**“The Furan/maleimide Diels-Alder Reaction Applied to Bioresourced Polymers and Macromonomers”**

**Prof. Alessandro Gandini**

**10 November 2023**

**at 10.00 - Room TA10**

**DICAM, Via Terracini 28, Bologna**

Abstract

The seminar aims at showing strategies to valorize natural materials to produce new polymers for specific applications. After a brief introduction to the click chemistry and thermally reversible characters of the furan/maleimide Diels-Alder reaction, its application to cellulose, starch, chitosan, natural rubber, vegetable oils in order to prepare thermally reversible crosslinked materials and hydrogels will be discussed emphasizing the interest of these materials in terms of their potential applications.

**CURRICULUM PROF. ALESSANDRO GANDINI**

Alessandro Gandini, PhD in Polymer Science, is Research Supervisor at Pagora School, Grenoble Polytechnic, France and at University of São Paulo at São Carlos and Lorena, Brazil.

He is a pioneering researcher in the field of polymers from renewable resources.

He was Professor of Physical Chemistry at the University of Havana, Cuba and head of the Polymer Laboratory at the Cuban National Research Council; Professor of Chemistry at the National Polytechnic Institute of Grenoble, France (promoted to the "classe exceptionelle" in 1998); Emeritus Professor, Chemistry Department, University of Aveiro, Portugal; Invited Professor at the São Carlos Institute of Chemistry, University of São Paulo, Brazil; Senior Fellow 2014, Istituto di Studi Avanzati (ISA) University of Bologna.

***Visiting Professor*** at the Universities of Essex, UK, Sao Carlos, Brazil, Aveiro, Portugal, Pavia and Bologna, Italy, Sfax, Tunisia, Girona, Spain. Invited to give courses on ***“Polymers from renewable resources”*** in several Universities, including Saltillo (Mexico), Guangzu (China), Sorocaba (Brazil), Motevideo (Uruguay), Mar del Plata (Argentina), Petrobras (Rio, Brazil), Sassari (Italy), San Juan (Costa Rica) and San Sebastian (Spain).

Fellow of the *International Academy of Wood Science* (elected in 1994) and member for France (since 1990) of the *UNESCO Committee on the Chemical Exploitation of Biomass*. Fellow of several scientific societies, including the *Royal Society of Chemistry* and the *ACS*.

Honorary Doctor of the *Saint Petersburg Forestry Academy (1995);* Honorary Doctor of *Havana University (2000);* *Invested with the Ermine Decoration of Grenoble National Polytechnic Institute (1995)*

Consultant for several Companies, in Europe and North America, for the French Ministries of Education, Industry, Energy and Agriculture and the Ministries of Higher Education and Research of Italy, Spain, Canada and Portugal.

**>100** *PhD Theses* supervised; >**460** *total* *publications*, including ***3*** *books*, >***60*** *monographs* (cited >**20,000** times); >**470** *communications* at scientific symposia, including >**100** *invited or plenary lectures*. >**140** *invited seminars* in Universities and Research Centres in >**30** countries.

Co-inventor in *>****20*** *patents*, in collaboration with Universities and companies.