



# fos

**PHOTOCATALYTIC  
TECHNOLOGY**

Acrylic paint for indoor  
applications



**PCN**<sup>ano</sup>  
materials





## Problem

High pollution  
in high traffic density  
**road tunnels.**



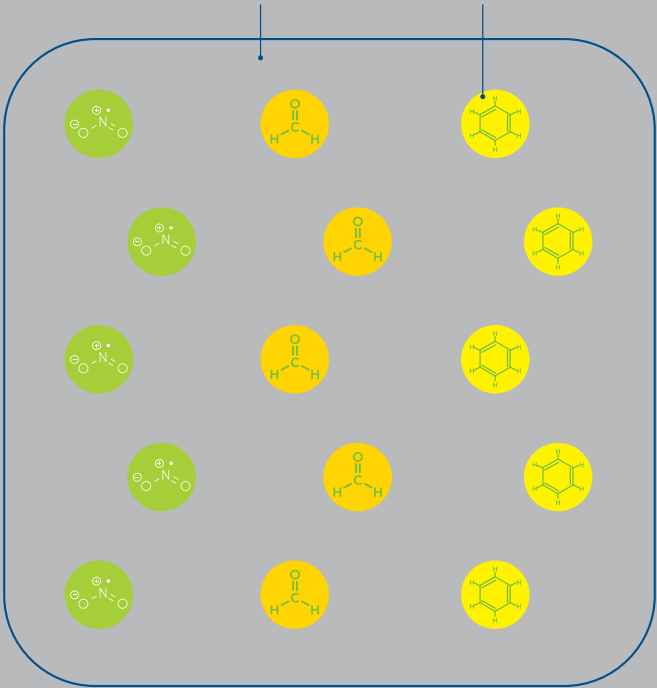
**Pollution** in traffic  
tunnels is often  
**higher due to poor  
air circulation.**

The **energy cost**  
for tunnel lighting, is  
increased due to limited  
visibility, **caused by the  
increased pollution.**

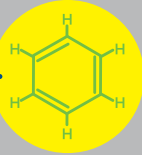
**Long paint  
maintenance cycle** in high  
traffic areas such as road  
tunnels, underground  
stations and indoor  
parking spaces

SURFACE

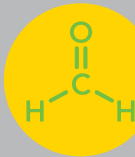
POLLUTION



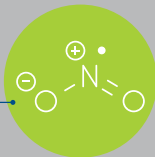
ORGANIC  
GASEOUS  
POLLUTANTS  
VOCs



HARMFUL  
VOLATILE  
SUBSTANCES,  
BENZENE,  
FORMALDEHYDE



INORGANIC  
GASEOUS  
POLLUTANTS  
NOx



## Solution



In collaboration with the start-up company PCN Materials spin-off the Foundation for Research and Technology – Hellas (FORTH), **Vitex** created an **innovative depolluting and self-cleaning paint** that reduces indoor pollutants.



An innovative wet paint with additive, **an active modified titania photocatalyst**, for indoor depollution and improved quality of life.



**fos**

PHOTOCATALYTIC  
TECHNOLOGY



COVERAGE  
12m<sup>2</sup>/L for one coat



PACKAGING  
White 750ml,  
3L, 10L

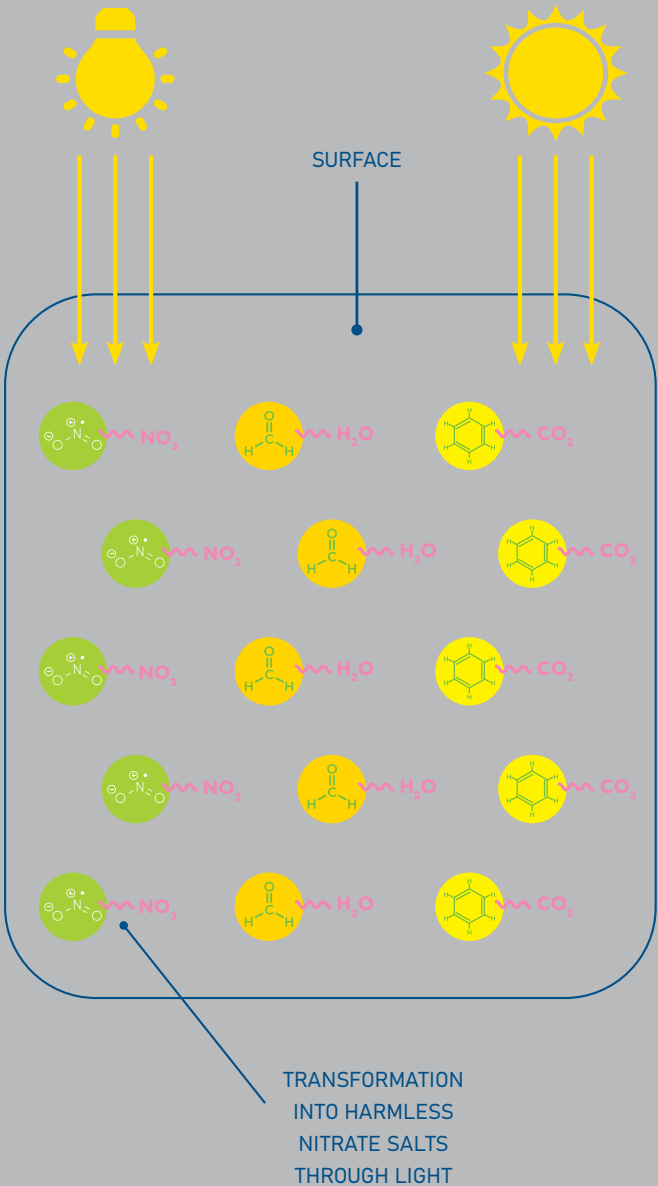


## Mechanism

Based on the unique depollution and self-cleaning properties of the established photocatalysis technology, painted surfaces immediately transform into **active air cleaning agents**.

Photocatalytic NO removal rate under visible light of **55.3%** in lab tests and of **61.7%** in demo houses which is equivalent to cleaning 9000 m<sup>3</sup> of air per hour for every 1m<sup>2</sup> of plaster coating.

Results of the certified laboratory of ENVIRONMENTAL RESEARCH of the "Demokritos" (EN 16980-1-2021)



### With visible light,

i.e. diffused daylight or safe common indoor-lighting sources including LED lamps without the requirement of UV radiation, it rids the air of common inorganic and organic gaseous pollutants such as **NO<sub>x</sub>** and **VOCs**, and **harmful substances** such as Formaldehyde, toluene and unpleasant odors.

# Advantages



1

## **Self-cleaning paint / Protective coating.**

It maintains its whiteness and dramatically reduces the need for maintenance, cleaning and lighting

2



**>80%**

Improving indoor air  
quality in Urban  
environments



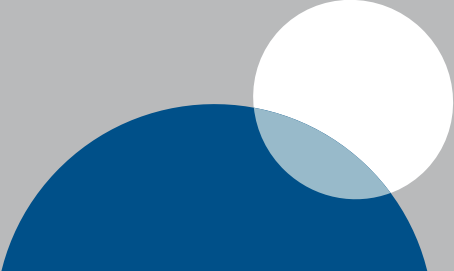


3

**Energy saving**  
due to improved  
indoor visibility

4

Activation  
mechanism with both  
diffused **day light** and /  
or **visible night light**






## Application field

It is particularly recommended for areas where artificial light is available such as **road tunnels, underground metro, parking spaces and** other spaces such as classrooms, offices, hotel corridors etc.

## FACT



Environmental footprint:  
Covering with a photocatalytic paint a surface of 1000 m<sup>2</sup> is equivalent to planting **70** poplar big trees in the same space



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