

# NEW CATALYSERS BASED **IN GOLD** NANOPARTICLES

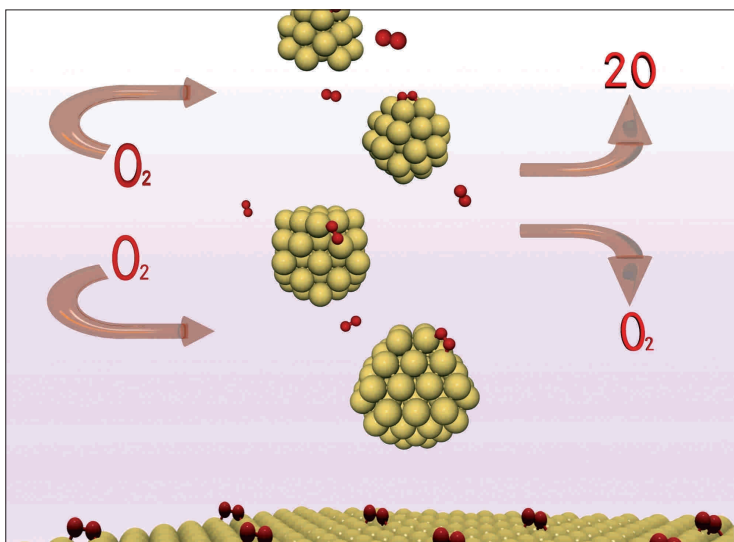
## Who is it aimed at?

- Companies in the pharmaceutical sector
- Companies in the chemical industry
- Companies in the food industry
- Companies in the automobile sector
- Research groups
- Technological Centers

## What is it for?

- **Elimination of pollutants** emitted by internal combustion engines. (Carbon monoxide, hydrocarbons and oxides of nitrogen).
- **Design of respirators** to protect against CO poisoning.
- **Design of air-purifying** devices to improve its quality and odor control.
- **Production of Vinyl Acetate Monomer (VAM)** for large-scale applications in emulsion paints.
- **Methyl glycolate production** is used as:
  - Solvent semiconductor manufacturing processes.
  - Base construction of cosmetics.
  - Cleaner for boilers and metals.
- **Conversion of glucose to gluconic acid:**
  - Use as an additive in some foods.
  - Use as a cleaning agent.

## Description of the technology



The current methodology allows us to **model reliably the structure and reactivity of isolated Au nanoparticles** of 200-300 atoms (1-2 nm) and somewhat smaller particles supported on MgO, TiO<sub>2</sub>, TiC and other traditional media. The **technological aspects of the software are well established**, both from the algorithmic point of view as well as practical implementation.

*Catalytic activity of Gold nanoparticles*