# CURRICULUM VITAE

**Carmen Racles**, Dr., senior researcher, 52 years old
"Petru Poni" Institute of Macromolecular Chemistry (PPIMC), Iasi, Romania
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**Carmen Racles** is a senior researcher at ICMPP and has strong expertise in synthesis and characterization of siloxane-containing materials, including polymers, copolymers, networks, composite materials, surfactants, liquid crystals, nanoparticles.

## PROFESSIONAL EXPERIENCES

2000 –present "Petru Poni" Institute of Macromolecular Chemistry, Inorganic Polymers Department, Iasi - **Senior Researcher**
2002-2003 - **Post-doctoral fellowship,** at ESCPE-CNRS Lyon, France
1995-2000 – **PhD in chemistry**, Gh. Asachi Technical University Iasi
1992-2000: "Petru Poni" Institute of Macromolecular Chemistry, Inorganic Polymers Department, Iasi – **researcher**;

## SCIENTIFIC PRODUCTION

115 ISI publications (**H-factor** = 17 ISI Web of Science); 1 book; 7 book's chapters; 16 *in-extenso* studies *at* international conferences; 4 invention patents (an European patent and three Romanian patents).

## PROJECTS

**27 projects**: ●5 projects as project coordinator (two with international financing); ●the others as member; ●7 projects founded by international entities (between them an FP7 project, a COST project –ESNAM-, a Swiss-Romanian research project).

## AWARDS

"C. D. Nenitescu" Price of the Romanian Academy, 2007

## AREAS OF INTEREST

-Low molecular and macromolecular multifunctional siloxane compounds;
-Siloxanes with special properties: surfactants, liquid crystals, phase transfer agents, ligands;
-Nanocomposites;
-Silicone materials for biomedical, electromechanical and catalytic applications
-New materials (focusing on catalysts) for environmental protection;
-Supramolecular structures, self-assembling as a tool for new properties;
-Sensors and actuators based on silicone materials

## SELECTED SCIENTIFIC ARTICLES

- Racles C, Zaltariov MF, Silion M, Macsim, AM, Cozan V (2019) Photo-oxidative degradation of doxorubicin with siloxane MOFs by exposure to daylight. Environmental Science and Pollution Research 26(19), 19684–19696
- Asandulesa M, Musteata VE, Bele A, Dascalu M, Bronnikov S, Racles C (2018) Molecular dynamics of polysiloxane polar-nonpolar co-networks and blends studied by dielectric relaxation spectroscopy. Polymer 149 73-84
- Racles C, Dascalu M, Bele A, Tiron V, Asandulesa M, Tugui C, Vasiliu AL, Cazacu M (2017) All-silicone elastic composites with counter-intuitive piezoelectric response, designed for electromechanical applications. J. Mater. Chem. C, 5, 6997-7010

- Racles C, Zaltariov MF, Iacob M, Silion M, Avadanei M, Bargan A (2017) Siloxane-based metal–organic frameworks with remarkable catalytic activity in mild environmental photodegradation of azo dyes. Applied Catalysis B: Environmental, 205, 78-92
- Racles C, Musteata VE, Bele A, Alexandru M, Tugui C, Matricala AL (2015) Highly stretchable composites from PDMS and polyazomethine fine particles, RSC Adv., 5, 102599–102609