

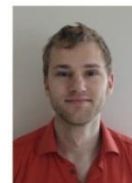
Curriculum Vitae Jonathan De Roo

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EDUCATION

09/2012 – 03/2016	Doctor of science: Chemistry Summa Cum Laude Honors	<i>Ghent University</i>
09/2010 – 06/2012	Master of science in Chemistry Summa Cum Laude Honors	<i>Ghent University</i>
09/2007 – 06/2010	Bachelor in chemistry Summa Cum Laude Honors	<i>Ghent University</i>

RESEARCH EXPERIENCE

10/2016 – 09/2017	Post-doctoral researcher, Columbia University , New York, USA With B.A.E.F and Fulbright grant
06/2016	Research stay at INSA, Toulouse , France to apply solid state NMR.
03/2016 – 09/2016	Post-doctoral researcher, Ghent University, Gent, Belgium
09/2012 – 03/2016	PhD student, FWO fellow (Research Foundation Flanders), Ghent University “The Surface Chemistry of Metal Oxide Nanocrystals, from Theory to Applications” Supervisors: Prof. Hens, Prof. Van Driessche and Prof. Martins
06/2015 – 08/2015	Research stay at the ETH, Zürich, Switzerland . “Surface Chemistry and Light Absorption of CsPbBr ₃ Perovskite Nanocrystals” Research supervisor: Prof. Kovalenko
05/2014	Research stay at ICMAB (Institut de Ciència de Materials de Barcelona), Barcelona, Spain
09/2011 – 06/2012	Thesis student, Ghent University “The synthesis of tantalum and hafnium oxide nanoparticles as artificial pinning centers in superconductors.” Supervisor: Prof. Van Driessche
08/2011	Summer job as Education Assistant, Ghent University
02/2010 – 06/2010	ERASMUS stay in Vigo (Spain) at Universidad de Vigo Research project: “The Reversed Anomeric Effect.”

OTHER EXPERIENCE

10/2016 – present	Member of the community board of <i>Nanoscale Horizons</i>
01/2013 – 06/2016	Blogger at Your Formula platform (www.yourformula.eu)
09/2012 – 06/2016	Teaching assistant in the Bachelor program in Chemistry (General Chemistry) Occasional lecturing
09/2012 – 09/2016	Member of the Faculty of Sciences Library Commission, Ghent University.
21-24/06/2014	Represented the Research Foundation Flanders (FWO) at the ESOF (Euroscience Open Forum) in Copenhagen.
07/06/2014	Talk at TEDxGhent 2014
02/2014 – 09/2015	Member of the Diversity Committee of the Faculty of Sciences, Ghent University.
09/2008 – 06/2012	Member of the Education Board of the program in Chemistry
2009 – 2011	Student tutoring at Brainstorm (Ghent)
2008 – 2011	Children Animator and Head Animator at Free-Time (Ghent)
2008	Student tutoring at Educadomo

HONOURS, AWARDS and FELLOWSHIPS

09/2016	Interview in ChemPlusChem as part of Early Career Series
05/2016	Umicore poster award (first place, ex aequo with Katrien De Keukeleere)
05/2016	E-MRS Young Scientist Award
04/2016	Fulbright Award
03/2016	Belgian American Education Foundation (B.A.E.F.) Fellowship
05/2015	Research Foundation Flanders (FWO) grant for a research stay in Zürich.
11/2014	Young Belgium Magnetic Resonance symposium, best presentation
06/2014	FWO Travel grant to ESOF 2014
05/2014	E-MRS Young Scientist Award
05/2014	Reach.Out award
04/2014	Winner of the TEDxGhent PhD contest
03/2013	JCF, Frühjahrssymposium, best presentation
09/2012	Research Foundation Flanders (FWO) predoctoral Fellowship
06/2012	Dow Chemical Company Award , best student
06/2012	KVCV Award, most meritorious student
06/2010	Oxford University Press Award, Best student
02/2006	Winner of the Chemistry Debate “Meet The Boss” (high school)

LANGUAGES

Dutch: native language

English: Proficient

Spanish: Proficient/intermediate

French: intermediate

German: basic

Supervised dissertations

2013-2014	Master thesis	Olivier De Clercq	Pr-Yb quantum cutting in bulk and nanosized NaYF ₄
2014-2015	Master thesis	Sofie Coucke	Understanding the phase transfer of metal oxide nanocrystals, a solution NMR study
2015-2016	Master thesis	Evert Dhaene	Printed sensor for failure detection in composite materials
2015-2016	Master thesis	Sebastiaan De Vrieze	Influencing the superconducting performance by the size and nature of preformed nanocrystals in YBa ₂ Cu ₃ O _{7-x} nanocomposites.

PUBLICATIONS

FIRST AUTHOR PUBLICATIONS

1. De Roo, J.; De Keukeleere, K.; Van Driessche, I.; Hens, Z. From ligands to binding motifs and beyond; the enhanced versatility of nanocrystal surfaces. *Dalton Transactions* **2016**, 45, 13277-13283
(Chemistry, inorganic and nuclear science, 10/45, Q1; IF = 4.2)
2. De Roo, J.; Baquero, E.; Coppel, J.; De Keukeleere, K.; Van Driessche, I.; Nayral, C.; Hens, Z.; Delpech, F. Insights in the ligand shell, the coordination mode and reactivity of carboxylic acid capped metal oxide nanocrystals. *Chempluschem* **2016**, 81 (11), 1216-1223.
Part of Early Career Series.
(Chemistry, multidisciplinary, 57/163, Q2, IF = 2.8)
3. De Roo, J.; Coucke, S.; Rijckaert, R.; De Keukeleere, K.; Sinnaeve, D.; Hens, Z.; Martins, J. C.; Van Driessche, I.; Amino acid based stabilization of oxide nanocrystals in polar media; from insight in ligand exchange to solution ¹H NMR probing of short-chained adsorbates. *Langmuir* **2016**, 32, 1962-1970.
(Materials Science, Multidisciplinary, 35/260, Q1, IF = 4.5)
4. De Roo, J.; Van Driessche, I.; Martins, J. C.; Hens, Z. Colloidal metal oxide nanocrystal catalysis by sustained chemically driven ligand displacement. *Nature materials* **2016**, 15 (5), 517-521.
(Materials Science, Multidisciplinary, 1/260, Q1, IF = 39)
5. De Roo, J.; Ibáñez, M.; Geiregat, P.; Nedelcu, G.; Walravens, W.; Maes, J.; Martins, J. C.; Van Driessche, I.; Hens, Z.; Kovalenko, M.V. Highly Dynamic Ligand Binding and Light Absorption Coefficient of Cesium Lead Bromide Perovskite Nanocrystals. *ACS Nano* **2016**, 10(2), 2071-2081.
(Chemistry, multidisciplinary, 9/157, Q1, IF = 12.9)
6. De Roo, J.; Justo, Y.; De Keukeleere, K.; Van den Broeck, F.; Martins, J. C.; Van Driessche, I.; Hens, Z., Carboxylic-Acid-Passivated Metal Oxide Nanocrystals: Ligand Exchange Characteristics of a New Binding Motif. *Angewandte Chemie-International Edition* **2015**, 54 (22), 6488-6491.
(Chemistry, multidisciplinary, 13/157, Q1, IF = 11.3)
7. De Roo, J.; Van den Broeck, F.; De Keukeleere, K.; Martins, J. C.; Van Driessche, I.; Hens, Z., Unravelling the Surface Chemistry of Metal Oxide Nanocrystals, the Role of Acids and Bases. *Journal of the American Chemical Society* **2014**, 136 (27), 9650-9657.
(Chemistry, multidisciplinary, 10/157, Q1, IF = 12.1)
8. De Roo, J., De Keukeleere, K., Feys, J., Lommens, P., Hens, Z., Van Driessche, I., Fast, microwave-assisted synthesis of monodisperse HfO₂ nanoparticles, *Journal of Nanoparticle Research*, **2013**, 15 11 pages
(Chemistry, multidisciplinary, 60/157, Q2, IF = 2.2)
9. De Roo, J., Youth Views on Sustainability: Size Matters, But So Does Speed. *Chemistry International* (**2014**) pp 14-15.

CO-AUTHORED PUBLICATIONS

10. Liu, Y.; Garcia, G.; Ortega, S.; Cadavid, D.; Palacios, P.; Lu, J.; Ibanez, M.; Xi, L.; De Roo, J.; Lopez, A. M.; Marti, S.; Cabezas, I.; Mata, M. d. I.; Luo, Z.; Dun, C.; Dobrozhan, O.; Carroll, D.; Zhang, W.; Martins, J. C.; Kovalenko, M.; Arbiol, J.; Noriega, G.; Song, J.; Wahnou Benarroch, P.; Cabot, A., Solution-Based Synthesis and Processing of Sn- and Bi-Doped Cu₃SbSe₄ Nanocrystals, Nanomaterials and Ring-Shaped Thermoelectric Generators. *Journal of Materials Chemistry A* **2016**. Published online
11. Rosenboom, J. G.; De Roo, J.; Storti, G.*; Morbidelli, M. Diffusion (DOSY) ¹H NMR as an alternative method for molecular weight determination of polyethylene furanoate (PEF) polyesters. *Macromolecular Chemistry and Physics*. **2016** 218 (1), 1600436
(Polymer Science, 28/85, Q2, IF = 2.5)
12. Drijvers, E.; De Roo, J.; Geiregat, P.; Fehér, K.; Hens, Z.; Aubert, T., Revisited Wurtzite CdSe Synthesis: a Gateway for the Versatile Flash Synthesis of Multi-Shell Quantum Dots and Rods. *Chemistry of Materials* **2016** 28 (20), 7311-7323.
(Materials Science, Multidisciplinary, 15/271, Q1, IF = 9.4)
13. Vernieuwe, K.; Cuypers, D.; Kirschhock, C. E. A.; Houthoofd, K.; Vrielinck, H.; Lauwaert, J.; De Roo, J.; Martins, J. C.; Van Driessche, I.; De Buysser, K. Thermal processing of aqueous AZO inks towards functional TCO thin films. *Journal of Alloys and Compounds* **2017**, 690, 360-368.
(Materials Science, Multidisciplinary, 58/271, Q1, IF = 3.0)
14. De Keukeleere, K.; Cayado, P.; Meledin, A.; Vallès, F.; De Roo, J.; Rijckaert, H.; Pollefeyt, G.; Bruneel, E.; Palau, A.; Coll, M.; Ricart, S.; Van Tendeloo, G.; Puig, T.; Obradors, X.; Van Driessche, I., Superconducting YBa₂Cu₃O_{7-δ}Nanocomposites Using Preformed ZrO₂ Nanocrystals: Growth Mechanisms and Vortex Pinning Properties. *Advanced Electronic Materials* **2016**, 1600161.
(impact factor is to be determined)
15. Walravens, W., De Roo, J., Drijvers, E., ten Brinck, S., Minuesa, E., Dendooven, J., Detavernier, C., Infante, I., Hens., Z. Chemically Triggered Formation of Epitaxial Quantum Dot Superlattices *ACS Nano* **2016**, 10 (7), 6861-6870
(Chemistry, multidisciplinary, 9/157, Q1, IF = 12.9)
16. Liu, Y.; Cadavid, D.; Ibáñez, M.; De Roo, J.; Ortega, S.; Dobrozhan, O.; Kovalenko, M.; Cabot, A. AgSbSe₂ nanocrystals: colloidal synthesis, surface analysis, electronic doping and processing into efficient thermoelectric nanomaterials. *Journal of Materials Chemistry C* **2016**, 4, 4756-4762.
(Materials Science, Multidisciplinary, 33/260, Q1, IF = 5.1)
17. Tessier, M.; De Nolf, K.; Dupont, D.; Sinnaeve, D.; De Roo, J.; Hens, Z. Aminophosphines: a Double Role in the Synthesis of Colloidal Indium Phosphide Quantum Dots. *Journal of the American Chemical Society* **2016**, 138 (18), 5923-5929
(Chemistry, multidisciplinary, 10/157, Q1, IF = 12.1)
18. Shavel, A.; Ibáñez, M.; Luo, Z.; De Roo, J.; Carrette, A.; Dimitrievska, M.; Genc, A.; Meyns, M.; Perez-Rodriguez, A.; Kovalenko, M. V., Arbiol, J.; Cabot, A. Scalable heating-up procedure to synthesize monodisperse Cu₂ZnSnS₄ nanocrystals. *Chemistry of Materials* **2016** 28 (3), 720-726.
(Materials Science, Multidisciplinary, 17/260, Q1, IF = 8.3)
19. Cayado, P.; De Keukeleere, K.; Garzón, A.; Perez-Mirabet, L.; Meledin, A.; De Roo, J.; Valles, F.; Mundet, B.; Rijckaert, H.; Pollefeyt, G.; Coll Bau, M.; Ricart, S.; Palau, A.; Gazquez, J.; Ros, J.; Van Tendeloo, G.; Van Driessche, I.; Puig, T.; Obradors, X., Epitaxial YBa₂Cu₃O_{7-x} nanocomposite thin films from colloidal solutions. *Superconductor Science and Technology* **2015**, 28, 124007
(Physic, Applied, 37/144, Q2, IF = 2.3)
20. Tessier, M. D.; Dupont, D.; De Nolf, K.; De Roo, J.; Hens, Z., Economic and Size-tunable Synthesis of InP/ZnE (E = S, Se) Colloidal Quantum Dots. *Chemistry of Materials* **2015**, 27, 4893.
(Materials Science, Multidisciplinary, 17/260, Q1, IF = 8.3)

21. De Keukeleere, K.; De Roo, J.; Lommens, P.; Martins, J. C.; Van der Voort, P.; Van Driessche, I., Fast and Tunable Synthesis of ZrO₂ Nanocrystals: Mechanistic Insights into Precursor Dependence. *Inorganic Chemistry* **2015**, 54 (7), 3469-3476
(Chemistry, Inorganic and Nuclear, 4/45, Q1, IF = 4.8)
22. De Keukeleere, K.; Pollefeyt, G.; Feys, J.; De Roo, J.; Rijckaert, H.; Lommens, P.; Van Driessche, I., Chemical solution deposition of functional ceramic coatings using ink-jet printing. *Pure and Applied Chemistry* **2015**, 87 (3), 231-238.
(Chemistry, multidisciplinary, 52/157, Q2, IF= 2.5)
23. Geltmeyer, J.; De Roo, J.; Van den Broeck, F.; Martins, J.; De Buysser, K.; De Clerck, K. The influence of tetraethoxysilane sol preparation on the electrospinning of silica nanofibers. *Journal of Sol-Gel Science and Technology* **2015**, 1.
(Materials Science, Ceramics, 7/26, Q2, IF = 1.5)
24. De Keukeleere, K., Feys, J., Meire, M., De Roo, J., De Buysser, K., Lommens, P., Van Driessche, I., Solution-based synthesis of BaZrO₃ nanoparticles: conventional versus microwave synthesis, *Journal of Nanoparticle Research* 15 (2013) 12 pages
(Chemistry, multidisciplinary, 60/157, Q2, IF = 2.2)

PATENTS

EP15157156.9 -- Nanoparticles for the Use as Pinning Centers in Superconductors

CONFERENCE CONTRIBUTIONS (first author contributions)

Jonathan De Roo, Sofie Coucke, Hannes Rijckaert, Katrien De Keukeleere, Davy Sinnaeve, Zeger Hens, José Martins, Isabel Van Driessche. *Amino acid based stabilization of oxide nanocrystals in polar media; from insight in ligand exchange to solution 1H NMR probing of small adsorbates*. (2016, May 2-6) E-MRS, Lille (France) poster.

Jonathan De Roo, Maria Ibanez, Pieter Geiregat, Georgian Nedelcu, Willem Walravens, Jorick Maes, José Martins, Isabel Van Driessche, Maksym Kovalenko, Zeger Hens. *Highly Dynamic Ligand Binding and Light Absorption Coefficient of Cesium Lead Bromide Perovskite Nanocrystals*. (2016, May 2-6) E-MRS, Lille (France) poster.

Jonathan De Roo, Isabel Van Driessche, José Martins, Zeger Hens. *Colloidal metal oxide nanocrystal catalysis by sustained chemically driven ligand displacement*. (2016, May 2-6) E-MRS, Lille (France) talk.

Jonathan De Roo, Isabel Van Driessche, José Martins, Zeger Hens. *Colloidal metal oxide nanocrystal catalysis by sustained chemically driven ligand displacement*. (2016, April 4-8) Nanax7, Marburg (Germany) talk.

Jonathan De Roo, Freya Van den Broeck, Yolanda Justo, Katrien De Keukeleere, José Martins, Isabel Van Driessche and Zeger Hens. *The surface chemistry of metal oxide nanocrystals, how protons change the game*. (2015, April 6-10) MRS spring meeting, San Francisco (USA). Talk

Jonathan De Roo, Freya Van den Broeck, Katrien De Keukeleere, José Martins, Isabel Van Driessche and Zeger Hens. *The surface chemistry of metal oxide nanocrystals; a solution NMR study*. (2014, November 24-25) YBMRS annual meeting, Spa (Belgium). Talk rewarded with presentation prize

Jonathan De Roo, Freya Van den Broeck, Katrien De Keukeleere, José Martins, Isabel Van Driessche and Zeger Hens. *The surface chemistry of metal oxide nanocrystals: theory and applications*. (2014, October 23) Belgian Ceramic Society Annual meeting. Gent (Belgium). Talk.

Jonathan De Roo, Katrien De Keukeleere, Jonas Feys, Petra Lommens, Zeger Hens and Isabel Van Driessche. *Fast, microwave assisted synthesis of monodisperse refractory metal oxide nanoparticles* (2014, May 26-30) E-MRS spring meeting. Lille (France). poster

Jonathan De Roo, Freya Van den Broeck, Katrien De Keukeleere, José Martins, Isabel Van Driessche and Zeger Hens. *Understanding the surface chemistry of metal oxide nanocrystals as pinning centers in ink-jet printed YBa₂Cu₃O_{7-x} thin films*. (2014, May 26-30) E-MRS spring meeting. Lille (France). Talk

Jonathan De Roo, Katrien De Keukeleere, Jonas Feys, Petra Lommens, Isabel Van Driessche. *Synthesis of Ta₂O₅, HfO₂ and BaHfO₃ nanoparticles as artificial pinning centers in YBCO*. (2013, September 15-19) European Conference on Applied Superconductivity, Genova (Italy). Poster

Jonathan De Roo, Katrien De Keukeleere, Jonas Feys, Petra Lommens, Zeger Hens, Isabel Van Driessche. *Synthesis of BaZrO₃, Ta₂O₅ and HfO₂ nanoparticles as artificial pinning centers in High Temperature Superconductors*. (2013, march 6-9) JCF frühjahrssymposium, Berlin (Germany). Talk rewarded with presentation prize

Jonathan De Roo, Katrien De Keukeleere, Jonas Feys, Petra Lommens, Isabel Van Driessche. *Synthesis of Ta₂O₅ and HfO₂ nanoparticles as artificial pinning centers in YBCO*, (2012, November 13-16) Conference on Coated Conductors for Applications, Heidelberg (Germany). Poster

CONFERENCE CONTRIBUTIONS (other contributions)

Glenn Pollefeyt, Hannes Rijckaert, Katrien De Keukeleere, P Cayado, A Meledin, Jonathan De Roo, M Sieger, F Valles, M Coll and A Palau, et al. Nanocomposite YBa₂Cu₃O_{7-δ} thin films using chemical solution deposition and preformed nanocrystals. MRS Spring meeting (2016, March 28 – April 1)

Emile Drijvers, Jonathan De Roo, Jorick Maes, Willem Walravens, José Martins and Zeger Hens. The temperature dependence of L-type promoted Z-type ligand displacement on oleate-terminated semiconductor nanocrystals observed through NMR. ChemCYS. (2016, March 16-18)

Hannes Rijckaert, Glenn Pollefeyt, Max Sieger, Katrien De Keukeleere, Jens Hänisch, Ron Feenstra, Jan Bennewitz, Jonathan De Roo, Ruben Huehne and Michael Bäcker, et al. Nanocomposite YBa₂Cu₃O_{7-δ} thin films using low fluorine MOD and preformed nanocrystals ChemCYS. (2016, March 16-18)

Kim De Nolf, Mickaël Tessier, Dorian Dupont, Jonathan De Roo, Davy Sinnaeve, Pieter Surmont, José Martins and Zeger Hens. Unravelling the synthesis mechanism of colloidal InP nanocrystals. Young Belgian Magnetic Resonance Scientist, 14th Symposium (2015, November 30- December 1)

Emile Drijvers, Jonathan De Roo, Jorick Maes, José Martins and Zeger Hens. The temperature dependence of L-type promoted Z-type ligand displacement on oleate-terminated semiconductor nanocrystals observed through NMR. Young Belgian Magnetic Resonance Scientist, 14th Symposium (2015, November 30- December 1)

Glenn Pollefeyt, Hannes Rijckaert, Max Sieger, Katrien De Keukeleere, Jonathan De Roo, Ron Feenstra, Jan Bennewitz, Jens Hänisch, Ruben Huehne, Michael Bäcker, Maximilian Hemgesberg and Isabel Van Driessche. *Nanocomposite YBa₂Cu₃O_{7-δ} thin films using low fluorine MOD and preformed nanocrystals*. Applied Superconductivity, 12th European conference (2015, September 6-10)

Hannes Rijckaert, Glenn Pollefeyt, Katrien De Keukeleere, Jonathan De Roo, Ron Feenstra, Jan Bennewitz, Michael Bäcker, Maximilian Hemgesberg and Isabel Van Driessche. *Understanding growth and nucleation of nanocomposite YBa₂Cu₃O_{7-δ} thin films derived from low fluorine metal organic deposition*. Applied Superconductivity, 12th European conference (2015, September 6-10)

Katrien De Keukeleere, Pablo Cayado, Alexander Meledin, Jonathan De Roo, Hannes Rijckaert, Glenn Pollefeyt, Max Sieger, Ron Feenstra, Jan Bennewitz, Jens Hänisch, Ruben Hühne, Maximilian Hemgesberg, Gustaaf Van Tendeloo, Michael Bäcker, Teresa Puig, Xavier Obradors and Isabel Van Driessche. *Incorporation of preformed nanocrystals in YBa₂Cu₃O_{7-δ} coated conductors*. Applied Superconductivity, 12th European conference (2015, September 6-10)

Katrien De Keukeleere, Glenn Pollefeyt, Jonas Feys, Jonathan De Roo, Hannes Rijckaert, Petra Lommens and Isabel Van Driessche. *Chemical solution deposition of functional ceramic coatings using ink-jet printing*. Solid State Chemistry, 11th Conference (2015, July 6-11)

Katrien De Keukeleere, Jonathan De Roo, Petra Lommens, Pascal Van Der Voort, José Martins and Isabel Van Driessche. *Zirconia nanocrystals: effect of metal precursor on the crystalline phase and surface chemistry*. European Ceramic Society, 14th International conference (2015, June 21-25)

Katrien De Keukeleere, Jonathan De Roo, Freya Van Den Broecke, Petra Lommens, José Martins and Isabel Van Driessche. *Zirconia nanocrystals: effect of metal precursor on the crystalline phase and surface chemistry*. MRS spring meeting (2015, april 6-10)

Katrien De Keukeleere, Jonathan De Roo, Pablo Llosa, Hannes Rijckaert, Glenn Pollefeyt, Petra Lommens, Susagna Ricart, Xavier Obradors and Isabel Van Driessche. *Synthesis and incorporation of nanosized pinning centers for YBa₂Cu₃O_{7-x} superconductors*. MRS spring meeting (2015, april 6-10)

Zeger Hens, Freya Van den Broeck, Jonathan De Roo, Ruben Dierick, Isabel Van Driessche, Jose C Martins. *Surface chemistry of colloidal nanocrystals-from semiconductors to metal oxides*. ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY (2014, august 10)

Katrien De Keukeleere, Jonathan De Roo, Hannes Rijckaert, Jonas Feys, Isabel Van Driessche. *Solution synthesis of metal oxide nanoparticles for ex-situ pinning in YBa₂Cu₃O_{7-x} (YBCO) superconductors*. E-MRS 2014 Spring meeting (2014, May 26-30)

Katrien De Keukeleere, Jonathan De Roo, Freya Van Den Broecke, Petra Lommens, José Martins, Isabel Van Driessche. *Zirconia nanocrystals: effect of metal precursor on the crystalline phase and surface chemistry*. Annual meeting of the Belgian Ceramic Society 2014 (2014, October 23)

Hannes Rijckaert, Katrien De Keukeleere, Jonathan De Roo, Jonas Feys, Isabel Van Driessche. *Synthesis and stabilization of ZrO₂ and HfO₂ as artificial pinning centers in YBCO superconductors*. 2th Chemistry conference for Young Scientists (ChemCYS 2014)

Katrien De Keukeleere, Jonas Feys, Jonathan De Roo, Glenn Pollefeyt, Petra Lommens, Isabel Van Driessche. *General approach for the development of YBa₂Cu₃O_{7-δ} high-temperature superconductors*. 17th International Sol-Gel Conference (Sol-Gel 2013)

Isabel Van Driessche, Petra Lommens, Pieter Vermeir, Jonas Feys, Melis Arin, Glenn Pollefeyt, Katrien De Keukeleere, Jonathan De Roo, Mieke Meire, Jonathan Watté, Klaartje De Buysser. *Complex oxide nanoparticles and thin films by chemical solution processing and deposition*. 2013 MRS Spring meeting and exhibition

Katrien De Keukeleere, Jonathan De Roo, Jonas Feys, Petra Lommens, Isabel Van Driessche. *Time-and energy efficient methods for the aqueous synthesis of ceramic BaZrO₃ nanocrystals*. 17th International Sol-Gel Conference (Sol-Gel 2013)

Katrien De Keukeleere, Jonathan De Roo, Petra Lommens, Isabel Van Driessche. *Innovative synthesis of metal oxide nanoparticles for use as artificial pinning centers in YBa₂Cu₃O_{7-δ} superconducting layers*. 2013 MRS Spring meeting and exhibition

Katrien De Keukeleere, Jonathan De Roo, Jonas Feys, Isabel Van Driessche. *Development of nanosized ZrO₂ and BaZrO₃ pinning centers for YBa₂Cu₃O_{7-δ} superconductors*. Applied Superconductivity, 11th European conference, 2013

Isabel Van Driessche, Katrien De Keukeleere, Jonathan De Roo, Jonas Feys, Petra Lommens. *Ex-situ processing of nanoparticles for pinning in Y₁Ba₂Cu₃O_y ink-jet printed coatings*. Applied Superconductivity, 11th European conference, 2013

Jonas Feys, Melis Arin, Katrien De Keukeleere, Jonathan De Roo, Glenn Pollefeyt, Petra Lommens and Isabel Van Driessche. *Ink-jet printing of functional ceramic coatings and patterns starting from aqueous inks*. (2013) TechConnect World and National Innovation Summit, Abstracts.