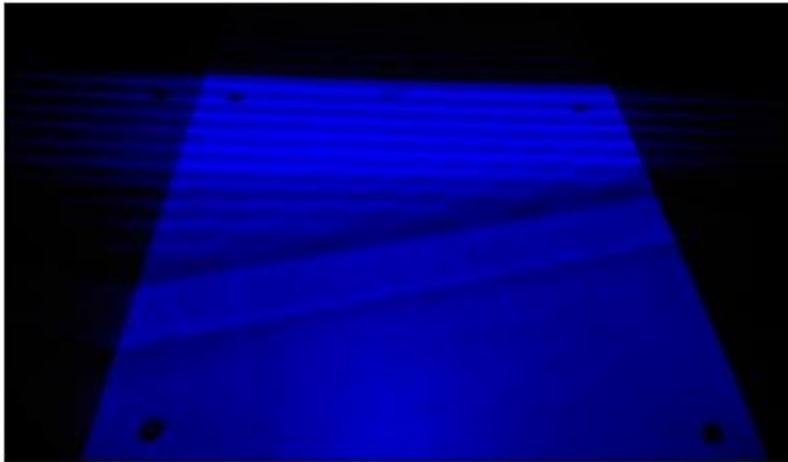
- Ângulo de  $0^\circ$



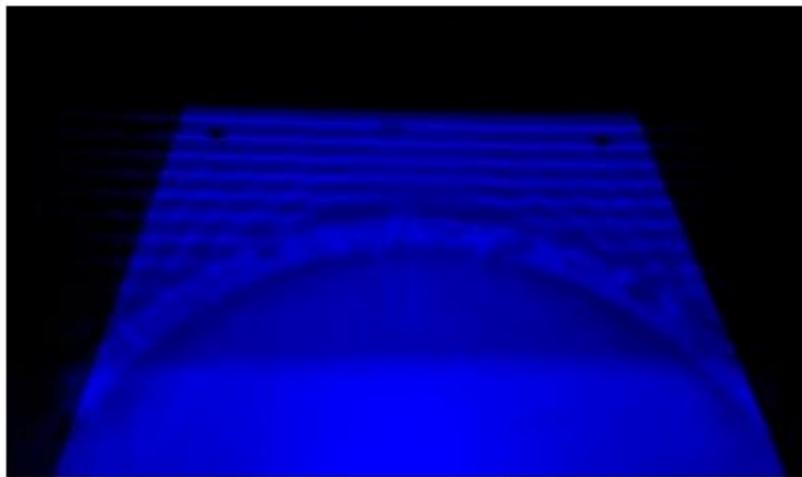
- Ângulo de  $30^\circ$



- Ângulo de  $45^\circ$



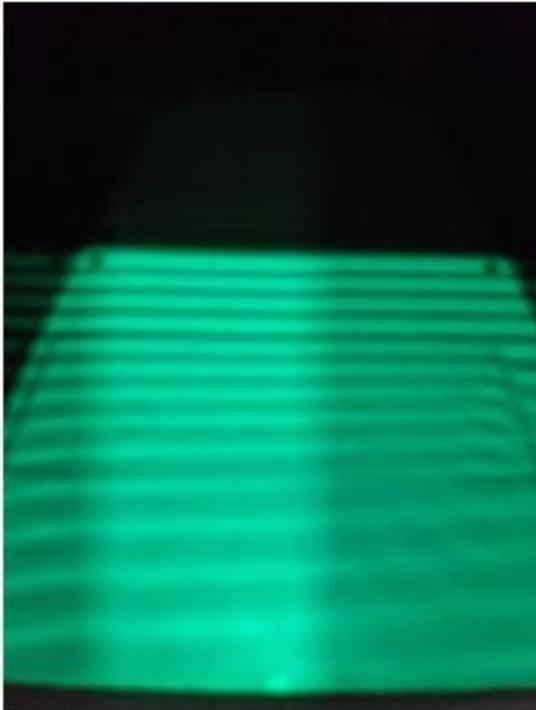
- Anteparo Curvilíneo



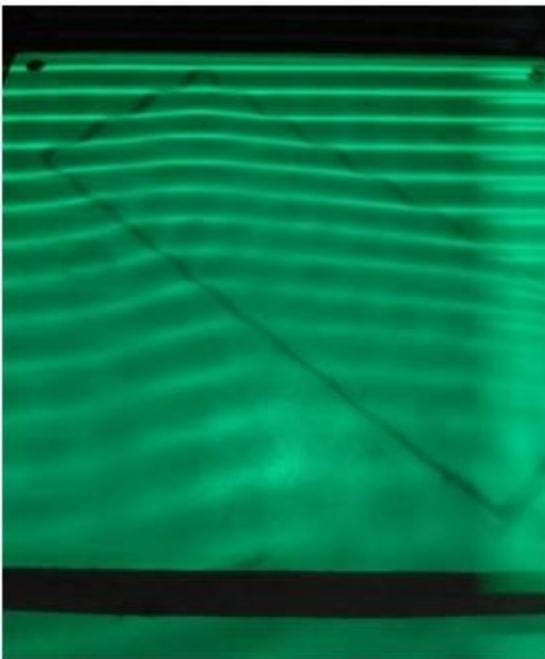
## **B – REFRAÇÃO**

- Frequência de 20 Hz

- Ângulo de  $0^\circ$

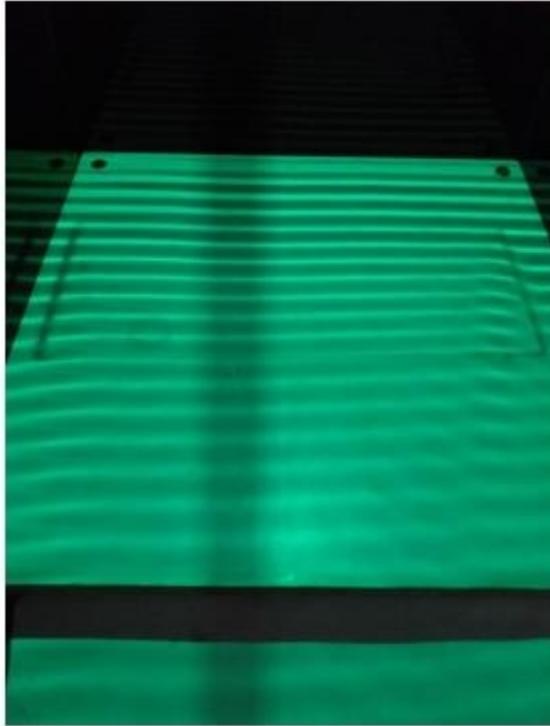


- Ângulo de  $45^\circ$



- Frequência de 30 Hz

- Ângulo de  $0^\circ$



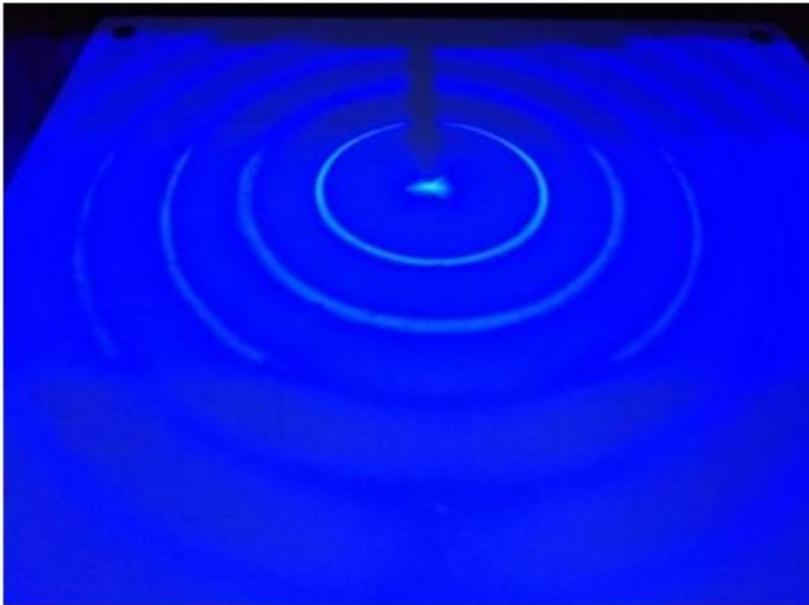
- Ângulo de  $45^\circ$



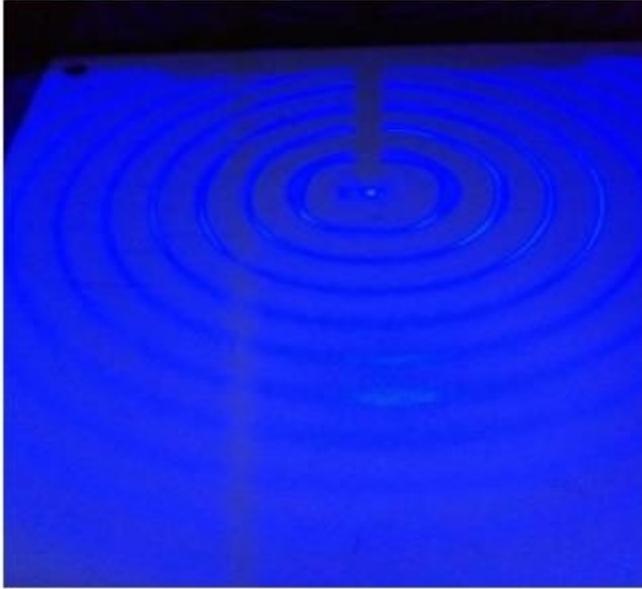
### C – INTERFERÊNCIA

- Uma fonte pontual

- 20 Hz



- 30 Hz

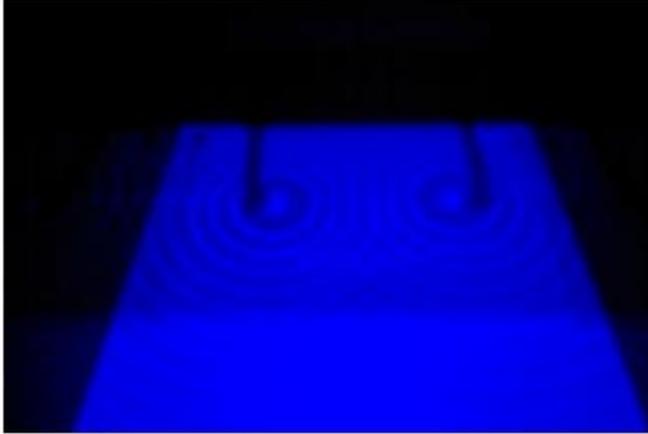


- Duas fontes pontuais com distâncias de 5 cm

- 20 Hz

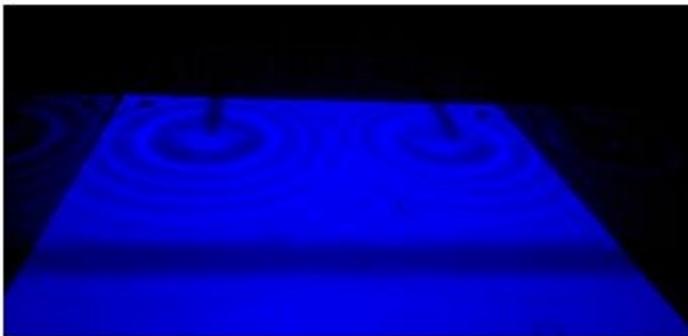


- 30 Hz

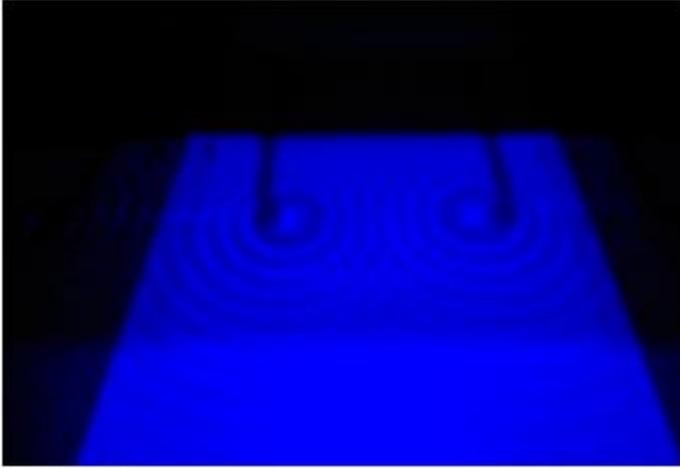


- Duas fontes pontuais com distâncias de 7,5 cm

- 20 Hz

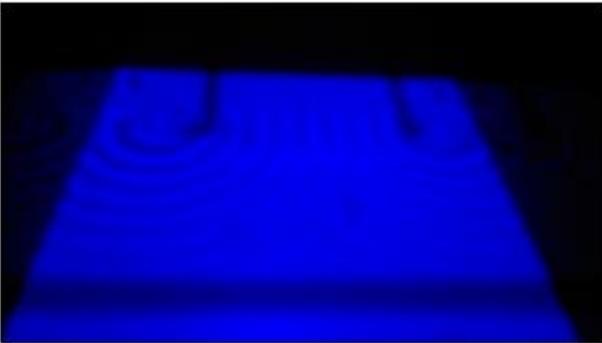


- 30 Hz

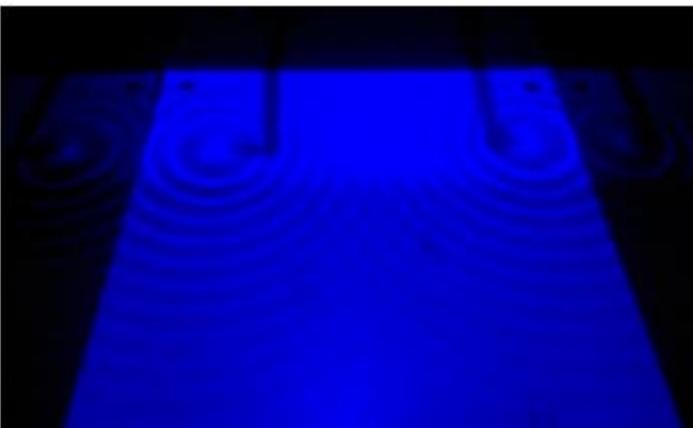


- Duas fontes pontuais com distâncias de 10 cm

- 20 Hz



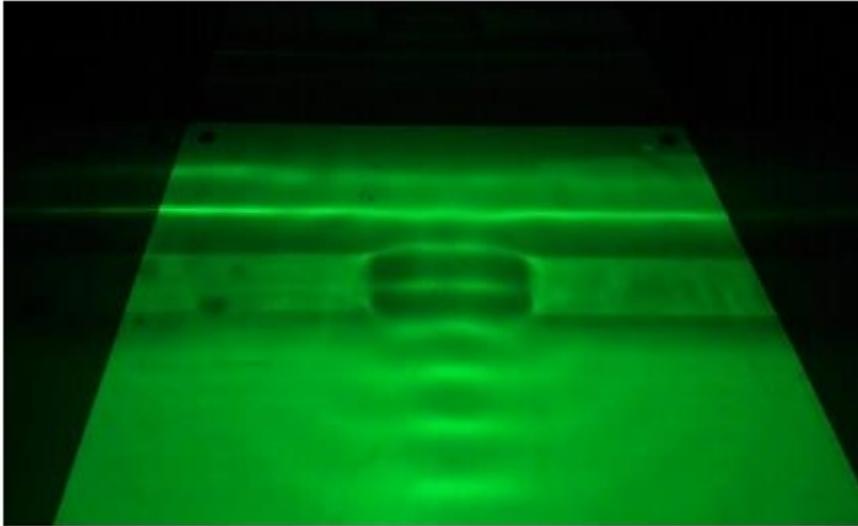
- 30 Hz



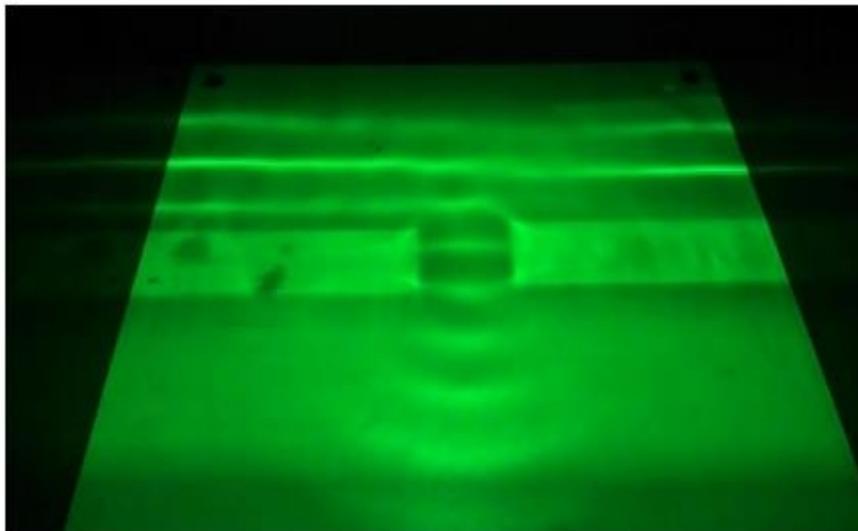
**D – DIFRAÇÃO**

- Frequência de 20 Hz variando a abertura do anteparo em relação ao comprimento de onda

- $\gg \lambda$

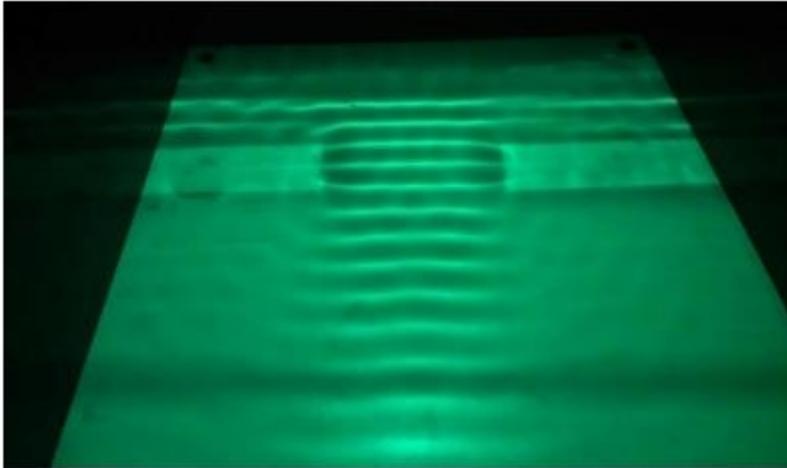


- $> \lambda$

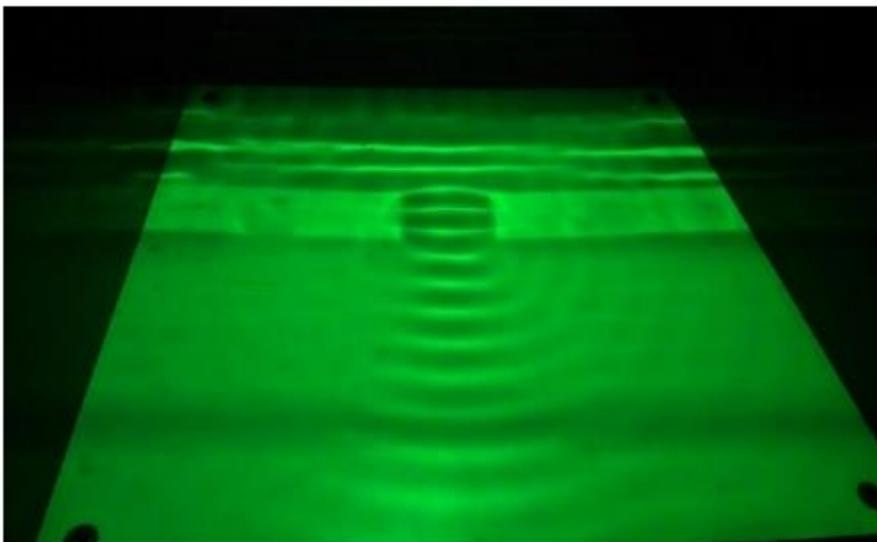


- Frequência de 20 Hz variando a abertura do anteparo em relação ao comprimento de onda

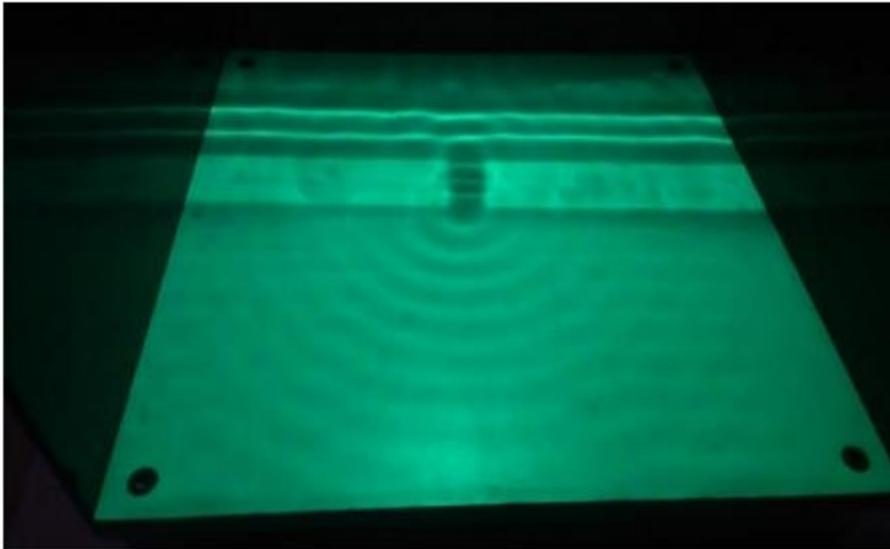
- $\gg \lambda$



- $> \lambda$



- $\approx \lambda$



- Frequência de 30 Hz com duas fendas

