

TEM Gemini Centre Publications 2013

(People in Gemini Centre are highlighted)

Journal publications:

V. Arivazhagan, M. Manonmani Parvathi, S. Rajesh, R. **Sæterli** and R. **Holmestad**, "[Quantum confinement in two dimensional layers of PbSe/ZnSe multiple quantum well structures](#)", *Applied Physics Letters*, **102**, 2013.

R. **Bjørge** and R. **Holmestad**, "[Precipitation in an Al-Mg-Si-Ge-Cu Alloy](#)", *Imaging and Microscopy*, **4**, 39, 2013.

M. H. Balci, R. **Sæterli**, J. Maria, M. Lindgren, R. **Holmestad**, T. Grande and M.-A. Einarsrud, "[Solution based synthesis of simple fcc Si nano-crystals under ambient conditions](#)", *Dalton Transactions*, **42**, 2700-2703, 2013.

J. E. Boschker, Å. F. Monsen, M. K. **Nord**, R. Mathieu, J. Grepstad, R. **Holmestad**, E. Wahlström and T. Tybell, "In-plane structural order of domain engineered $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ thin films", *Philosophical Magazine*, **93**, 1549-1562, 2013.

D. L. Dheeraj, A. M. Munshi, O. M. Christoffersen, D. C. Kim, G. Signorello, H. Riel, A. T. J. **van Helvoort**, H. Weman and B. O. Fimland, "[Comparison of Be-doped GaAs nanowires grown by Au- and Ga-assisted molecular beam epitaxy](#)", *Journal of Crystal Growth*, 2013.

D. L. Dheeraj, A. M. Munshi, M. **Scheffler**, A. **van Helvoort**, H. Weman and B.-O. Fimland, "[Controlling crystal phases in GaAs nanowires grown by Au-assisted molecular beam epitaxy](#)", *Nanotechnology*, **24**, 2013.

F. J. H. **Ehlers**, S. Dumoulin, K. Marthinsen and R. **Holmestad**, "Interface energy determination for the fully coherent β " phase in Al-Mg-Si: making a case for a first principles based hybrid atomistic modelling scheme", *Modelling and Simulation in Materials Science and Engineering*, **21**, 058018, 2013.

F. J. H. **Ehlers** and R. **Holmestad**, "[Ab initio based interface modeling for fully coherent precipitates of arbitrary size in Al alloys](#)", *Computational Materials Science*, **72**, 146-157, 2013.

E. Garskaite, A. S. Flø, A. T. J. **van Helvoort**, A. Kareiva and E. Olsen, "[Investigations of near IR photoluminescence properties in \$\text{TiO}_2:\text{Nd}, \text{Yb}\$ materials using hyperspectral imaging methods](#)", *Journal of Luminescence*, **140**, 57-64, 2013.

H. Granlund, J. B. Fløystad, M. Esmaeili, E. T. Bakken, M. Bech, P. E. **Vullum**, E. Andreassen and D. W. Breiby, "[Mapping structural gradients in isotactic polypropylene using scanning wide-angle X-ray scattering](#)", *Polymer*, **54**, 1867-1875, 2013.

I. Hallsteinsen, J. E. Boschker, M. **Nord**, S. Lee, M. Rzechowski, P. E. **Vullum**, J. K. Grepstad, R. **Holmestad**, C. B. Eom and T. Tybell, "[Surface stability of epitaxial \$\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3\$ thin films on \(111\)-oriented \$\text{SrTiO}_3\$](#) ", *Journal of Applied Physics*, **113**, 183512, 2013.

G. Josefsson, B. S. **Tanem**, Y. Li, P. E. **Vullum** and K. E. Gamstedt, "[Prediction of elastic properties of nanofibrillated cellulose from micromechanical modeling and nano-structure characterization by transmission electron microscopy](#)", *Cellulose*, **20**, 761-770, 2013.

- H. **Kauko**, T. Grieb, R. **Bjorge**, M. Schowalter, A. M. Munshi, H. Weman, A. Rosenauer and A. T. J. **van Helvoort**, "[Compositional characterization of GaAs/GaAsSb nanowires by quantitative HAADF-STEM](#)", *Micron*, **44**, 254-260, 2013.
- H. **Kauko**, C. L. Zheng, Y. Zhu, S. Glanvill, C. Dwyer, A. M. Munshi, B.-O. Fimland, A. T. J. **van Helvoort** and J. Etheridge, "[Compositional analysis of GaAs/AlGaAs heterostructures using quantitative scanning transmission electron microscopy](#)", *Applied Physics Letters*, **103**, 2013.
- J. Kim, C. D. **Marioara**, R. **Holmestad**, E. Kobayashi and T. Sato, "[Effects of Cu and Ag additions on age-hardening behavior during multi-step aging in AlMgSi alloys](#)", *Materials Science and Engineering: A*, **560**, 154-162, 2013.
- K. Kurt, S. Diplas, J. C. **Walmsley** and K. Nisancioglu, "[Effect of Trace Elements Lead and Tin on Anodic Activation of AA8006 Aluminum Sheet](#)", *Journal of the Electrochemical Society*, **160**, C542-C552, 2013.
- M. Lamers, K. Butler, P. E. **Vullum**, J. Harding and A. Weeber, "[Characterization of a-SiN_x: H layer: Bulk properties, interface with Si and solar cell efficiency](#)", *Phys. Status Solidi A*, **210**, 658-668, 2013.
- M. Liu, H. Roven, M. Murashkin, R. Valiev, A. Kilmametov, Z. Zhang and Y. **Yu**, "[Structure and mechanical properties of nanostructured Al-Mg alloys processed by severe plastic deformation](#)", *Journal of Materials Science*, **48**, 4681-4688, 2013.
- C. D. **Marioara**, W. Lefebvre, S. J. **Andersen** and J. **Friis**, "[Atomic structure of hardening precipitates in an Al-Mg-Zn-Cu alloy determined by HAADF-STEM and first-principles calculations: relation to η-MgZn₂](#)", *Journal of Materials Science*, **48**, 3638-3651, 2013.
- A. M. F. **Muggerud**, E. A. **Mørtzell**, Y. **Li** and R. **Holmestad**, "[Dispersoid strengthening in AA3xxx alloys with varying Mn and Si content during annealing at low temperatures](#)", *Materials Science and Engineering: A*, **567**, 21-28, 2013.
- A. M. F. **Muggerud**, Y. **Li** and R. **Holmestad**, "[Composition and orientation relationships of constituent particles in 3xxx aluminum alloys](#)", *Philosophical Magazine*, 1-13, 2013.
- A. M. Munshi, D. L. Dheeraj, J. **Todorovic**, A. T. J. **van Helvoort**, H. Weman and B.-O. Fimland, "[Crystal phase engineering in self-catalyzed GaAs and GaAs/GaAsSb nanowires grown on Si\(111\)](#)", *Journal of Crystal Growth*, **372**, 163-169, 2013.
- N. Muthuswamy, J. L. G. de la Fuente, D. T. **Tran**, J. **Walmsley**, M. Tsytkin, S. Raaen, S. Sunde, M. Rønning and D. Chen, "[Ru@Pt core-shell nanoparticles for methanol fuel cell catalyst: Control and effects of shell composition](#)", *International Journal of Hydrogen Energy*, 2013.
- C. Nwakwuo, T. Holm, R. V. Denys, W. Hu, J. P. Mæhlen, J. K. **Solberg**, V. Yartys, "[Effect of magnesium content and quenching rate on the phase structure and composition of rapidly solidified La₂MgNi₉ metal hydride battery electrode alloy](#)", *Journal of Alloys and Compounds* **2013**, **555**, 201-208, 2013.
- U. C. Nygaard, M. Samuelsen, C. D. **Marioara** and M. Løvik, "[Carbon nanofibers have IgE adjuvant capacity but are less potent than nanotubes in promoting allergic airway responses](#)", *Biomedical research*, **2013**, 12, 2013.

- M. P. Pitt, P. E. **Vullum**, M. H. Sørby, H. Emerich, M. Paskevicius, C. E. Buckley, E. M. Gray, J. C. **Walmsley**, R. **Holmestad** and B. C. Hauback, "[Crystalline Al_{1-x}Ti_x phases in the hydrogen cycled NaAlH₄ + 0.02TiCl₃ system](#)", *Philosophical Magazine*, **93**, 1080-1094, 2012.
- T. **Saito**, C. D. **Marioara**, S. J. **Andersen**, W. Lefebvre and R. **Holmestad**, "[Aberration-corrected HAADF-STEM investigations of precipitate structures in Al–Mg–Si alloys with low Cu additions](#)", *Philosophical Magazine*, **94**, 520-531, 2013.
- T. **Saito**, S. Muraishi, C. D. **Marioara**, S. J. **Andersen**, J. Røyset and R. **Holmestad**, "[The Effect of Low Cu Additions and Predeformation on the Precipitation in a 6060 Al–Mg–Si alloy](#)", *Metallurgical and Materials Transactions. A*, 2013.
- K. G. Solheim, J. K. Solberg, J. **Walmsley**, F. Rosenqvist and T. H. Bjørnå, "[The role of retained austenite in hydrogen embrittlement of supermartensitic stainless steel](#)", *Engineering Failure Analysis*, **34**, 140-149, 2013.
- J. Tan, J. C. **Walmsley**, B. Holme, H. Nordmark and K. Nisancioglu, "[Surface segregation of tin by heat treatment of dilute aluminium–tin alloys](#)", *Corrosion Science*, **68**, 204-213, 2013.
- K. **Teichmann**, C. D. **Marioara**, S. J. **Andersen** and K. **Marthinsen**, "[TEM study of β' precipitate interaction mechanisms with dislocations and β' interfaces with the aluminium matrix in Al–Mg–Si alloys](#)", *Materials Characterization*, **75**, 1-7, 2013.
- K. **Teichmann**, C. D. **Marioara**, K. O. Pedersen and K. **Marthinsen**, "[The effect of simultaneous deformation and annealing on the precipitation behaviour and mechanical properties of an Al–Mg–Si alloy](#)", *Materials Science and Engineering: A*, **565**, 228-235, 2013.
- J. **Todorovic**, H. **Kauko**, L. Ahtapodov, F. M. Anthonysamy, P. Olk, D. L. N. Deeraj, B.-O. Fimland, H. Weman and A.T.J. **van Helvoort**, "[The effects of Sb concentration variation on the optical properties of GaAsSb/GaAs heterostructured nanowires](#)", *Semiconductor Science and Technology*, **28**, 2013.
- N. E. Tsakoumis, R. Dehghan, R. E. Johnsen, A. Voronov, W. van Beek, J. C. **Walmsley**, Ø. Borg, E. Rytter, D. Chen, M. Rønning and A. Holmen, "[A combined in situ XAS-XRPD-Raman study of Fischer–Tropsch synthesis over a carbon supported Co catalyst](#)", *Catalysis Today*, **205**, 86-93, 2013.
- M. Tsytkin, J. L. G. de la Fuente, S. García Rodríguez, Y. **Yu**, P. Ochal, F. Seland, O. Safonova, N. Muthuswamy, M. Rønning, D. Chen and S. Sunde, "[Effect of heat treatment on the electrocatalytic properties of nano-structured Ru cores with Pt shells](#)", *Journal of Electroanalytical Chemistry*, **704**, 57-66, 2013.
- S. **Wenner**, C. D. **Marioara**, S. J. **Andersen** and R. **Holmestad**, "[How calcium prevents precipitation hardening in Al–Mg–Si alloys](#)", *Materials Science and Engineering: A*, **575**, 241-247, 2013.
- S. **Wenner**, K. Nishimura, K. Matsuda, T. Matsuzaki, D. Tomono, F. L. Pratt, C. D. **Marioara** and R. **Holmestad**, "Muon kinetics in heat treated Al(–Mg)(–Si) alloys", *Acta Materialia*, **61**, 6082-6092, 2013.
- S. **Wenner**, K. Matsuda, K. Nishimura, T. Matsuzaki, D. Tomono, F. L. Pratt, C. D. **Marioara** and R. **Holmestad**, "μSR experiments on Al–Mg–Si alloys", *RIKEN Accelerator Progress Report*, **46**,

xxiii, 2013.

Z. Zhang, M. P. Liu, Y. Yu, P. C. Skaret and H. J. Roven, "Microstructural Characterization of an Al-Mg-Si Aluminum Alloy Processed by Equal Channel Angular Pressing", *Materials Science Forum*, **745-746**, 303-308, 2013.

J. Zhu, J. Yang, A. H. Lillebø, Y. Zhu, Y. Yu, A. Holmen and D. Chen, "[Compact reactor for Fischer–Tropsch synthesis based on hierarchically structured Co catalysts: Towards better stability](#)", *Catalysis Today*, **215**, 121-130, 2013.

Conference talks/posters/seminars/meetings

L. Ahtapodov, H. **Kauko**, A. M. Munshi, B.-O. Fimland, A. T. J. **Van Helvoort** and H. Weman, "Optical properties of self-catalyzed GaAs Nanowires with axial GaAsSb inserts", Nanowires-2013, Rehovot, Israel, 12-15 November 2013. [Poster]

L. Ahtapodov, J. **Todorovic**, J. F. Reinertsen, D. Dasa Lakshmi Narayana, A. M. Munshi, **A. T. J. Van Helvoort**, B.-O. Fimland and H. Weman, "Optical Characterization of Single Semiconductor Nanowires", MYFAB&NORFAB Meeting, Uppsala, Sweden, 17-18 April 2013. [Talk]

K. M. Beckwith, M. K. **Nord**, V. T. **Fauske** and A. T. J. **Van Helvoort**, "Nanotools - A Lab Course Based on Modern Characterization Tools", Scandem 2013, Copenhagen, Denmark, 10-14 June 2013. [Talk]

D. L. N. Deeraj, A. M. Munshi, V. T. **Fauske**, D. C. Kim, A. T. J. **Van Helvoort**, B.-O. Fimland and H. Weman, "Epitaxial growth and characterization of vertical III-V semiconductor nanowires on graphene", 7th Nanowire Growth Workshop, Lausanne, Switzerland, 10-12 June 2013. [Poster]

D. L. N. Deeraj, A. M. Munshi, V. T. **Fauske**, D. C. Kim, A. T. J. **Van Helvoort**, B.-O. Fimland and H. Weman, "Epitaxial growth of vertical III-V semiconductor nanowires on graphene", Graphene2013, Bilbao, Spain, 23-26 April 2013. [Poster]

F. J. H. **Ehlers**, S. Dumoulin and R. **Holmestad**, "3D hybrid atomistic modeling of β " in Al–Mg–Si: putting the full coherency of a needle shaped precipitate to the test", 2nd World Congress on Integrated Computational Materials Engineering, Salt Lake City, Utah, USA, 7-11 July 2013. [Talk]

V. T. **Fauske**, D. C. Kim, A. M. Munshi, D. Dasa Lakshmi Narayana, B.-O. Fimland, H. Weman and A. T. J. **Van Helvoort**, "In-situ electrical and structural characterization of individual GaAs nanowire", EMAG2013, York, England, 2-6 September 2013.

V. T. **Fauske**, D. C. Kim, A. M. Munshi, D. Dasa Lakshmi Narayana, B.-O. Fimland, H. Weman and A. T. J. **Van Helvoort**, "Mechanical and electrical characterization of nanowire-substrate interfaces", 4th Annual Nanonetwork Workshop, Bergen, Norway, 17-19 June 2013. [Talk]

V. T. **Fauske**, A. M. Munshi, D. Dasa Lakshmi Narayana, D. C. Kim, B.-O. Fimland, H. Weman and A. T. J. **Van Helvoort**, "Site-specific, cross-sectional TEM samples of as-grown nanowires by FIB", NorfFab/MyFab user meeting, Uppsala, Sweden, 17-18 April 2013. [Poster]

B. Glomstad, L. Sørensen, C. D. **Marioara**, B. M. Jenssen and A. Booth, "Characterisation of functionalised and non-functionalised carbon nanotubes and their dispersion behaviour in synthetic freshwater", 23rd Annual SETAC Europe Meeting, Glasgow, Scotland, 12-16 May 2013. [Poster]

R. **Holmestad**, "Elektroner som briller", Norske fysikkstudenters konferanse, Trondheim, Norway, 2-3 March 2013. [Talk]

R. **Holmestad**, "Nanoscale precipitates in 6xxx aluminium alloys", Thermec 2013, Las Vegas, USA, 1-6 December 2013. [Talk]

R. **Holmestad** and L. Klaus, "TEM- Why, how and where?", NorFab-MyFab user meeting, Uppsala, Sweden, 17-18 April 2013. [Talk]

R. **Holmestad**, C. D. **Marioara** and J. **Friis**, "Highlights from activities within NTNU and SINTEF on 6xxx Al alloy development", Hydro Research division seminar, Oslo, Norway, 30 June 2013. [Talk]

R. **Holmestad**, A. T. J. **Van Helvoort** and J. **Walmsley**, "NORTEM Trondheim node - past, present and future", NORTEM inauguration, Trondheim, Norway, 10 September 2013. [Talk]

R. **Holmestad**, A. T. J. **Van Helvoort** and J. **Walmsley**, "TEM instrumentation and activities at NTNU", Texas- Norway seminar and workshop on Nanoscience and -technology, Trondheim, Norway, 14-17 October 2013. [Talk]

R. **Holmestad**, J. **Walmsley**, B. G. **Soleim**, P. E. **Vullum** and A. T. J. **Van Helvoort**, "NORTEM - new possibilities for atomic scale structure characterization", 8th Nanolab usermeeting, Trondheim, Norway, 12 November 2013. [Talk]

J. Huh, D. C. Kim, H. Yun, A. M. Munshi, D. Dasa Lakshmi Narayana, H. **Kauko**, A. T. J. **Van Helvoort**, S. W. Lee, B.-O. Fimland and H. Weman, "Electrical Characteristics of Individual GaAsSb Nanowires Grown by Molecular Beam Epitaxy", 8th Nanolab usermeeting, Trondheim, Norway, 12 November 2013. [Talk]

J. Huh, D.-C. Kim, H. Yun, A. M. Munshi, D. Dasa Lakshmi Narayana, H. **Kauko**, A. T. J. **Van Helvoort**, S. W. Lee, B.-O. Fimland and H. Weman, "Effects on compositional variation on the electrical property of GaAsSb nanowires", MRS 2013 Fall Meeting, Boston, USA, 2-6 December 2013. [Talk]

H. **Kauko**, A. M. Munshi, C. G. Lim, D. C. Kim, D. Dasa Lakshmi Narayana, B.-O. Fimland, A. T. J. **Van Helvoort** and H. Weman, "GaAs/AlGaAs core-shell nanowires for novel solar cell applications", Norwegian Solar Cell Conference 2013, Oppdal, Norway, 13-15 March 2013. [Poster]

H. **Kauko**, A. M. Munshi, C. G. Lim, D. C. Kim, D. Dasa Lakshmi Narayana, B.-O. Fimland, A. T. J. **Van Helvoort** and H. Weman, "GaAs/AlGaAs core-shell nanowires for novel solar cell applications", Nanokonferansen 2013, Oslo, Norway, 18 March 2013. [Poster]

H. **Kauko**, A. M. Munshi, C. G. Lim, D. C. Kim, D. Dasa Lakshmi Narayana, B.-O. Fimland, A. T. J. **Van Helvoort** and H. Weman, "Novel solar cells based on GaAs/AlGaAs core-shell nanowires", 4th annual Nanonetwork workshop, Bergen, Norway, 17-19 June 2013. [Poster]

A. M. Munshi, D. Dasa Lakshmi Narayana, V. T. **Fauske**, D. C. Kim, J. **Todorovic**, J. Huh, S. Sandell, A. T. J. **Van Helvoort**, B.-O. Fimland and H. Weman, "GaAs nanowires grown on silicon and graphene for solar cell application", 4th annual NanoNetwork Workshop, Bergen, Norway, 17-19 June 2013. [Poster]

A. M. Munshi, D. Dasa Lakshmi Narayana, V. T. **Fauske**, A. **Van Helvoort**, B.-O. Fimland and H. Weman, "Limitations of self-catalytic growth in controlling diameter of GaAs nanowires on Si substrates", 7th Nanowire Growth Workshop, Lausanne, Switzerland, 10-12 June 2013. [Poster]

A. M. Munshi, D. Dasa Lakshmi Narayana, D. C. Kim, J. Huh, J. F. Reinertsen, L. Ahtapodov, B.-O. Fimland, H. Weman, V. T. **Fauske**, H. **Kauko**, A. **Van Helvoort**, K. Lee and B. Heidari, "Position Controlled GaAs Nanowires on Si using Nanoimprint Lithography", 8th Nanolab usermeeting, Trondheim, Norway, 12 November 2013. [Talk]

E. A. **Mørtzell**, I. Westermann, C. D. **Marioara**, K. O. Pedersen, J. Røyset and R. **Holmestad**, "Elastic Ageing of an Aluminium 6060 Alloy", Scandem, Copenhagen, Denmark, 10-14 June 2013. [Poster]

M. K. **Nord**, J. E. Boschker, P. E. **Vullum**, T. Tybell and R. **Holmestad**, "Study of electronic reconstruction in $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3/\text{SrTiO}_3$ thin film interface using Transmission Electron Microscopy", 4th annual workshop arranged by the Norwegian PhD Network on Nanotechnology for Microsystems, Bergen, Norway, 17-19 June 2013. [Talk]

D. S. G. Panditha Vidana, H. J. Venvik and J. **Walmsley**, "Investigation of the Initial Stage of Metal Dusting Corrosion in the Conversion of Natural Gas to Synthesis Gas", NACE Corrosion 2013 - International Conference & Expo, Orlando, Florida, USA, 17-21 March 2013. [Talk]

T. **Saito**, "Effect of trace elements (Cu and Zn) on 6xxx series aluminum alloys", BILAT meeting in Toyama 2013, Toyama, Japan, 4-7 June 2013. [Talk]

T. **Saito**, W. Lefebvre, C. D. **Marioara**, S. J. Andersen and R. **Holmestad**, "Cu and Zn atomic columns of precipitates in Al-Mg-Si alloys investigated by aberration-corrected scanning transmission electron microscopy", MC2013, Regensburg, Germany, 25-30 August 2013. [Poster]

T. **Saito**, W. Lefebvre, C. D. **Marioara**, S. J. Andersen and R. **Holmestad**, "Investigation of Cu and Zn atomic columns on the precipitates in Al-Mg-Si alloys by aberration-corrected scanning electron microscope", EMAG 2013, York, England, 3-6 September 2013. [Talk]

T. **Saito**, C. D. **Marioara**, J. Røyset and R. **Holmestad**, "The effect of low Cu additions on quench sensitivity of an Al-Mg-Si alloy", Thermec 2013, Las Vegas, USA, 2-6 December 2013. [Poster]

G. Singh, A. T. J. **Van Helvoort**, S. Bandyopadhyay, S. Volden, J.-P. Andreassen and W. Glomm, "Shape and Size Controlled Synthesis of Metal Nanostructures", 8th Nanolab usermeeting, Trondheim, Norway, 12 November 2013. [Talk]

S. **Wenner**, C. D. **Marioara**, S. J. Andersen and R. **Holmestad**, "Precipitation in Al-Mg-Si alloys with Ca additions", THERMEC 2013, Las Vegas, USA, 2-6 December 2013. [Poster]

S. **Wenner**, C. D. **Marioara**, J. Røyset and R. **Holmestad**, "Transmission electron microscopy and muon spin relaxation studies of precipitation in Al-Mg-Si alloys", BILAT meeting 2013, Toyama, Japan, 4-7 June 2013. [Talk]

PhD theses in 2013

Hanne Kauko, "Quantitative scanning transmission electron microscopy studies on heterostructured GaAs nanowires".

Master/project theses within TEM Gemini Centre

Maximilian Erlbeck, “Exploring FIB for NW circuit repair”, (project (DP)).

Sethulakshmy Jayakumary, “The effects of Be doping on the structure of Ga and Au-assisted GaAs-based heterostructured semiconductor nanowires”, (Master thesis (DP)).

Andrea Klubicka, “TEM study of GaAs/GaAsSb core-shell Nanowires”, (Master thesis (DP)).

Julie Stene Nilsen, “The effect of the V/III ratio on the structural and optical of self-catalysed GaAs/AlGaAs core/shell nanowires”, (project (DP)).

Ingrid Snustad, “Selective examination of optically and structurally separable parts within GaAs/AlGaAs core-shell nanowires by micro-photoluminescence and transmission electron microscopy”, (Master thesis (DP))

Ørjan Berntsen, “Investigation of $\text{Co}_2\text{AlO}_4/\text{CeO}_2$ catalyst for N_2O abatement using electron microscopy”, (Project thesis (DP)).

Popular science contributions/Media

Flemming **Ehlers**, Randi **Holmestad**, “Prøver å forstå styrken til aluminium”, Teknisk ukeblad, 17. April 2013.