

4th International Symposium on
Energy **C**hallenges & **M**echanics
- working on small scales

11-13 August 2015
Aberdeen, Scotland, UK

Speaker of Session 04

BEYOND LITHIUM ION BATTERY



Miia Mäntymäki received her MSc in inorganic chemistry in 2010 from the University of Helsinki, Finland. During her years as an undergraduate student, she worked with synthesizing precursor molecules for atomic layer deposition (ALD) and studied new hafnium oxide and zirconium oxide ALD processes. Currently Miia is pursuing her PhD at the Laboratory of Inorganic Chemistry at the University of Helsinki under professors Mikko Ritala and Markku Leskelä. Her research is focused on the atomic layer deposition of lithium-ion battery materials and lithium containing thin films in general.

In addition to her research pursuits, Miia has also been active in teaching undergraduate chemistry courses. She is also a member of the team of chemists responsible for training Finnish high school students for the International Chemistry Olympiad (IChO).

Publications in Peer Reviewed Journals:

Atomic Layer Deposition of AlF_3 Thin Films Using Halide Precursors

Miia Mäntymäki, Mikko J. Heikkilä, Esa Puukilainen, Kenichiro Mizohata, Benoît Marchand, Jyrki Räisänen, Mikko Ritala, and Markku Leskelä, *Chemistry of Materials* **27** (2015) pp 604–611.

Atomic Layer Deposition of LiF Thin Films from $\text{Li}(\text{thd})$, $\text{Mg}(\text{thd})_2$, and TiF_4 Precursors

Miia Mäntymäki, Jani Hämäläinen, Esa Puukilainen, Timo Sajavaara, Mikko Ritala, and Markku Leskelä, *Chemistry of Materials* **25** (2013) pp 1656–1663.

Atomic Layer Deposition of LiF Thin Films from $\text{Li}(\text{thd})$ and TiF_4 Precursors

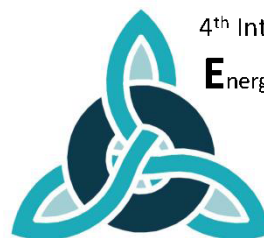
Miia Mäntymäki, Jani Hämäläinen, Esa Puukilainen, Frans Munnik, Mikko Ritala, and Markku Leskelä, *Chemical Vapor Deposition* **19** (2013) pp 111–116.

Double Metal Alkoxides of Lithium: Synthesis, Structure and Applications in Materials Chemistry

Miia Mäntymäki, Mikko Ritala, Markku Leskelä, *Coordination Chemistry Reviews* **256** (2012) pp 854–877.



4th International Symposium on Energy Challenges and Mechanics
- working on small scales
11-13 August 2015, Aberdeen, Scotland, United Kingdom



4th International Symposium on
Energy **C**hallenges & **M**echanics
- working on small scales

11-13 August 2015
Aberdeen, Scotland, UK

Cycloheptatrienyl-Cyclopentadienyl Heteroleptic Precursors for Atomic Layer Deposition of Group 4 Oxide Thin Films

Jaakko Niinistö, Timo Hatanpää, Maarit Kariniemi, Miia Mäntymäki, Leila Costelle, Kenichiro Mizohata, Kaupo Kukli, Mikko Ritala, and Markku Leskelä, *Chemistry of Materials* **24** (2012) pp 2002–2008.

Growth and Phase Stabilization of HfO₂ Thin Films by ALD Using Novel Precursors

Jaakko Niinistö, Miia Mäntymäki, Kaupo Kukli, Leila Costelle, Esa Puukilainen, Mikko Ritala, Markku Leskelä, *Journal of Crystal Growth* **312** (2010) pp 245–249.

