



Dr. Carmen Racles

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Brainmap codes: (UEFISCDI ID (UEF-ID): [U-1700-034G-5396](#))

Research topics

Specialist in the field of chemistry, subdomains polymer chemistry/inorganic chemistry, with expertise in synthesis and characterization of siloxane-based compounds, polymers and materials, materials characterization using methods such as: infrared spectroscopy, proton and carbon nuclear magnetic resonance, X-ray fluorescence, surface tension measurements, etc. The researcher has experience in the fields of surfactants, liquid crystals, nanoparticles, composite materials, electroactive polymers, sensors and actuators based on silicone materials, proligands and metal complexes, materials for biomedical applications, catalysts, etc..

Scientific research

Author and co-author of **133 ISI articles, 1 book; 8 book's chapters; 10 articles in Romanian journals, 20 in-extenso studies at international conferences; 5 patents, 40+ oral communications**, "C. D. Nenitescu" Price of the Romanian Academy in 2007, Honorary Degree of The Romanian Chemical Society in 2022, member in more than **30 projects**, from which 5 as project coordinator (two with international financing) and 7 projects founded by international entities (between them an FP7 project, a COST project –ESNAM-, a Swiss-Romanian research project); 898 citations without self-citations (HI = 21).

Visibility

<https://orcid.org/0000-0003-3343-9389>; <https://www.webofscience.com/wos/woscc/citation-report/1ccd86c6-bdb6-4773-bac8-55758f7df3c3-c4116e46>;

https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=racles+carmen&oq=

SELECTED RELEVANT SCIENTIFIC ARTICLES

1. Cazacu M, Dascalu M, Stiubianu GT, Bele A, Tugui C, **Racles C**, "From passive to emerging smart silicones", *Rev Chem Eng* **2023**, 39(6), 941-1003, <https://doi.org/10.1515/revce-2021-0089>, IF=4.7, (Q1).
2. **Racles C**, Bele A, Vasiliu AL, Sacarescu L, "Emulsion Gels as Precursors for Porous Silicones and All-Polymer Composites—A Proof of Concept Based on Siloxane Stabilizers", *Gels*, **2022**, 8, 377, <https://doi.org/10.3390/gels8060377>, IF=4.6, (Q1).
3. **Racles C**, Zaltariov MF, Peptanariu D, Vasiliu T, Cazacu M, "Functionalized Mesoporous Silica as Doxorubicin Carriers and Cytotoxicity Boosters" *Nanomaterials* **2022**, 12, 1823. <https://doi.org/10.3390/nano12111823>, IF=5.3, (Q1).
4. **Racles C**, Zaltariov MF, Silion M, Avadanei M, Macsim AM, Nicolescu A, „Synthesis, characterization and some metal complexes of bis(isocyanide)disiloxane, showing catalytic activity”, *Applied Organometallic Chemistry* **2022**, 36(3), e6543, <https://doi.org/10.1002/aoc.6543>, IF =3.9, (Q1).
5. **Racles C**, Zaltariov MF, Coroaba A, Silion M, Diac C, Dascalu A, Iacob M, Cazacu M, "New heterogeneous catalysts containing platinum group metals recovered from a spent catalytic converter", *Applied Organometallic Chemistry*, **2021**, 35(12), e6417, <https://doi.org/10.1002/aoc.6417>, IF =3.9, (Q1).

6. **Racles C**, Asandulesa M, Tiron V, Tugui C, Vornicu N, Ciubotaru BI, Mičušik M, Omastova M, Vasiliu AL, Ciomaga C, “Elastic composites with PDMS matrix and polysulfone-supported silver nanoparticles as filler”, *Polymer*, **2021**, 217, 123480, <https://doi.org/10.1016/j.polymer.2021.123480>, IF=4.6, (Q1).
7. Cazacu M, **Racles C**, Zaltariov MF, Dascalu M, Bele A, Tugui C, Bargan A, Stiubianu G, ”From amorphous silicones to Si-containing highly ordered polymers: some Romanian contributions in the field”, *Polymers* **2021**, 13(10), 1605, <https://doi.org/10.3390/polym13101605>, IF=4.329, (Q1).
8. **Racles C**, Ursu C, Dascalu M, Asandulesa M, Tiron V, Bele A, Tugui C, Teodoroff-Onesim S, “Multi-stimuli responsive free-standing films of DR1- grafted silicones”, *Chemical Engineering Journal*, **2020**, 401, 126087, <https://doi.org/10.1016/j.cej.2020.126087>, IF=15.1, (Q1).
9. **Racles C**, Zaltariov MF, Damoc M, Macsim AM, Iacob M, Sacarescu L, „Three Reactions, One Catalyst: A Multi-Purpose Platinum(IV) Complex and its Silica-Supported Homologue for Environmentally Friendly Processes”, *Appl Organometal Chem.* **2020**, 34(3), e5422, <https://doi.org/10.1002/aoc.5422>, IF =3.9, (Q1).
10. **Racles C**, Zaltariov MF, Silion M, Macsim, AM, Cozan V Photo-oxidative degradation of doxorubicin with siloxane MOFs by exposure to daylight. *Environmental Science and Pollution Research* **2019**, 26(19), 19684–19696, <https://doi.org/10.1007/s11356-019-05288-7>, IF =5.8, (Q1).