

# What's sticking on my window? A molecular picture

## Emissions from...

Cooking

Personal care products

Furniture/building materials

Occupants



...and their reaction with surfaces like glass impacts indoor air quality.

As people spend 90% of their time indoors, explaining how gases stick and react on surfaces can help improve indoor air quality.



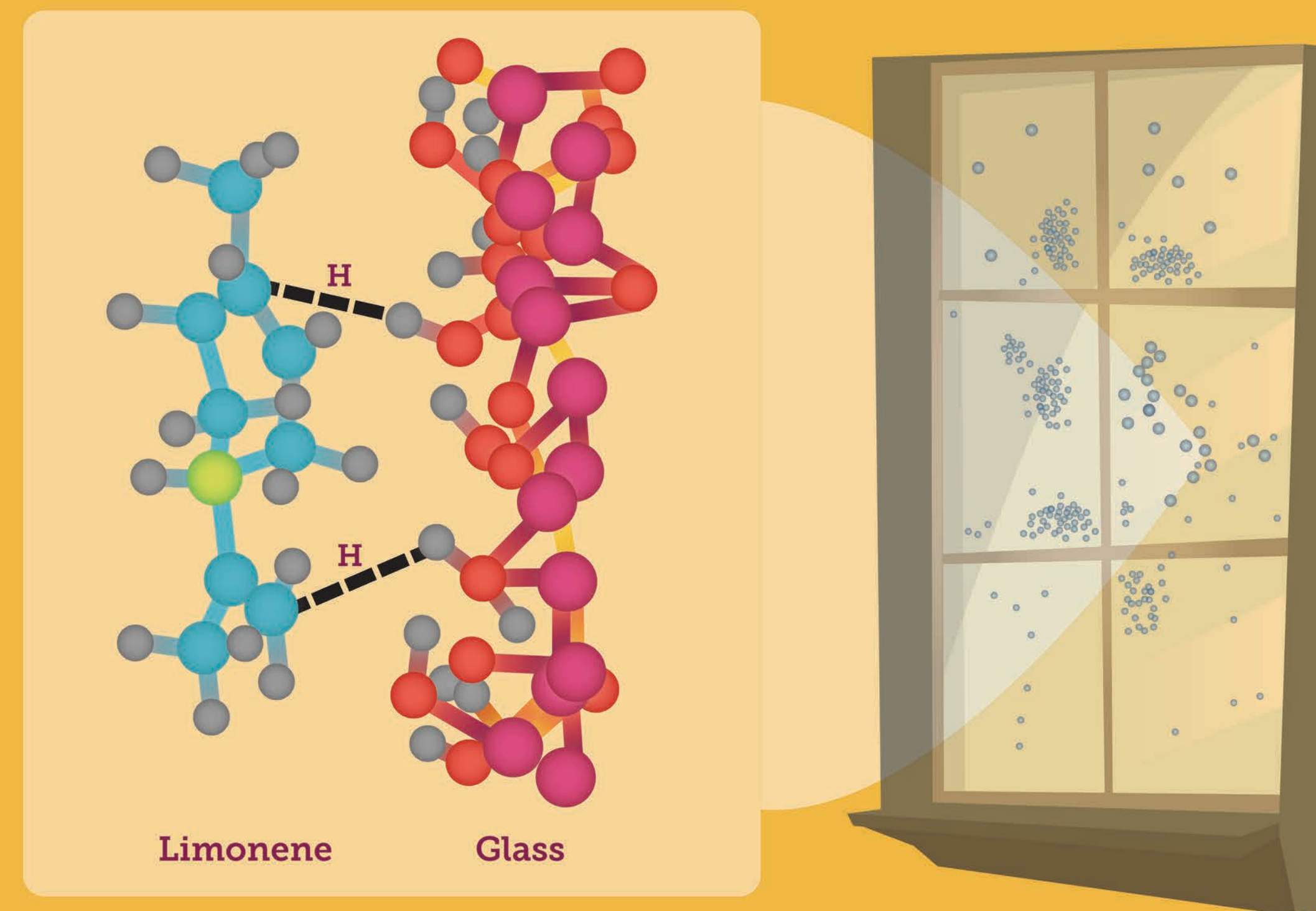
Experimental, theoretical, and kinetic modelling approaches were used to study interactions between...

Limonene (citric fragrant)



## How does limonene interact with glass?

Interaction involves hydrogen-bonding between limonene and glass surface via  $\pi$ -H bonding



Attachment and detachment of limonene depends on environmental factors

Understanding indoor air chemistry and how undesirable or toxic products get in the air is important to people with breathing problems.

Chemical  
Science

PICK  
OF THE  
WEEK

A molecular picture of surface interactions of organic compounds on prevalent indoor surfaces: Limonene adsorption on SiO<sub>2</sub>

Tobias, Shiraiwa, Grassian *et al.* (2019)

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