

PhD@DICAM Seminar

Speaker: Alessandro GANDINI. Professor and Research Supervisor Ecole Internationale Du Papier, de la Communication Imprimée et des Biomatériaux , Pagora School, Grenoble Polytechnic. Senior Fellow of Institute of Advanced Studies. Alma Mater Studiorum – University of Bologna - October-November 2014

17 February, 15:00-16:30, TA09

From the fiber to the macromolecule: The new world of nanocellulose

Nanocellulosic materials will be presented. Methods of production, structures, and properties will be discussed with emphasis on applications of these new materials in different fields.

SHORT CV

Born in Tregnago (Italy) on 9/10/1940.

1962-65: Ph.D. in Polymer Science, Keele University, UK. *Studies on cationic polymerisation.*

1965-67: Postdoctoral fellow at NRCC, Ottawa, Canada. *Primary processes in photophysics and photochemistry.*

1967-68: Research officer at Brookhaven Laboratory, Upton, USA. *Gas-phase kinetics: H/D isotope effects in photochemically generated free radicals.*

1968-76: Professor of Physical Chemistry at the University of Havana, Cuba and head of the Polymer Laboratory at the Cuban National Research Council. *Courses in Polymer Chemistry, Polymer Physics and Photochemistry. Research on the kinetics and mechanisms of the polymerisation of various furan monomers and of the cationic and pseudocationic polymerisation of styrene and vinyl carbazole.*

1976-78: Research officer at NRCC, Ottawa, Canada. *Multiphoton infrared photochemistry: H/D isotope effects in the decomposition of various gaseous substrates.*

1978-2003: Professor of Chemistry at the National Polytechnic Institute of Grenoble, France (promoted to the "classe exceptionnelle" in 1998). *Courses in Physical Chemistry, Photochemistry, Polymer Chemistry and Physics, Materials Science at the Engineering Schools of Papermaking and Printing, Electrochemistry, Physics and Mechanics.* Head of the Polymer Materials Laboratory. *Research on the synthesis, characterization and properties of new polymers and composites, mostly derived from the biomass: cellulose, lignin, furans, chitosan, vegetable oils, suberin and starch.*

2004-2005: *Invited Professor* at the São Carlos Chemistry Institute, University of São Paulo, Brazil. *Postgraduate courses on Polymer Materials and on Surfaces and Interfaces. Research on the chemical modification of cellulose fibres and starch.*

2005-2011: Emeritus Professor, Chemistry Department, University of Aveiro, Portugal. *Postgraduate courses in Polymer Science, Polymers from Renewable Resources, Photochemistry and Photophysics and the Physical Chemistry of Surfaces and interfaces. Coordinator of an industrial-academic research platform on novel polymeric materials from renewable resources, namely cellulose fibres, starch, lignins, chitosan, suberin, furans and vegetable oils.*

2011-2013: *Invited Professor* at the São Carlos Institute of Chemistry, University of São Paulo, Brazil. *Postgraduate courses on Polymers from Renewable Resources. Research on new polymers based on furans, vegetable oils, starch and cellulose.*

Present position: Research Supervisor at Pagora School, Grenoble Polytechnic, France.

Visiting Professor at the Universities of Essex, UK (1975), Sao Carlos, Brazil (yearly from 1993-2003), Aveiro, Portugal (1994), Pavia, Italy (1995, 1999), Sfax, Tunisia (yearly 1988-2002) and Girona, Spain (1997, 1999). *Visiting scientist* at NRCC, Ottawa, Canada (1973). 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).

>**80** *PhD Theses* supervised. >**450** *publications*, including **3** *books*, >**60** *monographs* (cited >**9000** times) and >**20** patents. >**470** *communications* at scientific symposia, including >**100** *invited or plenary lectures*. >**140** *invited seminars* in Universities and Research Centres in >**30** countries.

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)