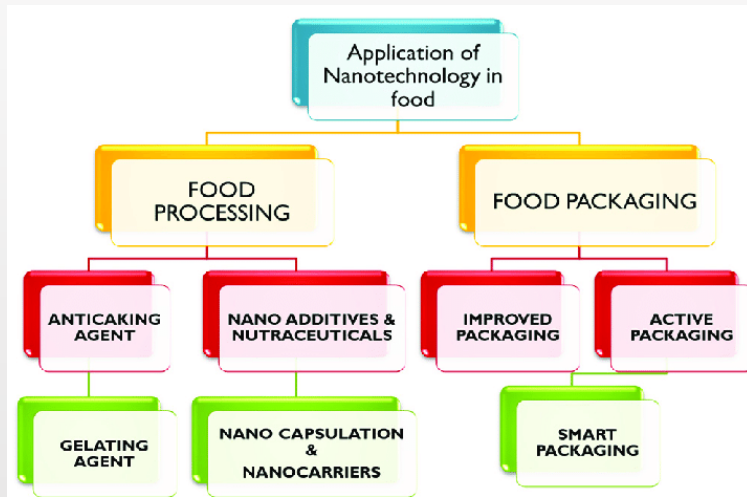


Behaviour and fate of Ag-NPs, TiO₂-NPs and ZnO-NPs in an in vitro digestion model of the human gastrointestinal tract and calculation of the biopersistence rate.

Chiara Copat, Alfina Grasso, Gianluca Giuberti, Margherita Dall'Asta, Edoardo Puglisi, Margherita Ferrante.

Department of Medical, Surgical and Advanced Technologies "G.F. Ingrassia", University of Catania, Italy.

Department for Sustainable Food Process-DiSTAS, Università Cattolica del Sacro Cuore, Piacenza, Italy.



GASTRIC CONDITION

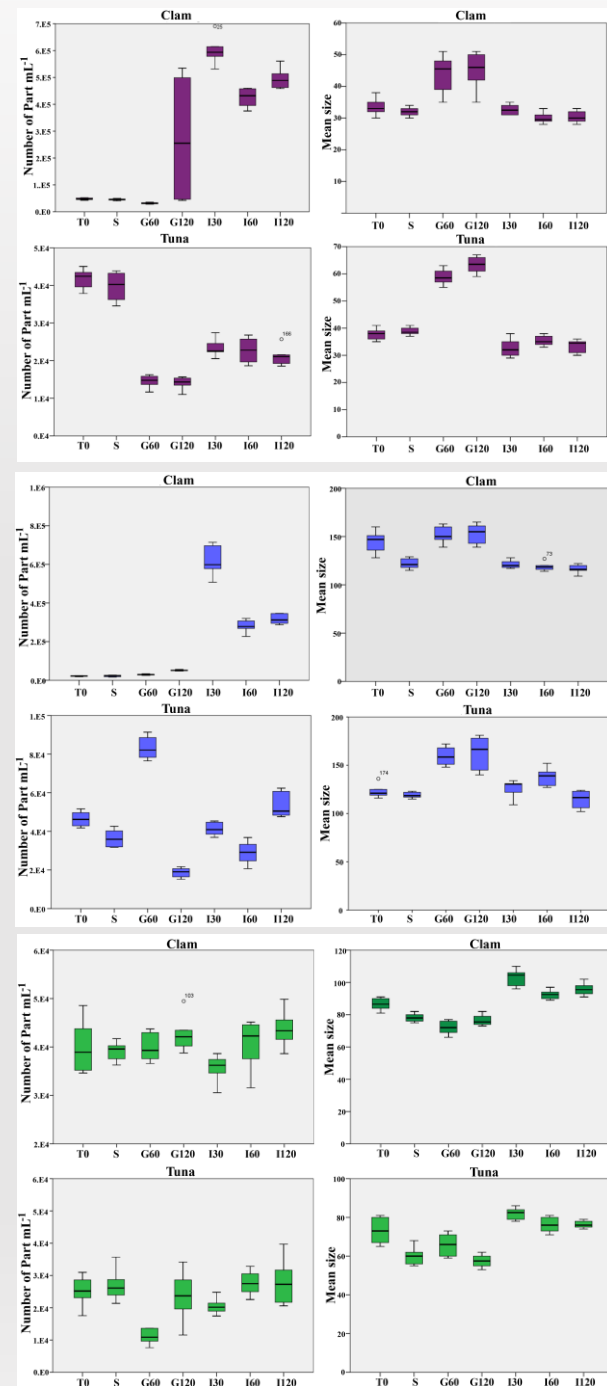
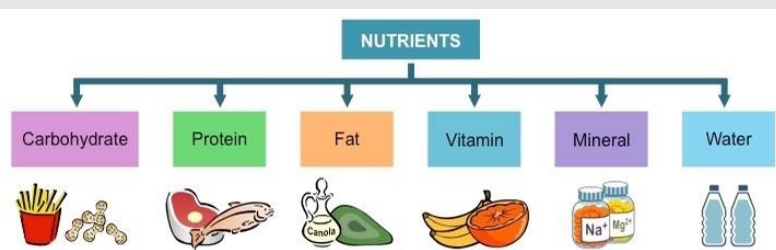
- Tendency towards aggregation, resulting in an increase in hydrodynamic diameter and a lower concentration of nanoparticles (low pH, Cl⁻)
- High tendency of ionization

INTESTINAL CONDITION

Tendency to dispersion phenomena, leading to a reduction in hydrodynamic diameter and higher concentration of nanoparticles (neutral pH)

A clear trend is not always observed !

Influence of FOOD MATRIX



	Ag-NPs	Biopersistence rate %
	Canned tuna	56 %
	Canned Clam	>100 %
	TiO ₂ -NPs	
	Canned tuna	>80%
	Canned Clam	>100 %
	ZnO-NPs	
	Canned tuna	84%
	Canned Clam	89%

LIMIT 12%

 European Food Safety Authority

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