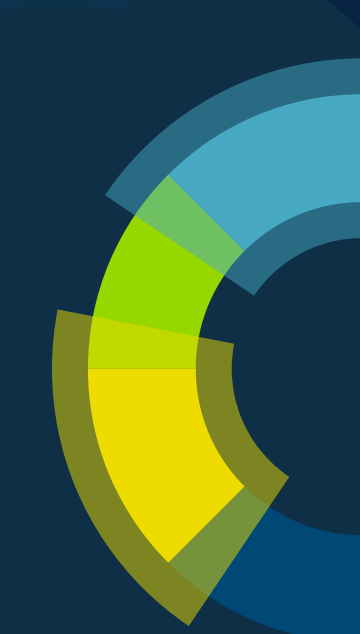


Ferrihydrite: An Excellent Ice Nucleation Particle

Environmental
Science:
Atmospheres

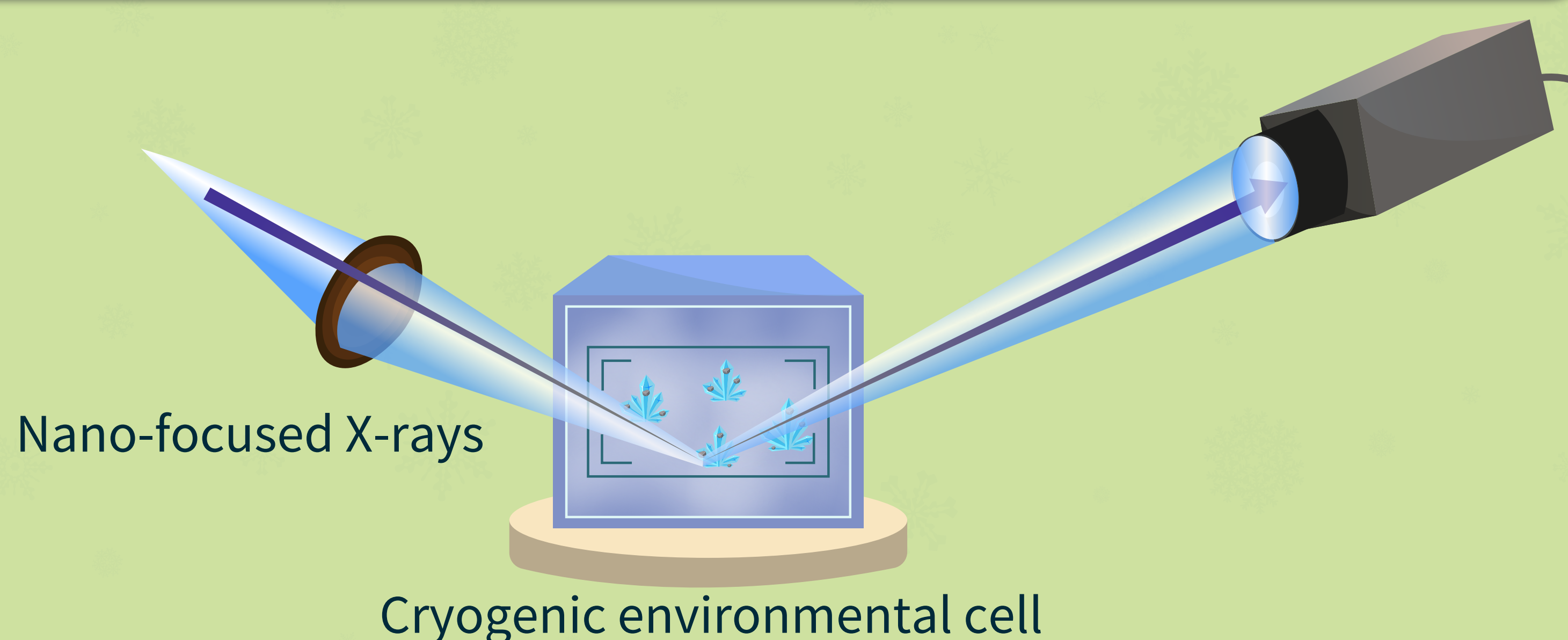


The formation of ice crystals in the upper atmosphere is a key step in the water cycle



However, little is known about the chemical components catalyzing such ice formation on nanometer scales

Can atmospheric particles catalyzing ice nucleation be used for precipitation and weather prediction?

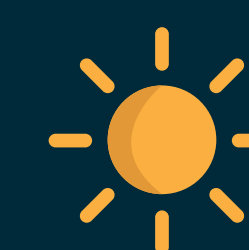


Nano-focused X-rays

Cryogenic environmental cell



Ferrihydrite, an iron-containing particle, catalyzes ice nucleation



Thursday



Friday



Saturday

Ferrihydrite levels can predict ice crystals in clouds

Ferrihydrite aids ice formation and can be used to model cloud behavior aimed at better climate and weather prediction