Scientists discuss carbon dioxide uses

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The use of environmentally friendly carbon dioxide as a refrigerant instead of ozone-depleting chemicals will be discussed at Purdue University this week.

Engineers developing the new technologies will discuss the use of carbon dioxide in applications ranging from soft drink vending machines to portable air conditioners used by the U.S. Army for cooling troops and electronic equipment, said Purdue Mechanical Engineering Professor Eckhard Groll, the conference organizer.

Although carbon dioxide is a global-warming gas, conventional refrigerants, called hydrofluorocarbons, cause about 1,400 times more global warming than the same quantity of carbon dioxide, Groll said.

"Carbon dioxide has unique characteristics that make it an ideal green-technology alternative for certain applications in refrigeration and heating," said Groll, who is developing carbon dioxide air conditioning systems as part of his research.

Engineers from industry and academia will discuss their work during the annual meeting of the Carbon Dioxide Interest Group, an international organization, meeting Thursday and Friday at Purdue's Discovery Park, the university's hub for interdisciplinary research.

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