



Personal profile

University of Twente; Inorganic Membranes
<https://people.utwente.nl/a.j.a.winnubst>

Research outputs

1. **Comparing the performance of organic solvent nanofiltration membranes in non-polar solvents.** / Merlet, Renaud; Winnubst, Louis; Nijmeijer, Arian; Amirilargani, Mohammad; Sudhölter, Ernst J.R.; de Smet, Louis C.P.M.; Salvador Cob, Sara; Vandezande, Pieter; Dorbec, Matthieu; Sluijter, Soraya; van Veen, Henk M.; VanDelft, Yvonne; Wienk, I.M.; Cuperus, Petrus; Behera, Subhalaxmi; Hartanto, Yusak; Vankelecom, Ivo F.J.; de Wit, P.
In: *Chemie-Ingenieur-Technik*, Vol. 93, No. 9, 30.06.2021.
2. **Industrial application of ceramic nanofiltration membranes for water treatment in oil sands mines.** / Motta Cabrera, Sandra; Winnubst, Louis; Richter, Hannes; Voigt, Ingolf; Nijmeijer, Arian.
In: *Separation and purification technology*, Vol. 256, 117821, 01.02.2021.
3. **Optimization of sintering conditions for improved microstructural and mechanical properties of dense $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2-δ}\text{-FeCo}_2\text{O}_4$ oxygen transport membranes.** / Zeng, F.; Malzbender, Jürgen; Baumann, Stefan; Nijmeijer, Arian; Winnubst, Louis; Ziegner, Mirko; Guillon, Olivier; Schwaiger, Ruth; Meulenberg, Willi.
In: *Journal of the European Ceramic Society*, Vol. 41, No. 1, 01.01.2021, p. 509-516.
4. **Optimization of sintering conditions for improved microstructural and mechanical properties of dense $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2-δ}\text{-FeCo}_2\text{O}_4$ oxygen transport membranes.** / Zeng, Fanlin; Malzbender, Jürgen; Baumann, Stefan; Nijmeijer, Arian; Winnubst, Louis; Ziegner, Mirko; Guillon, Olivier; Schwaiger, Ruth; Meulenberg, Wilhelm Albert.
In: *Journal of the European Ceramic Society*, Vol. 41, No. 1, 01.2021, p. 509-516.
5. **Phase and microstructural characterizations for $\text{Ce}_{0.8}\text{Gd}_{0.2}\text{O}_{2-δ}\text{-FeCo}_2\text{O}_4$ dual phase oxygen transport membranes.** / Zeng, F.; Malzbender, Jürgen; Baumann, Stefan; Krüger, Manja; Winnubst, Louis; Guillon, Olivier; Meulenberg, Willi.
In: *Journal of the European Ceramic Society*, Vol. 40, No. 15, 01.12.2020, p. 5646-5652.
6. **Hydrolytic stability of PEG-grafted γ -alumina membranes: Alkoxysilane vs phosphonic acid linking groups.** / Kyriakou, Nikos; Pizzoccaro, Marie-Alix; Nijmeijer, Arian; Luiten-Olieman, Mieke; Winnubst, Louis.
In: *Microporous and mesoporous materials*, Vol. 307, 110516, 11.2020.
7. **New Method toward a Robust Covalently Attached Cross-Linked Nanofiltration Membrane.** / Kyriakou, N.; Merlet, Renaud; Willott, Joshua David; Nijmeijer, Arian; Winnubst, Louis; Pizzoccaro, Marie-Alix.
In: *ACS applied materials & interfaces*, Vol. 12, No. 42, 21.10.2020, p. 47948-47956.
8. **Hybrid ceramic membranes for organic solvent nanofiltration : State-of-the-art and challenges.** / Merlet, Renaud; Pizzoccaro, Marie-Alix; Nijmeijer, Arian; Winnubst, Louis.
In: *Journal of membrane science*, Vol. 599, 117839, 01.04.2020.
9. **Melamine-Based Microporous Organic Framework Thin Films on an Alumina Membrane for High-Flux Organic Solvent Nanofiltration.** / Amirilargani, Mohammad; Yokota, Giovana N.; Vermeij, Gijs H.; Merlet, Renaud B.; Delen, Guusje; Mandemaker, Laurens D.B.; Weckhuysen, Bert M.; Winnubst, Louis; Nijmeijer, Arian; de Smet, Louis C.P.M.; Sudhölter, Ernst J.R.
In: *ChemSusChem*, Vol. 13, No. 1, 09.01.2020, p. 136-140.
10. **Robust super-hydrophobic ceramic coating on alumina with water and dirt repelling properties.** / Li, Yanan; Gu, Jianqiang; Wang, Junwei; Xu, Xin; Winnubst, Louis; Chen, Chusheng.
In: *Journal of the American Ceramic Society*, Vol. 102, No. 10, 01.10.2019, p. 6267-6274.
11. **Defect-free high-silica CHA zeolite membranes with high selectivity for light gas separation.** / Karakiliç, Pelin; Wang, Xuerui; Kapteijn, Freek; Nijmeijer, Arian; Winnubst, Louis.
In: *Journal of membrane science*, Vol. 586, 15.09.2019, p. 34-43.
12. **Molecular separation using poly (styrene-co-maleic anhydride) grafted to Γ -alumina : Surface versus pore modification.** / Amirilargani, Mohammad; Merlet, Renaud B.; Chu, Liangyong; Nijmeijer, Arian; Winnubst, Louis; de Smet, Louis C.P.M.; Sudhölter, Ernst J.R.
In: *Journal of membrane science*, Vol. 582, 15.07.2019, p. 298-306.

13. **New Generation of Mesoporous Silica Membranes Prepared by a Stöber-Solution Pore-Growth Approach.** / Pizzoccaro, Marie-Alix; Huiskes, Cindy; Keim, Enrico G.; Sluiter, Soraya Nicole; van Veen, Henk M.; Nijmeijer, Arian; Winnubst, Louis; Luiten-Olieman, M.W.J.
In: ACS Applied Materials and Interfaces, Vol. 11, No. 20, 22.05.2019, p. 18528-18539.
14. **MIL-53(Al) and NH₂-MIL-53(Al) modified α -alumina membranes for efficient adsorption of dyes from organic solvents.** / Amirilargani, Mohammad; Merlet, Renaud B.; Hedayati, Pegah; Nijmeijer, Arian; Winnubst, Louis; De Smet, Louis C.P.M.; Sudhölter, Ernst J.R.
In: Chemical communications, Vol. 55, No. 28, 11.04.2019, p. 4119-4122.
15. **From amorphous to crystalline : Transformation of silica membranes into silicalite-1 (MFI) zeolite layers.** / Karakiliç, Pelin ; Toyoda, Ryo; Kapteijn, Freek; Nijmeijer, Arian; Winnubst, Louis.
In: Microporous and mesoporous materials, Vol. 276, 01.03.2019, p. 52-61.
16. **Growing to shrink : Nano-tunable polystyrene brushes inside 5nm mesopores.** / Merlet, Renaud; Amirilargani, Mohammad; de Smet, Louis C.P.M.; Sudhölter, Ernst J.R.; Nijmeijer, Arian; Winnubst, Louis (Corresponding Author).
In: Journal of membrane science, Vol. 572, 15.02.2019, p. 632-640.
17. **Poly (maleic anhydride-alt-1-alkenes) directly grafted to γ -alumina for high-performance organic solvent nanofiltration membranes.** / Amirilargani, Mohammad (Corresponding Author); Merlet, Renaud; Nijmeijer, Arian; Winnubst, Louis; de Smet, Louis C.P.M.; Sudhölter, Ernst J.R. (Corresponding Author).
In: Journal of membrane science, Vol. 564, 15.10.2018, p. 259-266.
18. **One-Pot Synthesis of High-Flux b-Oriented MFI Zeolite Membranes for Xe Recovery.** / Wang, Xuerui; Karakiliç, Pelin; Liu, Xinlei; Shan, Meixia; Nijmeijer, Arian; Winnubst, Louis; Gascon, Jorge; Kapteijn, Freek.
In: ACS Applied Materials and Interfaces, Vol. 10, No. 39, 03.10.2018, p. 33574-33580.
19. **Uniformly Oriented Zeolite ZSM-5 Membranes with Tunable Wettability on a Porous Ceramic.** / Fu, Donglong; Schmidt, Joel E.; Pletcher, Paul; Karakiliç, Pelin; Ye, Xinwei; Vis, Carolien M.; Bruijninx, Pieter C.A.; Filez, Matthias; Mandemaker, Laurens D.B.; Winnubst, Louis; Weckhuysen, Bert M.
In: Angewandte Chemie - International Edition, Vol. 57, No. 38, 17.09.2018, p. 12458-12462.
20. **Micropore structure stabilization in organosilica membranes by gaseous catalyst post-treatment.** / Dral, A. Petra; van Eck, Ernst R.H.; Winnubst, Louis; ten Elshof, Johan E. (Corresponding Author).
In: Journal of membrane science, Vol. 548, 15.02.2018, p. 157-164.
21. **Water sensitivity and microporosity in organosilica membranes.** / Dral, A.P.; Tempelman, Kristianne ; Kappert, Emiel; Lievens, C.; van Eck, Ernst; Winnubst, Louis; Benes, Nieck E.; ten Elshof, J.E.
2018. Poster session presented at ADEM Conference 2018, Scheveningen, Netherlands.
22. **Hydrothermal stability of silica, hybrid silica and Zr-doped hybrid silica membranes.** / ten Hove, Marcel; Luiten-Olieman, Mieke W.J.; Huiskes, Cindy; Nijmeijer, Arian; Winnubst, Louis.
In: Separation and purification technology, Vol. 189, 22.12.2017, p. 48-53.
23. **Engineering durable hydrophobic surfaces on porous alumina ceramics using in-situ formed inorganic-organic hybrid nanoparticles.** / Gu, Jianqiang; Wang, Junwei; Li, Yanan; Xu, Xin; Chen, Chusheng; Winnubst, Louis.
In: Journal of the European Ceramic Society, Vol. 37, No. 15, 01.12.2017, p. 4843-4848.
24. **Sol-gel processed magnesium-doped silica membranes with improved H₂/CO₂ separation.** / Karakiliç, Pelin ; Huiskes, Cindy ; Luiten-Olieman, Mieke W.J.; Nijmeijer, Arian ; Winnubst, Louis.
In: Journal of membrane science, Vol. 543, 01.12.2017, p. 195-201.
25. **New Avenues for the Fabrication of Zeolite Membranes for Gas Separation Applications.** / Karakiliç, Pelin ; Toyoda, Ryo; Nijmeijer, Arian ; Winnubst, Louis.
2017.
26. **Influence of the intermediate layer on the hydrothermal stability of sol-gel derived hybrid silica membranes.** / ten Hove, Marcel; Luiten-Olieman, Mieke W.J.; Huiskes, Cindy; Nijmeijer, Arian; Winnubst, Louis.
In: Journal of the European Ceramic Society, Vol. 37, No. 10, 01.08.2017, p. 3435-3441.
27. **Organically-modified ceramic membranes for solvent nanofiltration.** / Luiten-Olieman, M.W.J.; Tanardi, C.R.; Pinheiro, A.F.M.; Merlet, Renaud B.; Nijmeijer, A.; Winnubst, L.
2017. 247-247 Poster session presented at 15th Conference & Exhibition of the European Ceramic Society, ECerS 2017, Budapest, Hungary.
28. **Silica membranes for separation of small gasses under hydrothermal conditions.** / Luiten-Olieman, M.W.J.; ten Hove, Marcel ; Castricum, H.L.; Qureshi, H.F.; Huiskes, C.; Nijmeijer, A.; Winnubst, A.J.A.
2017. 192-192 Poster session presented at 15th Conference & Exhibition of the European Ceramic Society, ECerS 2017, Budapest, Hungary.
29. **Hybrid ceramic-based membranes for OSN.** / Luiten-Olieman, M.W.J.; Merlet, R.B.; Winnubst, A.J.A.; Nijmeijer, A.
2017.
30. **Enhanced water desalination performance through hierarchically-structured ceramic membranes.** / Liu, Tong; Lei, Libin; Gu, Jianqiang; Wang, Yao; Winnubst, Louis; Chen, Chusheng; Ye, Chunsong; Chen, Fanglin.
In: Journal of the European Ceramic Society, Vol. 37, No. 6, 01.06.2017, p. 2431-2438.

31. **Interpreting rejection in SRNF across grafted ceramic membranes through the Spiegler-Kedem model.** / Merlet, Renaud B.; Tanardi, Cheryl R.; Vankelecom, Ivo F.J.; Nijmeijer, Arian; Winnubst, Louis.
In: Journal of membrane science, Vol. 525, 01.03.2017, p. 359-367.
32. **Long-term flexibility-based structural evolution and condensation in microporous organosilica membranes for gas separation.** / Dral, Albertine Petra; Tempelman, Kristianne; Kappert, Emiel; Winnubst, Louis; Benes, Nieck Edwin; ten Elshof, Johan E.
In: Journal of materials chemistry. A, Vol. 5, 2017, p. 1268-1281.
33. **New Avenues for the Fabrication of Zeolite Membranes for Gas Separation Applications.** / Karakiliç, Pelin ; Toyoda, Ryo; Nijmeijer, Arian ; Winnubst, Louis.
2017. Poster session presented at Nanoporous Materials and Their Applications: Gordon Research Conference 2017, Andover, United States.
34. **Structural evolution and hydrothermal stability in microporous organosilica membranes.** / Dral, A.P.; Tempelman, K.; Kappert, Emiel; Lievens, C.; Winnubst, Louis; Benes, Nieck Edwin; ten Elshof, J.E.
2017. Poster session presented at ADEM Conference 2017, Scheveningen, Netherlands.
35. **Hybrid ceramic-based membranes for OSN.** / Merlet, Renaud Benoit; Nijmeijer, Arian; Winnubst, Aloysius J.A.
2016. Poster session presented at ISPT Day 2016, Amersfoort, Netherlands.
36. **Ceramic-Based Hybrid Membranes for OSN: Mechanisms Governing Performance.** / Merlet, Renaud Benoit; Tanardi, Cheryl; Vankelecom, I.F.J.; Nijmeijer, Arian; Winnubst, Aloysius J.A.
2016. - Poster session presented at MESA+ Meeting 2016, Enschede, Netherlands.
37. **Sol-gel processed magnesium-doped silica membranes with improved H₂/CO₂ separation.** / Karakiliç, Pelin; Luiten-Olieman, Mieke W.J.; Huiskes, Cindy; Nijmeijer, Arian; Winnubst, Louis.
2016. Poster session presented at 14th International Conference on Inorganic Membranes, ICIM 2016, Atlanta, United States.
38. **Ceramic-Based Membranes for OSN: Tailoring Performance.** / Merlet, Renaud Benoit; Tanardi, Cheryl; Pinheiro de Melo, A.F.; Nijmeijer, Arian; Winnubst, Aloysius J.A.
2016. -.
39. **Coupled-PDMS grafted mesoporous γ -alumina membranes for solvent nanofiltration.** / Tanardi, Cheryl; Nijmeijer, Arian; Winnubst, Aloysius J.A.
In: Separation and purification technology, Vol. 169, 2016, p. 223-229.
40. **Polyethyleneglycol grafting of γ -alumina membranes for solvent resistant nanofiltration.** / Tanardi, Cheryl; Catana, Romina; Barboiu, Mihai; Ayral, André; Vankelecom, Ivo F.J.; Nijmeijer, Arian; Winnubst, Aloysius J.A.
In: Microporous and mesoporous materials, Vol. 229, 2016, p. 106-116.
41. **Preparation of alumina membranes comprising a thin separation layer and a support with straight open pores for water desalination.** / Gu, Jianqiang; Ren, Chunlei; Zong, Xu; Chen, Chusheng; Winnubst, Aloysius J.A.
In: Ceramics international, Vol. 42, No. 10, 2016, p. 12427-12434.
42. **Influencing the thermo-mechanical behaviour of MgO-C bricks; a systematic approach.** / Siebring, R.; Visser, H. H.; Winnubst, A. J.A.; Peekel, M.
2015. Paper presented at 14th Biennial Worldwide Congress on Unified International Technical Conference on Refractories, UNITECR 2015, Vienna, Austria.
43. **A novel malonamide bridged silsesquioxane precursor for enhanced dispersion of transition metal ions in hybrid silica membranes.** / Besselink, R.; Qureshi, H.F.; Winnubst, Aloysius J.A.; ten Elshof, Johan E.
In: Microporous and mesoporous materials, Vol. 214, 2015, p. 45-53.
44. **An accurate way to determine the ionic conductivity of mixed ionic-electronic conducting (MIEC) ceramics.** / Chen, Wei; Nauels, N.; Bouwmeester, Henricus J.M.; Nijmeijer, Arian; Winnubst, Aloysius J.A.
In: Journal of the European Ceramic Society, Vol. 35, No. 11, 2015, p. 3075-3083.
45. **Auto-combustion synthesis of perovskite-type oxides SrTi_{1-x}FexO_{3- δ} .** / ten Donkelaar, S.F.P.; Ruhl, Rian; Veldhuis, Sjoerd; Nijmeijer, Arian; Winnubst, Aloysius J.A.; Bouwmeester, Henricus J.M.
In: Ceramics international, Vol. 41, No. 10, 2015, p. 13709-13715.
46. **Chemical modification/grafting of mesoporous alumina with polydimethylsiloxane (PDMS).** / Pinheiro de Melo, A.F.; Nijmeijer, Arian; Sripathi, V.G.P.; Winnubst, Aloysius J.A.
In: European journal of chemistry, Vol. 6, No. 3, 2015, p. 287-295.
47. **Doped microporous hybrid silica membranes for gas separation.** / Qureshi, H.F.; Besselink, R.; ten Elshof, Johan E.; Nijmeijer, Arian; Winnubst, Aloysius J.A.
In: Journal of sol-gel science and technology, Vol. 75, No. 1, 2015, p. 180-188.
48. **Facile synthesis of zirconia doped hybrid organic inorganic silica membranes.** / ten Hove, Marcel; Nijmeijer, Arian; Winnubst, Aloysius J.A.
In: Separation and purification technology, Vol. 147, 2015, p. 372-378.
49. **Hybrid silica membranes with enhanced hydrogen and CO₂ separation properties.** / Castricum, H.L.; Qureshi, H.F.; Nijmeijer, Arian; Winnubst, Aloysius J.A.
In: Journal of membrane science, Vol. 488, 2015, p. 121-128.

50. **Membrane-integrated oxy-fuel combustion of coal: Process design and simulation.** / Chen, Wei; van der Ham, Aloysius G.J.; Nijmeijer, Arian; Winnubst, Aloysius J.A.
In: Journal of membrane science, Vol. 492, 2015, p. 461-470.
51. **Preparation and characterization of hydrophobic alumina planar membranes for water desalination.** / Ren, Chunlei; Fang, Hong; Gu, Jianqiang; Winnubst, Aloysius J.A.; Chen, Chusheng.
In: Journal of the European Ceramic Society, Vol. 35, No. 2, 2015, p. 723-730.
52. **Solvent permeation behavior of PDMS grafted γ -alumina membranes.** / Tanardi, Cheryl; Vankelecom, I.F.J.; Pinheiro de Melo, A.F.; Tetala, K.K.R.; Nijmeijer, Arian; Winnubst, Aloysius J.A.
In: Journal of membrane science, Vol. 495, 2015, p. 216-225.
53. **Waste-to-resource preparation of a porous ceramic membrane support featuring elongated mullite whiskers with enhanced porosity and permeance.** / Zhu, Li; Dong, Yingchao; Hampshire, Stuart; Cerneaux, Sophie; Winnubst, Aloysius J.A.
In: Journal of the European Ceramic Society, Vol. 35, 2015, p. 711-721.
54. **Nanostructured ceramic membranes with metal functionalization for catalytic oxidation of antibiotics at CERAMPOL project.** / Blanch Ojea, R.; Zwijnenberg, Harmen Jan; Aran, H.C.; Brunet-Espinosa, R.; Borneman, Zandrie; Kemperman, Antonius J.B.; LeGall, M.; Thorstensen, B.; Corbos, C.; Johnson, S.; Bishop, P.; Winnubst, Aloysius J.A.
2014. -.
55. **Development of a PDMS-grafted alumina membrane and its evaluation as solvent resistant nanofiltration membrane.** / Pinheiro de Melo, Ana F.M.; Hoogendoorn, Danny; Nijmeijer, Arian; Winnubst, Louis (Corresponding Author).
In: Journal of membrane science, Vol. 463, 2014, p. 24-32.
56. **Modeling water flux and salt rejection of mesoporous γ -alumina and microporous organosilica membranes.** / Farsi, A.; Boffa, V.; Qureshi, H.F.; Nijmeijer, Arian; Winnubst, Aloysius J.A.; Lykkegaard Christensen, M.
In: Journal of membrane science, Vol. 470, 2014, p. 307-315.
57. **Oxygen-selective membranes integrated with oxy-fuel combustion.** / Chen, Wei; Chen, Chusheng; Bouwmeester, Henricus J.M.; Nijmeijer, Arian; Winnubst, Aloysius J.A.
In: Journal of membrane science, Vol. 463, 2014, p. 166-172.
58. **PDMS grafting of mesoporous γ -alumina membranes for nanofiltration of organic solvents.** / Tanardi, Cheryl; Pinheiro de Melo, A.F.; Nijmeijer, Arian; Winnubst, Aloysius J.A.
In: Journal of membrane science, Vol. 469, 2014, p. 471-477.
59. **Phase-inversion tape casting and oxygen permeation properties of supported ceramic membranes.** / He, Wei; Huang, Hua; Gao, Jianfeng; Winnubst, Aloysius J.A.; Chen, Chusheng.
In: Journal of membrane science, Vol. 452, 2014, p. 294-299.
60. **Preparation and electrical properties of Ni_{0.6}Mn_{2.4}-xSn_xO₄ NTC ceramics.** / Wang, Zhongbing; Li, Zhenbo; Zhang, Yi; Zhang, Ruyian; Qin, Pan; Chen, Chunnian; Winnubst, Aloysius J.A.
In: Ceramics international, Vol. 40, No. 3, 2014, p. 4875-4878.
61. **Influence of sol-gel process parameters on the micro-structure and performance of hybrid silica membranes.** / Qureshi, H.F.; Nijmeijer, Arian; Winnubst, Aloysius J.A.
In: Journal of membrane science, Vol. 446, 2013, p. 19-25.
62. **Open Source Powder based Rapid Prototyping Machine for Ceramics.** / Budding, A.; Vaneker, Thomas H.J.; Winnubst, Aloysius J.A.
In: Procedia CIRP, Vol. 6, 2013, p. 533-538.
63. **Phase-inversion tape casting and synchrotron-radiation computed tomography analysis of porous alumina.** / Fang, Hong; Ren, Chunlei; Liu, Yaoge; Lu, Detang; Winnubst, Aloysius J.A.; Chen, Chusheng.
In: Journal of the European Ceramic Society, Vol. 33, No. 10, 2013, p. 2049-2051.
64. **Applying ceramic nanoporous microneedle arrays as a transport interface in egg plants and an ex-vivo human skin model.** / Verhoeven, M.L.P.M.; van Nieuwkastele-Bystrova, Svetlana Nikolajevna; Winnubst, Aloysius J.A.; Qureshi, H.F.; de Gruijl, T.D.; Scheper, R.J.; Lüttge, Regina.
In: Microelectronic engineering, Vol. 98, 20.07.2012, p. 659-662.
65. **Facile Sol-gel Fabrication of Hybrid Silica Membranes.** / Qureshi, H.F.; Winnubst, Aloysius J.A.; Nijmeijer, Arian.
2012. - Poster session presented at International Conference on Inorganic Membranes, ICIM 2012, Enschede, Netherlands.
66. **Influence of metal doping on the separation behavior of hybrid inorganic-organic silica membranes.** / ten Hove, Marcel; Wolf, M.J.; Wei, Q.; Winnubst, Aloysius J.A.; Bouwmeester, Henricus J.M.; Nijmeijer, Arian.
2012. - Poster session presented at International Conference on Inorganic Membranes, ICIM 2012, Enschede, Netherlands.
67. **Oxygen Selective Membranes for the Advanced Zero Emission Power Plant.** / Chen, Wei; Nijmeijer, Arian; Winnubst, Aloysius J.A.
2012. - Poster session presented at International Conference on Inorganic Membranes, ICIM 2012, Enschede, Netherlands.

68. **Production and characterization of micro- and nano-features in biomedical alumina and zirconia ceramics using a tape casting route.** / Domanski, Maciej; Winnubst, Aloysius J.A.; Lüttge, Regina; Lamers, Edwin; Walboomers, X.F.; Jansen, J.; Gardeniers, Johannes G.E.
In: Journal of materials science. Materials in medicine, Vol. 23, No. 7, 20.04.2012, p. 1637-1644.
69. **A Generic Method for Inorganic Porous Hollow Fibers Preparation with Shrinkage-controlled Small Radial Dimensions.** / Luiten-Olieman, Maria W.J.; Winnubst, Aloysius J.A.; Bor, Teunis Cornelis; Wessling, Matthias; Nijmeijer, Arian; Benes, Nieck Edwin.
In: Procedia engineering, Vol. 44, 2012, p. 644-645.
70. **Ceramic Nanomolding.** / Lüttge, Regina; Domanski, Maciej; Winnubst, Aloysius J.A.
In: Klei, glas, keramiek, Vol. 33, No. 1, 2012, p. 24-28.
71. **Effect of temperature on friction and wear behavior of CuO-zirconia composites.** / Valefi, Mahdiar; de Rooij, Matthias B.; Schipper, Dirk J.; Winnubst, Aloysius J.A.
In: Journal of the European Ceramic Society, Vol. 32, No. 10, 2012, p. 2235-2242.
72. **In vitro and in vivo evaluation of the inflammatory response to nanoscale grooved substrates.** / Lamers, Edwin; Walboomers, X.F.; Domanski, Maciej; Prodanov, L.; Melis, J.; Lüttge, Regina; Winnubst, Aloysius J.A.; Anderson, J.M.; Gardeniers, Johannes G.E.; Jansen, J.A.
In: Nanomedicine, Vol. 8, No. 3, 2012, p. 308-317.
73. **Non-glycosylated BMP-2 can induce ectopic bone formation at lower concentrations compared to glycosylated BMP-2.** / van de Watering, F.C.J.; van den Beucken, J.J.J.P.; van der Woning, S.P.; Briest, A.; Eek, A.; Qureshi, H.F.; Winnubst, Aloysius J.A.; Boerman, O.C.; Jansen, J.A.
In: Journal of controlled release, Vol. 159, No. 1, 2012, p. 69-77.
74. **Oxygen non-stoichiometry determination of perovskite materials by a carbonation process.** / Chen, Wei; Nijmeijer, Arian; Winnubst, Aloysius J.A.
In: Solid state ionics, Vol. 229, 2012, p. 54-58.
75. **Processing and in vivo evaluation of multiphasic calcium phosphate cements with dual tricalcium phosphate phases.** / Lopez-Heredia, Marco A.; Bongio, Matilde; Bohner, Marc; Cuijpers, Vincent; Winnubst, Louis A.J.A.; van Dijk, Natasja; Wolke, Joop G.C.; van den Beucken, Jeroen J.J.P.; Jansen, John A.
In: Acta biomaterialia, Vol. 8, 2012, p. 3500-3508.
76. **Submicron-patterning of bulk titanium by nanoimprint lithography and reactive ion etching.** / Domanski, Maciej; Lüttge, Regina; Lamers, Edwin; Walboomers, X.F.; Winnubst, Aloysius J.A.; Jansen, J.A.; Gardeniers, Johannes G.E.
In: Nanotechnology, Vol. 23, No. 6, 065306, 2012, p. -.
77. **The effect of an alumina counterface on friction reduction of CuO/3Y-TZP composite at room temperature.** / Song, Jiupeng; Valefi, Mahdiar; de Rooij, Matthias B.; Schipper, Dirk J.; Winnubst, Aloysius J.A.
In: Wear, Vol. 274-275, 2012, p. 75-83.
78. **Towards a generic method for inorganic porous hollow fibers preparation with shrinkage-controlled small radial dimensions, applied to Al₂O₃, Ni, SiC, stainless steel, and YSZ.** / Luiten-Olieman, Maria W.J.; Raaijmakers, Michiel; Winnubst, Aloysius J.A.; Bor, Teunis Cornelis; Wessling, Matthias; Nijmeijer, Arian; Benes, Nieck Edwin.
In: Journal of membrane science, Vol. 407-408, 2012, p. 155-163.
79. **New design for advanced zero emission power plant concept.** / Chen, Wei; Winnubst, Louis; Nijmeijer, Arian.
11AICHe - 2011 AICHe Annual Meeting, Conference Proceedings. 2011. (11AICHe - 2011 AICHe Annual Meeting, Conference Proceedings).
80. **Composite capillary membrane for solvent resistant nanofiltration.** / Dutczak, S.M.; Luiten-Olieman, Maria W.J.; Zwijnenberg, Harmen Jan; Bolhuis-Versteeg, Lydia A.M.; Winnubst, Aloysius J.A.; Hempenius, Mark A.; Benes, Nieck Edwin; Wessling, Matthias; Stamatialis, Dimitrios.
In: Journal of membrane science, Vol. 372, No. 1-2, 2011, p. 182-190.
81. **Cryo dualbeam focused ion beam-scanning electron microscopy to evaluate the interface between cells and nanopatterned scaffolds.** / Lamers, E.A.D.; Lamers, Edwin; Walboomers, X. Frank; Domanski, Maciej; McKerr, George; O'Hagan, Barry M.; Barnes, Clifford A.; Peto, Lloyd; Lüttge, Regina; Winnubst, Aloysius J.A.; Gardeniers, Johannes G.E.; Jansen, John A.
In: Tissue engineering. Part C: Methods, Vol. 17, No. 1, 2011, p. 1-7.
82. **Effect of microstructure and catalyst coating on the oxygen permeability of a novel CO₂-resistant composite membrane.** / Fang, S.; Chen, Chusheng; Winnubst, Aloysius J.A.
In: Solid state ionics, Vol. 190, No. 1, 2011, p. 46-52.
83. **High-Temperature Tribological and Self-Lubricating Behavior of Copper Oxide-Doped Y-TZP Composite Sliding Against Alumina.** / Valefi, Mahdiar; de Rooij, Matthias B.; Schipper, Dirk J.; Winnubst, Aloysius J.A.
In: Journal of the American Ceramic Society, Vol. 94, No. 12, 2011, p. 4426-4434.
84. **Manipulation of sintering behavior by initial freeze pressing an aqueous alumina suspension.** / Zheng, Jumeng; Winnubst, Aloysius J.A.; Velianti, V.; Fang, S.; Salamon, David.
In: Advanced engineering materials, Vol. 13, No. 1-2, 2011, p. 77-81.

85. **Porous stainless steel hollow fiber membranes via dry-wet spinning.** / Luiten-Olieman, Maria W.J.; Winnubst, Aloysius J.A.; Nijmeijer, Arian; Wessling, Matthias; Benes, Nieck Edwin.
In: Journal of membrane science, Vol. 370, No. 1-2, 2011, p. 124-130.
86. **Porous stainless steel hollow fibers with shrinkage-controlled small radial dimensions.** / Luiten-Olieman, Maria W.J.; Raaijmakers, Michiel; Raaijmakers, Michiel J.T.; Winnubst, Aloysius J.A.; Wessling, Matthias; Nijmeijer, Arian; Benes, Nieck Edwin.
In: Scripta materialia, Vol. 65, No. 1, 2011, p. 25-28.
87. **Ta-doped SrCo_{0.8}Fe_{0.2}O_{3-δ} membranes : Phase stability and oxygen permeation in CO₂ atmosphere.** / Chen, Wei; Chen, Chu-sheng; Winnubst, Louis.
In: Solid state ionics, Vol. 196, No. 1, 2011, p. 30-33.
88. **The effect of ball milling grinding pathways on the bulk and reactivity properties of calcium phosphate cements.** / Lopez-Heredia, M.A.; Bohner, M.; Zhou, W.; Winnubst, Aloysius J.A.; Wolke, J.G.C.; Jansen, J.A.
In: Journal of biomedical materials research. Part B: Applied biomaterials, Vol. 98B, 2011, p. 68-79.
89. **Verbetering van koolstofgebonden vuurvaste materialen.** / Visser, H.; Siebring, R.; Winnubst, Aloysius J.A.
In: Klei, glas, keramiek, Vol. 32, No. 3, 2011, p. 16-20.
90. **Effect of Zr⁴⁺ doping on the oxygen stoichiometry and phase stability of SrCo_{0.8}Fe_{0.2}O_{3-δ} oxygen separation membrane.** / Chen, W.; Zuo, Y. B.; Chen, C. S.; Winnubst, Louis.
In: Solid state ionics, Vol. 181, No. 21-22, 26.07.2010, p. 971-975.
91. **Ceramic microfluidic monoliths by ice templating.** / Zheng, Jumeng; Salamon, David; Lefferts, Leonardus; Wessling, Matthias; Winnubst, Aloysius J.A.
In: Microporous and mesoporous materials, Vol. 134, No. 1-3, 2010, p. 216-219.
92. **Effect of TiO₂ doping on the characteristics of macroporous Al₂O₃/TiO₂ membrane supports.** / Qi, H.; Fan, Y.; Xing, W.; Winnubst, Aloysius J.A.
In: Journal of the European Ceramic Society, Vol. 30, No. 6, 2010, p. 1317-1325.
93. **Manipulating microstructure and mechanical properties of CuO doped 3Y-TZP nano-ceramics using spark-plasma sintering.** / Ran, S.; Vleugels, Jozef; Huang, Shuigen; Vanmeensel, Kim; Blank, David H.A.; Winnubst, Aloysius J.A.
In: Journal of the European Ceramic Society, Vol. 30, No. 4, 2010, p. 899-904.
94. **Synthesis and characteristics of nanocrystalline 3Y-TZP and CuO powders for ceramic composites.** / Winnubst, Aloysius J.A.; de Veen, P.J.; de Veen, P.J.; Ran, S.; Blank, David H.A.
In: Ceramics international, Vol. 36, No. 3, 2010, p. 847-853.
95. **The influence of nanoscale grooved substrates on osteoblast behavior and extracellular matrix deposition.** / Lamers, Edwin; Walboomers, X. Frank; Domanski, Maciej; te Riet, Joost; van Delft, Falco C.M.J.M.; Lüttge, Regina; Winnubst, Louis A.J.A.; Gardeniers, Han J.G.E.; Jansen, John A.
In: Biomaterials, Vol. 31, No. 12, 2010, p. 3307-3316.
96. **A novel method for the fabrication of freestanding PZT features on substrates.** / van Bennekom, Joost G.; van Bennekom, J.G.; Winnubst, Aloysius J.A.; Nijdam, W.; Wessling, Matthias; Lammertink, Rob G.H.
In: Journal of the European Ceramic Society, Vol. 29, No. 15, 2009, p. 3227-3233.
97. **Aging of nickel manganite NTC ceramics.** / Fang, Dao-lai; Zheng, Cui-hong; Chen, Chusheng; Winnubst, Aloysius J.A.
In: Journal of electroceramics, Vol. 22, No. 4, 2009, p. 421-427.
98. **Analysis of reactions during sintering of CuO-doped 3Y-TZP nano-powder composites.** / Winnubst, Aloysius J.A.; Ran, S.; Speets, E.A.; Blank, David H.A.
In: Journal of the European Ceramic Society, Vol. 29, No. 12, 2009, p. 2549-2557.
99. **Dry-sliding self-lubricating ceramics: CuO doped 3Y-TZP.** / Ran, S.; Winnubst, Aloysius J.A.; Blank, David H.A.; Pasaribu, H.R.; Sloetjes, J.W.; Schipper, Dirk J.
In: Wear, Vol. 267, No. 9-10, 2009, p. 1696-1701.
100. **Effects of Cu and Zn co-doping on the electrical properties of Ni_{0.5}Mn_{2.5}O₄ NTC ceramics.** / Zhao, Chunhua; Wang, Biyun; Winnubst, Aloysius J.A.; Yang, Pinghua; Chen, Chusheng.
In: Journal of the European Ceramic Society, Vol. 28, No. 1, 2008, p. 35-40.
101. **Preparation and electrical properties of Fe_xCu_{0.10}Ni_{0.66}Mn_{2.24-x}O₄ (0 <x <0.90) NTC ceramics.** / Fang, Dao-lai; Chen, Chusheng; Winnubst, Aloysius J.A.
In: Journal of alloys and compounds, Vol. 454, No. 1-2, 2008, p. 286-291.
102. **Effect of Microstructure on the Tribological and Mechanical Properties of CuO-Doped 3Y-TZP Ceramics.** / Ran, S.; Winnubst, Aloysius J.A.; Blank, David H.A.; Pasaribu, H.R.; Sloetjes, J.W.; Schipper, Dirk J.
In: Journal of the American Ceramic Society, Vol. 90, No. 9, 2007, p. 2747-2752.
103. **Sintering behaviour and microstructure of 3Y-TZP + 8 mol% CuO nano-powder composite.** / Ran, S.; Winnubst, A.J.A.; Koster, H.; de Veen, P.J.; Blank, D.H.A.
In: Journal of the European Ceramic Society, Vol. 27, No. 2-3, 2007, p. 683-687.

104. **Inorganic Membranes: a new research group at the University of Twente.** / Winnubst, Aloysius J.A.; Bouwmeester, Henricus J.M.
2006. - Poster session presented at MESA+ Day 2006, Enschede, Netherlands.
105. **Perovskite membranes for oxygen separation.** / McIntosh, S.; Zhu, J.J.; Kruidhof, H.; Winnubst, Aloysius J.A.; Blank, David H.A.; Bouwmeester, Henricus J.M.
2006. Poster session presented at Annual CW meeting on Solid State Chemistry and Materials Science 2006, Lunteren, Netherlands.
106. **Sintering of 3Y-TZP/CuO nano-powder composites.** / Ran, S.; Winnubst, Aloysius J.A.; de Veen, P.J.; Blank, David H.A.
2006. - Poster session presented at Annual CW meeting on Solid State Chemistry and Materials Science 2006, Lunteren, Netherlands.
107. **Editorial: International Symposium on Inorganic and Environmental Materials (ISIEM 2004).** / Winnubst, Aloysius J.A.; Itatani, Kiyoshi; Hintzen, Bert; Metselaar, Ruud; Sango, Hiroyuki.
In: Journal of the European Ceramic Society, Vol. 26, No. 4-5, 2006, p. 361-362.
108. **Effect of annealing in O₂ or N₂ on the aging of Fe_{0.5}Mn_{1.84}Ni_{0.66}O₄ NTC-ceramics.** / Wang, Zhongbing; Wang, Zhichun; Zhao, Chunhua; Yang, Pinghua; Winnubst, Aloysius J.A.; Chen, Chusheng.
In: Solid state ionics, Vol. 177, No. 19-25, 2006, p. 2191-2194.
109. **Oxygen permeation through a Ce_{0.8}Sm_{0.2}O_{2-d}-La_{0.8}Sr_{0.2}CrO_{3-d} dual-phase composite membrane.** / Yi, Jianxin; Yi, J.; Zuo, Yanbo; Liu, W.; Liu, Wei; Winnubst, Aloysius J.A.; Chen, Chusheng.
In: Journal of membrane science, Vol. 280, No. 1-2, 2006, p. 849-855.
110. **Preparation of Ultra-Fine Nickel Manganite Powders and Ceramics by a Solid-State Coordination Reaction.** / Fang, Dao-lai; Wang, Zhongbing; Wang, Zhichun; Yang, Pinghua; Liu, W.; Liu, Wei; Winnubst, Aloysius J.A.; Chen, Chusheng.
In: Journal of the American Ceramic Society, Vol. 89, No. 1, 2006, p. 230-235.
111. **Sintering Behavior of 0.8 mol%-CuO-Doped 3Y-TZP Ceramics.** / Ran, S.; Winnubst, Aloysius J.A.; Wiratha, K.W.; Blank, David H.A.
In: Journal of the American Ceramic Society, Vol. 89, No. 1, 2006, p. 151-155.
112. **Stability and oxygen permeation behavior of Ce_{0.8}Sm_{0.2}O_{2-δ}-La_{0.8}Sr_{0.2}CrO_{3-δ} composite membrane under large oxygen partial pressure gradients.** / Wang, Bo; Yi, Jianxin; Winnubst, Louis; Chen, Chusheng (Corresponding Author).
In: Journal of membrane science, Vol. 286, No. 1-2, 2006, p. 22-25.
113. **Synthesis, sintering and microstructure of 3Y-TZP/CuO nano-powder composites.** / Ran, S.; Winnubst, Aloysius J.A.; Wiratha, K.W.; Blank, David H.A.
In: Journal of the European Ceramic Society, Vol. 26, No. 4-5, 2006, p. 391-396.
114. **X-ray diffraction and infrared studies of Fe_xMn_{2.34-x}Ni_{0.66}O₄ (0.** / Wang, Zhichun; Wang, Zhongbing; Zhao, Chunhua; Yang, Pinghua; Winnubst, Aloysius J.A.; Chen, Chusheng.
In: Journal of the European Ceramic Society, Vol. 26, No. 13, 2006, p. 2833-2837.
115. **Sintering Behaviour and Microstructure of 3Y-TZP/CuO nano-powder composites.** / Winnubst, A.J.A.; Ran, S.; de Veen, P.J.; Koster, H.; Blank, D.H.A.
2005. Poster session presented at 4th China International Conference on High-Performance Ceramics, CICC 2005, Chengdu, China.
116. **Nanostructured Ceramics and Polymer Matrix Composites.** / Winnubst, Aloysius J.A.; Ran, S.; de Veen, P.J.; de la Luz Garcia-Curiel, M.M.; Blank, David H.A.
2005. - Poster session presented at MESA+ Day 2005, Enschede, Netherlands.
117. **Effect of Annealing in O₂ or N₂ on the aging of Fe_{0.5}Mn_{1.84}Ni_{0.66}O₄ NTC-Ceramics.** / Wang, Zhongbing; Zhao, Chunhua; Yang, Pinghua; Winnubst, Aloysius J.A.; Chen, Chusheng.
2005. -.
118. **Enhancement of mechanical properties of dense oxygen-permeable membranes.** / Ran, S.; Winnubst, Aloysius J.A.; Bouwmeester, Henricus J.M.; Chen, C.S.
2005. -.
119. **Environmental effects on friction and wear characteristic of zirconia doped with CuO.** / Pasaribu, H.R.; Reuver, K.M.; Schipper, Dirk J.; Ran, S.; Wiratha, K.W.; Winnubst, Aloysius J.A.; Blank, David H.A.
In: International Journal of Refractory Metals and Hard Materials, Vol. 23, No. 4-6, 2005, p. 386-390.
120. **Research and education on inorganic and ceramic materials in the Netherlands.** / Hintzen, H.T.; Winnubst, Aloysius J.A.
In: Journal of the Society of Inorganic Materials, Japan, Vol. 12, 2005, p. 222-231.
121. **Friction and wear characteristics of dry sliding zirconia doped with copper oxide.** / Pasaribu, H.R.; Reuver, K.M.; Schipper, Dirk J.; Ran, S.; Wiratha, K.W.; Winnubst, Aloysius J.A.
8th International conference of the science of hard materials: A special tribute to Joseph Gurland. San Juan, Puerto Rico : ICSHM8, 2004. p. 37-38.

122. **Enhancement of mechanical properties of oxygen-permeable membranes.** / Ran, S.; Winnubst, Aloysius J.A.; Bouwmeester, Henricus J.M.; Chen, C.S.
2004. - Poster session presented at International Symposium on Inorganic and Environmental Materials 2004, Eindhoven, Netherlands.
123. **Friction and wear of nylon-6/SiO₂ nanocomposites.** / de la Luz Garcia-Curiel, M.M.; Winnubst, Aloysius J.A.; de Rooij, Matthias B.; Schipper, Dirk J.; Blank, David H.A.
2004. - Poster session presented at International Symposium on Inorganic and Environmental Materials 2004, Eindhoven, Netherlands.
124. **Wear-resistant CuO-doped zirconia ceramic with low friction.** / Pasaribu, H.R.; Sloetjes, J.W.; Schipper, Dirk J.; Ran, S.; Wiratha, K.W.; Winnubst, Aloysius J.A.; Blank, David H.A.
Proceedings of International symposium on Inorganic and Environmental Materials. Eindhoven, 2004. p. -.
125. **Friction and wear of nylon-6/SiO₂ nanocomposites.** / de la Luz Garcia-Curiel, M.M.; Winnubst, Aloysius J.A.; de Rooij, Matthias B.; Schipper, Dirk J.; Blank, David H.A.
2004. -.
126. **A wear-resistant zirconia ceramic for low friction application.** / Winnubst, Aloysius J.A.; Ran, S.; Wiratha, K.W.; Blank, David H.A.; Pasaribu, H.R.; Sloetjes, J.W.; Schipper, Dirk J.
In: Key engineering materials, Vol. 264-268, 2004, p. 809-812.
127. **A wear-resistant zirconia ceramic with low dry-friction.** / Winnubst, Aloysius J.A.; Ran, S.; Wiratha, K.W.; Blank, David H.A.; Pasaribu, H.R.; Sloetjes, J.W.; Schipper, Dirk J.
Proceedings of the European Ceramic Society Conference, ECERS8. Istanbul, Turkey, 2004. p. -.
128. **Friction and wear studies on nylon-6/SiO₂ nanocomposites.** / de la Luz Garcia-Curiel, M.M.; de Rooij, Matthias B.; Winnubst, Aloysius J.A.; van Zyl, W.E.; Verweij, H.
In: Journal of applied polymer science, Vol. 92, No. 3, 2004, p. 1855-1862.
129. **Friction behaviour of solid oxide lubricants as second phase in alpha-Al₂O₃ and stabilised ZrO₂ composites.** / Kerkwijk, B.; de la Luz Garcia-Curiel, M.M.; van Zyl, W.E.; Winnubst, Aloysius J.A.; Mulder, E.J.; Schipper, Dirk J.; Verweij, H.
In: Wear, Vol. 256, No. 1-2, 2004, p. 182-189.
130. **Nanoscale wear resistant and low friction oxide ceramics.** / Pasaribu, H.R.; Sloetjes, J.W.; Schipper, D.J.; Winnubst, A.J.A.
2003. 40-40 Paper presented at International Conference on Materials Science and Engineering, BRAMAT 2001, Braşov, Romania.
131. **Densification of zirconia-hematite nanopowders.** / Raming, T.P.; Winnubst, Aloysius J.A.; van Zyl, W.E.; Verweij, H.
In: Journal of the European Ceramic Society, Vol. 23, No. 7, 2003, p. 1053-1060.
132. **Electrochemical characterisation of 3Y-TPZ-Fe₂O₃ composites.** / Boukamp, Bernard A.; Raming, T.P.; Winnubst, Aloysius J.A.; Verweij, H.
In: Solid state ionics, Vol. 158, No. 3-4, 2003, p. 381-394.
133. **Partial oxidation of methane to syngas using oxygen ion conducting (tubular) perovskite membranes.** / Mertins, F.H.B.; Winnubst, Aloysius J.A.; Kruidhof, H.; Bouwmeester, Henricus J.M.; Eshuis, H.G.J.; Blank, David H.A.
In: Klei, glas, keramiek, Vol. 24, No. 4, 2003, p. 28-31.
134. **Synthesis and characterisation of dual-phase Y-TZP and RuO₂ nanopowders: dense electrode precursors.** / van Zyl, W.E.; Winnubst, Aloysius J.A.; Raming, T.P.; Schmuhl, R.; Verweij, H.
In: Journal of materials chemistry, Vol. 12, No. 6, 2002, p. 708-713.
135. **The synthesis and characterisation of mixed Y₂O₃-doped ZrO₂ and α-Fe₂O₃ nanosized powders.** / Raming, T.P.; Winnubst, Aloysius J.A.; Verweij, H.
In: Journal of materials chemistry, Vol. 12, 2002, p. 3705-3711.
136. **The synthesis and characterization of mixed Y₂O₃-doped ZrO₂ and γ-Fe₂O₃ nanosized powders.** / Raming, T.P.; Winnubst, Aloysius J.A.; Verweij, H.
In: Journal of materials chemistry, Vol. 12, No. 12, 2002, p. 3705-3711.
137. **The synthesis and magnetic properties of nanosized hematite (α-Fe₂O₃) particles.** / Raming, T.P.; Winnubst, Aloysius J.A.; van Kats, C.M.; Philipse, A.P.
In: Journal of colloid and interface science, Vol. 249, No. 2, 2002, p. 346-350.
138. **Production of components for a catalytic methane sensor.** / van Rij, L.N.; Winnubst, Aloysius J.A.; Schoonman, J.
Ceramic materials, materials' Analysis and Environment Protection Polymeric Materials. ed. / A. Negrutiu; G. Bratucu. Brasov, Roemenie : Universitatii Transilvania, 2001. p. 104-109.
139. **Analysis of the preparation of In-doped CaZrO₃ using a peroxo-oxalate complexation method.** / van Rij, Leen; Winnubst, Louis; Jun, Le; Schoonman, Joop.
In: Journal of materials chemistry, Vol. 12, No. 11, 2000, p. 2515-2521.
140. **Impact zone of the steel ladle: theory and practice at Hoogovens; BOS no. 2.** / Siebring, R.; Winnubst, Aloysius J.A.
unified international technical conference on refractories. Berlijn, 1999. p. 285-287.

141. **Thermally induced wear of ceramics.** / Metselaar, H.S.C.; Winnubst, Aloysius J.A.; Schipper, Dirk J.
In: *Wear*, Vol. 225, No. 229, 1999, p. 857-861.
142. **peroxo-oxalate preparation of doped barium titanate.** / van der Gijp, S.; Winnubst, Aloysius J.A.; Verweij, H.
In: *Journal of the American Ceramic Society*, Vol. 5, No. 82, 1999, p. 1451-1455.
143. **preparation of BaTiO₃ by homogeneous precipitation.** / van der Gijp, S.; Emond, M.H.J.; Winnubst, Aloysius J.A.; Verweij, H.
In: *Journal of the European Ceramic Society*, Vol. 9, No. 19, 1999, p. 1683-1690.
144. **processing of homogeneous zirconia-toughened alumina ceramics with high dry-sliding wear resistance.** / Kerkwijk, B.; Winnubst, Aloysius J.A.; Mulder, E.J.; Verweij, H.
In: *Journal of the American Ceramic Society*, Vol. 8, No. 82, 1999, p. 2087-2093.
145. **tribological properties of nanoscale alumina-zirconia composites.** / Kerkwijk, B.; Winnubst, Aloysius J.A.; Verweij, H.; Mulder, E.J.; Metselaar, H.S.C.; Schipper, Dirk J.
In: *Wear*, Vol. 225-22, No. 225-229, 1999, p. 1293-1302.
146. **Modelling of thermally induced wear of ceramics.** / Metselaar, H.S.C.; Winnubst, A.J.A.; Schipper, D.J.
AUSTRIAN '98, Tribology at Work: proceedings of the 5th International Tribology Conference in Australia, Brisbane 6-9 December 1998. Barton : Institution of Engineers (Australia), 1998. p. 185-188.
147. **Sintering and densification; new techniques : Sinter forging.** / Winnubst, A. J.A.; Boutz, M. M.R.
In: *Key engineering materials*, Vol. 153-154, 01.01.1998, p. 301-323.
148. **Effects of grain size and ceria addition on ageing behaviour and tribological properties of Y-TZP ceramics.** / Jansen, S.R.; Winnubst, A.J.A.; He, Y.J.; Verweij, H.; van der Varst, P.G.Th.; de With, G.
In: *Journal of the European Ceramic Society*, Vol. 18, No. 5, 1998, p. 557-563.
149. **Preparation of La_{0.3}Sr_{0.7}CoO_{3-δ} perovskite by thermal decomposition of metal-EDTA complexes.** / van Doorn, René H.E.; Kruidhof, Henk; Nijmeijer, Arian; Winnubst, Louis; Burggraaf, Anthony J.
In: *Journal of materials chemistry*, Vol. 8, No. 9, 1998, p. 2109-2112.
150. **Superplastic deep drawing of tetragonal zirconia ceramics at 1160°C.** / Winnubst, A.J.A.; Boutz, M.M.R.
In: *Journal of the European Ceramic Society*, Vol. 18, No. 14, 1998, p. 2101-2106.
151. **an oxalate-peroxide complex used in the preparation of doped barium titanate.** / van der Gijp, S.; Winnubst, Aloysius J.A.; Verweij, H.
In: *Journal of materials chemistry*, Vol. 5, No. 8, 1998, p. 1251-1254.
152. **sintering and densification; new techniques: sinterforging.** / Winnubst, Aloysius J.A.; Boutz, M.M.R.
In: *Key engineering materials*, Vol. 153-154, No. 1, 1998, p. 301-323.
153. **Wet chemical preparation of doped barium titanate powders and ceramics.** / van der Gijp, S.; Winnubst, Aloysius J.A.; Verweij, H.
Euroceramics V. Versailles, 1997. p. 77-80.
154. **Zirconia-toughened alumina (ZTA) with improved homogeneity for tribological applications.** / Kerkwijk, B.; Winnubst, Aloysius J.A.; Stassen, A.F.; Verweij, H.
Euroceramics V. Versailles, 1997. p. 297-300.
155. **Effects of a second phase on the tribological properties of Al₂O₃ and ZrO₂ ceramics.** / He, Y.; Winnubst, A.J.A.; Schipper, D.J.; Burggraaf, A.J.; Verweij, H.
In: *Wear*, Vol. 210, No. 1-2, 1997, p. 178-187.
156. **Grain growth in ultrafine-grained Y-TZP ceramics.** / Sagel-Ransijn, C.D.; Winnubst, A.J.A.; Burggraaf, A.J.; Verweij, H.
In: *Journal of the European Ceramic Society*, Vol. 17, No. 9, 1997, p. 1133-1141.
157. **Influence of porosity on friction and wear of tetragonal zirconia polycrystal.** / He, Yingjie; Winnubst, Louis; Burggraaf, Anthony J.; Verweij, Henk; van der Varst, Paul G.Th.; de With, Bert.
In: *Journal of the American Ceramic Society*, Vol. 80, No. 2, 1997, p. 377-380.
158. **Keramiek wordt steeds slijtvaster.** / Kerkwijk, B.; Winnubst, Aloysius J.A.; Verweij, H.; He, Y.
In: *Materialen*, 1997, p. 9-12.
159. **Plasticity of nanocrystalline zirconia ceramics and composites.** / Winnubst, A.J.A.; Boutz, M.M.R.; He, Y.; Burggraaf, A.J.; Verweij, H.
In: *Ceramics international*, Vol. 23, No. 3, 1997, p. 215-221.
160. **Production of defect-poor nanostructured ceramics of yttria-zirconia.** / Sagel-Ransijn, C.D.; Winnubst, A.J.A.; Kerkwijk, B.; Burggraaf, A.J.; Verweij, H.
In: *Journal of the European Ceramic Society*, Vol. 17, No. 6, 1997, p. 831-841.
161. **Sliding wear of ZrO₂-Al₂O₃.** / He, Y.; Winnubst, A.J.A.; Burggraaf, A.J.; Verweij, H.; van der Varst, P.G.T.; de With, G.
In: *Journal of the European Ceramic Society*, Vol. 17, No. 11, 1997, p. 1371-1380.

162. **Wet-Chemical Preparation of Doped-Barium titanate powders and ceramics.** / van der Gijp, S.; Emond, M.H.J.; Winnubst, Aloysius J.A.; Verweij, H.
Electroceramics. Aveiro, 1996. p. 347-350.
163. **Enhanced mechanical properties by grain boundary strengthening in ultra-fine grained TZP ceramics.** / He, Y.J.; Winnubst, A.J.A.; Sagel-Ransijn, C.D.; Burggraaf, A.J.; Verweij, H.
In: Journal of the European Ceramic Society, Vol. 16, No. 6, 1996, p. 601-612.
164. **Grain-size dependence of sliding wear in tetragonal zirconia polycrystals.** / He, Yingjie; Winnubst, Louis; Burggraaf, Anthonie J.; Verweij, Henk; van der Varst, Paul G.Th.; de With, Bert.
In: Journal of the American Ceramic Society, Vol. 79, No. 12, 1996, p. 3090-3096.
165. **Slijtvaste keramiek.** / Winnubst, Aloysius J.A.; Verweij, H.
In: Constructeur, No. 3, 1996, p. 32-37.
166. **The influence of crystallisation and washing medium on the characterisation of nanocrystalline Y-TZP.** / Sagel-Ransijn, C.D.; Winnubst, A.J.A.; Burggraaf, A.J.; Verweij, H.
In: Journal of the European Ceramic Society, Vol. 16, No. 7, 1996, p. 759-766.
167. **Effect of Y-TZP ceramics grain size on tribological properties under sliding wear.** / He, Y.; Winnubst, Aloysius J.A.; Verweij, H.
Ede. 1995.
168. **Sliding wear and friction behaviour of ceramic/hardened steel couples.** / He, Y.; Winnubst, Aloysius J.A.; Schipper, D.A.; Burggraaf, Anthonie; Verweij, H.
Ede. 1995.
169. **Synthese van nanokristallijn tetragonaal zirconia.** / Sagel-Ransijn, C.D.; Winnubst, Aloysius J.A.; Verweij, H.
Ede. 1995.
170. **The origin of defects in nanocrystalline.** / Sagel-Ransijn, C.D.; Kerkwijk, B.; Winnubst, Aloysius J.A.; Verweij, H.
Ede. 1995.
171. **Wet-chemical preparation of doped BaTiO₃.** / van der Gijp, S.; Emond, M.H.J.; Winnubst, Aloysius J.A.; Verweij, H.
Ede. 1995.
172. **Zeer slijtvaste keramische materialen.** / Winnubst, Aloysius J.A.; He, Y.; Verweij, H.
Ede. 1995.
173. **Effect of Y-TZP ceramics grain-size on tribological properties under sliding wear.** / He, Y.; Winnubst, Aloysius J.A.; Verweij, H.; van de Varst, P.G.T.; de With, G.
FOM, Veldhoven. 1995.
174. **Dense and porous, ultra fine grained or nanostructured ceramics and composites.** / Burggraaf, Anthonie; Winnubst, Aloysius J.A.; Verweij, H.
Fourth Euro Ceramics. Faenza, 1995. p. 3-4.
175. **Effect of Y-TZP ceramics grain-size on tribological properties under sliding wear.** / He, Y.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie; Verweij, H.; van de Varst, P.G.T.; de With, G.
SON, Lunteren. 1995.
176. **Oxygen permeability of YSZ-Pd composites.** / Chen, C.S.; Boukamp, Bernard A.; Bouwmeester, Henricus J.M.; Kruidhof, H.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
SON, Lunteren. 1995.
177. **Preparation and characterisation of alumina dispersed in Y-TZP.** / Bakker, P.M.V.; He, Y.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie; Verweij, H.
SON, Lunteren. 1995.
178. **Sliding wear and friction behaviour of ceramic/hardened steel couples.** / He, Y.; Winnubst, Aloysius J.A.; Schipper, Dirk J.; Burggraaf, Anthonie; Verweij, H.
SON, Lunteren. 1995.
179. **Synthesis and characterization of nanoscale Y-TZP.** / Sagel-Ransijn, C.D.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie; Verweij, H.
SON, Lunteren. 1995.
180. **(Super) plasticity of nanocrystalline zirconia ceramics.** / Winnubst, Aloysius J.A.; Boutz, M.M.R.; He, Y.; Burggraaf, Anthonie; Verweij, H.
Ceramics: Charting the Future. Faenza : Techna srl, 1995. p. 1743-1754.
181. **Friction and wear behaviour of ceramic-hardened steel couples under reciprocating sliding motion.** / He, Y.J.; Winnubst, A.J.A.; Schipper, D.J.; Bakker, P.M.V.; Burggraaf, A.J.; Verweij, H.
In: Wear, Vol. 184, No. 1, 1995, p. 33-43.
182. **Low temperature sinter forging of nanostructured Y-TZP and YCe-TZP.** / Boutz, Michel M.R.; Winnubst, Louis; Burggraaf, Anthonie J.; Naue, Marco; Carry, Claude.
In: Journal of the American Ceramic Society, Vol. 78, No. 1, 1995, p. 121-128.

183. **Microstructural development, electrical properties and oxygen permeation of zirconia-palladium composites.** / Chen, C.S.; Boukamp, B.A.; Bouwmeester, H.J.M.; Cao, G.Z.; Kruidhof, H.; Winnubst, A.J.A.; Burggraaf, A.J.
In: Solid state ionics, Vol. 76, No. 76, 1995, p. 23-28.
184. **Preparation and characterization of alumina dispersed in Y-TZP.** / Bakker, P.M.V.; He, Y.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie; Verweij, H.
Ceramic Processing Science and Technology. Ceramic Transactions, vol.41. Ohio : American Ceramic Society, 1995. p. 537-540.
185. **Synthesis and characterization of nanocrystalline Y-TZP.** / Sagel-Ransijn, C.D.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie; Verweij, H.
Ceramic Processing Science and Technology. Ceramic Transactions, vol.41. Ohio : American Ceramic Society, 1995. p. 33-37.
186. **The effect of ceria co-doping on chemical stability and fracture toughness of Y-TZP.** / Boutz, M.M.R.; Winnubst, A.J.A.; van Langerak, B.; Olde Scholtenhuis, R.J.M.; Kreuwel, K.; Burggraaf, A.J.
In: Journal of materials science, Vol. 30, No. 7, 1995, p. 1854-1862.
187. **Effect of Y-TZP ceramics grain-size on tribological properties under sliding wear.** / He, Y.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie; Verweij, H.; van de Varst, P.G.T.; de With, G.
1994. - Poster session presented at IOP 1994, Zoetermeer, Netherlands.
188. **Preparation and characterisation of alumina dispersed in Y-TZP.** / Bakker, P.M.V.; He, Y.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie; Verweij, H.
1994. -.
189. **Sliding wear and friction behaviour of ceramic/hardened steel couples.** / He, Y.; Winnubst, Aloysius J.A.; Schipper, Dirk J.; Burggraaf, Anthonie; Verweij, H.
1994. -.
190. **Synthesis and characterisation of nanoscale Y-TZP.** / Sagel-Ransijn, C.D.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie; Verweij, H.
1994. -.
191. **Effect of Y-TZP ceramics grain-size on tribological properties under sliding wear.** / He, Y.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie; Verweij, H.; van de Varst, P.G.T.; de With, G.
1994. - Poster session presented at CMO Conference 1994, Lunteren, Netherlands.
192. **Oxygen permeability of YSZ-Pd composites.** / Chen, C.S.; Boukamp, Bernard A.; Bouwmeester, Henricus J.M.; Kruidhof, H.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
1994. -.
193. **Preparation and characterization of alumina dispersed in Y-TZP.** / Bakker, P.M.V.; He, Y.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie; Verweij, H.
1994. -.
194. **Sliding wear and friction behaviour of ceramic/hardened steel couples.** / He, Y.; Winnubst, Aloysius J.A.; Schipper, Dirk J.; Burggraaf, Anthonie; Verweij, H.
1994. -.
195. **Synthesis and characterisation of nanoscale Y-TZP.** / Sagel-Ransijn, C.D.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie; Verweij, H.
1994. -.
196. **Preparation and characterization of alumina dispersed in Y-TZP.** / Bakker, P.M.V.; He, Y.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie; Verweij, H.
1994. -.
197. **Microstructural development, electrical properties and oxygen permeation of zirconia palladium composites.** / Chen, C.S.; Boukamp, Bernard A.; Winnubst, Aloysius J.A.; Bouwmeester, Henricus J.M.; Kruidhof, H.; Burggraaf, Anthonie.
1994. -.
198. **Sinter-forging of zirconia toughened alumina.** / He, Y.; Winnubst, Aloysius J.A.; Verweij, H.; Burggraaf, Anthonie.
1994. -.
199. **The influence of hydrothermal crystallization on Y-TZP powder characteristics.** / Sagel-Ransijn, C.D.; Boutz, M.M.R.; Winnubst, Aloysius J.A.; Verweij, H.; Burggraaf, Anthonie.
1994. -.
200. **A hydrothermal route for production of dense, nanostructured Y-TZP.** / Boutz, M.M.R.; Olde Scholtenhuis, R.J.M.; Winnubst, A.J.A.; Burggraaf, A.J.
In: Materials research bulletin, Vol. 29, No. 1, 1994, p. 31-40.
201. **Characterization of grain boundaries in superplastically deformed Y-TZP ceramics.** / Boutz, Michel M.R.; Chen, Chu Sheng; Winnubst, Louis; Burggraaf, Anthonie J.
In: Journal of the American Ceramic Society, Vol. 77, No. 10, 1994, p. 2632-2640.

202. **Effect of additives on densification and deformation of tetragonal zirconia.** / Boutz, M.M.R.; Winnubst, A.J.A.; Hartgers, F.; Burggraaf, A.J.
In: Journal of materials science, Vol. 1994, No. 29, 1994, p. 5374-5382.
203. **Effect of calcination on the sintering of gel-derived zirconia-toughened alumina.** / den Exter, Peter; Winnubst, Louis; Leuwerink, F.T.H.; Burggraaf, Anthonie J.
In: Journal of the American Ceramic Society, Vol. 77, No. 9, 1994, p. 2376-1280.
204. **Improvement of mechanical properties of zirconia-toughened alumina by sinter forging.** / He, Y.J.; Winnubst, A.J.A.; Verweij, H.; Burggraaf, A.J.
In: Journal of materials science, Vol. 29, 1994, p. 5868-5874.
205. **Low temperature superplastic flow of yttria stabilized tetragonal zirconia polycrystals.** / Boutz, M.M.R.; Winnubst, A.J.A.; Burggraaf, A.J.; Nauer, M.; Carry, C.
In: Journal of the European Ceramic Society, Vol. 13, No. 2, 1994, p. 103-111.
206. **Sinter forging of zirconia toughened alumina.** / He, Y.J.; Winnubst, A.J.A.; Verweij, H.; Burggraaf, A.J.
In: Journal of materials science, Vol. 29, 1994, p. 6505-6512.
207. **Yttria-Ceria stabilized tetragonal zirconia polycrystals : Sintering, grain growth and grain boundary segregation.** / Boutz, M.M.R.; Winnubst, A.J.A.; Burggraaf, A.J.
In: Journal of the European Ceramic Society, Vol. 13, No. 2, 1994, p. 89-102.
208. **Preparation, electrical properties and permeability of YSZ-composites.** / Chen, C.S.; Cao, G.Z.; Winnubst, Aloysius J.A.; Boukamp, Bernard A.; Kruidhof, H.; Bouwmeester, Henricus J.M.; Burggraaf, Anthonie.
1993. -.
209. **Characterisation and stabilisation of nanometer TiO₂ powders prepared by the sol-gel process.** / Koebrugge, G.W.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
1993. - Poster session presented at CMO Conference 1993, Enschede, Netherlands.
210. **Electrical properties of dense, nanoscale zirconia.** / Chen, C.S.; Boutz, M.M.R.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
1993. - Poster session presented at CMO Conference 1993, Enschede, Netherlands.
211. **Improvement of the mechanical properties of zirconia toughened alumina by sinter forging.** / He, Y.; Bakker, P.M.V.; Winnubst, Aloysius J.A.; Verweij, H.; Burggraaf, Anthonie.
1993. - Poster session presented at CMO Conference 1993, Enschede, Netherlands.
212. **Low temperatures sinterforging of Y-TZP ceramics.** / Boutz, M.M.R.; Olde scholtenhuis, R.J.M.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
1993. - Poster session presented at CMO Conference 1993, Enschede, Netherlands.
213. **Preparation microstructural control and superplasticity of nanostructured yttria/ceria stabilised tetragonal zirconia ceramics.** / Boutz, M.M.R.; Olde scholtenhuis, R.J.M.; Winnubst, A..A.; Burggraaf, A.J.
Nanoceramics. ed. / R. Ireeer. London, Engeland : Institute of Materials, 1993. p. 75-86 (British Ceramic Proceedings; Vol. 51).
214. **Electrical properties of dense, nanoscale zirconia.** / Chen, C.S.; Boutz, M.M.R.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
1993. - Poster session presented at Jaarlijkse bijeenkomst SON 1993, Lunteren, Netherlands.
215. **Low temperatures sinterforging of Y-TZP ceramics.** / Boutz, M.M.R.; Olde scholtenhuis, R.J.M.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
1993. - Poster session presented at Jaarlijkse bijeenkomst SON 1993, Lunteren, Netherlands.
216. **The thermal stability of nanostructural titania-ceria powders prepared by the sol-gel process.** / Koebrugge, G.W.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
1993. - Poster session presented at Bijeenkomst SON 1993, Lunteren, Netherlands.
217. **Low temperature sinterforging of nanostructured Y-TZP.** / Boutz, M.M.R.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie; Nauer, M.; Carry, C.
Proceedings 5th International Conference on the Science and Technology of Zirconia. Sydney, Australia, 1993. p. 275-283.
218. **Sinterforging as a tool for improving the microstructure and mechanical properties of zirconia toughened alumina.** / Winnubst, A.J.A.; He, Y.; Bakker, P.M.V.; Olde scholtenhuis, R.J.M.; Burggraaf, A.J.
Science and technology of zirconia V: Proceedings of the Fifth International Conference on the Science and Technology of Zirconia, held on 16-21 August, 1992 in Melbourne, Australia. ed. / S.P.S. Badwal; M.J. Bannister. Lancaster, PA : Technomic Publishing, 1993. p. 284-291.
219. **Dense and porous nanostructured ceramics and composites.** / Burggraaf, Anthonie; Winnubst, Aloysius J.A.; Verweij, H.
Third Euroceramics, vol. 3, Engineering Ceramics. Castellon de la Plana, Spain : P. Duran, J.F. Fernandez, 1993. p. 561-576.

220. **Low temperature superplastic flow of yttria stabilized tetragonal zirconia polycrystals.** / Boutz, M.M.R.; Winnubst, A.J.A.; Burggraaf, A.J.; Nauer, M.; Carry, C.
Euro-ceramics II: Structural ceramics and composites. ed. / G. Ziegler; H. Hausner. Vol. 2 Köln : Deutsche Keramische Gesellschaft, 1993. p. 939-943.
221. **Sinter forging of zirconia toughened alumina.** / He, Y.; Winnubst, Aloysius J.A.; Verweij, H.; Burggraaf, A.J.
Third Euroceramics, vol. 3. Engineering Ceramics. Castellon de la Plana, Spain : P. Duran, Y.F. Fernandez, 1993. p. 501-506.
222. **Sintering kinetics and microstructure development of nanoscale Y-TZP ceramics.** / Theunissen, G.S.A.M.; Winnubst, A.J.A.; Burggraaf, A.J.
In: Journal of the European Ceramic Society, Vol. 11, No. 4, 1993, p. 315-324.
223. **Sintering of ZTA at low temperatures through transition alumina densification.** / den Exter, P.; Winnubst, A.J.A.; Burggraaf, A.J.
Euro-ceramics II: Structural ceramics and composites. ed. / G. Ziegler; H. Hausner. Vol. 2 Köln : Deutsche Keramische Gesellschaft, 1993. p. 1377-1381.
224. **The electrical characterization of grain boundaries in ultra-fine grained Y-TZP.** / Chen, C.S.; Boutz, M.M.R.; Boukamp, B.A.; Winnubst, A.J.A.; de Vries, K.J.
In: Materials science and engineering, Vol. A168, No. 2, 1993, p. 231-234.
225. **The preparation and characterization of Y-TZP/20 wt% alumina.** / den Exter, P.; Winnubst, A.J.A.; Burggraaf, A.J.
In: Journal of the European Ceramic Society, Vol. 11, No. 6, 1993, p. 497-507.
226. **Thermal stability of nanostructured titania and titania-ceria ceramic powders prepared by the sol-gel process.** / Koebrugge, Gerald W.; Winnubst, Louis; Burggraaf, Anthonie J.
In: Journal of materials chemistry, Vol. 3, No. 11, 1993, p. 1095-1100.
227. **Stability of aqueous suspensions of high surface area zirconia powders in the presence of polyacrylic acid polyelectrolyte.** / Boutz, M.M.R.; Olde scholtenhuis, R.J.M.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
Better ceramics through chemistry V. Pittsburgh, U.S.A., 1992. p. 303-307.
228. **Low temperature superplastic flow of Y-TZP.** / Boutz, M.M.R.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
1992. - Poster session presented at Bijeenkomst SON-werkgemeenschap voor Vaste Stoffen en Materiaalkunde 1992, Lunteren, Netherlands.
229. **Sintering of zirconia toughened alumina (ZTA) at low temperatures through transition alumina densification.** / den Exter, P.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
1992. - Poster session presented at Bijeenkomst SON-werkgemeenschap voor Vaste Stoffen en Materiaalkunde 1992, Lunteren, Netherlands.
230. **Stability of aqueous suspensions of high surface area zirconia powders in the presence of a polyacrylic acid polyelectrolyte.** / Boutz, M.M.R.; Olde scholtenhuis, R.J.M.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
1992. - Poster session presented at Bijeenkomst SON-werkgemeenschap voor Vaste Stoffen en Materiaalkunde 1992, Lunteren, Netherlands.
231. **Effect of dopants on the sintering behaviour and stability of tetragonal zirconia ceramics.** / Theunissen, G.S.A.M.; Winnubst, A.J.A.; Burggraaf, A.J.
In: Journal of the European Ceramic Society, Vol. 9, No. 4, 1992, p. 251-263.
232. **Mechanical properties of ultra-fine grained zirconia ceramics.** / Theunissen, G.S.A.M.; Bouma, J.S.; Winnubst, A.J.A.; Burggraaf, A.J.
In: Journal of materials science, Vol. 27, 1992, p. 4429-4438.
233. **Sintergedrag en microstructuur van nanokristallijn tetragonaal zirconia.** / Winnubst, Aloysius J.A.; Theunissen, G.S.A.M.; Boutz, M.M.R.
In: Klei, glas, keramiek, Vol. 1992, No. 10, 1992, p. 312-316.
234. **Surface and grain boundary analysis of doped zirconia ceramics by AES and XPS.** / Theunissen, G.S.A.M.; Winnubst, A.J.A.; Burggraaf, A.J.
In: Journal of materials science, Vol. 27, No. 18, 1992, p. 5057-5066.
235. **Grain growth and sintering of Y and/or Ce-doped tetragonal zirconia.** / Boutz, M.M.R.; Theunissen, G.S.A.M.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
1991. -.
236. **Microstructure and mechanical properties of nanoscale tetragonal zirconia ceramics.** / Theunissen, G.S.A.M.; Winnubst, A.J.A.; Bouwma, J.; Burggraaf, A.J.
1991.
237. **Solid solution drag controlled grain growth in doped zirconia ceramics.** / Theunissen, G.S.A.M.; Winnubst, Aloysius J.A.; Burggraaf, Anthonie.
1991. -.

238. **Characterisation of wet chemically prepared alumina/zirconia ceramics.** / Leuwerink, F.T.H.; den Exter, P.; Winnubst, A.J.A.; Burggraaf, A.J.
Advanced structural inorganic composites: proceedings of the Satellite Symposium 2 on Advanced Structural Inorganic Composites of the 7th International Meeting on Modern Ceramics Technologies (7th CIMTEC-World Ceramics Congress), Montecatini Terme, Italy, 27-30 June, 1990. ed. / P. Vincenzini. Amsterdam : Elsevier, 1991. p. 619-628 (Materials science monographs; Vol. 68).
239. **Mechanical properties of ultra-fine grained U-TZP ceramics.** / Bouwma, J.; Theunissen, G.S.A.M.; Winnubst, A.J.A.; Burggraaf, A.
Ceramics Today - Tomorrow's Ceramics: proceedings of the 7th international meeting on modern ceramics technologies (7th CIMTEC-World Ceramics Congress) Montecatini Terme, Italy, 24-30 June 1990. ed. / P. Vincenzini. Amsterdam : Elsevier, 1991. p. 1601-1611 (Materials science monographs; Vol. 66, No. A-D).
240. **Porous and dense nanophase ceramics and composites.** / Burggraaf, A.J.; Keizer, K.; Winnubst, A.J.A.
Ceramics Today - Tomorrow's Ceramics: proceedings of the 7th international meeting on modern ceramics technologies (7th CIMTEC-World Ceramics Congress) Montecatini Terme, Italy, 24-30 June 1990. ed. / P. Vincenzini. Amsterdam : Elsevier, 1991. p. 1311-1326 (Materials science monographs; Vol. 66, No. A-D).
241. **The influence of MgO on the microstructure during sintering of fine-grained alumina and zirconia alumina composites.** / Bos, A.; Grefte, P.J.M.; den Exter, P.; Winnubst, Aloysius J.A.
In: Science of sintering, Vol. 23, No. 1, 1991, p. 19-24.
242. **The sintering behaviour of coprecipitation derived zirconia/alumina ceramics.** / den Exter, P.; de Kroon, A.P.; Winnubst, A.J.A.; Burggraaf, A.J.
Advanced Structural Inorganic Composites: proceedings of the Satellite Symposium 2 on Advanced Structural Inorganic Composites of the 7th International Meeting on Modern Ceramics Technologies (7th CIMTEC-World Ceramics Congress), Montecatini Terme, Italy, 27-30 June, 1990. ed. / P. Vincenzini. Amsterdam : Elsevier, 1991. p. 609-617 (Materials science monographs; Vol. 68).
243. **Microstructure development during sintering of nanocrystalline tetragonal zirconia.** / Winnubst, A.J.A.; Theunissen, G.S.A.M.; Boutz, M.M.R.; Burggraaf, A.J.
Structural Ceramics Processing, Microstructure and Properties: proceedings of the 11th Risø International Symposium on Metallurgy and Materials Science, 3-7 September 1990. ed. / J.J. Bentzen. Roskilde, Denmark : Risø National Laboratory, 1990. p. 523-528 (Proceedings of the Risø International Symposium on Metallurgy and Materials Science; Vol. 11).
244. **Powder preparation and compaction behaviour of fine-grained Y-TZP.** / Groot Zevert, W.F.M.; Winnubst, A.J.A.; Theunissen, G.S.A.M.; Burggraaf, A.J.
In: Journal of materials science, Vol. 25, No. 8, 1990, p. 3449-3455.
245. **Microstructure characteristics of ultra-fine ZrO_2 - Y_2O_3 ceramic powders, open.** / Winnubst, A.J.A.; Groot Zevert, W.F.M.; Theunissen, G.S.A.M.; Burggraaf, A.J.
In: Materials science and engineering, Vol. 109, 1989, p. 215-219.
246. **Segregation aspects in the ZrO_2 - Y_2O_3 ceramic system.** / Theunissen, G.S.A.M.; Winnubst, A.J.A.; Burggraaf, A.J.
In: Journal of materials science letters, Vol. 8, No. 1, 1988, p. 55-57.
247. **The analytical SEM and STEM, an indispensable tool in ceramics research.** / Boukamp, Bernard A.; Winnubst, Aloysius J.A.; Keizer, Klaas; de Vries, Karel Jan; Burggraaf, Anthonie.
In: Ultramicroscopy, Vol. 24, No. 4, 1988, p. 426-447.
248. **Tetragonal ZrO_2 - Y_2O_3 : Part I: Preparation methods and characterization.** / Winnubst, A. J.A.; van de Graaf, M.A.C.G.; Keizer, K.; Burggraaf, A.J.
In: Journal de Physique. Colloque, Vol. 47, No. C1, 01.02.1986, p. 569-573.
249. **Tetragonal ZrO_2 - Y_2O_3 : Part II : The mechanical and electrical properties.** / Keizer, K.; van Hemert, M.; Winnubst, A.J.A.; van de Graaf, M.A.C.G.; Burggraaf, A.J.
In: Journal de Physique. Colloque, Vol. 47, No. C1, 01.02.1986, p. 783-788.
250. **Response behaviour of oxygen sensing solid electrolytes.** / Winnubst, A.J.A.; Scharenborg, A.H.A.; Burggraaf, A.J.
In: Journal of applied electrochemistry, Vol. 15, No. 1, 1985, p. 139-144.
251. **Preparation and electrical properties of a monophasic ZrO_2 - Y_2O_3 - Bi_2O_3 solid electrolyte.** / Winnubst, A.J.A.; Burggraaf, A.J.
In: Materials research bulletin, Vol. 19, No. 5, 1984, p. 613-619.
252. **The electrode resistance of ZrO_2 - Y_2O_3 -(Bi_2O_3) solid electrolytes with Pt electrodes.** / Winnubst, A.J.A.; Scharenborg, A.H.A.; Burggraaf, A.J.
In: Solid state ionics, Vol. 14, No. 4, 1984, p. 319-327.
253. **The luminescence of yttria stabilized zirconia doped with Bi_2O_3 .** / Blasse, G.; Zhiran, Hao; Winnubst, A.J.A.; Burggraaf, A.J.
In: Materials research bulletin, Vol. 19, No. 8, 1984, p. 1057-1062.

254. **Effect of grain-boundary composition on the conductivity of yttria-stabilized zirconia.** / Winnubst, A. J.A.; Verkerk, M. J.; Burggraaf, A. J.
Additives and Interfaces in Electronic Ceramics. American Ceramic Society, 1983. p. 177-183 (Advances in Ceramics; Vol. 7).
255. **AES/STEM grain boundary analysis of stabilized zirconia ceramics.** / Winnubst, A.J.A.; Kroot, P.J.M.; Burggraaf, A.J.
In: Journal of physics and chemistry of solids, Vol. 44, No. 10, 1983, p. 955-960.
256. **Mechanical properties and fracture behaviour of ZrO_2 - Y_2O_3 ceramics.** / Winnubst, A.J.A.; Keizer, Klaas; Burggraaf, A.J.
In: Journal of materials science, Vol. 18, No. 7, 1983, p. 1958-1966.
257. **Effect of impurities on sintering and conductivity of yttria-stabilized zirconia.** / Verkerk, M.J.; Winnubst, A.J.A.; Burggraaf, A.J.
In: Journal of materials science, Vol. 17, No. 11, 1982, p. 3113-3122.

Activities

Hybrid polymeric-ceramic membranes: Tuning microporous ceramic membranes for solvent nanofiltration

A.J.A. Winnubst (Invited speaker)

5 Nov 2019

Tuning microporous ceramic membranes for solvent nanofiltration

A.J.A. Winnubst (Invited speaker)

16 Jun 2019 → 20 Jun 2019

Microporous ceramic membranes for gas separation: New avenues for the fabrication of zeolite membranes

A.J.A. Winnubst (Invited speaker)

25 May 2019 → 29 May 2019

Hybrid ceramic membranes prepared by SI-ARGET-ATRP: challenges and possibilities

R.B. Merlet (Contributor), Marie-Alix Pizzoccaro-Zilamy (Speaker), A. Nijmeijer (Contributor) & A.J.A. Winnubst (Contributor)

2019

Chemistry and Materials Science: An Introduction on Ceramic Membranes

A.J.A. Winnubst (Speaker)

11 Oct 2018

Application of ceramic nanofiltration membranes for water treatment in oil sands mines

Sandra Motta Cabrera (Speaker), Arian Nijmeijer (Contributor) & A.J.A. Winnubst (Contributor)

20 Jun 2018

Tuning microporous ceramic membranes for gas separations and solvent nanofiltration

A.J.A. Winnubst (Speaker)

26 Mar 2018

Fabrication and properties of ceramic membranes, used for separations under demanding conditions

A.J.A. Winnubst (Speaker)

4 Nov 2017 → 7 Nov 2017

Tuning Microporous Ceramic Membranes for Gas Separation and Solvent Nanofiltration

Louis Winnubst (Speaker)

16 May 2017 → 18 May 2017

Long-term flexibility-based structural and chemical evolution in microporous organosilica membranes: a problem and solution

A.P. Dral (Speaker), Kristianne Tempelman (Contributor), Emiel Kappert (Contributor), Aloysius J.A. Winnubst (Contributor), Nieck Edwin Benes (Contributor) & J.E. ten Elshof (Contributor)

17 Apr 2017 → 21 Apr 2017

Inorganic membranes for gas separation

Louis Winnubst (Speaker)
17 Mar 2017

Ceramic membranes for separations under demanding conditions

Louis Winnubst (Speaker)
21 Aug 2016

Shaping the pores of ceramic membranes for gas separation or nanofiltration

Louis Winnubst (Speaker)
18 Jul 2016

Solgel-derived hybrid silica membranes for gas separation - A detailed study

Louis Winnubst (Speaker)
10 Jul 2016

Inorganic membranes for gas separation

A.J.A. Winnubst (Speaker)
23 Mar 2016

Microporous Ceramic Membranes for Gas Separation

Aloysius J.A. Winnubst (Speaker)
4 Nov 2015

Studies on ongoing structural changes in hybrid glassy and ceramic materials during prolonged thermal treatment

Albertine Petra Dral (Speaker), Emiel Kappert (Speaker), Kristianne Tempelman (Speaker), Kasper Wenderich (Speaker), Guido Mul (Speaker), Aloysius J.A. Winnubst (Speaker), Nieck Edwin Benes (Speaker) & Johan E. ten Elshof (Speaker)
21 Jun 2015

Polymer-functionalized ceramic membranes for use in organic solvent nanofiltration

Aloysius J.A. Winnubst (Speaker)
14 Jun 2015

Membrane separation layer by means of sol-gel techniques

A.J.A. Winnubst (Speaker)
26 May 2015

Structural and hydrothermal stability of organosilica membranes

Albertine Petra Dral (Speaker), Emiel Kappert (Speaker), Kristianne Tempelman (Speaker), Aloysius J.A. Winnubst (Speaker), Nieck Edwin Benes (Speaker) & Johan E. ten Elshof (Speaker)
22 May 2015

Inorganic membranes for gas separation

A.J.A. Winnubst (Speaker)
9 Apr 2015

Meso- and microporous ceramic membranes: Some developments in Twente

Aloysius J.A. Winnubst (Speaker)
8 Apr 2015

Polymer-functionalized ceramic membranes for use in organic solvent nanofiltration

Aloysius J.A. Winnubst (Speaker)
11 Mar 2015

Polymer-functionalized ceramic membranes for use in organic solvent nanofiltration

A.J.A. Winnubst (Speaker)

21 Jan 2015

Inorganic membranes for energy efficient gas separation and nanofiltration

Aloysius J.A. Winnubst (Speaker)

30 Oct 2014

Polymer-functionalized ceramic membranes for use in organic solvent nanofiltration

Aloysius J.A. Winnubst (Speaker)

20 Jul 2014

Keramische membranen: Nieuwe ontwikkelingen en uitdagingen

Aloysius J.A. Winnubst (Speaker)

16 Apr 2014

Micro- and meso-porous ceramic membranes for energy-efficient gas separation and nanofiltration

Aloysius J.A. Winnubst (Speaker)

10 Mar 2014

Efficient water treatment in Canadian oil sands mine

Sandra Motta Cabrera (Speaker), Louis Winnubst (Contributor), Arian Nijmeijer (Contributor) & Ingolf Voigt (Contributor)

13 Nov 2013

Meso/microporous ceramic membranes for gas separation and nanofiltration: fabrication and some properties

Aloysius J.A. Winnubst (Speaker)

8 Nov 2013

Microporous supported ceramic membranes: Fabrication and characterization

Aloysius J.A. Winnubst (Speaker)

4 Nov 2013

Micro- and mesoporous ceramic membranes for energy-efficient gas separation and nanofiltration

Aloysius J.A. Winnubst (Speaker)

25 Oct 2013

Functionalization of ceramic membranes by polymer grafting for solvent nanofiltration

A.F. Pinheiro de Melo (Speaker), Aloysius J.A. Winnubst (Speaker) & Arian Nijmeijer (Speaker)

23 Jun 2013

Porous Ceramics: Shaping, Pore Size and Pore Morphology

Aloysius J.A. Winnubst (Speaker)

29 Jan 2013

A generic method for inorganic porous hollow fibers preparation with shrinkage-controlled small radial dimensions

Maria W.J. Luiten-Olieman (Speaker), Aloysius J.A. Winnubst (Speaker), Teunis Cornelis Bor (Speaker), Matthias Wessling (Speaker), Arian Nijmeijer (Speaker) & Nieck Edwin Benes (Speaker)

23 Sep 2012

Micro and mesoporous ceramic membranes for energy efficient gas separation, pervaporation and nanofiltration

Aloysius J.A. Winnubst (Speaker)

14 Jul 2012

Ceramic-Supported Polymeric Membranes for Nanofiltration at Extreme Conditions

Aloysius J.A. Winnubst (Speaker), A.F. Pinheiro de Melo (Speaker) & Arian Nijmeijer (Speaker)
20 May 2012

Progress on research at the Inorganic Membranes group of the University of Twente

Aloysius J.A. Winnubst (Speaker)
8 Mar 2012

Tailoring the molecular separation properties of hybrid silica membranes

H.L. Castricum (Speaker), Goulven Paradis (Speaker), M.C. Mittelmeijer-Hazeleger (Speaker), R. Kreiter (Speaker), J.F. Vente (Speaker), Aloysius J.A. Winnubst (Speaker) & Johan E. ten Elshof (Speaker)
19 Jul 2010

Processing of ceramics by means of suspensions and sols

Aloysius J.A. Winnubst (Speaker)
10 Nov 2005

Wear-resistant CuO-doped zirconia ceramic with low friction

Aloysius J.A. Winnubst (Speaker)
24 Oct 2005

Effect of Annealing in O₂ or N₂ on the aging of Fe_{0.5}Mn_{1.84}Ni_{0.66}O₄ NTC-Ceramics

Aloysius J.A. Winnubst (Speaker), Zhongbing Wang (Speaker), Chunhua Zhao (Speaker), Pinghua Yang (Speaker) & Chusheng Chen (Speaker)
23 Oct 2005

Dense Ceramic Membranes and Sintering of Nano Composites

Aloysius J.A. Winnubst (Speaker)
20 Oct 2005

Sintering: Theory and practice

Aloysius J.A. Winnubst (Speaker)
18 Oct 2005

Wear, Friction, Sintering and Microstructure of CuO-doped 3Y-TZP composites

Aloysius J.A. Winnubst (Speaker)
14 Oct 2005

Wear and Friction of Ceramics and Composites

Aloysius J.A. Winnubst (Speaker)
13 Oct 2005

Education at the University of Twente - Research on Ceramic Materials in the Inorganic Materials Science group

Aloysius J.A. Winnubst (Speaker)
12 Oct 2005

Compaction, consolidation and other green-forming methods for ceramics

Aloysius J.A. Winnubst (Speaker)
11 Oct 2005

Wet chemical preparation of ceramic powders and coatings

Aloysius J.A. Winnubst (Speaker)
27 Sep 2005

Fabrication and wear/friction properties of nanocrystalline ceramics

Aloysius J.A. Winnubst (Speaker)
19 Jan 2005

Sintering behaviour of CuO-doped 3Y-TZP ceramics

S. Ran (Speaker), Aloysius J.A. Winnubst (Speaker), K.W. Wiratha (Speaker) & David H.A. Blank (Speaker)
20 Oct 2004

Sintering behaviour of CuO-doped 3Y-TZP ceramics

Aloysius J.A. Winnubst (Speaker), S. Ran (Speaker), K.W. Wiratha (Speaker) & David H.A. Blank (Speaker)
5 Jul 2004

Sintering behaviour of 0.8mol%-CuO-doped 3Y-TZP ceramics

S. Ran (Speaker), Aloysius J.A. Winnubst (Speaker), K.W. Wiratha (Speaker) & David H.A. Blank (Speaker)
18 Apr 2004

A wear-resistant zirconia ceramic for low friction application

Aloysius J.A. Winnubst (Speaker)
29 Jun 2003

Keramiek als Coating

Aloysius J.A. Winnubst (Speaker)
21 Jun 2003

Keramische Materialen

Aloysius J.A. Winnubst (Speaker)
25 Apr 2003

Biomaterialen; Materialen toegepast in de medische implantologie

Aloysius J.A. Winnubst (Speaker)
20 Mar 2003

Plasticity in nanocrystalline zirconia and its properties

Aloysius J.A. Winnubst (Speaker)
1 Dec 1994

Hot and sinter forging as a tool for improving conductivity and strength of grain boundaries in zirconia

Aloysius J.A. Winnubst (Speaker)
1 Nov 1994

Sinter and hot forging of nanocrystalline zirconia and zirconia alumina ceramics

Aloysius J.A. Winnubst (Speaker)
1 Oct 1994

The synthesis and characterization of nanocrystalline Y-TZP

C.D. Sagel-Ransijn (Speaker), Aloysius J.A. Winnubst (Speaker), Anthonie Burggraaf (Speaker) & H. Verweij (Speaker)
12 Sep 1994

Plasticity of zirconia and zirconia alumina ceramics and its special grain boundary properties

Aloysius J.A. Winnubst (Speaker)
1 Sep 1994

Superplasticity of nanocrystalline zirconia ceramics

Aloysius J.A. Winnubst (Speaker), M.M.R. Boutz (Speaker), Y. He (Speaker), Anthonie Burggraaf (Speaker) & H. Verweij (Speaker)
30 Jun 1994

Chemische bereiding en eigenschappen van oxidische poeders, membranen en dichte keramiek

Aloysius J.A. Winnubst (Speaker)
7 Jan 1994

Microstructural development and electrical properties of YSZ-Pd composite

C.S. Chen (Speaker), G.Z. Cao (Speaker), Aloysius J.A. Winnubst (Speaker), Bernard A. Boukamp (Speaker) & Anthonie Burggraaf (Speaker)
24 Dec 1993

Preparation and characterisation of nanometer titania particles

G.W. Koebrugge (Speaker), Aloysius J.A. Winnubst (Speaker) & Anthonie Burggraaf (Speaker)
3 Dec 1992

Sinter forging as a tool for improving the microstructure of zirconia toughened alumina

Aloysius J.A. Winnubst (Speaker), Y. He (Speaker), P.M.V. Bakker (Speaker), R.J.M. Olde scholtenhuis (Speaker) & Anthonie Burggraaf (Speaker)
17 Aug 1992

Low temperature sinter forging of Y-TZP nanostructured

M.M.R. Boutz (Speaker), Aloysius J.A. Winnubst (Speaker), Anthonie Burggraaf (Speaker), M. Naher (Speaker) & C. Carry (Speaker)
16 Aug 1992

Preparation and characteristics of nanocrystalline ceramic materials

Aloysius J.A. Winnubst (Speaker)
12 Aug 1992

Stability of aqueous suspensions of high surface area zirconia powders in the presence of polyacrylic acid polyelectrolyte

M.M.R. Boutz (Speaker), R.J.M. Olde scholtenhuis (Speaker), Aloysius J.A. Winnubst (Speaker) & Anthonie Burggraaf (Speaker)
27 Apr 1992

Preparation, microstructural control and superplasticity of nanostructured yttria stabilized tetragonal zirconia ceramics

M.M.R. Boutz (Speaker), R.J.M. Olde scholtenhuis (Speaker), Aloysius J.A. Winnubst (Speaker) & Anthonie Burggraaf (Speaker)
8 Apr 1992

Sintergedrag van nanocrystalline zirconia

Aloysius J.A. Winnubst (Speaker)
21 Mar 1991

Powder preparation and microstructure development during sintering of nanocrystalline tetragonal zirconia

A.J.A. Winnubst (Speaker)
20 Mar 1991

Projects