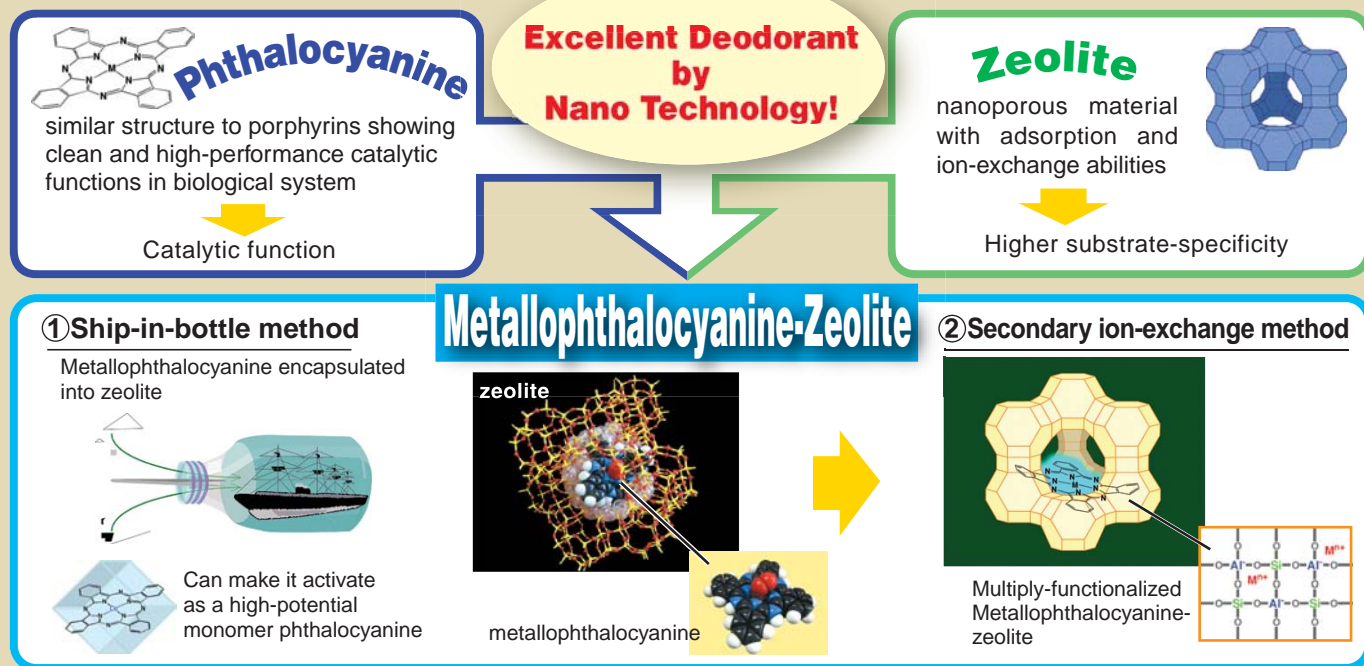


High Functional Organic-Inorganic Nano-Hybrid Materials Metallophthalocyanine-Zeolites with a High Deodorizing Effect

Department of Materials Science & Engineering
Nagoya Institute of Technology Professor Hideki Masuda

Objective

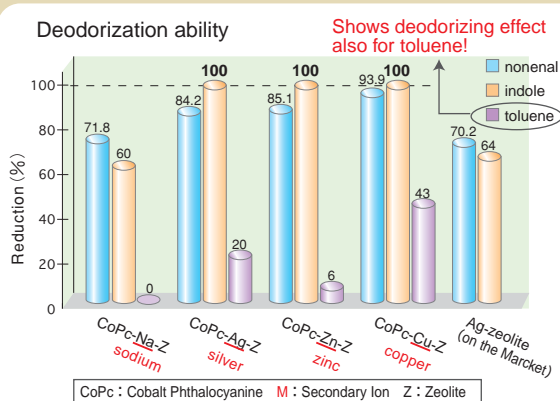
We provide metallophthalocyanine-zeolites as organic/inorganic hybrid nano-materials showing a high deodorizing ability by the oxidative decomposition function.



Results

- Metallophthalocyanines (MPC) encapsulated into nanopores of zeolite (Z), highly-functionalized organic/inorganic hybrid materials, were prepared by the "Ship-in-bottle method" and successive introduction of secondary metal ions by the "Ion-exchange method", which appeared excellent deodorant ability.
- The encapsulation of MPC into zeolite led to a high-potential catalytic reactivity.

Patent submitting



Feature

1. Deodorant and anti-bacterial effects
2. Deodorant performed by O₂ in the Air
3. Semipermanently activity
4. No harm to the backing materials
5. No need of the light
6. Decomposes poisonous matters like toluene (VOC component)
7. Shows a catalytic oxidation in presence of H₂O₂

Industrial applications

Deodorant additives to textile, Building materials for interior/exterior of housing/office (wallpaper, materials under the floor etc.)

Masuda Laboratory Nagoya Institute of Technology

E-mail masuda.hideki@nitech.ac.jp

Web <http://www.ach.nitech.ac.jp/~inorg/masuda/top.html>
[in Japanese]

Aichi Science and Technology Foundation
Cluster headquarters

E-mail cluster@astf.or.jp

Web <http://www.astf.or.jp/cluster/> [in Japanese]