

## LISTA DE LUCRĂRI

Dr.ing. **SIMION Cristian**

### **1. Teza de doctorat**

1. “*Implication des anion 1-aza et 2-azaallyliques dans l’élaboration de charpentes cycliques azotées à cinq, six et sept chainons*” - director științific **dr. Axel Couture**, director de cercetare la C.N.R.S. și **prof. dr. Pierre Grandclaudon**, profesor la Scoala Națională Superioară de Chimie din Lille, Franța, susținută în data de **27.05.1994** la Universitatea de Stiințe și Tehnologii din Lille

### **2. Cărți publicate:**

1. Yoshiharu Mitoma, Yumi Katayama, **Cristian Simion** (2018). Mechanistic Considerations on the Hydrodechlorination Process of Polychloroarenes, in “Organochlorine”, Dr. A. Nuro (Ed.), InTech, 2018, Ch. 3, pp. 25-46, DOI: 10.5772/intechopen.74499, ISBN: 978-1-78984-264-7, Print ISBN: 978-1-78984-263-0
2. Yoshiharu Mitoma, Alina M. Simion, **Cristian Simion** (2016). Dual Soil Decontamination Procedures, in “Soil Contamination - Current Consequences and Further Solutions”, Dr. Marcelo Laramendy (Ed.), InTech, 2016, DOI: 10.5772/65335, ISBN 978-953-51-2816-8, Print ISBN 978-953-51-2815-1, Published: December 21, **2016**
3. Yoshiharu Mitoma, Srinivasa Reddy Mallampati, Tetsuji Okuda, **Cristian Simion**, Metal Nanoparticles: Metallic Nanoparticles Used in Soil Remediation Procedures, in “CRC Concise Encyclopedia of Nanotechnology”, Boris Ildusovich Kharisov, Oxana Vasilievna Kharissova, Ubaldo Ortiz-Mendez Eds., December 14, **2015**, CRC Press, pp. 481-494, ISBN 9781466580343 - CAT# K16904
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6. **Cristian Simion**, Simion Alina Marieta, Albu Horia, “*Calitate și control al alimentelor*”, Ed. Printech, ISBN 978-973-718-764-2, 486 p, **2007**.
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8. Alina Simion, **Cristian Simion**, Florina Dumitru, Ovidiu Oprea, Adrian Crisciu, Ileana Rău, “*Probleme teoretice și practice*”, Ed. Flomarco, ISBN 973-96735-4-3, 200p., **2002**.
9. Lucian Enescu, Iosif Schiketanz, Alina Simion, **Cristian Simion**, “*Teste de chimie organică*”, ed. Politehnica, ISBN 973-96609-8-3, 150p, **2000**.
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### **3. Indrumare de laborator**

1. Horia Albu, **Cristian Simion**, Alina Simion, Aida Uzunu, “*Controlul calității produselor alimentare*”, Ed. Politehnica, 135p, **2005**.

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**5. Articole publicate în reviste de specialitate de circulație internațională recunoscute cotate ISI sau indexate în baze de date internaționale specifice domeniului**

**A. Reviste cotate ISI**

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2. Anton Adina Mirela, Padureiu Carla-Cezarina, Marin Cosmina Andreea, Simion Alina-Marieta, **Simion Cristian**, Kajzar Francois, Rau Ileana, Photoresponsive natural materials, *Molecular Crystals and Liquid Crystals*, **2019**, 695(1), 37-44; WOS:000532585800005
3. Katayama Yumi, Simion Alina M., Mitoma Yoshiharu, Yokoyama Daiki, Aoyagi Mitsuru, Harada Hiroyuki, **Simion Cristian**, *Environmental Progress & Sustainable Energy*, **2019**, 38(2), 483-488; WOS:000462079900020
4. Anton Adina-Mirela, Rau Ileana, Kajzar Francois, Simion Alina-Marieta, **Simion Cristian**, Third order nonlinear optical properties of DNA-based biopolymers thin films doped with selected natural chromophores, *Optical Materials*, **2019**, 88, 181-186; WOS:000461001600026
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7. Srinivasa Reddy Mallampati, Byoung Ho Lee, Yoshiharu Mitoma, **Cristian Simion**, Heterogeneous nano-Fe/Ca/CaO catalytic ozonation for selective surface hydrophilization of plastics containing brominated and chlorinated flame retardants (B/CFRs): separation from automobile shredder residue by froth flotation, *Environmental Science and Pollution Research*, **2017**, 24(5), 4469–4479. WOS:000397007200019
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9. Srinivasa Reddy Mallampati, Byoung Ho Lee, Yoshiharu Mitoma, **Cristian Simion**, Selective sequential separation of ABS/HIPS and PVC from automobile and electronic waste shredder residue by hybrid nano-Fe/Ca/CaO assisted ozonisation process, *Waste Management*, **2017**, 60, 428–438. WOS:000397357100044

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- 11.** Srinivasa Reddy Mallampati, **Cristian Simion**, Yoshiharu Mitoma, Novel separation and immobilization of heavy metals in municipal solid waste fly ash by grinding with nano-Fe/CaO/[PO<sub>4</sub>] mixture, *Environmental Progress and Sustainable Energy*, **2016**, 35(6), 1693-1698. WOS:000393419700019
- 12.** Yoshiharu Mitoma, Yumi Katayama, Alina M. Simion, Hiroyuki Harada, Mitsunori Kakeda, Naoyoshi Egashira, **Cristian Simion**, Considerations on the mechanism of Ca/ethanol/Pd/C assisted hydrodechlorination of chlorinated aromatic substrates, *Chemosphere*, **2016**, 164, 92-97. WOS:000385318200012
- 13.** Bogdan N. Manolescu, Eliza Oprea, Maia Bodolica, **Cristian Simion**, Is wine industrialization lowering natural qualities of white wines?, *Revue Roumaine de Chimie*, **2016**, 61(3), 199-203. WOS:000381065300008
- 14.** Yoshiharu Mitoma, Alina M. Simion, Srinivasa Reddy Mallampati, Hideaki Miyata, Mitsunori Kakeda, **Cristian Simion**, Hydrodechlorination of PCDD/PCDF/PCB contaminants by simple grinding of contaminated soils with a nano-size calcium reagent, *Environmental Progress and Sustainable Energy*, **2016**, 35(1), 34-40; doi: 10.1002/ep.12183 WOS:000368696100004
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- 16.** Srinivasa Reddy Mallampati, Yoshiharu Mitoma, **Cristian Simion**, Byoung Ho Lee, Immobilization and volume reduction of heavy metals in municipal solid waste fly ash using nano-size calcium and iron-dispersed reagent, *Journal of the Air & Waste Management Association*, **2015**, 65(10), 1247-1255. WOS:000362721600009
- 17.** Srinivasa Reddy Mallampati, Yoshiharu Mitoma, Tetsuji Okuda, **Cristian Simion**, Byeong Kyu Lee, Dynamic immobilization of simulated radionuclide <sup>133</sup>Cs in soil by thermal treatment/vitrification with nanometallic Ca/CaO composites, *Journal of Environmental Radioactivity*, **2015**, 139, 118-124. WOS:000347596000012, ISSN: 0265-931X
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- 19.** Srinivasa R. Mallampati, Yoshiharu Mitoma, Tetsuji Okuda, Shogo Sakita, **Cristian Simion**, Simultaneous decontamination of cross-polluted soils with heavy metals and PCBs using a nano-metallic Ca/CaO dispersion mixture, *Environmental Science and Pollution Research*, **2014**, 21(15), 9270-9277. WOS:000340460500031 ISSN 0944-1344
- 20.** Srinivasa R. Mallampati, Yoshiharu Mitoma, Tetsuji Okuda, Shogo Sakita, **Cristian Simion**, Preferential removal and immobilization of stable and radioactive cesium in contaminated fly ash

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- 32.** Yoshiharu Mitoma, Iwao Hashimoto, **Cristian Simion**, Masashi Tashiro, Naoyoshi Egashira, “Highly *meso*-diastereoselective pinacol coupling of aromatic aldehydes mediated by Al powder/Copper sulfate in water”, *Synthetic Communications*, **2008**, 38(19), 3243-3250; WOS:000259650000002 ISSN: 0039-7911.
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- 35.** Iwao Hashimoto, Takatoshi Kawaji, Yoshiharu Mitoma, **Cristian Simion**, Alina Simion, Keiko Ishimoto, G. Surya Prakash, George A. Olah, Masashi Tashiro, “*O*-Acylation mechanism of *p*-substituted phenols with various alkanoyl chlorides under phase transfer catalysis conditions”, *Revue Roumaine de Chimie*, **2004**, 48(2), 149-155. WOS:000222189700008 ISSN: 0035-3930
- 36.** Florin Iordache, Stefan A. Iordache, Ion Costea, **Cristian Simion**, Alina Simion, Dan Mihăiescu, Florin Badea, “Some new applications of phthalic anhydride in organic synthesis”, *Revue Roumaine de Chimie*, **2001**, 46(8), 835-845. WOS:000177989900002 ISSN: 0035-3930
- 37.** Yoshiharu Mitoma, Satoko Nagashima, **Cristian Simion**, Alina Simion, Tomoko Yamada, Keisuke Mimura, Keiko Ishimoto, Masashi Tashiro, “Dehalogenation of aromatic halides using metallic calcium in ethanol”, *Environmental Science and Technology*, **2001**, 35, 4145-4148. WOS:000171528100021 Print Edition ISSN: 0013-936X, Web Edition ISSN: 1520-5851
- 38.** Alina Simion, **Cristian Simion**, Tadeshige Kanda, Satoko Nagashima, Yoshiharu Mitoma, Tomoko Yamada, Keisuke Mimura, Masashi Tashiro, “Synthesis of imines, diimines and macrocyclic diimines as possible ligands, in aqueous solution”, *Journal of the Chemical Society Perkin Transactions I*, **2001**, 17, 2071-2079. WOS:000171185700013 ISSN (printed): 0300-922X. ISSN (electronic): 1364-5463.
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- 40.** Florin Badea, **Cristian Simion**, Ion Costea, Florin Iordache, Dan Mihăiescu, Ilie G. Dinulescu, Vasile Matei, “Ketene intermediates in a pyrolytic process involving triphenylphosphine”, *Revue Roumaine de Chimie*, **2000**, 45(5), 495-499. ISSN: 0035-3930

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- 42.** Florin Badea, Florin Iordache, Aurelia Meghea, Alina Simion, Ion Costea, Stefan Iordache, **Cristian Simion**, “Generation and trapping of free radicals from phthalhydrazide and 5-nitrophthalhydrazide”, *Revue Roumaine de Chimie*, **1999**, 44(6), 585-590. ISSN: 0035-3930
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- 45.** Florin Badea, Ion Costea, Florin Iordache, Alina Creangă, **Cristian Simion**, “Attempted synthesis of dibenzo-[*a,d*]-3-carbonyl-6-keto-1,4-cyclohexadiene (anthraquino-monoketene). Are *p*-quinoketene true reaction intermediates?”, *Revue Roumaine de Chimie*, **1997**, 42(9), 949-953. ISSN: 0035-3930
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- 47.** Axel Couture, Eric Deniau, Pierre Grandclaudon, **Cristian Simion**, “A short synthesis of 2,3-Di(hetero)arylpyrido[3,2-*f*][1,4]thiazepines”, *Synthesis*, **1996**, 986-990. WOS:A1996VC64300012 ISSN (printed): 0039-7881.
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**B. Indexate în baze de date internationale**

1. Anton Adina Mirela, Rau Ileana, Kajzar Francois, Simion Alina-Marieta, **Simion Cristian**, Stability studies of some DNA based materials doped with natural extracts, *University Politehnica of Bucharest Scientific Bulletin Series B-Chemistry and Materials Science*, **2019**, 81(4), 12-130
2. Mitoma Yoshiharu, Srinivasa Reddy Mallampati, Kakeda Mitsunori, **Simion Cristian**, Hydrodechlorination of POPs in soil by nano size-calcium and iron dispersion under mild conditions, *Organohalogen Compounds*, **2013**, 75(1), 542-546. ISSN: 1026-4892.
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#### **6. Articole publicate în volumele unor manifestări științifice internaționale recunoscute din țară și din străinătate și nationale**

1. Yoshiharu Mitoma, Yumi Katayama, Srinivasa Reddy Mallampati, **Cristian Simion**, Fractionalization of Actual Contaminated Soil Containing High Concentrations of Radioactive Cesium by a Nano-size Fe/Ca Composite under Solvent-free and non-Heating Conditions. BIT's 3<sup>rd</sup> Annual World Congress of Smart Materials **2017**, Martie 16-18, Bangkok, Thailand
2. Yuri Matsumoto, **Simion Cristian**, Yoshiharu Mitoma, Mechanism of the solvent-free Cannizzaro reaction of benzaldehydes using calcium hydroxide, ISESS - International Symposium on Education and Social Sciences; IRSET - International Research Symposium on Engineering and Technology, September 13-15, 2016, Singapore.
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6. Yoshiharu Mitoma, **Cristian Simion**, Srinivasa Reddy Mallampati, Tetsuji Okuda, Ken-ichi Nakata, Dry, non-heated decontamination of radioactive cesium polluted soils using paramagnetic Fe<sub>3</sub>O<sub>4</sub>, Pacifichem **2015**, Decembrie 15-20, Honolulu, Hawaii, SUA.
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8. Yoshiharu Mitoma, **Cristian Simion**, "Hydrodechlorination of Dioxins and Dioxin-Like Compounds in Soil Using Nano-Size Metallic Calcium and Calcium Oxide Dispersing Reagent", 4<sup>th</sup> Global Congress of Catalysis, **29.06-01.07.2013**, Dailan, China.
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## **7. Contracte si rapoarte științifice**

Ca titular de contract:

1. “Sinteze de macroheterocicli cu capacitate complexante pentru metale grele”, Tema 7, Cod 1471, Grant CNCSIS **2004**

Ca participant:

1. “Aplicatii ale sonochimiei in studiul reactiilor radicalice si ionice”, Nr. 572B, Tema A2, (la UPB 49-92-05), Contract cu MCT, **1994**.
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3. “Mecanisme de reactii alternative”, Nr. 4001, Tema B36, , (la UPB 49-95-04), Contract cu MI, **1995**.
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7. “Aplicatii ale sonochimiei in studiul reactiilor radicalice si ionice”, Nr. 376+381/Act aditionar 310-24-03-97/I, Tema A55, Contract cu MCT, **1997**.
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