

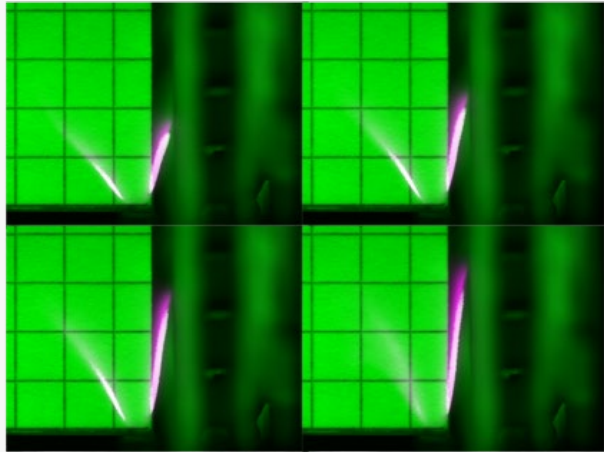


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# Impact of H<sub>2</sub> in power yielded by thermoelectric generators



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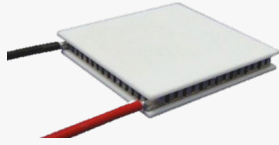
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# Motivation and Context

## Thermoelectrics

- vast range of applications
- reliability, low maintenance
- use the heat from a small flame
- can be employed at any scale
  - small power generator
  - follow the trend of portable devices



Gentherm 8550 powering an antenna in a remote location

## Biomass AD is a promising technology

- waste management tool
- competitive cost of electricity (0.06€/KWh to 0.14€/KWh) [1]
- raw Biogas has weak combustion properties



## Hydrogen is drawing attention

- combustion of pure H<sub>2</sub> has challenges to overcome
- superior combustion properties allow it to be used as fuel dopant



smaller combustion chambers

increasing importance of **flame wall interaction (FWI)**

can H<sub>2</sub> help Biogas meet the FWI demands of different applications?

[1] IRENA, Renewable Power Generation Costs in 2018

# Objectives

