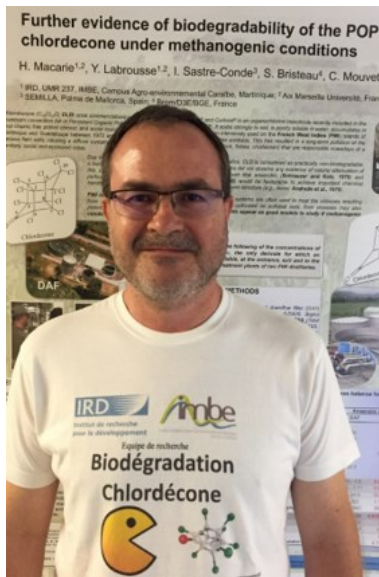


Hervé MACARIE



Dr. Hervé Macarie is a research officer at the French National Research Institute for Sustainable Development (IRD ex-ORSTOM). In this position since October 1994, he has developed research on the technological and the microbiological aspects (taxonomy & ecology) of the anaerobic treatment of industrial wastewater and he has both an experience at lab and full scale (up to reactors of 20,000 m³). One of his main interests has been for the anaerobic degradation of xenobiotic compounds such as terephthalic acid and pentachlorophenol and the development of synchronous anaerobic/aerobic systems to achieve the full mineralization of this last compound. Since 2008, his research has been almost entirely focused on the microbial degradation of chlordecone, an organochlorine insecticide classified as POP that was once used against the banana black weevils and that is now responsible, 29 years after the ban of its utilization, of a health, environmental, economic and social crisis in the French West Indies islands of Guadeloupe and Martinique. Along his career, he has been successively in position in Canada (postdoctoral fellow, BRI, NRC, 1992-1994), Mexico (visiting Professor, UAM-Iztapalapa, 1995-2000), continental France (Aix Marseille University, 2001-2010) and Martinique (CAEC, 2011-2014). Since 2015 he is back to Aix Marseille University and IMBE (Mediterranean Institute for Marine and Continental Biodiversity and Ecology) where he pursues his research on the theoretical and experimental aspects of chlordecone degradation with the objective to understand the factors limiting its natural attenuation and the possibility to manipulate them in order to propose a bioremediation process to decontaminate the polluted soils. **UMR IMBE (Institut Méditerranéen de Biodiversité et d'Ecologie marine et continentale), IRD Marseille (France)**

Overview of the chlordecone problem: historical background, present situation in the French West Indies and which solutions

Abstract

Chlordecone (C₁₀Cl₁₀O, CAS number 143-50-0) is an organochlorine insecticide that is neurotoxic, endocrine disrupting and a probable human carcinogen that was used in the French West Indies from 1972 to 1993 to control banana weevil populations. Today, this insecticide, which is particularly persistent in the environment, is responsible for an unprecedented health, social and environmental crisis in Guadeloupe and Martinique. The aim of this presentation will be to provide a general overview of the problem linked to this molecule, with emphasis on the management measures put in place to avoid contamination of the population through food, and the various ways of cleaning up the soil that have been studied to try to find a definitive solution to the problem.