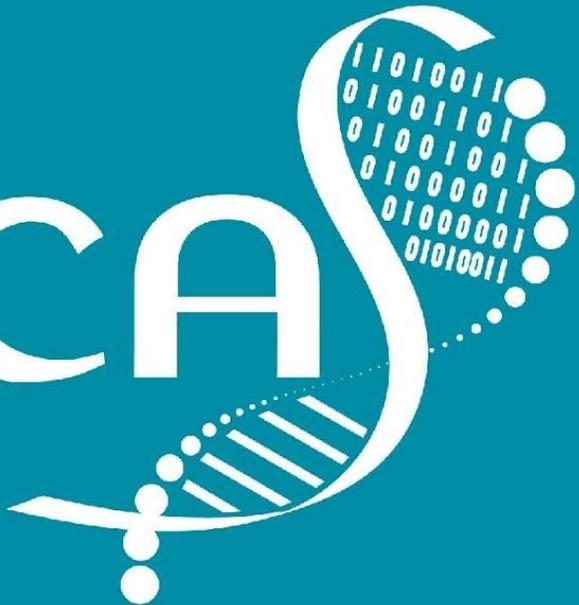


# ómica

A stylized graphic on the right side of the page. It features a white DNA double helix structure. The top curve of the helix is filled with a pattern of binary code (0s and 1s). The bottom curve of the helix is composed of several white circles of varying sizes, connected by a dotted line that extends downwards.

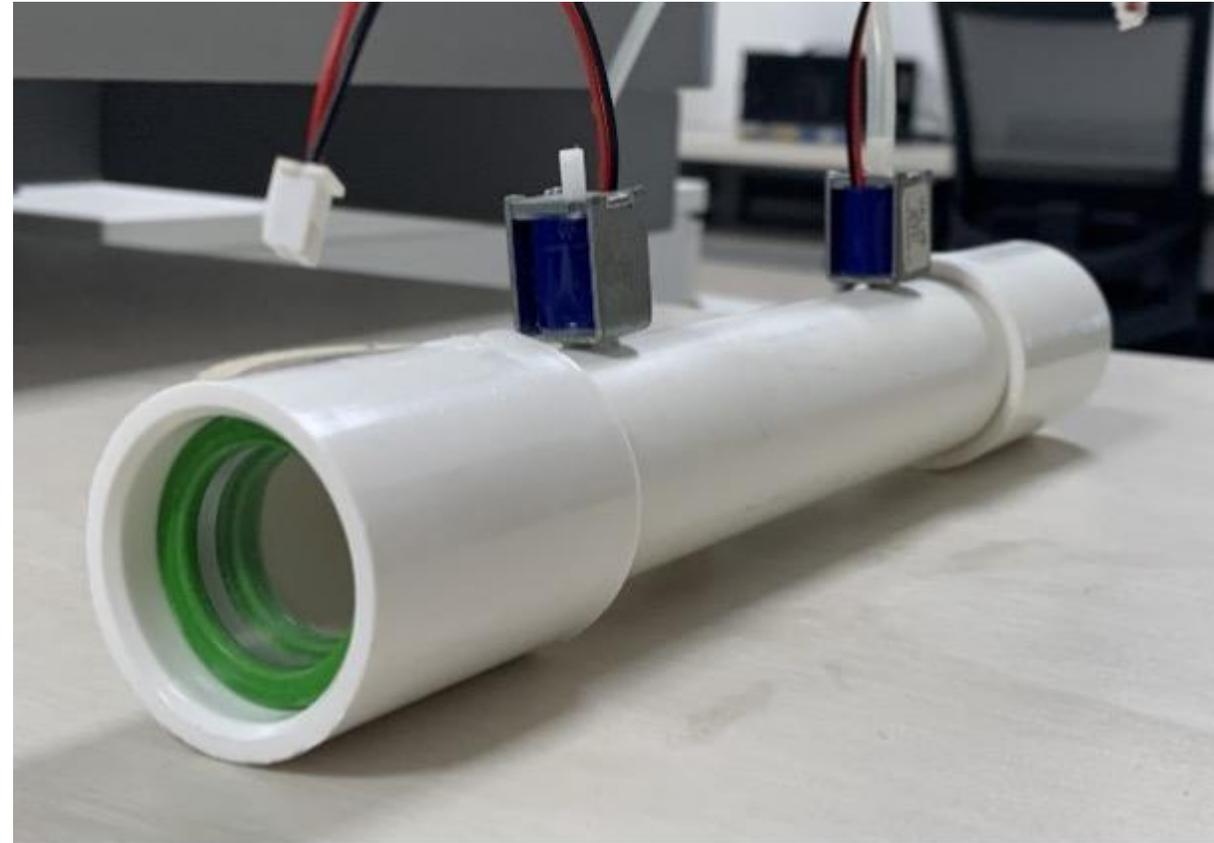
El futuro  
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Gobierno  
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# Dispositivo portable y de bajo costo para la medición de N2O

Sebastián López, Germán Franco, Simón Plata, Andrés Jaramillo, Drochss Valencia



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- INTRODUCCIÓN

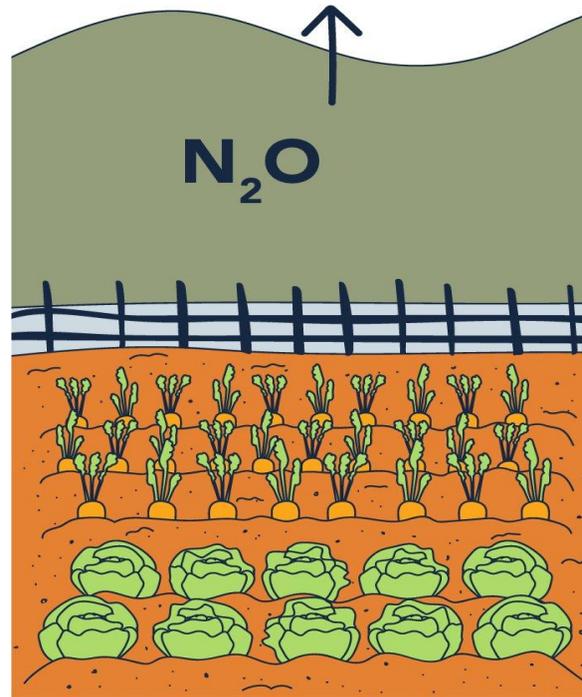
- MATERIALES Y MÉTODOS

- EXPERIMENTO Y RESULTADOS

- OBSERVACIONES FINALES Y TRABAJO FUTURO

# Introducción

- $N_2O$ , potencial de calentamiento 200 mayor que el Dióxido de Carbono.

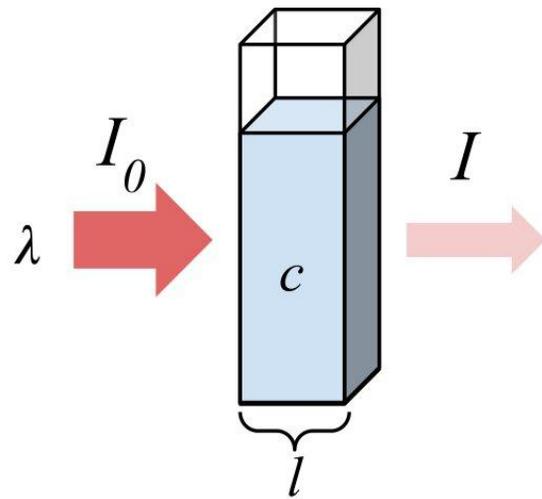


- Suelos agrícolas generan grandes emisiones de  $N_2O$

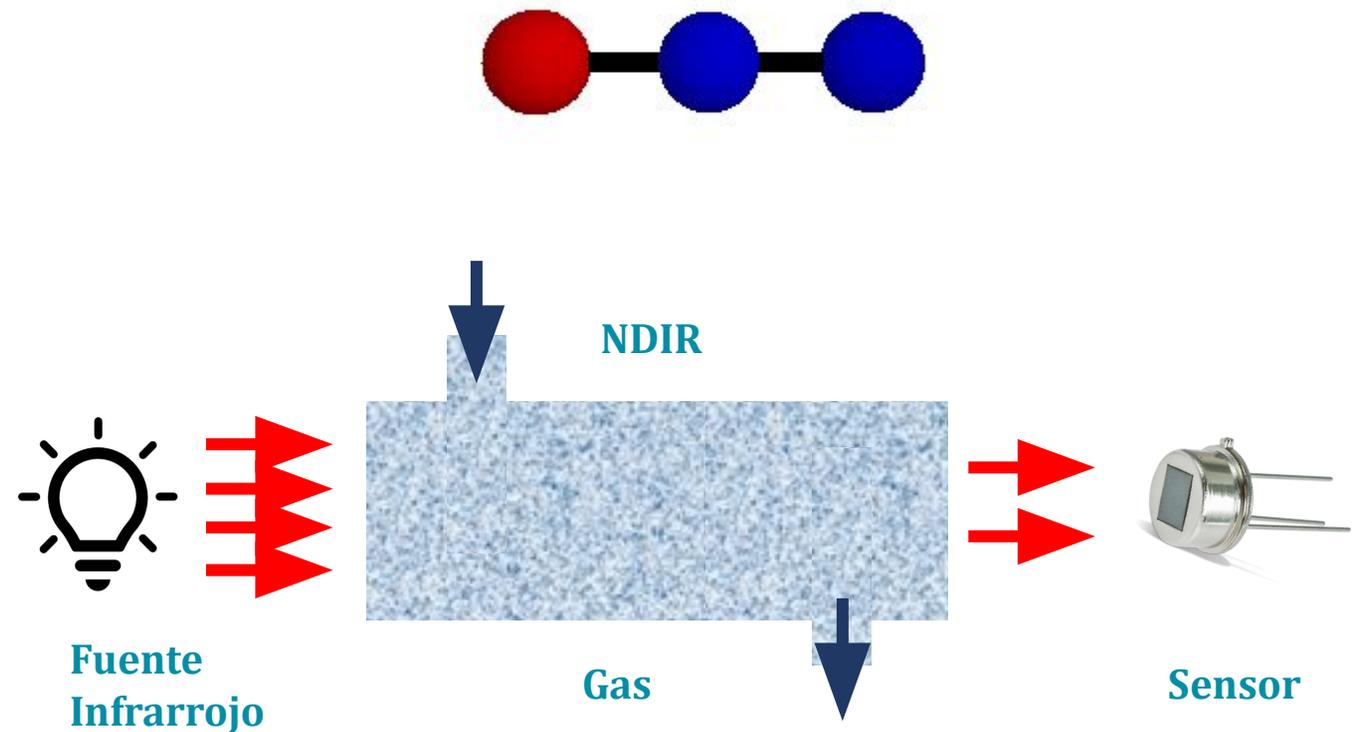
K. Bandara, et All **Sensors VOL "2021", 21(4), 1189.**

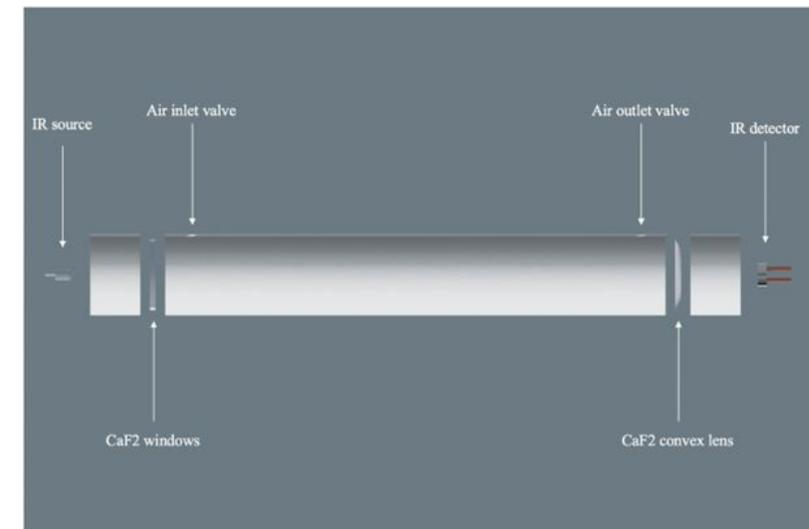
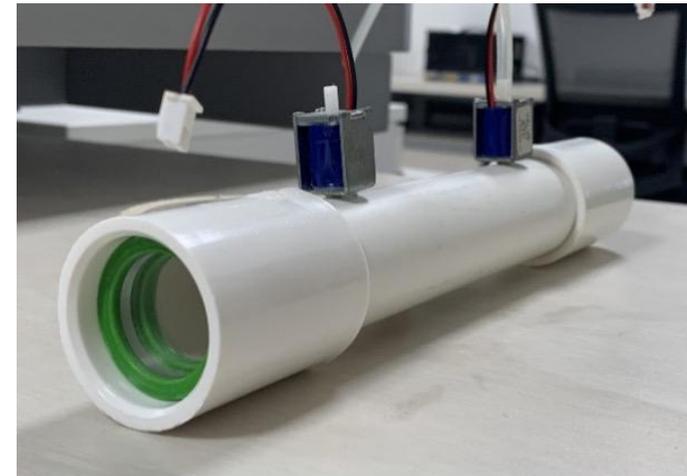
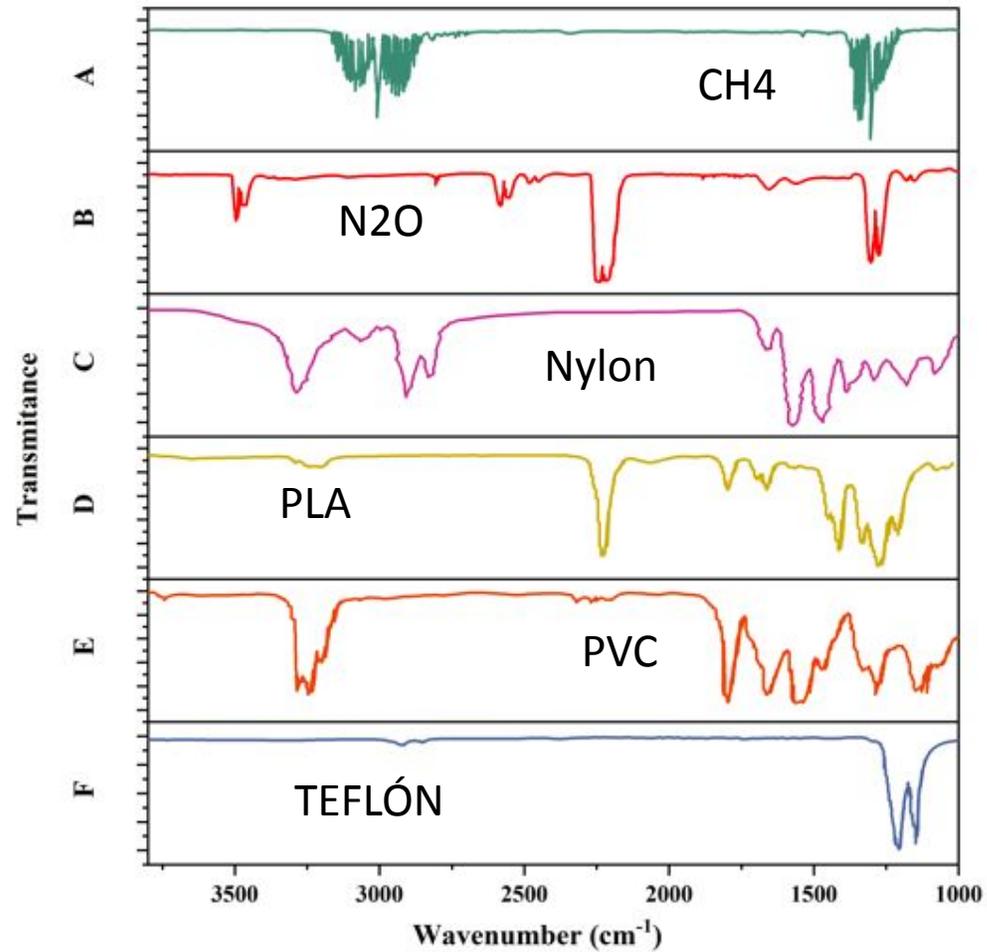
A. Hirsch, et All **Global Biogeochemb Vol "2006" 20, GB1008.**

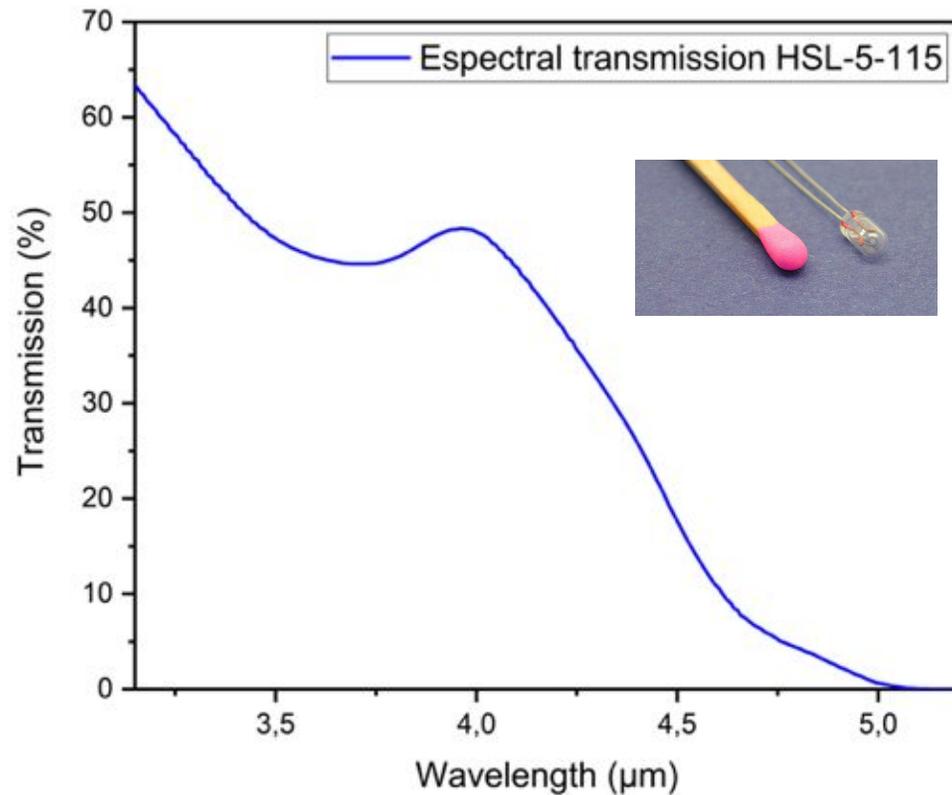
# Métodos de Absorción de gases (NDIR)



$$A = \log_{10} \left( \frac{I_0}{I} \right) = \epsilon c l$$







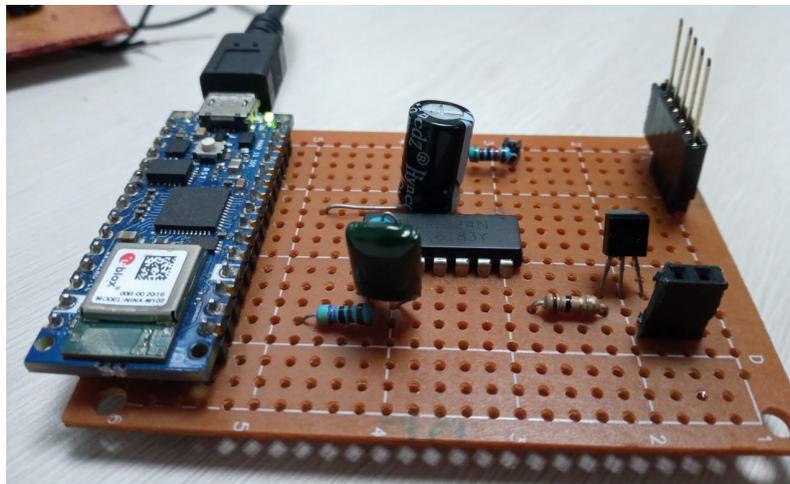
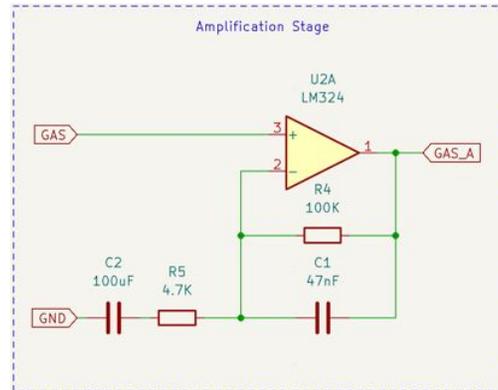
*Espectro de transmisión de la fuente IR.*



## Electrical Characteristics

Max. Voltage	8.0 V
Min. Voltage	2.7 V
Output voltage normalised around mid-rail	
Microphonics	$S_{\text{vib}} \sim 2 \mu\text{V/g}$ at 10Hz
Time Constant	$\sim 12$ ms
Operating Temperature	-40 to +85 °C
Storage Temperature	-40 to +110 °C
Filters	See "Filters Available"

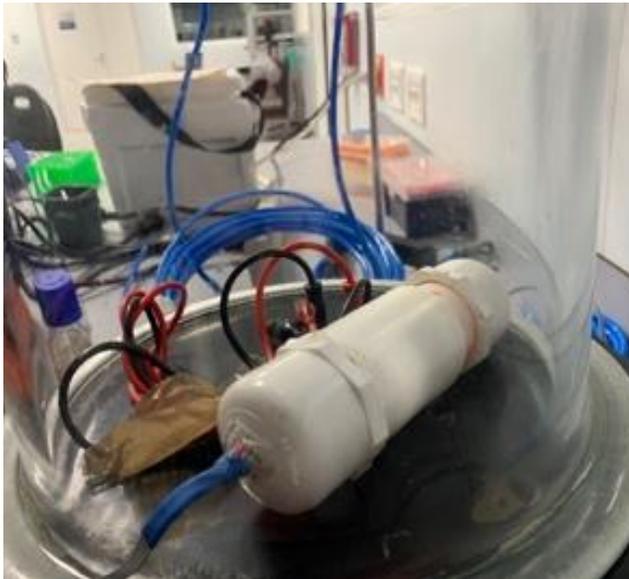
# Materiales y Métodos



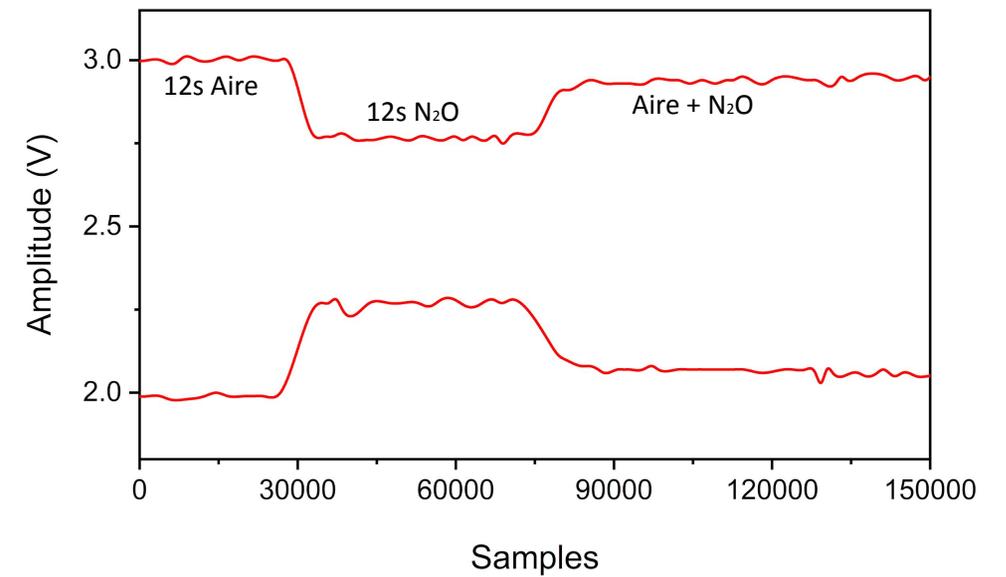
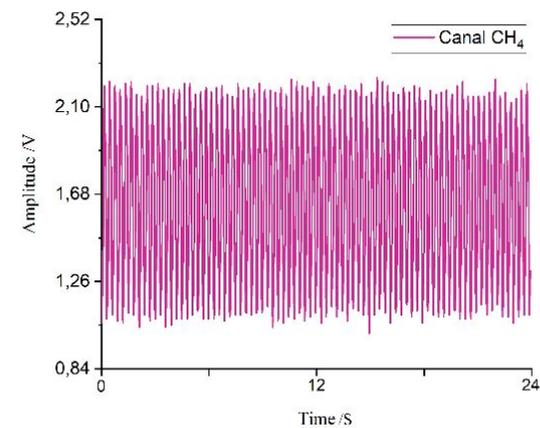
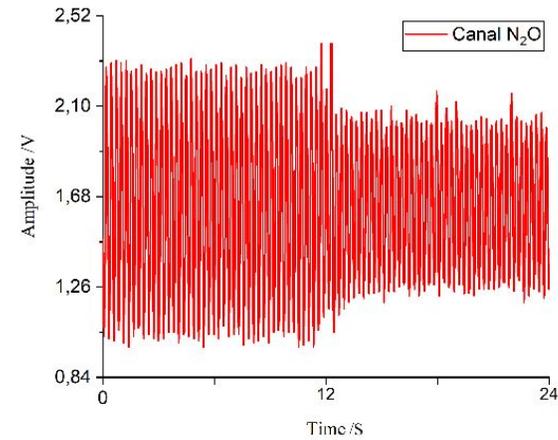
*Circuito de amplificación y filtrado de señales*



# Experimento y Resultados

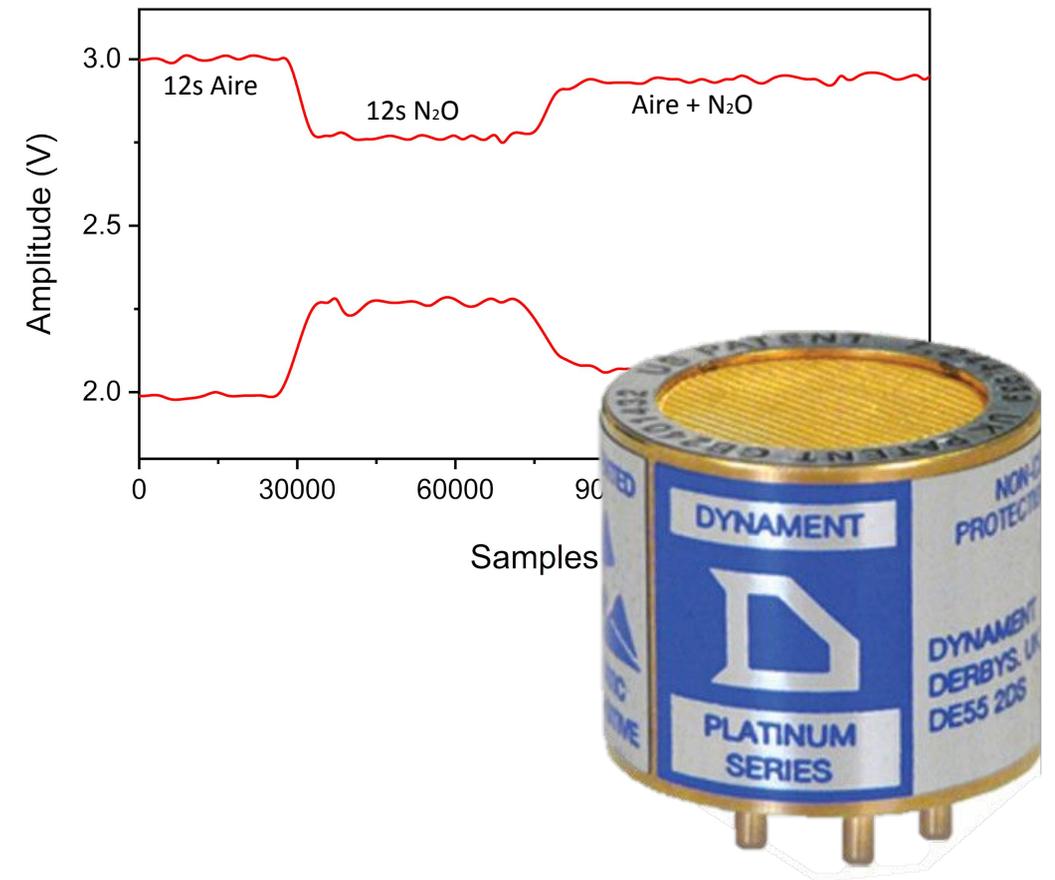


Montaje experimental en campana de vacío para pruebas con gases.



## Observaciones finales y Trabajo Futuro

- Lograr una señal constante como resultado final del posprocesamiento.
- Optimizar el tiempo de procesamiento de medición buscando eficiencia.
- Realizar curva de calibración comparando con sensores comercial y electroquímico.



# AGRADECIMIENTOS



**Newton  
Fund**

## Aliados



## Apoyan



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