

Articles à comité de lecture

- "Anionic ring-opening polymerization of cyclodisilazanes : 1- General aspects"**
S. Bruzaud, A. Soum, *Macromol. Chem. Phys.* **1995**, 197, 2379-2391
- "Ring-opening polymerization of organosilicon cyclic monomers"**
M. Bouquey, C. Brochon, S. Bruzaud, A.-F. Mingotaud, M. Schappacher, A. Soum, *J. Organomet. Chem.* **1996**, 521, 21-27
- "Polysilazanes through ring-opening polymerization"**
A. Soum, L. Billon, M. Bouquey, S. Bruzaud, E. Duguet, M. Schappacher, *The Polymeric Materials Encyclopedia : Synthesis, Properties and Applications*, édité par J.C. Salamone, CRC Press, Boca Raton, USA, **1996**, 6747-6757
- "Anionic ring-opening polymerization of cyclodisilazanes : 2- Influence of additives on the kinetics of polymerization"**
S. Bruzaud, A.-F. Mingotaud, A. Soum, *Macromol. Chem. Phys.* **1997**, 198, 1873-1884
- "Anionic ring-opening polymerization of cyclodisilazanes : Evaluation of the reactivity of active centers"**
S. Bruzaud, A.-F. Mingotaud, A. Soum, *Ionic Polymerizations* **1997**, 13, 261-267
- " ω -chloro- α -olefins as comonomers and termonomers for the synthesis of functional polyolefins"**
S. Bruzaud, H. Cramail, L. Duvignac, A. Deffieux, *Macromol. Chem. Phys.* **1997**, 198, 291-303
- "Multinucleus NMR characterization of new silylamines and their corresponding lithium silylamides"**
S. Bruzaud, A.-F. Mingotaud, A. Soum, *J. Organomet. Chem.* **1998**, 561, 77-84
- "Synthesis and characterization of new functional polymers by polymer-analog reactions on EVOH copolymer"**
S. Bruzaud, G. Levesque, *Macromol. Chem. Phys.* **2000**, 201, 1758-1764
- "Polysiloxane-*g*-TiNbO₅ nanocomposites : synthesis via *in situ* intercalative polymerization and preliminary characterization"**
S. Bruzaud, G. Levesque, *Chem. Mater.* **2002**, 14, 2421-2426
- "Preparation of polysiloxane-*g*-TiNbO₅ nanocomposites : different routes"**
S. Bruzaud, A. Beigbeder, Y. Grohens, *Chemical Bulletin of "POLITEHNICA" University of Timisoara, Romania* **2003**, 48, 6-11
- "Influence of clay nanofiller incorporation on electrical and rheological properties of conductive polymer composite"**
J.F. Feller, S. Bruzaud, Y. Grohens, *Mater. Lett.* **2004**, 58, 739-745
- "Elaboration of poly(ϵ -caprolactone)-*g*-TiNbO₅ nanocomposites via *in situ* metal complex initiated intercalative polymerization"**
S. Bruzaud, J.F. Carpentier, Y. Grohens, *Macromol. Mater. Eng.* **2004**, 289, 531-538
- "Dynamics and crystallization in polydimethylsiloxane nanocomposites"**
A. Beigbeder, S. Bruzaud, J. Speváček, J. Brus, Y. Grohens, *Macromol. Symp.* **2005**, 222, 225-232
- "Syndiotactic polystyrene/organoclay nanocomposites : synthesis via *in situ* coordination-insertion polymerization and preliminary characterization"**
S. Bruzaud, Y. Grohens, S. Ilinca, J.F. Carpentier, *Macromol. Mater. Eng.* **2005**, 290, 1106-1114
- "Rheological characterization of polydimethylsiloxane-TiNbO₅ nanocomposites prepared by different routes"**
A. Beigbeder, S. Bruzaud, P. Médéric, T. Aubry, Y. Grohens, *Polymer* **2005**, 46, 12279-12286
- "Elaboration and characterization of PDMS/HTiNbO₅ nanocomposite membranes"**
L. Lebrun, S. Bruzaud, Y. Grohens, D. Langevin, *Eur. Polym. J.* **2006**, 42, 1975-1985
- "Thermal degradation and (nano)mechanical behaviour of layered silicate reinforced poly(3-hydroxybutyrate-co-3-hydroxyvalerate) nanocomposites"**
S. Bruzaud, A. Bourmaud, *Polym. Test.* **2007**, 26, 652-659
- "Effect of gamma irradiation on the structure and properties of polypropylene/clay nanocomposites"**
N. Touati, M. Kaci, H. Ahouari, S. Bruzaud, Y. Grohens, *Macromol. Mater. Eng.* **2007**, 292, 1271-1279
- "The *in situ* polymerization for the elaboration of nanocomposites materials with controlled properties"**
S. Bruzaud, Y. Grohens, *Int. J. Nanotechnol.* **2008**, 5, 660-668

20. **"Photo-oxydation of polystyrene/clay nanocomposites under accelerated UV exposure: Effect on the structure and molecular weight"**
C. Remili, M. Kaci, S. Kachbi, S. Bruzaud, Y. Grohens, *J. Appl. Polym. Sci.* **2009**, 112, 2868-2875
21. **"Carbon nanotubes/poly(ϵ -caprolactone) composite vapour sensors"**
M. Castro, J. Lu, S. Bruzaud, B. Kumar, J.F. Feller, *Carbon* **2009**, 47, 1930-1942
22. **"Relationship between structure and rheological, mechanical and thermal properties of polylactide/Cloisite 30B nanocomposites"**
L. Zaidi, S. Bruzaud, A. Bourmaud, P. Médéric, M. Kaci, Y. Grohens, *J. Appl. Polym. Sci.* **2010**, 116, 1357-1365
23. **"Effect of photo-oxydation of polystyrene/Cloisite 15A nanocomposites under accelerated UV exposure"**
M. Kaci, C. Rémi, S. Bruzaud, Y. Grohens, *Acad. J. Manufact. Eng.* **2010**, 8, 61-66
24. **"Structure and thermal behavior of Polyhedral Oligomeric Silsesquioxane modified clay"**
F.X. Perrin, S. Bruzaud, Y. Grohens, *Appl. Clay Sci.* **2010**, 49, 113-119
25. **"Effect of natural weather on the structure and properties of polylactide/Cloisite 30B nanocomposites"**
L. Zaidi, M. Kaci, S. Bruzaud, A. Bourmaud, Y. Grohens, *Polym. Degrad. Stab.* **2010**, 95, 1751-1758
26. **"Characterization of bionanocomposites based on medium-chain-length polyhydroxyalkanoates synthesized by *Pseudomonas oleovorans*"**
S. Chardron, S. Bruzaud, B. Lignot, A. Elain, O. Sire, *Polym. Test.* **2010**, 29, 966-971
27. **"The effects of reprocessing cycles on the structure and properties of isotactic polypropylene/Cloisite 15A nanocomposites"**
N. Touati, M. Kaci, S. Bruzaud, Y. Grohens, *Polym. Degrad. Stab.* **2011**, 96, 1064-1073
28. **"The effects of reprocessing cycles on the structure and properties of polystyrene/Cloisite 15A nanocomposites"**
C. Rémi, M. Kaci, S. Bruzaud, Y. Grohens, *Polym. Degrad. Stab.* **2011**, 96, 1489-1496
29. **"Morphology and functional properties of commercial polyhydroxyalkanoates: a comprehensive and comparative study"**
Y.M. Corre, S. Bruzaud, J.L. Audic, Y. Grohens, *Polym. Test.* **2012**, 31, 226-235
30. **"Recyclability of polystyrene/clay nanocomposites"**
M. Kaci, C. Rémi, A. Benhamida, S. Bruzaud, Y. Grohens, *Mol. Cryst. Liq. Cryst.* **2012**, 556, 94-106
31. **"Influence of loading rates on morphology and mechanical properties of polylactide/clay nanocomposites"**
M. Kaci, L. Zaidi, S. Bruzaud, A. Bourmaud, P. Médéric, Y. Grohens, *Int. J. Microstruct. Mater. Prop.* **2012**, 7, 390-399
32. **"The effects of gamma irradiation on the morphology and properties of polylactide/Cloisite 30B nanocomposites"**
L. Zaidi, S. Bruzaud, M. Kaci, A. Bourmaud, N. Gautier, Y. Grohens, *Polym. Degrad. Stab.* **2013**, 98, 348-355
33. **"A study of mechanical, thermal and flammability properties of poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/polylactide blends"**
I. Zembouai, M. Kaci, S. Bruzaud, A. Benhamida, Y.M. Corre, Y. Grohens, *Polym. Test.* **2013**, 32, 842-851
34. **"Poly(3-hydroxybutyrate-co-3-hydroxyvalerate) and poly(propylene carbonate) blends: an efficient method to finely adjust properties of functional materials"**
Y.M. Corre, S. Bruzaud, Y. Grohens, *Macromol. Mater. Eng.* **2013**, 298, 1176-1183
35. **"Poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/polylactide blends: thermal stability, flammability and thermo-mechanical behavior"**
I. Zembouai, S. Bruzaud, M. Kaci, A. Benhamida, Y.M. Corre, Y. Grohens, J.M. Lopez-Cuesta, *J. Polym. Environ.* **2014**, 22, 131-139
36. **"Synergistic effect of compatibilizer and Cloisite 30B on the functional properties of poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/polylactide blends"**
I. Zembouai, S. Bruzaud, M. Kaci, A. Benhamida, Y.M. Corre, Y. Grohens, J.M. Lopez-Cuesta, *Polym. Eng. Sci.* **2014**, 54, 2239-2251

37. **"Accelerated ageing of polylactide in aqueous environments: comparative study between distilled water and seawater"**
M. Deroiné, A. Le Duigou, Y.M. Corre, P.Y. Le Gac, P. Davies, G. César, S. Bruzaud, *Polym. Degrad. Stab.* **2014**, 108, 319-329
38. **"Seawater accelerated ageing of poly(3-hydroxybutyrate-co-3-hydroxyvalerate)"**
M. Deroiné, A. Le Duigou, Y.M. Corre, P.Y. Le Gac, P. Davies, G. César, S. Bruzaud, *Polym. Degrad. Stab.* **2014**, 105, 237-247
39. **"Mechanical recycling of poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/polylactide blends"**
I. Zembouai, S. Bruzaud, M. Kaci, A. Benhamida, Y.M. Corre, Y. Grohens, *J. Polym. Environ.* **2014**, 22, 449-459
40. **"Accelerated ageing and lifetime prediction of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) immersed in distilled water"**
M. Deroiné, A. Le Duigou, Y.M. Corre, P.Y. Le Gac, P. Davies, G. César, S. Bruzaud, *Polym. Test.* **2014**, 39, 70-78
41. **"Rapid and qualitative fluorescence-based method for the assessment of PHA production in marine bacteria during batch culture"**
A. Elain, M. Le Fellic, Y.M. Corre, V. Le Tilly, A. Legrand, J.L. Audic, S. Bruzaud, *World J. Microbiol. Biotechnol.* **2015**, 31, 1555-1563
42. **"Natural degradation and biodegradation of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) in liquid and solid marine environments"**
M. Deroiné, G. César, A. Le Duigou, P. Davies, S. Bruzaud, *J. Polym. Environ.* **2015**, 23, 493-505
43. **"A study on the effects of reprocessing cycles on polylactide/poly(3-hydroxybutyrate-co-3-hydroxyvalerate) blends"**
I. Zembouai, M. Kaci, S. Bruzaud, A. Benhamida, Y.M. Corre, Y. Grohens, *Roum. J. Chem.* **2015**, 60, 609-613
44. **"Valorization of local agro-industrial processing waters as growth media for polyhydroxyalkanoates production"**
A. Elain, A. Le Grand, Y.M. Corre, M. Le Fellic, N. Hachet, V. Le Tilly, P. Loulergue, J.L. Audic, S. Bruzaud, *Ind. Crops Prod.* **2016**, 80, 1-5
45. **"Gamma irradiation effects on morphology and properties of poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/polylactide blends in the presence of compatibilizer and Cloisite 30B"**
I. Zembouai, S. Bruzaud, M. Kaci, L. Dumazert, A. Bourmaud, M. Mahlous, J.M. Lopez-Cuesta, Y. Grohens, *Polym. Test.* **2016**, 49, 29-37
46. **"Electron beam radiation effects on properties and eco-toxicity of PHBV/PLA blends in presence of organo-modified montmorillonite"**
I. Zembouai, M. Kaci, I. Pillin, J.L. Audic, S. Shayanfar, S.D. Pillai, S. Bruzaud, *Polym. Degrad. Stab.* **2016**, 132, 117-126
47. **"Microplastics elutriation from sandy sediments: a granulometric approach"**
M. Kedzierski, V. Le Tilly, P. Bourseau, H. Bellegou, G. César, O. Sire, S. Bruzaud, *Mar. Pollut. Bull.* **2016**, 107, 315-323
48. **"Effects of PHBV-g-MA compatibilizer on morphology and properties of poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/olive husk flour composites"**
L. Hassaini, M. Kaci, S. Bruzaud, A. Benhamida, I. Pillin, Y. Grohens, *J. Adhes. Sci. Technol.* **2016**, 30, 2061-2080
49. **"Synergistic effect of compatibilizer and sepiolite on the morphology of poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/poly(butylene succinate) blends"**
A. Chikh, A. Benhamida, M. Kaci, I. Pillin, S. Bruzaud, *Polym. Test.* **2016**, 53, 19-28
50. **"Changes in the floating plastic pollution of the Mediterranean Sea in relation to the distance to land"**
M.L. Pedrotti, S. Petit, A. Elineau, S. Bruzaud, J.C. Crébassa, B. Dumontet, E. Marti, G. Gorsky, A. Cozar, *Plos One* **2016**, 11, e0161581
51. **"Efficient microplastics extraction from sand: a cost effective methodology based on sodium iodide recycling"**
M. Kedzierski, V. Le Tilly, G. César, O. Sire, S. Bruzaud, *Mar. Pollut. Bull.* **2017**, 115, 120-129

52. **"Valorization of olive husk flour as a filler for biocomposites based on poly(3-hydroxybutyrate-co-3-hydroxyvalerate): effects of filler silane treatment"**
L. Hassaini, M. Kaci, N. Touati, I. Pillin, A. Kervoelen, S. Bruzaud, *Polym. Test.* **2017**, 59, 430-440
53. **"Microplastics elutriation system. Part A: numerical modeling"**
M. Kedzierski, V. Le Tilly, P. Bourseau, H. Bellegou, G. César, O. Sire, S. Bruzaud, *Mar. Pollut. Bull.* **2017**, 119, 151-161
54. **"Recycling assessment of poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/poly(butylene succinate) blends: combined influence of sepiolite and compatibilizer"**
A. Chikh, A. Benhamida, M. Kaci, A. Bourmaud, S. Bruzaud, *Polym. Degrad. Stab.* **2017**, 142, 234-243
55. **"Threat of microplastics induced by plastic ageing in marine environment"**
M. Kedzierski, M. D'Almeida, A. Magueresse, A. Le Grand, H. Duval, G. César, O. Sire, S. Bruzaud, V. Le Tilly, *Mar. Pollut. Bull.* **2018**, 127, 684-694
56. **"Combined effects of Sepiolite and Cloisite 30B on morphology and properties of poly(3-hydroxybutyrate-co-3-hydroxyvalerate)/polylactide blends"**
I. Zembouai, M. Kaci, L. Zaidi, S. Bruzaud, *Polym. Degrad. Stab.* **2018**, 153, 47-52
57. **"Microplastics elutriation system. Part B: insight of the next generation"**
M. Kedzierski, V. Le Tilly, P. Bourseau, G. César, O. Sire, S. Bruzaud, *Mar. Pollut. Bull.* **2018**, 133, 9-17
58. **"Colonization of non-biodegradable and biodegradable plastics by marine microorganisms"**
C. Dussud, C. Hudec, M. George, P. Fabre, P. Higgs, S. Bruzaud, A.M. Delort, B. Eyheraguibel, A.L. Meistertzheim, J. Jacquin, J. Cheng, N. Callac, C. Odobel, S. Rabouille, S. Bruzaud, J.F. Ghiglione, *Front. Microbiol.* **2018**, 9, 1571
59. **"Production of poly(3-hydroxybutyrate-co-3-hydroxyvalerate) using agro-industrial effluents with tunable proportion of 3-hydroxyvalerate monomer units"**
P. Lemechko, M. Le Fellic, S. Bruzaud, *Int. J. Biol. Macromol.* **2019**, 128, 429-434
60. **"Microplastics in Mediterranean Sea: a protocol to robustly assess contamination characteristics"**
M. Kedzierski, M. Falcou-Préfol, J. Villain, M.E. Kerros, M. Henry, M.L. Pedrotti, S. Bruzaud, *Plos One* **2019**, 14, e0212088
61. **"Complete genome sequence of the halophilic PHA-producing bacterium *Halomonas* sp. SF2003: insights into its biotechnological potential"**
T. Thomas, A. Bazire, A. Elain, S. Bruzaud, *World J. Microbiol. Biotechnol.* **2019**, 35, 1-14
62. **"A machine learning algorithm for high throughput identification of FTIR spectra: application on microplastics collected in the Mediterranean Sea"**
M. Kedzierski, M. Falcou-Préfol, M.E. Kerros, M. Henry, M.L. Pedrotti, S. Bruzaud, *Chemosphere* **2019**, 234, 242-251
63. **"Effect of montmorillonite, sepiolite and halloysite clays on morphology and properties of polycaprolactone bionanocomposites"**
A. Kassa, A. Benhamida, M. Kaci, S. Bruzaud, *Polym. Compos.* **2020**, 28, 338-347
64. **"Microplastic contamination of packaged meat: occurrence and associated risks"**
M. Kedzierski, B. Lechat, O. Sire, G. Le Maguer, V. Le Tilly, S. Bruzaud, *Food Packag. Shelf Life* **2020**, 24, 100489
65. **"Effects of various surface treatments on Aloe Vera fibers used as reinforcement in poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) biocomposites"**
N. Dehouche, C. Idres, I. Zembouai, M. Kaci, S. Bruzaud, *Polym. Degrad. Stab.* **2020**, 175, 109131
66. **"PHA production and PHA synthases of the halophilic bacterium *Halomonas* sp. SF2003"**
T. Thomas, K. Sudesh, A. Bazire, A. Elain, H.T. Tan, H. Lim, S. Bruzaud, *Bioengineering* **2020**, 7, 1-22
67. **"Why is there plastic packaging in the natural environment? Understand the roots of our individual plastic waste management behaviours"**
M. Kedzierski, D. Frère, G. Le Maguer, S. Bruzaud, *Sci. Total Environ.* **2020**, 740, 139985
68. **"Microplastics in edible mussels from a southern Mediterranean lagoon: preliminary results on seawater-mussel transfer and implications for environmental protection and seafood safety"**
T. Wakkaf, R. El Zrelli, M. Kedzierski, R. Balti, M. Shaiekh, L. Mansour, S. Tlig-Zouari, S. Bruzaud, L. Rabaoui, *Mar. Pollut. Bull.* **2020**, 158, 111355
69. **"Elaboration and characterization of polyurethane foams based on renewably sourced polyols"**
Z. Kahlerras, R. Irinislimane, S. Bruzaud, N. Belhaneche-Bensemra, *J. Polym. Environ.* **2020**, 28, 3003-3018

70. **"Characterization of microplastics in the surface waters of an urban lagoon (Bizerte lagoon, Southern Mediterranean Sea): composition, density, distribution and influence of environmental factors"**
T. Wakkaf, R. El Zrelli, M. Kedzierski, R. Balti, M. Shaiekh, L. Mansour, S. Tlig-Zouari, S. Bruzaud, L. Rabaoui, *Mar. Pollut. Bull.* **2020**, 160, 111625
71. **"Pre-detection of microplastics using active thermography"**
M. Kedzierski, E. Geslain, M.L. Pedrotti, J.F. Ghiglione, S. Bruzaud, *Chemosphere* **2020**, 262, 127648

Ouvrages

1. **"Elaboration de matériaux nanocomposites"**, Éditions Universitaires Européennes, ISBN 978-613-1-50681-9, **2010**
S. Bruzaud
2. **"Polyhydroxyalkanoates-based nanocomposites: an efficient and promising way of finely controlling functional material properties"**, in « Handbook of Polymer Nanocomposites: Processing, Performance and Application – Volume A: Layered Silicates », Edited by J.K. Pandey, R. Reddy, A.K. Mohanty and M. Misra, Springer-Verlag Berlin Heidelberg, ISBN 978-3-642-38649-7, **2014**, Chapter 1, pp 1-20
S. Bruzaud
3. **"Polysilazanes through ring-opening polymerization"**, in « Polymeric Materials Encyclopedia, Twelve Volume Set », Edited by J.C. Salomone, CRC Press, Boca Raton (USA), ISBN 978-0-8493-2470-3, **2020**, pp 6747-6757
A. Soum, L. Billon, M. Bouquey, S. Bruzaud, E. Duguet, M. Schappacher

Articles de vulgarisation

1. **"Des déchets, des bactéries et des bioplastiques"**
S. Bruzaud, *La Recherche* **2015**, 499, 57-60
2. **"Des polymères bactériens biodégradables obtenus à partir de ressources renouvelables : la biotechnologie au service de la chimie"**
P. Lemechko, S. Bruzaud, *L'Actualité Chimique, Numéro spécial « Chimie durable »* **2018**, 427-428, 60-65
3. **"Les promesses des bioplastiques"**
S. Bruzaud, *La Recherche* **2019**, Hors-série n°29, 45-48
4. **"Pollution des océans par les plastiques et les microplastiques"**
F. Galgani, S. Bruzaud, G. Duflos, P. Fabre, E. Gastaldi, J.F. Ghiglione, R. Grimaud, M. George, A. Huvet, F. Lagarde, I. Paul-Pont, A. Ter Halle, *Techniques de l'Ingénieur* **2020**, BIO9300, 1-14
5. **"Pollution des environnements terrestres et marins par les plastiques : sources, impacts et solutions"**
M. Kedzierski, M. Palazot, L. Soccalingame, S. Bruzaud, *L'Actualité Chimique* **2020**, 456-457-458, 115-120