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Prof. Kei Saito is currently a Professor, Graduate School of Advanced Integrated Studies in Human Survivability, Kyoto University, Japan.

Before joining Kyoto University in Oct 2020, he was a tenured Associate Professor (2019-2020), Senior Lecturer (2016-2018), and Lecturer (2007-2015) at School of Chemistry, Monash University, Australia and JST PRESTO researcher (2015-2019), Japan. Before then, a Postdoctoral Fellow at the Centre for Green Chemistry, University of Massachusetts Lowell, USA (2005-2007) and a Visiting Research Associate at the Graduate School of Science and Engineering and at the Faculty of Science and Engineering at Waseda University, Japan (2004-2005). He studied Green Chemistry from one of the founders of Green Chemistry, Prof. John Warner, while he was at University of Massachusetts Lowell and was the member of the ARC Special Research Centre for Green Chemistry at Monash University.



The focus of his current research relates to the innovative development of new synthetic methods for the production of novel sustainable polymeric materials, based on the principles of Green Chemistry and the utilisation of these materials in a variety of industrial applications. For example, Prof. Saito has invented new classes of *photodegradable plastics, self-healing coating materials, and biodegradable plastics* derived from wood and filed 2 PCT patents, 5 provisional patents and published 3 book chapters and more than 90 papers and in total of ca. \$16 M of external research income through his career. He has published invited manuscripts in special issues of high impact journals, such as in *Green Chemistry* [Impact factor 9.480] - Special Issue on Sustainable Polymers; *ChemCatChem* [Impact factor 4.724] - Special Issue on Catalytic Conversion of Biomass and Biomass Valorization, and also *Chemical Communication* [Impact factor 6.718] – Special Issue on Emerging Investigators, the latter with only a limited number of selected Mid-Career researchers globally invited.

Prof. Saito was elected as a Fellow of the Royal Society of Chemistry (UK) for his achievements in 2018. He has supervised 20 PhD students to completion until now.

Education

Received his B.E. (2000), M.E. (2002) in Applied Chemistry and Ph.D in Engineering (Polymer Chemistry) (2004) degrees from Waseda University, Tokyo, Japan.

Selected Referred Journal Articles

Book Chapter

1. S. Fadlallah, L. M. Mouterde, G. Garnier, K. Saito, F. Allais,* "Cellulose-Derived Levoglucosenone, a Great Versatile Chemical Platform for the Production of Renewable Monomers and Polymers, Sustainability & Green Polymer Chemistry Volume 2: Biocatalysis and Biobased Polymers", ACS Symposium Series, ACS, **2020**, Chapter 5, pp 77-97.
2. J. Dai, A. F. Patti, **K. Saito**,* 'Depolymerization of Lignin by Catalytic Oxidation in Ionic Liquids', Encyclopedia of Ionic Liquids, Zhang S. (eds), Springer Singapore, **2019**, pp. 1–12.
3. L. Lionel, G. Garnier,* **K. Saito**,* "Lignin biodegradation with fungi, bacteria and enzymes for producing chemicals and increasing process efficiency", Book chapter in *Production of Biofuels and Chemicals from Lignin* (Biofuels and Biorefineries; vol. 6), Fang, Z. & Smith, R. L. (eds.). Singapore: Springer, **2016**, p. 147-179.

Refereed Reviews since 2016

4. S. Fadlallah, P. S. Roy, G. Garnier, **K. Saito**,*, F. Allais,* "Are lignin-derived monomers and polymers truly sustainable? An in-depth green metrics calculations approach", *Green Chem.*, **2021**, 23, 1495-1535. [Corresponding author - Impact factor 9.812]
5. P. S. Roy, G. Garnier, F. Allais, **K. Saito**,* Effective Lignin Utilization Strategy: Major Depolymerization Technologies, Purification Process and Production of Valuable Material, *Chem. Lett.*, **2021**, 50, 1123-1130. [Corresponding author - Impact factor 1.389]
6. T. Hughes, G. P. Simon, **K. Saito**,* "Chemistries and capabilities of photo-formable and photo-reversible crosslinked polymer networks, *Mater. Horizons*", **2019**, 6, 1762-1773. [Corresponding author - Impact factor 14.356]
7. S. Tan, **K. Saito**, M. T. W. Hearn, "Stimuli-Responsive Polymeric Materials for Separation of Biomolecules", *Curr. Opin. Biotechnol.*, **2018**, 53, 20-223. [Impact factor 8.380]
8. R. Pal, A. K. Sikder, **K. Saito**,*, A. M. Funston,*, J. R. Bellare,*, "Electron energy loss spectroscopy for polymers: A review", *Polym. Chem.*, **2017**, 8, 6927 - 6937 [Corresponding author - Impact factor 5.375]

9. P. Ray, C. Smith, G. P. Simon,* **K. Saito**,* "Renewable green platform chemicals for polymers", *Molecules*, **2017**, 22(3), 376, [Corresponding author - Impact factor 2.46]
10. V. Dao, N. R. Cameron,* **K. Saito**,* "Synthesis, properties and performance of organic polymers employed in flocculation applications", *Polym. Chem.*, **2016**, 7, 11-25. [Corresponding author -Impact factor 5.520]
11. J. Dai, A. F. Patti, **K. Saito**,* "Recent developments in chemical degradation of lignin: catalytic oxidation and ionic liquids", *Tetrahedron Lett.*, **2016**, 57, 4945-4951. [Corresponding author - Impact factor 2.379]
12. G. Kaur, P. Johnston, **K. Saito**,* "Photo-reversible dimerisation reactions and their applications in polymeric systems", *Polym. Chem.*, **2014**, 5, 2171-2186. [Corresponding author - Impact factor 5.368]

Refereed Journal Articles since 2016

1. M. Inada, A. Udagawa, S. Sato, T. Asahi, **K. Saito**,* "Photo-conversion of self-assembled structures into continuous covalent structures via [2+ 2]-cycloaddition reactions", *Photochem. Photobiol. Sci.* **2022**, *in press*, <https://doi.org/10.1007/s43630-022-00286-0>
2. R. Pal, A. K. Sikder, K. Saito, A. M Funston, J. R Bellare, Study of polycarbonate-polystyrene interfaces using Scanning Transmission Electron Microscopy-Spectrum Imaging (STEM-SI), *Polym. Int.* **2022**, *in press*, <https://doi.org/10.1002/pi.6451>
3. P. Vijay, W. Batchelor, **K. Saito**,* "Preparation of coumarin polymer grafted nanocellulose films to form high performance, photoresponsive barrier layers", *J. Polym. Sci.*, **2022**, *in press*, <https://doi.org/10.1002/pol.20220248> [Corresponding author - Impact factor 2.97]
4. K. Boga, A. F. Patti, J. C. Warner, G. P. Simon, **K. Saito**,* "Sustainable Light-Stimulated Synthesis of Cross-Linked Polymer Microparticles", *Macromol. Chem. Phys.*, **2022**, 217, 2100493
5. P. Vijay, W. Batchelor, **K. Saito**,* "One-pot treatment of cellulose using iron oxide catalysts to produce nanocellulose and water-soluble oxidised cellulose", *Carbohydr. Polym.*, **2022**, 282, 119060-
6. P. Roy, M. M. Mention, M. A. P. Turner, F. Brunissen, V. G. Stavros, G. Garnier, F. Allais,* **K. Saito*** , "Bio-based photo-reversible self-healing polymer designed from lignin", *Green Chem.*, **2021**, 24, 10050-10061. [Corresponding author - Impact factor 9.812]
7. P. S. Roy, G. Garnier, F. Allais, **K. Saito**,* "Strategic Approach Towards Plastic Waste Valorization: Challenges and Promising Chemical Upcycling Possibilities", *ChemSusChem*, **2021**, 14, 4007-4027.
8. Ruchi Pal, Laure Bourgeois, Matthew Weyland, Arun K. Sikder, **Kei Saito**, Alison M. Funston,* Jayesh R. Bellare,* "Chemical Fingerprinting of Polymers Using Electron Energy-Loss Spectroscopy", *ACS Omega*, **2021**, 6, 23934-23942
9. P. Chakma, S. V. Wanasinghe, C. N. Morley, S. C. Francesconi, **K. Saito**, J. L. Sparks, D. Konkolewicz, "Heat-and Light-Responsive Materials Through Pairing Dynamic Thiol-Michael and Coumarin Chemistry", *Macromol. Rapid Commun.* **2021**, 42, 2100070.
10. A Alrayyes, Y Hu, R Tabor, H Wang, **K Saito*** , "Photo-switchable membranes constructed from graphene oxide/star-PDMS nanocomposites for gas permeation control", *J. Mater. Chem. A*. **2021**, 9, 21167-21174.
11. A. Alrayyes, Z. Low, H. Wang, **K. Saito**,* Multi-cycle reversible control of gas permeability in thin film composite membranes via efficient UV-induced reactions, *Chem. Commun.*, **2021**, 57, 3391-3394 [Corresponding author - Impact factor 5.996]
12. S. Tan, **K. Saito*** , M. T. W. Hearn,* Adsorption of a Humanized Monoclonal Antibody onto Thermoresponsive Copolymer-Grafted Sepharose Fast Flow Sorbents, *Langmuir*, **2021**, 37, 1054-1061. [Corresponding author - Impact factor 3.557]
13. S. Tan, R. I. Boysen, **K. Saito**,* M. T. W. Hearn,* "Dynamic Adsorption/Desorption of Proteins with Thermo-Responsive Polymer Grafted Sepharose Fast Flow Sorbents", *Sep. Purif. Technol.*, **2021**, 259,118173. [Corresponding author - Impact factor 5.774]
14. S. Tan, **K. Saito**,* , M. T. W. Hearn,* Isothermal modelling of protein adsorption to thermo - responsive polymer grafted sepharose fast flow sorbents, *J. Sep. Sci.*, **2021**, 44, 1884-1892. [Corresponding author - Impact factor 2.878]
15. Y. Alqarni, F. Ishizuka, T. D. M. Bell, R. F. Tabor, P. B. Zetterlund, **K. Saito**,* "Confined polymerisation of bis-thyminyl monomers within nanoreactors: towards molecular weight control", *Polym. Chem.*, **2020**, 11, 4326-4334. [Corresponding author - Impact factor 5.342]
16. V. Dao, K. Mohanarangam, P. Fawell, K. Simic, R. Ilyer, N. R. Cameron,* **K. Saito**,* Enhanced Flocculation Efficiency in a High-Ionic-Strength Environment by the Aid of Anionic ABA Triblock Copolymers, *Langmuir*, **2020**, 36, 1538-1551. [Corresponding author - Impact factor 3.557]
17. R. Pal, L. Bourgeois, M. Weyland, A. K. Sikder, **K. Saito**,* A. M. Funston,* J. Bellare,* "Chemical fingerprinting of polyvinyl acetate and polycarbonate using electron energy-loss spectroscopy", *Polym. Chem.*, **2020**, 11, 5484-5429. [Corresponding author - Impact factor 5.342]
18. S. Tan, E. M. Campi, R. I. Boysen, **K. Saito**,* M. T. W. Hearn,* "Batch binding studies with thermo-responsive polymer grafted sepharose 6 fast flow sorbents under different temperatures and protein loading conditions. *J. Chromatogr. A*, **2020**, 1625, 461298. [Corresponding author - Impact factor 4.049]

19. R. W. Lewis, N. Malic, **K. Saito**, N. R. Cameron,* R. A. Evans,* "Linear coordination polymer synthesis from biscatechol functionalized RAFT polymers", *Macromol. Rapid Commun.*, **2020**, 41, 2000366. [Impact factor 4.886]
20. C. K. Borrowman, P. Johnston, R. Adhikari, **K. Saito**, A. F. Patti,* "Environmental degradation and efficacy of a sprayable, biodegradable polymeric mulch", *Polym. Degrad. Stabil.*, **2020**, 175, 109126, [Impact factor 4.032]
21. C. K. Borrowman, M. Bücking, B. Göckener, R. Adhikari, **K. Saito**, A. F. Patti,* "LC-MS analysis of the degradation products of a sprayable, biodegradable poly (ester-urethane-urea)", *Polym. Degrad. Stabil.*, **2020**, 175, 109218, [Impact factor 4.032]
22. M. Ricci, M. G.T.A. Rutten, S. Toyouchi, S. Nanayakkara, B. Fortuni, R. Vitale, S. Rocha, D. A. Wilson, J. Hofkens, **K. Saito***, and Hiroshi Uji-i* "Two-Photon-Induced [2 + 2] Cycloaddition of Bis-thymines: A Biocompatible and Reversible Approach", *ACS Omega* **2020**, 5, 11547–11552. [Corresponding author - Impact factor 2.87]
23. L. Longe, G. Garnier, **K. Saito**,* "Linear Bio-Based Water Soluble Aromatic Polymers from Syringic Acid, S Type Degradation Fragment from Lignin", *J. Polym. Sci.*, **2020**, 58, 540–547. [Corresponding author - Impact factor 2.97]
24. A. M. Mahmoud, J. P. Morrow, D. Pizzi, S. Nanayakkara, T. P. Davis, **K. Saito**, K. Kempe, "Nonionic Water-Soluble and Cytocompatible Poly(amide acrylate)s", *Macromolecules*, **2020**, 53, 693-701. [Impact factor 5.918]
25. G. A. Hurst, J. C. Slootweg, A. M. Balu, M. S. Climent-Bellido, A. Gomera, P. Gomez, R. Luque, L. Mammino, R. A. Spanevello, **K. Saito**, J. G. Ibanez "International Perspectives on Green and Sustainable Chemistry Education via Systems Thinking", *J. Chem. Educ.* **2019**, 96, 2794-2804 [Impact factor 1.385]
26. V. Dao, N. R. Cameron,* **K. Saito**,* "Synthesis of UHMW Star-Shaped AB Block Copolymers and Their Flocculation Efficiency in High-Ionic-Strength Environments", *Macromolecules*, **2019**, 52, 7613-7624 [Corresponding author - Impact factor 5.918]
27. R. W. Lewis, N. Malic, **K. Saito**, R. A. Evans,* N. R. Cameron,* "Ultra-high molecular weight linear coordination polymers with terpyridine ligands", *Chem. Sci.*, **2019**, 10, 6174-6183. [Impact factor 9.556]
28. Y. Alqarni, T. D. M. Bell, R. F. Tabor, **K. Saito**,* "Topologically controlled synthesis of reversible macrocyclic compounds in microemulsions", *J. Org. Chem.*, **2019**, 84, 8596-8601. [Corresponding author - Impact factor 4.745]
29. T. Hughes, G. P. Simon,* **K. Saito**,* "Light-Healable Epoxy Polymer Networks via Anthracene Dimer Scission of Diamine Crosslinker", *ACS Appl. Mater. Interfaces*, **2019**, 11, 19429-19443. [Corresponding author - Impact factor 8.456]
30. J. Dai, A. F. Patti,* G. N. Styles, S. Nanayakkara, L. Spiccia, F. Arena, C. Italiano, **K. Saito**,* "Lignin oxidation by MnO₂ under the irradiation of blue light", *Green Chem.*, **2019**, 21, 2005-2014. [Corresponding author - Impact factor 9.405]
31. P. Ray, C. Smith, **K. Saito**,* G. P. Simon,* "Development of bio-acrylic polymers from Cyrene™: transforming a green solvent to a green polymer", *Polym. Chem.*, **2019**, 10, 3334-3341. [Corresponding author - Impact factor 4.760]
32. T. Hughes, G. P. Simon,* **K. Saito**,* "Photocuring of 4-arm coumarin-functionalised monomers to form highly photoreversible crosslinked epoxy coatings", *Polym. Chem.*, **2019**, 10, 2134-2142. [Corresponding author - Impact factor 4.760]
33. M. Abdallh, C. Yoshikawa, M. Hearn, G. P. Simon,* **K. Saito**,* "Photoreversible Smart Polymers Based on 2π + 2π Cycloaddition Reactions: Nanofilms to Self-Healing Films", *Macromolecules*, **2019**, 52, 2446-2455. [Corresponding author - Impact factor 5.997]
34. M. Abdallh, P. He, M. Hearn, G. P. Simon,* **K. Saito**,* "Light-Switchable Self-Healing Dynamic Linear Polymers: Reversible Cycloaddition Reactions of Thymine-Containing Units", *ChemPlusChem*, **2019**, 84, 333-337. [Corresponding author - Impact factor 3.441]
35. S. B. Kandy, G. P. Simon, W. Cheng, J. Zank, **K. Saito**, A. R. Bhattacharyya,* "Effect of Organic Modification on Multiwalled Carbon Nanotube Dispersions in Highly Concentrated Emulsion", *ACS Omega*, **2019**, 4, 6647-6659. [Impact factor 2.584]
36. T. Hughes, G. P. Simon,* **K. Saito**,* "Improvement and tuning of the performance of light-healable polymers by variation of the monomer content", *Polym. Chem.*, **2018**, 9, 5585-5593. [Corresponding author - Impact factor 4.927]
37. L. Longe, J. Couvreur, M. L. Grandchamp, G. Garnier,* F. Allais,* **K. Saito**,* "Importance of Mediators for Lignin Degradation by Fungal Laccase", *ACS Sustainable Chem. Eng.* **2018**, 6, 100097-10107. [Corresponding author - Impact factor 6.140]
38. J. Dai, G. N. Styles, A. F. Patti,* **K. Saito**,* "CuSO₄/H₂O₂-Catalyzed Lignin Depolymerization under the Irradiation of Microwaves", *ACS Omega*, **2018**, 3, 10433-10441. [Corresponding author - Impact factor 2.584]
39. M. Javid, E. Khera, K. Zia,* **K. Saito**, I. Bhatti, M. Asghar, "Synthesis and characterization of chitosan modified polyurethane bio-nanocomposites with biomedical potential", *Int. J. Biol. Macromol.*, **2018**, 115, 375-384. [Impact factor 3.671]
40. M. Javid, M. Rizwan, R. A. Khera, K. Zia,* **K. Saito**, M. Zuber, P. Langer, "Thermal degradation behavior and X-ray diffraction studies of chitosan based polyurethane bio-nanocomposites using different diisocyanates", *Int. J. Biol. Macromol.*, **2018**, 117, 762-772. [Impact factor 3.671]
41. P. Ray, C. Smith, G. P. Simon,* **K. Saito**,* "Synthesis of Bio-acrylic Polymers from Dihydro-5-hydroxyl furan-2-one (2H-HBO) by Free and Controlled Radical Polymerization", *ACS Omega*, **2018**, 3, 2040-2048. [Corresponding author - Impact factor 2.584]
42. R. W. Lewis, R. A. Evans, N. Malic, **K. Saito**,* N. R. Cameron,* "Ultra-fast aqueous polymerisation of acrylamides by high power visible light direct photoactivation RAFT polymerisation", *Polym. Chem.*, **2018**, 9, 60-68. [Corresponding author - Impact factor 5.375]
43. M. Abdallh, M. Hearn, G. P. Simon,* **K. Saito**,* "Light triggered self-healing of polyacrylate polymers crosslinked with 7-methacryloyloxycoumarin crosslinker", *Polym. Chem.*, **2017**, 8, 5875-5883. [Corresponding author - Impact factor 5.375]

44. V. Dao, N. R. Cameron,* **K. Saito**,* "Synthesis of ultra-high molecular weight ABA triblock copolymers via aqueous RAFT-mediated gel polymerisation, end group modifications and chain coupling", *Polym. Chem.*, **2017**, 8, 6834-6843. [Corresponding author - Impact factor 5.375]
45. R. W. Lewis, R. A. Evans, N. Malic, **K. Saito**,* N. R. Cameron,* "Cleavage of macromolecular RAFT chain transfer agents by sodium azide during characterization by aqueous GPC", *Polym. Chem.*, **2017**, 8, 3702 – 3711 [Corresponding author - Impact factor 5.375]
46. A. S. Al-Shereiqi, B. J. Boyd, **K. Saito**,* "Photo-switchable self-assemblies based on thymine-containing bolaamphiphiles", *ChePlusChem*, **2017**, 82, 1135-1144. [Corresponding author - Impact factor 2.790]
47. J. Dai, A. F. Patti,* L. Longé, G. Garnier, **K. Saito**,* "Oxidized lignin depolymerisation using formate ionic liquid as catalyst and solvent", *ChemCatChem*, **2017**, 9, 2684-2690, [Corresponding author -Impact factor 4.724]
48. R. Sepehrifar, R. I. Boysen, B. Danylec, Y. Yang, **K. Saito**, M. T.W. Hearn, Design, synthesis and application of a new class of stimuli-responsive separation materials, *Anal. Chim. Acta*, **2017**, 963, 153-163. [Impact factor 4.950]
49. A. Udagawa, P. Johnston, H. Uekusa, H. Koshima, **K. Saito**,* T. Asahi,* Solid-State Photochemical Reaction of Multisubstituted Thymine Derivatives, *ACS Sustainable Chem. Eng.*, **2016**, 4, 6107-6114. [Corresponding author - Impact factor 5.267]
50. A. Udagawa, P. Johnston, A. Sakon, R. Toyoshima, H. Uekusa, H. Koshima, **K. Saito**,* T. Asahi,* Crystal-to-crystal photo-reversible polymerization mechanism of bis-thymine derivative. *RSC Adv.*, **2016**, 6, 107317-107322. [Corresponding author - Impact factor 3.289]
51. J. Dai, S. Nanayakkara, T. C. Lamb, A. J. Clark, S. Guo. J. Zhang, A. F. Patti, **K. Saito**,* "Effect of the N-based ligands in copper complexes for depolymerisation of lignin", *New J. Chem.*, **2016**, 40, 3511-3519 [Corresponding author -Impact factor 3.086]
52. R. Sepehrifar, R. I. Boysen, B. Danylec, Y. Yang, **K. Saito**, M. T.W. Hearn,* Application of pH-responsive poly(2-dimethylaminoethylmethacrylate)-block-poly(acrylic acid) coatings for the open-tubular capillary electrochromatographic analysis of acidic and basic compounds, *Anal. Chim. Acta*, **2016**, 917, 117-125. [Impact factor 4.513]
53. R. W. Lewis, R. A. Evans, N. Malic, **K. Saito**,* N. R. Cameron,* "Polymeric drift control adjuvants for agricultural spraying", *Macromol. Chem. Phys.*, **2016**, 217, 2223-2242. [Corresponding author -Impact factor 2.616]
54. **K. Saito**,* K. Miyamoto, S. Nanayakkara, H. Ihara. M. T. W. Hearn, "Poly(N-4-vinylbenzyl-1,4,7-triazacyclononane) Copper Complex Grafted Solid Catalyst for Oxidative Polymerization of 2,6-Dimethylphenol", *Molecules*, **2016**, 21, 146. [First and corresponding author -Impact factor 2.416]
55. C. Lin, **K. Saito**, R. I. Boysen, E. M. Campi, M. T. W. Hearn,* "Static and dynamic binding behavior of an IgG2 monoclonal antibody with several new mixed mode affinity adsorbents", *Sep. Purif. Technol.*, **2016**, 163, 199-205.[Impact factor 3.091]
56. U. Shaheen, T. W. Turney, **K. Saito**, W. P. Gates, A. F. Patti, * "Pendant cyclic carbonate-polymer/Na-smectite nanocomposites via in-situ intercalative polymerization and solution intercalation", *Journal of Polymer Science, Part A: Polym. Chem.*, **2016**, 21, 2421-2429. [Impact factor 3.19]
57. C. Lin, R. I. Boysen, E. M. Campi, **K. Saito**, M. T. W. Hearn,* "Studies on the binding sites of IgG2 monoclonal antibodies recognized by terpyridine-based affinity ligands", *J. Mol. Recognit.*, **2016**, 29, 334-342. [Impact factor 2.151]

Patents since 2016

1. US provisional patent application No. 16/122364, G. Simon, **K. Saito**, Shahid Kazi; Michael Gurin. A nanocomposite comprising a carbon nanomaterial dispersed in a polymeric matrix, Monash University, May 11, 2020
2. Australian provisional patent application No. 2019900552, **K. Saito**, G. Simon, J. Dai. T. Hughes, Photo-polymerisable molecules and cross-linked polymers comprising polymerised residues thereof, Monash University, Feb 21, 2019
3. Australian provisional patent application No. 2018904787, **K. Saito**, G. Simon, P. Ray, A polymerisable composition comprising a vinyl monomer with bicyclic ring structure and a polymer thereof, Monash University, Monash University, Dec 17, 2018
4. US provisional patent application No. 16/122364, **K. Saito**, G. Simon, M. Abdallh, Acrylate coating compositions comprising a UV light cleavable cross-linking agent. Monash University, Sep 5, 2018
5. Australian provisional patent application No. 2016904726, **K. Saito**, G. Simon, P. Ray, Renewable monomer and polymer and formulation produced therefrom, Monash University, Nov 18, 2016
6. **K. Saito**, G. Simon, M. Abdallh, Self healing acrylic coatings based on UV-Stimuli, 2016, Provisional patent application No: 2016902105