

Under
Development



Na ferrite

Sodium Ferrite for CO₂ Solid Sorbent

FEATURES

TODA KOGYO has developed sodium ferrite, NaFeO₂, using our synthesis technology. The NaFeO₂ can capture CO₂ in combustion exhaust gas and release it when heated to about 100°C. It is a reusable solid material that contributes to carbon neutrality.

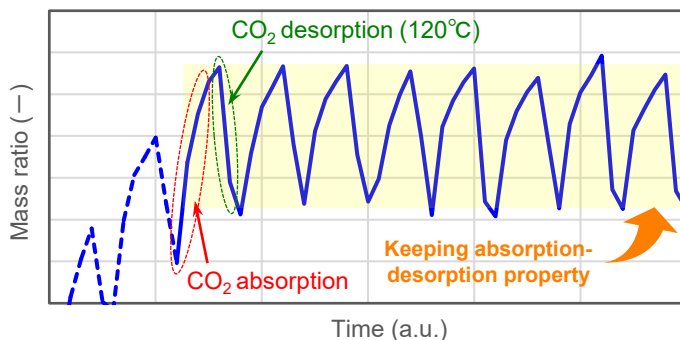
CHARACTERISTICS

- 1** Easy-to-control thermal swing absorption (TSA) process
CO₂ is captured at 0-50°C and released when heated to about 100°C.
- 2** Possible to utilize recovered CO₂
Since CO₂ is selectively chemisorbed, highly pure CO₂ can be obtained.
- 3** Chemically stable material
NaFeO₂ is an inorganic, VOC-free, and non-oxidizing material.

SPECIFICATIONS

【Characterizations】

	NaFeO ₂	CO ₂ solid sorbent (ex)
Shape	powder	Pellet
NaFeO ₂ content	100wt%	30-70wt%
CO ₂ absorption temperature	0-50°C	0-50°C
CO ₂ desorption temperature	90-120°C	90-120°C
CO ₂ sorption amount	13wt%	2-8wt%



【Continuous CO₂ absorption-desorption property of NaFeO₂ pellet】

APPLICATIONS

- CO₂ separation and recovery in combustion exhaust gas
- Control of CO₂ concentration in a room
- Utilizations of recovered CO₂ for energy or raw material for chemical synthesis, etc.

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