

## Development of on-site Catalytic Purification System for Ammonia as Green Refrigerants

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### [Abstract]

Key Words: Green refrigerants, Ammonia, On-site, Local, Catalytic conversion

In recent years, ammonia has been attracting attention as a green as well as natural refrigerant with a low environmental load, and commercialization of freezing, refrigerating, air-conditioning equipment using it has been promoted. However, since ammonia is highly toxic and combustible, it is necessary to recover the ammonia refrigerant and detoxify it when disposing or replacing the equipment. The recovery and purification treatment of ammonia refrigerant must be outsourced to several specialized facilities nationwide, for example: pre-registration, detailed procedure, recovery, transportation, and factory purification), which takes a long time and costs. Considering the installation of equipment using ammonia refrigerant in far and/or islands, it is expected that the recovery and/or purification process will be the rate-determining. Therefore, in this study, a new safe and low environmental load recovery and/or purification method that can be done on-site for ammonia refrigerant can be developed, and the introduction of ammonia refrigerant equipment will be promoted, and it will lead to the prevention of global warming.

### [References]

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