

Publications 2009 (People in TEM Gemini Centre are highlighted)

35 journal publications

Binetti S, Libal J, Acciarri M, Di Sabatino M, Nordmark H, Øvrelid EJ, Walmsley JC, Holmestad R, [Study of defects and impurities in multicrystalline silicon grown from metallurgical silicon feedstock](#), Materials Science and Engineering: B, 159-160, 274-277, 2009.

Darab M, Toprak MS, Syvertsen GE, Muhammed M, [Nanoengineered BSCF cathode materials for intermediate temperature solid-oxide fuel cells](#), Journal of the Electrochemical Society, 156, K139-K143, 2009.

Denys RV, Riabov AB, Maehlen JP, Lototsky MV, Solberg JK, Yartys V, [In situ synchrotron X-ray diffraction studies of hydrogen desorption and absorption properties of Mg and Mg-Mm-Ni after reactive ball milling in hydrogen](#), Acta Materialia, 57, 3989-400, 2009.

Hasting HS, Frøseth AG, Andersen SJ, Vissers R, Walmsley JC, Marioara CD, Danoix F, Lefebvre W, Holmestad R, [Composition of precipitates in Al-Mg-Si alloys by atom probe tomography and first principles calculations](#), Journal of Applied Physics, 106, 123527, 2009.

He L, Berntsen H, Ochoa-Fernandez E, Walmsley JC, Blekkan EA, Chen D, [Co-Ni Catalysts Derived from Hydrotalcite-Like Materials for Hydrogen Production by Ethanol Steam Reforming](#), Topics in Catalysis, 52, 206-217, 2009.

Hoang TB, Zhou H, Anthonysamy FM, Dasa LN, van Helvoort ATJ, Fimland BO, Weman H, [Optical properties of single wurtzite GaAs nanowires and GaAs nanowires with GaAsSb inserts](#), Materials Research Society Symposium Proceedings, 1144, LL02-02, 2009.

Jia ZH, Arnberg L, Andersen SJ, Walmsley JC, [On nanoscale Al precipitates forming in eutectic Si particles in Al-Si-Mg cast alloys](#), Scripta Materialia, 61, 5, 500-503, 2009.

Karlsen M, Einarsrud MA, Lein HL, Grande T, Hjelen J, Vullum PE, [Backscatter electron imaging and electron backscatter diffraction characterization of LaCoO₃ during in situ compression](#), Journal of the American Ceramic Society, 92, 732-737, 2009.

Kumar MS, Chen D, Holmen A, Walmsley JC, [Dehydrogenation of propane over Pt-SBA-15 and Pt-Sn-SBA-15: Effect of Sn on the dispersion of Pt and catalytic behaviour](#), Catalysis Today, 142, 17-23, 2009.

Kumar MS, Hammer N, Rønning M, Holmen A, Chen D, Walmsley JC, Øye G, [The nature of active chromium species in Cr-catalysts for dehydrogenation of propane: New insights by a comprehensive spectroscopic study](#), Journal of Catalysis, 261, 116-128, 2009.

Kvande I, Chen D, Zhao TJ, Skoe IM, Walmsley JC, Rønning M, [Hydrogen Oxidation Catalyzed by Pt Supported on Carbon Nanofibers with Different Graphite Sheet Orientations](#), Topics in Catalysis, 52, 664-674, 2009.

- Lou DC, **Solberg JK**, Akselsen OM, Dahl N, [Microstructure and property investigation of paste boronized pure nickel and Nimonic 90 superalloy](#), Materials Chemistry and Physics, 115, 239-244, 2009.
- Lou, DC, **Solberg JK**, Børvik T, [Surface strengthening using a self-protective diffusion paste and its application for ballistic protection of steel plates](#), Materials & design, 30, 3525-3536, 2009.
- Mokkelbost T, Lein HL, **Vullum PE**, **Holmestad R**, Grande T, Einarsrud MA, [Thermal and mechanical properties of LaNbO₄-based ceramics](#), Ceramics International, 35, 2877-2883, 2009.
- Moses AF, Hoang TB, Dheeraj DL, Zhou HL, **van Helvoort ATJ**, Fimland BO, Weman H, [Micro-photoluminescence study of single GaAsSb/GaAs radial and axial heterostructured core-shell nanowires](#), Journal of Physics: Conf. Ser.: Mater. Sci. Eng., 6, 012001, 2009.
- Mumm F, **van Helvoort ATJ**, Sikorski P, [An Easy Route to Superhydrophobic Copper based Droplet Microfluidic Systems](#), ACS Nano, 3, 2647–2652, 2009.
- Nordmark H**, **Holmestad R**, **Walmsley JC**, Ulyashin A, [Transmission electron microscopy study of hydrogen defect formation at extended defects in hydrogen plasma treated multicrystalline silicon](#), Journal of Applied Physics, 105, 033506, 2009.
- Nordmark H**, Nagayoshi H, Matsumoto N, Nishimura S, Terashima K, **Marioara CD**, **Walmsley JC**, **Holmestad R**, Ulyashin A, [Si substrates texturing and vapor-solid-solid Si nanowhiskers growth using pure hydrogen as source gas](#), Journal of Applied Physics, 105, 043507, 2009.
- Nygaard UC, Hansen JS, Samuelson M, Alberg T, **Marioara CD**, Lovik M, [Single-Walled and Multi-Walled Carbon Nanotubes Promote Allergic Immune Responses in Mice](#), Toxicological Sciences, 109, 113-123, 2009.
- Peters TA, **Tucho WM**, Ramachandran A, Stange M, **Walmsley JC**, **Holmestad R**, Borg A, Bredesen R, [Thin Pd–23%Ag/stainless steel composite membranes: Long-term stability, lifetime estimation and post-process characterisation](#), Journal of Membrane Science, 326, 572-581, 2009.
- Rotan M, Tolchard JR, Rytter E, Einarsrud M-A, Grande T, [On the solid solution of the spinel phase in the system NiO-Al₂O₃](#), Journal of Solid State Chemistry, 182, 3412-3415, 2009.
- Sæterli R**, Flage-Larsen E, Prytz Ø, Taftø J, **Marthinsen K**, **Holmestad R**, [Electron energy loss spectroscopy of the L₂₃ edge of phosphorus skutterudites and electronic structure calculations](#), Physical Review B, 80, 075109, 2009.
- Tucho WM**, Venvik HJ, Stange M, **Walmsley JC**, **Holmestad R**, Bredesen R, [Effects of thermal activation on hydrogen permeation properties of thin, self-supported Pd/Ag membranes](#), Separation and Purification Technology, 68, 403-410, 2009.
- Tucho WM**, Venvik HJ, **Walmsley JC**, Stange M, Ramachandran A, Mathiesen RH, Borg A, Bredesen R, **Holmestad R**, [Microstructural studies of self-supported \(1.5-10µm\)Pd/23wt%Ag](#)

[hydrogen separation membranes subjected to different heat treatments](#), Journal of Materials Science, 44, 4429-4442, 2009.

Vullum PE, Pitt M, **Walmsley JC**, Hauback B, **Holmestad R**, [Observations of nanoscopic, face centered cubic Ti and TiH \(x\)](#), Applied Physics A - Materials Science & Processing, 94, 787-793, 2009.

Wang, G, **Yu Y**, Grande T, Einarsrud, M-A, [Synthesis of KNbO₃ nanorods by hydrothermal method](#), Journal of Nanoscience and Nanotechnology, 9, 1465-1469, 2009.

Wang G, Selbach SM, **Yu Y**, Zhang X, Grande T, Einarsrud M-A, [Hydrothermal synthesis and characterization of KNbO₃ nanorods](#), Cryst. Eng. Comm, 11, 1958-1963, 2009.

Wang Z, Skybakmoen E, Grande, T, [Chemical degradation of Si₃N₄-bonded SiC Side lining materials in aluminum electrolysis cells](#), Journal of the American Ceramic Society, 92, 1296-1302, 2009.

Weigand CC, Bergren M, Ladam C, **Vullum PE**, **Walmsley JC**, Fagerberg R, Furtak T, Collins R, Grepstad J, Weman H, [Characterization of ZnO Nanostructures Grown by Pulsed Laser Deposition](#), Materials Research Society Symposium Proceedings ;1174, V07-09, 2009.

Westermann I, Hopperstad OS, **Marthinsen K**, Holmedal B, [Ageing and workhardening behaviour of a commercial AA7108 aluminium alloy](#), Materials Science & Engineering A, 524, 151,157, 2009.

Westermann I; Hopperstad OS, **Marthinsen K**, Holmedal B, [Work and age hardening behaviour of a commercial AA7108 aluminium alloy](#), Materials Science Forum, 618-619, 2009.

Williams M, Nechaev A, Lototsky MV, Yartys VA, **Solberg JK**, Denys RV, Pineda C, Li Q, Linkov VM, [Influence of aminosilane surface functionalization of rare earth hydride forming alloys on palladium treatment by electroless deposition and hydrogen sorption kinetics of composite materials](#), Materials Chemistry and Physics, 115, 136-141, 2009.

Williams M, Lototsky MV, Linkov, VM, Nechaev AN, **Solberg JK**, Yartys V, [Nanostructured surface coatings for the improvement of AB5-type hydrogen storage intermetallics](#), International journal of energy research, 33, 1171-1179, 2009.

Wu Y, Lototsky MV, **Solberg JK**, Yartys V, Han W, Zhou SX., [Microstructure and novel hydrogen storage properties of melt-spun Mg-Ni-Mm alloys](#), Journal of Alloys and Compounds, 477, 262-266, 2009.

Zhou HL, Hoang TB, Dheeraj DL, **van Helvoort ATJ**, Liu L, Harmand JC, Fimland BO, Weman H, [Growth and characterization of GaAs/AlGaAs core-shell nanowires grown by molecular beam epitaxy](#), Nanotechnology, 20, 415701, 2009.

4 journal publications accepted/published online

Andersen SJ, Marioara CD, Vissers R, Torsæter M, Bjørge R, Ehlers F, Holmestad R, The dual nature of precipitates in Al-Mg-Si alloys, THERMEC'2009 Proceedings, Trans Tech Publishers, Materials Science Forum, 638-642, 390-395, 2010, www.scientific.net/MSF.638-642.390

Chen YJ, **Li YJ, Walmsley JC**, Dumoulin S, Roven HJ, *Deformation Structures of Pure Titanium during Shear Deformation*, Metallurgical and Materials Transactions A, Published online 24. Nov 2009, <http://www.springerlink.com/content/w350621573235p82/fulltext.pdf>

Bjørge R, Marioara CD, Andersen SJ, Holmestad ,*Germanium network connecting precipitates in an Mg-rich Al-Mg-Ge alloy*, accepted for publication in Journal of Electron Microscopy 2010.

Li YJ, Chen YJ, **Walmsley JC**, Mathiesen R, Dumoulin S, Roven HJ. *Faceted interfacial structure of {1011} twin in Ti formed during equal channel angular pressing*. Scripta Materialia. Accepted date: 30, Nov. 2009. Published online <http://dx.doi.org/10.1016/j.scriptamat.2009.11.039>

2 PhD theses in 2009



Wakshum Mekonnen Tucho
Self-supported, thin Pd/Ag membranes for Hydrogen separation - Microstructure and permeation studies
Department of Physics, April 2009.

Heidi Nordmark
Microstructure studies of silicon for solar cells – Defects, impurities and surface morphology
Department of Physics, February 2009

17 Master/project theses using TEM in 2009

Jon Holmestad, *High temperature stability of Al-Mg-Si alloys* (Master thesis DP, June 2009, supervisor Randi Holmestad).

Martin Resell, *Studies of precipitates in Al-Mg-Si-Ge Alloy* (Master thesis DP, June 2009, supervisor Randi Holmestad).

Mari Horvli, *Crystal defect studies of Silicon for solar cells – Scanning and transmission electron microscopy* (Master thesis DP, July 2009, supervisor Randi Holmestad).

Martha Scheffler *TEM characterisation of stacking faults in semiconductor nanowires* (Exchange student Project DP, May 2009, supervisor Ton van Helvoort).

Maarten Maathuis, *Electron diffraction characterisation of twinned GaAsSb nanowires* (Exchange student Project DP, July 2009, supervisor Ton van Helvoort).

Hari Kishor Sah, *Surface Studies of as-cut Silicon for solar cells* (Master thesis DP, August 2009, supervisor John Walmsley).

Jan Fredrik Helgaker, *High temperature stability of Al-Mg-Si-Cu alloys* (Project work DP, December 2009, supervisor Randi Holmestad).

Astrid Marie Muggerud, *Microstructure studies of multicrystalline silicon solar cell materials* (Project work DP, December 2009, supervisor Randi Holmestad).

Johannes Tveit, *Characterization of ZnO nanostructures to be utilized in organic/inorganic solar cells* (Project work DP, December 2009, supervisor Randi Holmestad).

Knut Erik Snilsberg, *Grain Boundary TEM characterization of 7k aluminium alloy* (Master thesis DMSE, supervisor Knut Marthinsen)

Astri Bjørnetun Haugen, *Photocatalytic activity of Ag/TiO₂ nanoparticles produced by spray pyrolysis* (Master thesis DMSE, supervisor Mari-Ann Einarsrud)

Kristin Bergum, *Wet Chemical Preparation and Characterisation of Nanocrystalline and Bulk Yttrium Manganite* (Master thesis DMSE, supervisor Mari-Ann Einarsrud)

Haitao Zhou, *Synthesis and characterization of nanostructured fuel cells based on proton conducting oxides* (Master thesis DMSE, supervisor Tor Grande)

Urd Sæther Olden, *Wet chemical synthesis of silicon quantum dots* (Supervisor Mari-Ann Einarsrud)

Ingeborg Odland Johannesen, *Synthesis of CeO₂ nanoparticles* (Master thesis DMSE, supervisor Tor Grande)

Ann Leni Haugstad, *Grain Boundary TEM characterization of aluminium alloy* (Master thesis DMSE, supervisor Knut Marthinsen)

Xi Zhang, *Engineering of Co nanoparticles in F-T synthesis* (Master thesis DCE, supervisor De Chen)

61 conference talks/posters/seminars/meetings in 2009

Bjørge R, *Precipitation in two Al-Mg-Ge alloys*, SCANDEM 2009, Annual Meeting of the Nordic Microscopy Society Reykjavík, Iceland, June 8-10, 2009. [lecture]

Booth A, Justynska J, Johnsen, M Frenzel H, **Nordmark H**, **Tanem BS**, Galloway, T, *The environmental fate and effects of engineered methacrylate-based polymeric nanoparticles*, NANOMAT conference 2009, Lillehammer, Norway, June 16-17, 2009. [Poster]

Boullosa ES, Zhao T, Vanhaecke EMM, **Yu Y**, Chen D, Holmen A, *Ce-Zr-Al mixed oxide nanocomposites supported Rh: a promising catalyst for partial oxidation of methane to syngas*, Norwegian catalysis symposium, 2009.

Boullosa SE, Zhao T, **Yu Y**, Chen D, Holmen A *Alumina-based nanocomposite supported Rh catalysts: an effective and highly stable catalyst for partial oxidation of methane to syngas*, EuropaCat IX : Catalysis for a Sustainable World; 2009.

Boullosa SE, Zhao T, **Yu Y**, Chen D, Holmen A, *Supported Rh on ZrO₂- Al₂O₃ nanocomposite catalyst for catalytic partial oxidation of methane to syngas*. 6th World Congress on Oxidation Catalysis 6WOOC, 2009.

Chen Y, **Li Y**, **Walmsley JC**, Dumoulin S, Roven HJ, *Microstructure evolution of pure Ti fabricated by severe plastic deformation*, 2nd International Symposium on Bulk Nanostructured Materials (BNM2009), Ufa, Russia, 22-26 September 2009 [Lecture]

Chen Y, Roven HJ, **Li Y**, Dumoulin S, **Walmsley JC**, Liu M, **Yu Y**, *Deformation structures of pure Ti during shear deformation*, TMS Annual Meeting, 2009

Dasa LN, Patriarche G, **van Helvoort ATJ**, Zhou H, Fimland BO, Weman H, *Growth and structural characterization of axial heterostructured GaAs/GaSb nanowires grown by molecular beam epitaxy*, 3rd International conf. on One-dimensional Nanomaterials (ICON2009); Atlanta, U.S.A., December 7-9, 2009.[Poster]

Dasa LN, Rogstad E, **Scheffler M**, **van Helvoort ATJ**, Zhou H, Patriarche G, Harmand JC, Fimland BO, Weman H, *Diffusion-limited growth of GaAs nanowires by Au-assisted molecular beam epitaxy*, 4th GDR meeting; Corps (Isère), France 30 June – 3 July 2009. [Lecture]

Dasa LN, **van Helvoort ATJ**, Anthonysamy FM, Zhou H, Hoang TB, Fimland BO, Weman H, *Effect of growth-interruption on structural and optical properties of GaAs/GaAsSb axial heterostructured nanowires*,. Materials Research Society 2009 Fall Meeting, Symposium M: Multifunction at the Nanoscale through Nanowires; Boston, USA, 30 November – 4 December 2009. [Poster]

Dasa LN, **van Helvoort ATJ**, Anthonysamy FM, Zhou H, Hoang TB, Fimland BO, Weman H., *Optimization of heterointerfaces in axial heterostructured nanowires grown by molecular beam epitaxy*, 4th Nanowire growth workshop; Paris, France, 26-27 October 2009. [Poster]

Darab M, Sunde S, Thomassen MS, *Synthesis and Characterization of Different Carbon Supported Platinum Electrocatalysts for PEMFC*, Hydrogen and Fuel Cells in the Nordic Countries, 2009.

Dheeraj DL, **van Helvoort ATJ**, Zhou HL, Moses AF, Hoang TB, Rogstad E, **Scheffler M**, Fimland BO, Weman H, *Tailoring of semiconductor heterostructure nanowires for photonic applications by molecular beam epitaxy*, 4th NTNU Nanolab User Meeting, Trondheim, Norway, May 13, 2009. [Lecture]

Dheeraj DL, Hoang TB, Moses AF, Zhou HL, **van Helvoort ATJ**, Fimland BO, Weman H, *Heterostructured III-V Nanowires with Mixed Crystal Phases: New Possibilities for Heterostructure Engineering*, Nordic Semiconductor Meeting, Reykjavik, Iceland, 14-17 June 2009. [Lecture]

Dehghan R, **Walmsley JC**, Holmen A, Midgley PA, Hungria AB, Hernandez-Garrido JC, Chen D., *TEM study of hydrotalcite derived Ni catalysts*, EuropaCat IX : Catalysis for a Sustainable World; Salamanca, Spain, 30 August - 4 September 2009. [Poster]

Dehghan R, Hansen TW, **Walmsley JC**, Holmen A, Rytter E, **Holmestad R**, Advanced TEM study of Co Fischer-Tropsch catalyst, NanoMat Meeting, Lillehammer, June 15.-19 2009. [poster]

Dehghan R, Hansen TW, **Walmsley JC**, Holmen A, Rytter E, **Holmestad R**, *Advanced TEM study of Co Fischer-Tropsch catalyst*, InGap summer workshop, Trondheim, 22-26 June 2009. [poster]

Dehghan R, *In-situ electron microscopy study of catalyst nanoparticles reduction*, 4th NTNU Nanolab User Meeting, Trondheim, Norway, 13 May, 2009. [Lecture]

Ehlers FJH, *Atomistic modelling of precipitate interfaces with Al*, Fysikermøtet 2009, Røros, Norway, 12 – 14 August, 2009. [Lecture]

Ehlers FJH, **Holmestad R**, *Direct Approach to Atomistic Ab Initio Studies of Precipitate Growth in Alloys*, Materials Research Society 2009 Fall Meeting, Symposium LL: Multiphysics Modeling in Materials Design, Boston, USA, 29 November – 4 December 2009. [Lecture]

Eiras SB, Zhao T, Vanhaecke EMM, **Yu, Y**, Chen D, Holmen A, *Ce-Zr-Al mixed oxide nanocomposites supported Rh: a promising catalyst for partial oxidation of methane to syngas*, Norwegian Catalysis Symposium, 2009.

van Helvoort ATJ, *Short introduction Focused Ion Beam techniques in NTNU NanoLab's cleanroom*, NTNU NanoLab's Seminarseries, 28 April 2009. [Lecture].

van Helvoort ATJ, Dheeraj DL, **Grønsberg S**, Patriarche G, Zhou H, Hoang TB, Moses AF, Fimland BO, Weman H, *Semiconductor nanowire heterostructures characterization by dark field TEM*, 4th NTNU Nanolab User Meeting, Trondheim, Norway, May 13, 2009. [Lecture]

van Helvoort ATJ, Dasa LM, **Grønsberg S**, Patriarche G, Zhou H, Fimland BO, Weman H. *Dark field transmission electron microscopy techniques for structural characterization of semiconductor nanowire heterostructures*. IoP-EMAG 2009; Sheffield, UK 8-11 September 2009. [Lecture]

Hoang TB, Anthonysamy FM, Zhou H, Dasa, LN, **van Helvoort ATJ**, Fimland BO, Weman H, *Crystal phase dependent photoluminescence polarization in single semiconductor nanowires*, 3rd International conference on One-dimensional Nanomaterials (ICON2009), Atlanta, USA, December 7-9, 2009. [Lecture]

Hoang TB, Anthonysamy FM, Zhou, H, Dasa, LN, **van Helvoort ATJ**, Fimland BO, Weman H, *Polarized micro-photoluminescence imaging of single GaAs/AlGaAs core-shell nanowires with GaAsSb inserts*, Materials Research Society 2009 Fall Meeting, Symposium O: Excitons and Plasmon Resonances in Nanostructures II; Boston 29 November – 4 December 2009. [Lecture]

Hoang TB, Moses AF, Zhou HL, Dheeraj DL, **van Helvoort ATJ**, Fimland BO, Weman H, *Wurtzite GaAs and zinc blende GaAsSb nanowires: New possibilities for heterostructure engineering*, NANOMAT conference 2009, Lillehammer, Norway, June 16-17, 2009. [Lecture]

Hoel R, **Giri R**, **Solberg JK**, *Pulse Plasma Surface Treatments (PPST) of Steels, Inconels and Titanium Alloys for Marine and Offshore Applications*, Euromat 2009, European Congress and Exhibition on Advanced Materials and Processes. Oral presentation.

Holmestad R, Olsen A, **Walmsley JC**, *Norwegian TEM environment sourcing out – NORTEM initiative needed*, NanoMat Meeting, Lillehammer, June 15.-19, 2009. [poster]

Holmestad R, *TEM activities in materials science in Trondheim*, TEM in nanoscience NORTEM Workshop, Oslo, 7-8 May 2009. [Lecture]

Li Y, Chen Y **Walmsley JC**, Dumoulin S, Mathiesen R, Roven HJ, *Development of nanostructures in CP-Ti during ECAP*, NanoMat Meeting, June 15.-19, 2009. Lillehammer [poster]

Li, Y Chen, Y **Walmsley JC**, Dumoulin S, Roven HJ, *Microstructure evolution in commercially pure titanium during ECAP processing*. 2nd International Symposium on Bulk Nanostructured Materials (BNM2009), Ufa, Russia, 22-26 September 2009. [Lecture]

Marioara CD, *New insights into precipitation in Al-Mg-Si(-Cu) alloys*, SCANDEM 2009, Annual Meeting of the Nordic Microscopy Society, Reykjavík, Iceland, June 8-10, 2009. [invited lecture]

Moses AF, Hoang TB, Dheeraj DL, Zhou HL, **van Helvoort ATJ**, Fimland BO, Weman H, *Micro-photoluminescence study of single GaAsSb/GaAs radial and axial heterostructured core-shell nanowires*, E-MRS, Strasbourg, France, 8-12 June 2009. [Lecture]

Moses AF, Hoang TB, Dheeraj D, Zhou H, **van Helvoort ATJ**, Fimland BO, Weman H, *Optical properties of axial and radial heterostructured III-V semiconductor nanowires*, 4th NTNU Nanolab User Meeting, Trondheim, Norway, 13 May, 2009. [Lecture]

Mumm F, **van Helvoort ATJ**, Sikorski P, *Structured, copper based superhydrophobic surfaces for digital microfluidics*, NANOMAT conference 2009, Lillehammer, Norway, 16-17 June, 2009. [Poster]

Mumm F, **van Helvoort ATJ**, Sikorski P, *Structured, copper based superhydrophobic surfaces for digital microfluidics*, 4th NTNU Nanolab User Meeting, Trondheim, Norway, 13 May, 2009. [Lecture]

Rørvik PM, **Sæterli RK**, **Almli Å**, You CY, **van Helvoort ATJ**, **Holmestad R**, Tybell T, Grande T, Einarsrud MA, *Hierarchical growth of ferroelectric PbTiO₃ nanorods*, 4th NTNU Nanolab User Meeting, Trondheim, Norway, 13 May, 2009. [Lecture]

Rørvik PM, **Sæterli RK**, **Almli Å**, You CY, **van Helvoort ATJ**, **Holmestad R** Tybell T, Grande T, Einarsrud MA, *Hierarchical growth of ferroelectric PbTiO₃ nanorods*, NANOMAT conference, Lillehammer, Norway, 16-17 June, 2009. [Lecture]

Snilsberg KE, **Westermann I**, Holmedal B, Hopperstad OS, Langsrud Y, **Marthinsen K**, *Anisotropy of bending properties in industrial heat-treatable extruded aluminium alloys*. Thermec, 2009.

Sæterli RK, Flage-Larsen E, Prytz Ø, Taftø J, **Marthinsen K**, **Holmestad R**, *Electron energy loss near edge structure of phosphorus L_{2,3} edges in CoP₃, NiP₃ and LaFe₄P₁₂*, SCANDEM 2009, Annual Meeting of the Nordic Microscopy Society Reykjavík, Iceland, 8-10 June, 2009. [poster]

Sæterli RK, Flage-Larsen E, Prytz Ø, Taftø J, **Marthinsen K**, **Holmestad R**, *Electron energy loss near edge structure of phosphorus L_{2,3} edges in skutterudites*, EDGE2009, Banff, Alberta, Canada, 17-22 May, 2009. [poster]

Tanem BS, **Li YJ**, **Vullum PE**, *Elastic properties of microfibrillated cellulose and its nanocomposites: Advanced electron microscopy combined with micromechanical modelling*, NanoMat Meeting, Lillehammer, June 15.-19, 2009. [Lecture]

Tanem BS, **Li Y**, Gamstedt K, **Vullum PE**, Hendriks CLL, *Elastic properties of MFC; Advanced electron microscopy combined with micromechanical modelling*, 237th American Chemical Society National Meeting, Salt Lake City, USA, 22-26 March 2009 [Lecture]

Tanem BS, **Li Y**, Gamstedt K, **Vullum PE**, Stenstad P, *Structure and properties of MFC-reinforced nanocomposites: Advanced electron microscopy combined with micromechanical modelling*, 237th American Chemical Society National Meeting, Salt Lake City, USA, 22-26 March 2009. [Lecture]

Tanem BS, **Li Y**, Gamstedt K, **Vullum PE**, Hendriks CLL, *WoodFibre3D, WoodWisdom - Net* Mid-term Seminar, Stockholm, Sweden, 11 November 2009. [Lecture]

Tanem BS, *Trefiberarmerte plastkompositter – fra mikro til nano*, Trefylket, Hamar, 18 March 2009. [Invited Lecture]

Tanem BS, Li Y, Vullum PE, Gamstedt K, Hendriks, *Elastic properties of microfibrillated cellulose and its nanocomposites; Advan CLL ced electron microscopy combined*, NANOMAT conference 2009, Lillehammer, 16-17 June, 2009. [Lecture]

Torsæter M, *Atom Probe Tomography of Alloy Systems*, Fysikermøtet 2009, Røros, Norway, August 12-14, 2009. [Lecture]

Tucho WM, Venvik HJ, **Walmsley JC**, Stange M, Bredesen R, **Holmestad R**, *Permeation and Microstructure Studies of Self-Supported, thin Pd/Ag Membranes*, NanoMat Meeting, Lillehammer, June 15.-19, 2009. [poster]

Vullum PE, Thomassen SF, M Sadeghi, **R Holmestad**, Wang S, Fimland an BO d TW Reenaas, *Transmission electron microscopy characterization of quantum dot intermediate band solar cell materials*, NanoMat Meeting, Lillehammer, June 15.-19, 2009. [Lecture]

Vullum PE, Thomassen SF, **Holmestad R**, Fimland BO, Reenaas, TW, *TEM characterization of intermediate band quantum dot solar cell materials*, 4th NTNU Nanolab User Meeting, Trondheim, 13 May, 2009. [Lecture]

Vullum PE, Eberg E, Sæterli RK, Horvli ME, van Helvoort ATJ, Soleim BG, Monsen Å, Holmestad R, *TEM specimen preparation of ceramic materials by tripod wedge polishing and Ar-ion milling*, School and Workshop on Electron Microscopy for Ceramic Materials (EMCM), Anadolu University Eskisehir, Turkey, 8-13 August, 2009. [Invited talk]

Vullum PE, *Specimen Preparation Techniques, School and Workshop on Electron Microscopy for Ceramic Materials (EMCM)*, Anadolu University Eskisehir, Turkey, 8-13 August, 2009. [Extended lecture/seminar]

Vullum PE, Thomassen SF, **Holmestad R**, Fimland BO, Reenaas TW, *TEM characterization of quantum dot intermediate band solar cell materials*, SCANDEM 2009, Annual Meeting of the Nordic Microscopy Society Reykjavík, Iceland, 8-10 June, 2009. [lecture]

Weigand CC, Bergren M, Ladam C, **Vullum PE, Walmsley JC**, Fagerberg R, Furtak T, Collins R, Grepstad J, Weman H *Characterization of ZnO Nanostructures Grown by Pulsed Laser Deposition*. MRS Spring Meeting 2009, San Francisco, 13 – 17 April 2009. [Lecture/Poster]

Westermann I, Hopperstad OS, **Marthinsen K**, Holmedal B, *Work and Age Hardening Behaviour of a Commercial AA7108 Aluminium Alloy*. Light Metals Technology Conference, 2009.

Zhou HL, Dheeraj DL, Hoang TB, Moses AF, **van Helvoort ATJ**, Fimland BO Weman H, *Characterization of heterostructured III-V nanowires grown by molecular beam epitaxy*, 4th NTNU Nanolab User Meeting, Trondheim, Norway, 13 May, 2009. [Poster]

Zhao T, **Yu Y**, Yu X, Raaen S, Chen D, Rønning M, *Preferential oxidation of CO in H₂-rich gases over the Pechini-method- derived Cu□CeO₂ nanocomposite and monolith catalysts*, China-North America Workshop on Fuel Cell Science and Technology, 2009.

Zhao T, **Yu Y**, Chen D, Rønning, M, *Carbon nanofiber/carbon felt supported Cu- CeO₂ catalyst: a promising structured catalyst for preferential oxidation of CO in H₂-rich gases*, Norwegian Catalysis Symposium, 2009.

Zhao T, Boullosa ES, **Yu, Y**, Yu X, Raaen, S, Rønning M, Chen, D, Holmen A, *Synthesis and catalytic performance of high-temperature stable nanocomposites by a versatile nanoparticle-mediated Pechini method*. Eurocat IX, 2009.

Zhou H, Hoang TB, Dasa LN, Moses AF, **van Helvoort ATJ**, Fimland BO, Weman H Patriarche G, Harmand JC, *Self-organized wurtzite AlGaAs core-shell nanowires with GaAs inserts grown by molecular beam epitaxy*, 4th GDR meeting; Corps (Isère), France 30 June – 3 July 2009. [Lecture]