

Curriculum Vitae of Dr. Olivier Sandre

51 years old, born in Lyon, France on October 18th 1972,
Married, 1 child (15 years old)

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Young Researcher 2012 Award of the Chemical Physics Division (DCP)
(common division of French Chemical Society and French Society of Physics)
Adj. Pr. University Waterloo, ON Canada (2012-2015), **MRSC** (2015-)
Senior CNRS researcher 2nd class (DR2) in 2014, 1st class (DR1) in Oct 2023



Experience

- April 2010-: “Laboratoire de Chimie des Polymères Organiques” (joint research unit 5629 Université Bordeaux / CNRS / Bordeaux INP, headed by S. Lecommandoux) to develop nano-composite magnetic colloids for theranostics in the team “[Polymer self-assembly and life sciences](#)”.
- 2001-2010: **Junior CNRS research scientist** at “Physicochimie des Electrolytes, Colloïdes et Sciences Analytiques”, headed by Pr. Valérie Cabuil (formerly called LI2C, joint research unit 7195 UPMC Université Paris 6 / CNRS / ESPCI Paris). Main topics: materials (gels, films) and dispersed multi-responsive colloids by incorporating magnetic nanoparticles in matrices (polymers, surfactants, liquid crystals...).
- 2000-2001: **Laureate of Lavoisier's fellowship** of French Ministry of Foreign Affairs for a post-doctoral study in USA, in Pr. David J. Pine's group at University of California – Santa Barbara (UCSB, Chemical Engineering / Materials Research Laboratory) in collaboration with Pr. Deborah K. Fygenson and Pr. Daniel Morse. Measurements of physical properties of biological microtubules made of a recombinant protein from a deep sea hyperthermophilic organism, *Pyrodictium Abyssi* (funded by Diversa Inc, San Diego CA).
- 1996-1997: **National service research scientist** at “Laboratoire des Milieux Désordonnés et Hétérogènes” (former joint unit of CNRS and Paris 6 et 7 universities), supervised by Pr. Jean-Claude Bacri (University Paris 7) and Ronald E. Rosensweig (Blaise Pascal's invited chair in Paris) to study hydrodynamic instabilities of ferrofluids.

Education

- 2011-2012: **Habilitation thesis** of UPMC Université Paris 6 in Research on Chemistry entitled “Magnetic Nanoparticles and Self-assembled Structures with (or without) Polymers” (defended publically on 1/18/2012) [tel.archives-ouvertes.fr/tel-01385284](#) + [Annex on works over period 1995-2021](#)
- 1997-2000: **Ph.D.** (Doctorat) of UPMC Université Paris 6 in physical chemistry specialty under supervision by Pr. Françoise Brochard-Wyart at “Laboratoire Physico-Chimie Curie” (joint unit 168 CNRS / Curie Institute / UPMC) on “Transient Pores, Adhesion and Fusion of Giant Vesicles” [tel.archives-ouvertes.fr/tel-01385141](#) advertised in large audience journals: Science News, French edition of Scientific American, Science&Vie, Science&Avenir, Archimède, Biotech Info...
- 1995-1996: **M.Sc. (DEA)** at UPMC Univ Paris 6 obtained with highest grade (2nd rank of promotion), M. Sc. thesis at Curie Institute supervised by Dr. Pascal Silberzan on “force-free motion of droplets on asymmetrical surfaces”.
- 1992-1996: **Physics & Chemistry Graduate School (ESPCI Paris)**, end-year in “chemistry of functional materials” specialty, 1st rank of 111th promotion.

Research grants

- 2019-2023 **Intercellular Communication in Cancer Biology and Therapy (COMMUCAN)**, Integrative research site on cancer in Bordeaux ([siric-brio.com](#)) PI: Pr Andreas Bikfalvi (1M€ LCPO: 150k€)
- 2019-2023 **MAgnetic VEsiicle Rotation-Induced Cell-Killing (MAVERICK)**, ANR-19-CE09-0024 (425k€) PI: OS, Partners: BIC (Bordeaux), LPCNO (INSA Toulouse), Russian Acad. Sciences (Perm)
- 2018-2021 **Flexible Magnetic Filaments (FMF)**, AAP M-Era.Net 2017
Partners: University of Riga (Latvia), Slovak Acad. Sciences (Kosice, Slovaquie), Cordouan Technologies, Pessac (186k€), LCPO (75k€).
- 2012-2017 **MAGNETOCHEMOBLAST**: funded by CNRS Mission for Interdisciplinarity (10k€ in 2012), 2013-2017 by Agence Nationale de la Recherche [ANR-13-BS08-0017](#) (PI Dr. O. Sandre, 600k€)
- 2011-2014 **IDS FunMat**: Erasmus Mundus PhD fellowship on “Magnetic Micelles as Therapy and Diagnostic Agents” ([idsfunmat.u-bordeaux.fr](#)) co-directed with Pr. Mario Gauthier (University Waterloo, ON, Canada)

- 2008-2011 **FP7 NMP-2007 SMALL-1 NANO3T**: Biofunctionalized Metal and Magnetic Nanoparticles for Targeted Tumor Therapy (<https://projects.imec.be/nano3t/>)
- 2008-2012 **FP7 CP-IP 213631-2 NANOTHER**: Integration of novel nanoparticle based technology for therapeutics and diagnosis of different types of cancer (www.nanother.eu)
- 2008-2010 **ANR Blanche** (PI Dr. Jean-François Berret) on “IsoThermal Calorimetry as a Probe of Interactions between Magnetic Nanoparticles, Plasma Proteins and Cells”
- 2005-2008 **ACI Jeune Chercheur** (PI Pr. Sébastien Lecommandoux) on “Adaptive and Multifunctional Nano-Objects based on Copolymers”

Commits: Formerly Member of [UPMC Université Paris 6](#) Scientific Council (2006–2010), of [ILL](#) Sub-Committee 9 (2010-2012) on “Structure and Dynamics on Soft Condensed Matter” (Past Chair in 2014-2016), MC Member in COST Action TD1402 [RadioMag](#) and MC Substitute in COST Action TD1007 on [PET-MRI](#). Member of Institute Scientific Council (CSI) of [2FDN](#) “French Federation on Neutron Scattering” (2017-), Elected Chair of CNRS [Institute of Chemistry CSI](#) (2018-2023), Member (2010-) and past Chair (2017-2020) French Physical Society-Condensed Matter Division ([SFP](#)), Member of Royal Society of Chemistry (2015-, [MRSC](#)), French Chemical Society (2020-, [SCF](#)) and French Polymer Group (2010-, Board member [GFP](#) Nov 2020-2025). Executive Board member of [Univ Bordeaux Doctoral School in Chemical Sciences](#) (2021-).

106 peer-reviewed articles + 1 preprint (88 in journals, 18 conference proceedings, [100% Open Access](#)), **3 book chapters, 6 patents filed.** [cv.hal.science/olivier-sandre](#) H-index = 45, total number of citations >7800 (1999: 1, 2000: 22, 2001: 32, 2002: 67, 2003: 108, 2004: 108, 2005: 107, 2006: 123, 2007: 128, 2008: 167, 2009: 196, 2010: 214, 2011: 260, 2012: 337, 2013: 357, 2014: 382, 2015: 449, 2016: 438, 2017: 534, 2018: 583, 2019: 593, 2020: 714, 2021: 638, 2022: 639, 2023: 541 ([Scopus](#) 2/27/24) Editorial board member of: [Nanomaterials](#) (2018-), [Nanotechnology](#) (2018-), [Nanoscience & Nanotechnology RSC Book Series](#) (2022-).

1. D. Letellier, O. Sandre, C. Ménager, V. Cabuil, and M. Lavergne, *Magnetic tubules*. **Materials Science & Engineering C: Biomimetic and Supramolecular Systems** [1997 5\(2\): 153-162](#) and [hal-00164250](#) postprint
2. O. Sandre, J. Browaeys, R. Perzynski, J.C. Bacri, V. Cabuil, and R.E. Rosensweig, *Assembly of microscopic highly magnetic droplets: Magnetic alignment versus viscous drag*. **Physical Review E** [1999 59\(2\): 1736-1746](#) and [hal-02168821](#) postprint
3. O. Sandre, L. Gorre-Talini, A. Ajdari, J. Prost, and Silberzan, *Moving droplets on asymmetrically structured surfaces*. **Physical Review E** [1999 60\(3\): 2964-2972](#) and [hal-02168818](#) postprint
4. O. Sandre, L. Moreaux, and F. Brochard-Wyart, *Dynamics of transient pores in stretched vesicles*. **Proceedings of the National Academy of Sciences of the United States of America** [1999 96\(19\): 10591-10596](#) and [hal-01920243](#)
5. O. Sandre, C. Ménager, J. Prost, V. Cabuil, J-C. Bacri, and A. Cebers, *Oblate-Prolate Transition of Ellipsoidal Giant Magnetoliposomes: Experiments Showing an Anisotropic Spontaneous Curvature*, Chapter 11 in [Perspectives in Supramolecular Chemistry Vol 6: Giant Vesicles](#), P. L. Luisi & P. Walde, Eds. [2000, John Wiley & Sons, Ltd. 169-180](#) and [hal-02320995](#) postprint
6. A-L. Bernard, M-A. Guedea-Boudeville, O. Sandre, S. Palacin, J-M. di Meglio, and L. Jullien, *Permeation through lipid bilayers by adhesion of giant vesicles on decorated surfaces*. **Langmuir** [2000 16\(17\): 6801-6808](#) and [cea-01056990](#) postprint
7. F. Brochard-Wyart, A. Buguin, Martin, A. Martin, and O. Sandre, *Adhesion of soft objects on wet substrates*. **Journal of Physics-Condensed Matter** [2000 12\(8A\): A239-A244](#) and [hal-02168817](#) postprint
8. F. Brochard-Wyart, P-G. de Gennes, and O. Sandre, *Transient pores in stretched vesicles: role of leak-out*. **Physica A** [2000 278\(1-2\): 32-51](#) and [hal-02168814](#) postprint
9. L. Moreaux, O. Sandre, M. Blanchard-Desce, and J. Mertz, *Membrane imaging by simultaneous second-harmonic generation and two-photon microscopy*. **Optics Letters** [2000 25\(5\): 320-322](#), [hal-02168812](#) postprint and errata: **Optics Letters** [2000 25\(9\): 678-678](#)
10. L. Moreaux, O. Sandre, M. Blanchard-Desce, and J. Mertz, *Simultaneous second-harmonic generation and two-photon excited fluorescence microscopy*, **Molecular Crystals and Liquid Crystals Science and Technology. Section B, Nonlinear Optics** [2000 25\(1-4\): 183-188](#) and [hal-02994185](#) postprint
11. L. Moreaux, O. Sandre, and J. Mertz, *Membrane imaging by second-harmonic generation microscopy*. **Journal of the Optical Society of America B-Optical Physics** [2000 17\(10\): 1685-1694](#) and [hal-02168804](#) postprint
12. O. Sandre, C. Menager, J. Prost, V. Cabuil, J-C. Bacri, and A. Cebers. *Shape transitions of giant liposomes induced by an anisotropic spontaneous curvature*. **Physical Review E** [2000 62\(3\): 3865-3870](#) and [hal-00164220](#)
13. L. Moreaux, O. Sandre, S. Charpak, M. Blanchard-Desce, and J. Mertz, *Coherent scattering in multi-harmonic light microscopy*. **Biophysical Journal** [2001 80\(3\): 1568-1574](#) and [hal-01920233](#) postprint
14. J. A. Galicia, O. Sandre, F. Cousin, D. Guemghar, C. Ménager, and V. Cabuil, *Designing magnetic composite materials using aqueous magnetic fluids*. **Journal of Physics-Condensed Matter** [2003 15\(15\): S1379-S1402](#) and [hal-01934989](#) postprint

15. E. Karatekin, O. Sandre, and F. Brochard-Wyart, *Transient pores in vesicles*. **Polymer International** [2003](#) **52**(4): 486-493 and [hal-02168780](#) postprint
16. E. Karatekin, O. Sandre, H. Guitouni, N. Borghi, P-H. Puech, and F. Brochard-Wyart, *Cascades of transient pores in giant vesicles: Line tension and transport*. **Biophysical Journal** [2003](#) **84**(3): 1734-1749 and [hal-00168676](#)
17. D. El kharrat, O. Sandre, Licinio, and R. Perzynski, *Adsorption of magnetic nanoparticles onto polyacrylamide chains in dilute polymer solutions and ferrogel networks*, in *Slow Dynamics in Complex Systems*, M. Tokuyama and I. Oppenheim Editors. **AIP Conference Proceedings** [2004](#) **708**(1): 122-123 and [hal-00174166](#) postprint
18. C. Ménager, O. Sandre, J. Mangili, and V. Cabuil, *Preparation and swelling of hydrophilic magnetic microgels*. **Polymer** [2004](#) **45**(8): 2475-2481 and [hal-00162339](#) postprint
19. C. da Cruz, O. Sandre, and V. Cabuil, *Phase behavior of nanoparticles in a thermotropic liquid crystal*. **Journal of Physical Chemistry B** [2005](#) **109**(30): 14292-14299 and [hal-00016296](#) postprint
20. S. Lecommandoux, O. Sandre, F. Chécot, J. Rodriguez-Hernandez, and R. Perzynski, *Magnetic nanocomposite micelles and vesicles*. **Advanced Materials** [2005](#) **17**(6): 712-718 and [hal-00392707](#) postprint
21. J-F. Berret, N. Schonbeck, F. Gazeau, D. El Kharrat, O. Sandre, A. Vacher, and M. Airiau, *Controlled clustering of superparamagnetic nanoparticles using block copolymers: Design of new contrast agents for magnetic resonance imaging*. **Journal of the American Chemical Society** [2006](#) **128**(5): 1755-1761 and [arXiv: cond-mat/0512251](#)
22. J-F. Berret, A. Sehgal, M. Morvan, O. Sandre, A. Vacher, and M. Airiau, *Stable oxide nanoparticle clusters obtained by complexation*. **Journal of Colloid and Interface Science** [2006](#) **303**(1): 315-318 and [arXiv: cond-mat/0608189](#)
23. S. Lecommandoux, O. Sandre, F. Chécot, and R. Perzynski, *Smart hybrid magnetic self-assembled micelles and hollow capsules*. **Progress in Solid State Chemistry** [2006](#) **34**(2-4): 171-179 and [hal-00168573](#) postprint
24. S. Lecommandoux, O. Sandre, F. Chécot, J. Rodriguez-Hernandez, and R. Perzynski, *Self-assemblies of magnetic nanoparticles and di-block copolymers: Magnetic micelles and vesicles*. **Journal of Magnetism and Magnetic Materials** [2006](#) **300**(1): 71-74 and [hal-00360731](#) postprint
25. J-F. Berret, O. Sandre, and A. Mauger, *Size distribution of superparamagnetic particles determined by magnetic sedimentation*. **Langmuir** [2007](#) **23**(6): 2993-2999 and [arXiv: cond-mat/0612255](#) preprint
26. A. Abou Hassan, O. Sandre, V. Cabuil, and P. Tabeling, *Synthesis of iron oxide nanoparticles in a microfluidic device: preliminary results in a coaxial flow millichannel*. **Chemical Communications** [2008](#) **44**(15): 1783-1785 and [hal-00266423](#) postprint
27. J. Fresnais, J-F. Berret, B. Frka-Petescic, O. Sandre, and R. Perzynski, *Elaboration of superparamagnetic nanorods using iron oxide nanoparticles and polymers*. in *NSTI Nanotech Technical Proceedings - Life Sciences, Medicine, and Bio Materials* [2008 Vol 2, Chapt 8: p. 689-692](#) and [hal-02169078](#) postprint
28. J. Fresnais, J-F. Berret, B. Frka-Petescic, O. Sandre, and R. Perzynski, *Reorientation kinetics of superparamagnetic nanostructured rods*. **Journal of Physics-Condensed Matter** [2008](#) **20**(49): 494216/1-6 and [arXiv:0809.4288](#)
29. J. Fresnais, J-F. Berret, B. Frka-Petescic, O. Sandre, and R. Perzynski, *Electrostatic Co-Assembly of Iron Oxide Nanoparticles and Polymers: Towards the Generation of Highly Persistent Superparamagnetic Nanorods*. **Advanced Materials** [2008](#) **20**(20): 3877-3881 and [arXiv:0901.2667](#) preprint
30. J. Fresnais, J-F. Berret, L. Qi, J-P. Chapel, J-C. Castaing, O. Sandre, B. Frka-Petescic, R. Perzynski, J. Oberdisse, and F. Cousin, *Universal scattering behavior of coassembled nanoparticle-polymer clusters*. **Physical Review E** [2008](#) **78**(4): 040401(R) and [arXiv:0902.3936](#) preprint
31. E. Ishow, A. Brosseau, G. Clavier, K. Nakatani, Tauc, C. Fiorini-Debuisschert, S. Neveu, O. Sandre, and A. Leaustic, *Multicolor Emission of Small Molecule-Based Amorphous Thin Films and Nanoparticles with a Single Excitation Wavelength*. **Chemistry of Materials** [2008](#) **20**(21): 6597-6599 and [hal-00409263](#) postprint
32. M. Meyer, Y.L. Raikher, O. Sandre, A. Bee, V. Cabuil, V. Dupuis, Licinio, and R. Perzynski, *Magneto-orientational properties of ionically stabilized aqueous dispersions of Ni(OH)₂ nanoplatelets*. **European Physical Journal E** [2008](#) **26**(4): 355-360 and [hal-00346965](#) postprint
33. A. Abou-Hassan, J-F. Dufreche, O. Sandre, G. Meriguet, O. Bernard, and V. Cabuil, *Fluorescence Confocal Laser Scanning Microscopy for pH Mapping in a Coaxial Flow Microreactor: Application in the Synthesis of Superparamagnetic Nanoparticles*. **Journal of Physical Chemistry C** [2009](#) **113**(42): 18097-18105 and [hal-00428983](#) postprint
34. A. Abou-Hassan, O. Sandre, S. Neveu, and V. Cabuil, *Synthesis of Goethite by Separation of the Nucleation and Growth Processes of Ferrihydrite Nanoparticles Using Microfluidics*. **Angewandte Chemie-International Edition** [2009](#) **48**(13): 2342-2345 and [hal-00409238](#) postprint
35. S. Douadi-Masrouki, B. Frka-Petescic, O. Sandre, F. Cousin, V. Dupuis, R. Perzynski, and V. Cabuil, *Neutron reflectivity on polymer multilayers doped with magnetic nanoparticles*, in *Magnetism and Magnetic Materials*, N. Perov, Editor. **Solid State Phenomena Series** [2009](#) **152-153**: 194-197 and [hal-02202132](#) postprint
36. J. Fresnais, E. Ishow, O. Sandre, and J-F. Berret, *Electrostatic Co-assembly of Magnetic Nanoparticles and Fluorescent Nanospheres: A Versatile Approach Towards Bimodal Nanorods*. **Small** [2009](#) **5**(22): 2533-2536 and [arXiv:0907.3979](#) preprint

37. B. Frka-Petescic, J. Fresnais, J-F. Berret, V. Dupuis, R. Perzynski, and O. Sandre, *Stabilization and controlled association of superparamagnetic nanoparticles using block copolymers*. **Journal of Magnetism and Magnetic Materials** [2009 321\(7\): 667-670](#) and [hal-00346968](#) postprint
38. J. A. Galicia, F. Cousin, E. Dubois, O. Sandre, V. Cabuil, and R. Perzynski, *Static and dynamic structural probing of swollen polyacrylamide ferrogels*. **Soft Matter** [2009 5\(13\): 2614-2624](#) and [hal-00409255](#) postprint
39. A. Abou-Hassan, O. Sandre, and V. Cabuil, *Microfluidics for the synthesis of iron oxide nanoparticles*, Chapter 9 in **Microfluidic Devices in Nanotechnology: Applications**, C.S.S.R. Kumar, Editor. [2010, John Wiley & Sons, Inc: Hoboken, NJ, USA. 323-360](#) and [hal-02139770](#) postprint
40. A. Abou-Hassan, O. Sandre, and V. Cabuil, *Microfluidics in Inorganic Chemistry*. **Angewandte Chemie International Edition** [2010 49\(36\): 6268-6286](#) and [hal-00516987](#) postprint
A. Abou-Hassan, O. Sandre, and V. Cabuil, *Mikrofluidik in der anorganischen Chemie*. **Angewandte Chemie** [2010 122\(36\): 6408-6428](#) and [hal-00516989](#) postprint
41. F. Ahrentorp, A. Astalan, C. Jonasson, J. Blomgren, Q. Bin, O. Thompson Mefford, M. Yan, J. Courtois, J-F. Berret, J. Fresnais, O. Sandre, S. Dutz, R. Müller, and C. Johansson. *Sensitive High Frequency AC Susceptometry in Magnetic Nanoparticle Applications*. in *The 8th International Conference on the Scientific and Clinical Applications of Magnetic Carriers*. 2010. Rostock, Germany. **AIP Conference Proceedings** [2010 1311\(1\): 213-223](#) and [hal-02320524](#) postprint
42. S. Douadi-Masrouki, B. Frka-Petescic, M. Save, B. Charleux, V. Cabuil, and O. Sandre, *Incorporation of magnetic nanoparticles into lamellar polystyrene-*b*-poly(*n*-butyl methacrylate) diblock copolymer films: Influence of the chain end-groups on nanostructuration*. **Polymer** [2010 51\(21\): 4673-4685](#) and [hal-00516975](#) postprint
43. A-S. Robbes, J. Jestin, F. Meneau, F. Dalmas, O. Sandre, J. Perez, F. Boué, and F. Cousin, *Homogeneous Dispersion of Magnetic Nanoparticles Aggregates in a PS Nanocomposites: Highly Reproducible Hierarchical Structure Tuned by the Nanoparticles' Size*. **Macromolecules** [2010 43\(13\): 5785-5796](#) and [hal-00533476](#) postprint
44. M. Safi, H. Sarrouj, O. Sandre, N. Mignet, and J-F. Berret, *Interactions between sub-10-nm iron and cerium oxide nanoparticles and 3T3 fibroblasts: the role of the coating and aggregation state*. **Nanotechnology**, [2010. 21\(14\): 145103](#) and [arXiv1011.1670](#) preprint
45. W. Agut, A. Brûlet, D. Taton, O. Sandre, and S. Lecommandoux, *Depletion Induced Vesicle-to-Micelle Transition from Self-Assembled Rod-Coil Diblock Copolymers with Spherical Magnetic Nanoparticles*. **Soft Matter** [2011 7\(20\): 9744-9750](#) and [hal-00668996](#) postprint
46. J. Fresnais, B. Frka-Petescic, O. Sandre, J-F. Berret, R. Perzynski, and V. Dupuis, *Orientational behavior of an assembly of superparamagnetic rods*. **Physics Procedia** [2011 9: 15-19](#) and [hal-01920202](#) postprint
47. B. Frka-Petescic, K. Erglis, J-F. Berret, A. Cebers, V. Dupuis, J. Fresnais, O. Sandre, and R. Perzynski, *Dynamics of paramagnetic nanostructured rods under rotating field*. **Journal of Magnetism and Magnetic Materials** [2011 323\(10\): 1309-1313](#) and [hal-01378200](#) postprint
48. J. A. Galicia, F. Cousin, E. Dubois, O. Sandre, V. Cabuil, and R. Perzynski, *Local structure of polymeric ferrogels*. **Journal of Magnetism and Magnetic Materials** [2011 323\(10\): 1211-1215](#) and [hal-02169248](#) postprint
49. J-F. Le Meins, O. Sandre, and S. Lecommandoux, *Recent trends in the tuning of polymersomes' membrane properties (Colloquium paper)*. **European Physical Journal E** [2011 34\(2\): 14 \(1-17\)](#) (most cited article of EPJE) and [hal-00677762](#) postprint
50. C. Sanson, O. Diou, J. Thévenot, E. Ibarboure, A. Soum, A. Brûlet, S. Miraux, E. Thiaudière, S. Tan, A. Brisson, V. Dupuis, O. Sandre, and S. Lecommandoux, *Doxorubicin Loaded Magnetic Polymersomes: Theranostic Nanocarriers for MR Imaging and Magneto-Chemotherapy*. **ACS Nano**, [2011. 5\(2\): 1122-1140](#) and [hal-00567258](#)
51. M. Marguet, O. Sandre, and S. Lecommandoux, *Polymersomes in "Gelly" Polymersomes: Toward Structural Cell Mimicry*. **Langmuir** [2012 28\(4\): 2035-2043](#) and [hal-00744114](#) postprint
52. M. Chemin, P-M. Brun, S. Lecommandoux, O. Sandre, and J-F. Le Meins, *Hybrid polymer/lipid vesicles: fine control of the lipid and polymer distribution in the binary membrane*. **Soft Matter** [2012 8\(10\): 2867-2874](#) and [hal-00744120](#) postprint
53. Q. L. Vuong, J-F. Berret, J. Fresnais, Y. Gossuin, and O. Sandre, *A universal Scaling Law to Predict the Efficiency of Magnetic Nanoparticles as MRI T2-Contrast Agents*. **Advanced Healthcare Materials** [2012 1\(4\): 502-512](#) and [arXiv1311.6022](#) preprint
54. P. Arosio, J. Thévenot, T. Orlando, F. Orsini, M. Corti, M. Mariani, L. Bordonali, C. Innocenti, C. Sangregorio, H. Oliveira, S. Lecommandoux, A. Lascialfari, and O. Sandre, *Hybrid Iron Oxide-Copolymer Micelles and Vesicles as Contrast Agents for MRI: Impact of the Nanostructure on the Relaxometric Properties*. **Journal of Materials Chemistry B** [2013 1: 5317-5328](#) and [hal-00959556](#) postprint
55. D. Habault, A. Dery, J. Leng, S. Lecommandoux, J-F. Le Meins, and O. Sandre, *Droplet Microfluidics to Prepare Magnetic Polymer Vesicles and to Confine the Heat in Magnetic Hyperthermia*. **IEEE Transactions on Magnetics** [2013 49\(1\): 182-190](#), [arXiv1209.5249](#) preprint and [zenodo open data: 4409657](#)
56. H. Oliveira, E. Pérez-Andrés, J. Thevenot, O. Sandre, E. Berra, and S. Lecommandoux, *Magnetic field triggered drug release from polymersomes for cancer therapeutics*. **Journal of Controlled Release** [2013 169\(3\): 165-170](#) and [hal-00926568](#) postprint

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58. J. Thévenot, H. Oliveira, O. Sandre, and S. Lecommandoux, Magnetic Responsive Polymer Composite Materials. **Chemical Society Reviews** [2013 42\(17\): 7099-7116](#) and [hal-00926554](#) postprint
59. C. Drappier, H. Oliveira, O. Sandre, E. Ibarboure, S. Combet, E. Garanger, and S. Lecommandoux, *Self-assembled core-shell micelles from peptide-b-polymer molecular chimeras towards structure-activity relationships*. **Faraday Discussions** [2013 166\(1\): 83-100](#) and [hal-00959583](#) postprint
60. J-F. Le Meins, C. Schatz, S. Lecommandoux, and O. Sandre, *Hybrid Polymer/Lipid Vesicles: State of the Art and Future Perspectives*, **Materials Today** [2013 16\(10\): 397-402](#) and [hal-00926560](#) postprint
61. R. Salva, J-F. Le Meins, O. Sandre, A. Brûlet, M. Schmutz, P. Guenoun, and S. Lecommandoux, *Polymersomes Shape Transformation at the Nanoscale*. **ACS Nano** [2013 7\(10\): 9298-9311](#) and [hal-01904417](#) postprint
62. E. Garaio, J. M. Collantes, J. A. García, F. Plazaola, S. Mornet, F. Couillaud, and O. Sandre, *A wide-frequency range AC magnetometer to measure the specific absorption rate in nanoparticles for magnetic hyperthermia*. **Journal of Magnetism and Magnetic Materials** [2014 368: 432-437](#) and [hal-01373348](#) postprint
63. T. Brunet, K. Zimny, B. Mascaro, O. Sandre, O. Poncelet, C. Aristégui, and O. Mondain-Monval, *Tuning Mie scattering resonances in soft materials with magnetic fields*. **Physical Review Letters** [2013 111: 264301](#) and [hal-00932072](#) postprint
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