

Carbon dioxide as a refrigerant

Many studies have been carried out to determine the possibility of using carbon dioxide (CO₂) as a refrigerant in the fields of refrigeration, air-conditioning and heat pumps. CO₂ technology is attractive as it is environmentally benign and locally safe. Extensive research and developmental work on CO₂ technology has been performed internationally over the past eight years since the revival of CO₂, especially within two large European Community projects: the EC RACE Project for the development of CO₂ automotive air-conditioning systems and the EC COHEPS project for CO₂ heat pumps. These projects have shown that CO₂ technology can compete with common technology in automotive and transport air-conditioning as well as in heat pumps providing high temperatures for hydronic systems and for the production of hot water at temperatures of up to 90°C as well as for industrial drying processes.

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