

## Dr. Carmen-Alice TEACĂ

**Senior researcher:** 2008 -“Petru Poni” Institute of Macromolecular Chemistry, Iași, Romania (ICMPP)

1994-2008: assistant researcher; researcher (ICMPP)

**Education:** 2002 - PhD Chemical Engineering (topic: photosynthetic biosensors as indicators of environmental pollution), Technical University of Iași, Faculty of Industrial Chemistry

1997- MSc Non-conventional methods for chemical processing of wood and other vegetal resources, Technical University of Iași, Faculty of Industrial Chemistry

1993 – BScEng Technology of pulp, paper and artificial fibers, Technical University of Iași, Faculty of Industrial Chemistry

**Editorial activity:** 2011 – member in the editorial board of BioResources (<https://bioresources.cnr.ncsu.edu/>)

**Expertise fields:** separation and physico–chemical characterization of natural polymers from wood and other vegetal resources; chemical modification of wood and its polymer components for applications in composite materials; physico–chemical characterization of polymers and multi-component polymeric materials (blends, composites); investigation of general behavior of polymers under exposure to environmental factors action

**Scientific achievements:** multi-component polymer systems comprising wood as bio-based component and thermoplastic polymer matrices; chemical modification of wood with organic anhydrides; organic acid modified starch microparticles/plasticized starch bio-composite films *per se* and reinforced by lignin; green composites comprising thermoplastic starch and various cellulose-based fillers; dissolution of natural polymers in ionic liquids; structural changes in cellulosic materials after pre-treatment with ionic liquids and enzymatic hydrolysis; structural changes in wood under artificial UV light irradiation; wood protection against degradation processes through chemical modification and coating with natural bio-based products

54+ publications in international journals (from Web of Science), 6+ book chapters

International impact/recognition in the field is reflected by: h – index (from Web of Science): 16

number of citations: 761