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Born in Cesena (FC, Italy) in 1966. Graduated in Industrial Chemistry at the University of Bologna in 1991, and awarded a Ph.D. in Soil Chemistry at the University of Turin in 1997. After working as a Laboratory Technician at the Agricultural Faculty of the University of Bologna from 2000, she attained the position of Researcher in the same Faculty in 2002. She is a member of the International Humic Substances Society (IHSS), the Italian Society of Agricultural Chemistry (SICA), of the Italian Group of Research on Pesticides and Environment (GRIFA), and of the Italian Association of Zeolites (AIZ). The main research fields deal with:

[Protection and remediation of water from veterinary drugs and chemicals from industrial activities.](#) The pollution of surface and deep waters usually depends on the pollutant persistence and their mobility along the soil profile. The mobility of a pollutant can be described as macroscopic result of the weak forces by which it interacts with soil surfaces. Several classes of sorbents can be selected to quickly and effectively clean-up water bodies from contaminants by means of irreversible adsorption mechanisms [I. Braschi, S. Blasioli, L. Gigli, C.E. Gessa, A. Alberti, A. Martucci. Removal of sulfonamide antibiotics from water: Evidence of adsorption into an organophilic zeolite Y by its structural modifications. *J. Hazard. Mat.* 2010, 178: 218-225; I. Braschi, G. Gatti, G. Paul, C.E. Gessa, M. Cossi, L. Marchese. Sulfonamide antibiotics embedded in high silica zeolite Y: A combined experimental and theoretical study of host-guest and guest-guest interactions. *Langmuir*, 2010, 26(12), 9524-9532].

[Fate of pesticides in soil.](#) The study of the environmental fate of pollutants is carried out through the analysis of adsorption and degradation mechanisms as hydrolysis at different pH values, catalysis in the presence of natural catalysts or photosensitizers as clays, oxides and hydroxides, and organic matter, photolysis under sunlight and in the presence of photosensitizers usually present in the soil solution as the dissolved fraction of soil organic matter. The degradation kinetics along with the by-products identification helps to define the general degradation mechanism useful to assess the environmental fate in different soil compartments. [S. Blasioli, I. Braschi, M.V. Pinna, A. Pusino, C.E. Gessa. Effect of undesalted dissolved organic matter from composts on persistence, adsorption, and mobility of cyhalofop herbicide in soils. *J. Agric. Food Chem.* 2008, 56, 4102-4111; M.V. Pinna, I. Braschi, S. Blasioli, C.E. Gessa, A. Pusino. Hydrolysis and adsorption of cyhalofop-butyl and cyhalofop-acid on soil colloids. *J. Agric. Food Chem.* 2008, 56, 5273-5277].

Soil Sanitizing effect of mirosinase-glucosinolate system. Some defence systems of plants as that showed by Brassicaceae towards soil-borne pests have been considered for long time to face the fase-out of specific chemical fumigants as methylbromide, responsible among the others of warning environmental changes recorded in the last decades. Since unknown is the behaviour of mirosinase at the root level, this enzyme was recently immobilized into a simplified model of root mucigel (Ca-polygacturonate) and its activity analysed in soils differently characterized in organic matter content and under different soil water potentials with important practical implications. [I. Braschi, S. Cinti, A. E. Faleo, O. Leoni, S. Palmieri, C.E. Gessa. Myrosinase immobilized on a highly demethylated pectin: effect of soil water and organic matter content on the enzyme efficiency at soil-root interface. *The Official Journal of the Italian Society of Agronomy*. July-September 2008. Vol.3, No 3 supplement, 143-144; I. Braschi, O. Leoni, S. Cinti, S. Palmieri, C.E. Gessa. Activity of myrosinase from *Sinapis alba* seeds immobilized into Ca-polygalacturonate as a simplified model of soil-root mucigel. *Plant and Soil*. Under revision]

Release of packaging contaminants in food and environment. The discovery that some monomers released from packaging materials can interfere with the endocrine system launched the study on the release of contaminants from packaging, a problem which has been receiving the attention of the Research and Food Safety and Control Organs. Specific interest is focused on the study of pasteurization/sterilization and microwaves or UV treatment on the migration to food and environment of anti-stick coatings, antistatics, antimicrobials, UV stabilizers, plastifiers, antioxidants, etc. released from composed plastic materials and multi-material plastics or paper-based materials used in packaging and for shelf-life preservation. [A. Bonora, M.T. Rodriguez-Estrada, D. Garbini, M. Barbanera, R. Lorenzini, I. Braschi, G. Bonaga. Levels of Bisphenol A, Bisphenol A Diglycidyl Ether, and their Derivatives in Canned Foods in Italian Markets. *J. Agric. Food Chem.* Under revision; R. Lorenzini, K. Fiselier, M. Biedermann, M. Barbanera, I. Braschi and K. Grob. Saturated and aromatic mineral oil hydrocarbons from paperboard food packaging: prediction of long-term migration from contents in the paperboard & data from the market. *Food Additives and Contaminants*. Under revision].