

## **Professor Volodymyr A. Yartys**

**Scopus: H-index 43; i<sub>10</sub> index 128; 6364 citations (28/4/2022)**

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**Volodymyr A. Yartys: ORCID: <https://orcid.org/0000-0003-4207-9127>**

## **LIST OF PUBLICATIONS**

(284 papers in peer reviewed scientific journals as of 28 April 2022)

### ***BOOKS AND EDITOR OF CONFERENCE PROCEEDINGS***

H.Figiel, O.Zogal, **V.Yartys** (Editors).

Proceedings of the 9th International Symposium on Metal-Hydrogen Systems, Fundamentals and Applications (MH2004). September 5-10, 2004, Cracow, Poland.

*J.All. Compds*, **404** (2005) pp. 1-808.

**V.A.Yartys**, A.B.Riabov and M.V.Lototsky. Materials science and structural chemistry of intermetallic hydrides. Lviv, Spolom, 2006. 286 p.

**Volodymyr A. Yartys**, Vladimir E. Antonov, Sergey V. Mitrokhin, Viktor N. Verbetsky (Editors). Proceedings of the 12th International Symposium on Metal-Hydrogen Systems, Fundamentals and Applications (MH2010). July 19-23, 2010. Moscow, Russia. *J.All.Compds*, **509**, Supplement 2 (2011) S515-S894.

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<https://doi.org/10.15407/materials2021>

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- 124.** M.Sato, R.V.Denys, A.B.Riabov, **V.A.Yartys**. Thermodynamic characteristics of the Cu- and Al-doped LaNiIn and NdNiIn hydrides.// International Symposium on Metal Hydrogen Systems. Fundamental and Applications. Cracow, Poland. September 6<sup>nd</sup>-10<sup>th</sup> 2004. Abstracts, 105.
- 125.** V.A.Yartys. Structural chemistry of ternary intermetallic hydrides. // International Symposium on Metal Hydrogen Systems. Fundamental and Applications. Cracow, Poland. September 6<sup>nd</sup>-10<sup>th</sup> 2004. Abstracts, 129.
- 126.** T.J.Udovic, T.Yildirim, **V.A.Yartys**, M.Sato, J.P.Mæhlen, R.V.Denys. Hydrogen-hydrogen pairing in RENiIn-based hydrides studied by neutron vibrational spectroscopy.// International Symposium on Metal Hydrogen Systems. Fundamental and Applications. Cracow, Poland. September 6<sup>nd</sup>-10<sup>th</sup> 2004. Abstracts, 130.
- 127.** J.P.Mæhlen, M.Stange, **V.A.Yartys**, R.G.Delaplane. Hydrogen assisted order-disorder transformations in Cu-Sn suublattices of the (La,Ce)CuSn-D<sub>2</sub> systems.// International Symposium on Metal Hydrogen Systems. Fundamental and Applications. Cracow, Poland. September 6<sup>nd</sup>-10<sup>th</sup> 2004. Abstracts, 140.
- 128.** J.P.Mæhlen, **V.A.Yartys**, B.C.Hauback, A.B.Riabov. D-blocking effects and crystal structure of the yttrium silicide carbide deuteride Y<sub>5</sub>Si<sub>3</sub>C<sub>0.2</sub>D<sub>2.0</sub>.// International Symposium on Metal Hydrogen Systems. Fundamental and Applications. Cracow, Poland. September 6<sup>nd</sup>-10<sup>th</sup> 2004. Abstracts, 140.
- 129.** A.B.Riabov, R.V.Denys, M.Sato, **V.A.Yartys**, R.Delaplane. Hydrogenation and crystal structures of the Nd(Ni<sub>1-x</sub>Cu<sub>x</sub>)(In<sub>1-y</sub>Al<sub>y</sub>) intermetallics and their hydrides.// International Symposium on Metal Hydrogen Systems. Fundamental and Applications. Cracow, Poland. September 6<sup>nd</sup>-10<sup>th</sup> 2004. Abstracts, 141.
- 130.** M.Stange, J.P.Mæhlen, W.van Beek, H.Emerich, R.Delaplane, **V.A.Yartys**. *In situ* powder diffraction studies of intermetallic hydrides.// International Symposium on Metal Hydrogen Systems. Fundamental and Applications. Cracow, Poland. September 6<sup>nd</sup>-10<sup>th</sup> 2004. Abstracts, 142.
- 131.** M.Stange, V.Paul-Boncour, M.Latroche, O.Isnard, **V.A.Yartys**. Ce-valence state and volume effects in Ce intermetallics and hydrides.// International Symposium on Metal Hydrogen Systems. Fundamental and Applications. Cracow, Poland. September 6<sup>nd</sup>-10<sup>th</sup> 2004. Abstracts, 143.
- 132.** A.Szytula, O.Isnard, **V.A.Yartys**, A.B.Riabov. Magnetic structure of HoNiSnD<sub>0.67</sub>.// International Symposium on Metal Hydrogen Systems. Fundamental and Applications. Cracow, Poland. September 6<sup>nd</sup>-10<sup>th</sup> 2004. Abstracts, 156.
- 133.** V.A.Yartys. Novel intermetallic hydrides.// Rare Earths'04. Nara, Japan. 6-12 November 2004. Collected Abstracts.
- 134.** J. P. Maehlen, **V. A.Yartys**.// Aluminum Trihydride Studied By Powder Synchrotron X-Ray Diffraction: Crystal Structure And Thermal Decomposition.// *Advanced Materials*

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136. R.V. Denys, V.A. Yartys, M. Sato, R.G. Delaplane, A.B. Riabov.// Hydrogen Storage Properties and Structure of  $\text{La}_{1-x}\text{Mg}_x(\text{Ni}_{1-y}[\text{Mn},\text{Al}]_y)_3$  Intermetallics. International Symposium on Metal-Hydrogen Systems. October 1-6, 2006. Lahaina, Maui, Hawaii. Program and Abstracts. P-266 (p.73).
137. B.P.Tarasov, D.N.Borisov, P.V.Fursikov, V.N.Fokin, S.N.Klyamkin, M.V.Lototsky, V.A.Yartys, A. Schrøder Pedersen. // Mg-Mm-Ni Eutectic Alloy: Structure, Hydrogen Soption Properties and Performance in Hydrogen Storage Unit. International Symposium on Metal-Hydrogen Systems. October 1-6, 2006. Lahaina, Maui, Hawaii. Program and Abstracts. P-267 (p.73).
138. Y.Wu, J.K.Solberg, V.A.Yartys. The Effect of Solidification Rate on Microstructural Evolution and Hydrogen Storage Properties of the Melt-Spun Mg-20Ni-8Mm Alloy. International Symposium on Metal-Hydrogen Systems. October 1-6, 2006. Lahaina, Maui, Hawaii. Program and Abstracts. P-268 (p.74).
139. S.Løken, J.K.Solberg, J.P.Mæhlen, R.V.Denys, M.V.Lototsky, V.A.Yartys, B.P.Tarasov. // Nanostructured Mg-Mm-Ni Hydrogen Storage Alloy: Structure-Properties Relationship. International Symposium on Metal-Hydrogen Systems. October 1-6, 2006. Lahaina, Maui, Hawaii. Program and Abstracts. P-289 (p.78).
140. M.V.Lototsky, V.A.Yartys, R.V.Denys, I.Yu.Zavaliv, J.P.Mæhlen.// Interrelation of Structural Characteristics and Hydrogenation/Dehydrogenation Behaviour in V-Ti-Zr b.c.c. Alloys. International Symposium on Metal-Hydrogen Systems. October 1-6, 2006. Lahaina, Maui, Hawaii. Program and Abstracts. P-264 (p.72).
141. J.P.Mæhlen, V.A.Yartys, R.V.Denys, M.Fichtner, Ch.Frommen, B.M.Bulychev, P.Pattison, H.Emerich.// Thermal Decomposition of Alane  $\text{AlH}_3$  Studied by *in situ* Synchrotron X-ray Diffraction and Thermal Desorption Spectroscopy. International Symposium on Metal-Hydrogen Systems. October 1-6, 2006. Lahaina, Maui, Hawaii. Program and Abstracts. P-230 (p.65).
142. M.Sato, A.Furumoto, S.Kato, H.Chida, Y.Mashumura, H.H.Uchida, J.P.Mæhlen, V.A.Yartys.// Hydrogen Absorption Characteristics of  $\text{YNiIn}$ . International Symposium on Metal-Hydrogen Systems. October 1-6, 2006. Lahaina, Maui, Hawaii. Program and Abstracts. P-217 (p.62).
143. International Symposium Hydrogen Power Theoretical and Engineering Solutions HYPOTHESIS VII. El Castellano, Merida, Mexico. March 27-30, 2007. Book of Abstracts. V.A.Yartys, J.K.Solberg, R.V.Denys, J.P.Mæhlen, A.B.Riabov, M.V.Lototsky, Ying Wu, S.Løken, B.P.Tarasov, D.N.Borisov. Nanostructured hydrides of light metals for hydrogen storage. P.40.
144. V.A.Yartys. NORSTORE 2002-2007: 5 Years of Nordic and Regional Collaboration on Hydrogen Storage. NORSTORE 2007 Conference. Sigulda, Latvia, May 31-June 2, 2007. (Oral presentation).
145. V.A.Yartys and J.P.Mæhlen. Nanostructured hydrides of light elements for hydrogen storage and H storage units. NANOMAT conference. Bergen, June 2007. (Oral presentation).

- 146.** V.A.Yartys, J.P.Mæhlen, A.Vik, A.Strand, R.V.Denys, M.V.Lototsky. Nano Science for New Advanced Metal-Hydrogen Systems Towards Applications. NANOMAT conference. Bergen, June 2007. (POSTER).
- 147.** Proceedings of the 2<sup>nd</sup> International Hydrogen Energy Congress and Exhibition IHEC 2007 Istanbul, Turkey, 13-15 July 2007. Nanostructured Hydrides of Light Metals for Hydrogen Storage V.A.Yartys, J.K.Solberg, J.P. Maehlen, R.V.Denys, A.B.Riabov, M.V.Lototsky, Ying Wu, B.P.Tarasov. Collected abstracts. (Invited keynote lecture).
- 148.** **V.A. Yartys**, A.B. Riabov, R.V. Denys . Crystal chemistry of anisotropic hydrides: novel materials with unusual structural behaviours. X International Conference on Crystal Chemistry of Intermetallic Compounds. Lviv, Ukraine, September 2007. (Invited Talk).
- 149.** **V.A.Yartys**, J.P.Mæhlen, P.Pattison, T.Blach, E.Gray. In situ SR X-Ray and Neutron Diffraction Studies of Phase-Structural Transformations in Hydrogen Storage Materials. Swiss-Norwegian Seminar “In situ experiments at SNBL using high gas pressures”. GRENOBLE, November 2007 (Oral presentation).
- 150.** J.P.Mæhlen, **V.A.Yartys**, R.V.Denys, A.A. Poletaev, I.E.Gabis and J.Graetz. Thermal decomposition of mechanochemically activated and Ti-catalyzed  $\alpha$ -alane.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Reykjavik, Iceland. June 24-28, 2008. Poster M1-I-76.
- 151.** Y. Wu, M.V. Lototsky, J.K. Solberg, **V. A Yartys**, W. Han, S.X. Zhou. Microstructure and novel hydrogen storage properties of melt-spun Mg-Ni-Mm alloys.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Reykjavik, Iceland. June 24-28, 2008. Poster M3-III-124.
- 152.** T.Førde and **V.A.Yartys**. Theoretical and Experimental Studies of Metal Hydride Storage Units.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Reykjavik, Iceland. June 24-28, 2008. Poster F2-III-29.
- 153.** B. P. Tarasov, P. V. Fursikov, M. S. Dulya, V. N. Fokin, M. K. Sakharov, and **V. A. Yartys**. Composites of  $\alpha$ -AlH<sub>3</sub> with Vanadium and Titanium Hydrides and Lithium Amide. // International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Reykjavik, Iceland. June 24-28, 2008. Poster M2-II-110.
- 154.** R.V.Denys, M.V.Lototsky, J.P.Mæhlen, A.A.Poletayev, J.K.Solberg, **V.A.Yartys**. Nanostructured Mg-based composites for H storage synthesised by reactive ball milling in hydrogen.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Reykjavik, Iceland. June 24-28, 2008. Poster M3-I-117.
- 155.** M.Lototsky, M.Williams, A.Nechaev, V.Linkov, V.A.Yartys. Preparation and hydrogen sorption performances of AB<sub>5</sub> hydrogen storage alloy surface-modified with palladium.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Reykjavik, Iceland. June 24-28, 2008. Poster A3-II-11.
- 156.** M.Williams, M.Lototsky, V.A.Yartys, J.K.Solberg, R.Denys. Structural and morphological features of AB<sub>5</sub> hydrogen storage alloy surface-modified with palladium.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Reykjavik, Iceland. June 24-28, 2008. Poster A3-II-8.
- 157.** M.V.Lototsky, R.V.Denys, **V.A.Yartys**. Combustion-type hydrogenation of nanostructured Mg-based composites.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Reykjavik, Iceland. June 24-28, 2008. Poster M3-II-135.
- 158.** J. Eriksen, J.P. Mæhlen, Ø. Ulleberg, and **V.A. Yartys**. Synthesis of Novel Nanostructured Metal Hydride Materials.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Reykjavik, Iceland. June 24-28, 2008. Poster F7-I-40.

- 159.** V.A.Yartys, J.P.Maehlen, R.V.Denys, T.Blach, E Gray, and O.Isnard. *In situ* High-Pressure Studies of the Hydrogenation of Laves-type Intermetallics of Ti and Zr.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Reykjavik, Iceland. June 24-28, 2008. Poster M1-III-83.
- 160.** V.A.Yartys, P.Vajeeston, P.Ravindran, A.B.Riabov, R.V.Denys, J.P.Maehlen, R.G.Delaplane and Masashi Sato. Structure-Bonding Interrelations in Novel Anisotropic Hydrides.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Reykjavik, Iceland. June 24-28, 2008. Oral Presentation F4-O-4.
- 161.** R.V.Denys, A.B.Riabov, J.P.Maehlen, M.V.Lototsky, J.K.Solberg, V.A.Yartys. *In situ* synchrotron X-ray diffraction studies of hydrogenation – dehydrogenation in Mg-based nanocomposites.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Reykjavik, Iceland. June 24-28, 2008. Poster M3-III-115.
- 162.** V.A.Yartys, J.P.Mæhlen, R.V.Denys, P.Szymanski, T.Blach, E. Gray, O.Isnard, A.A. Poletaev, J.K.Solberg, I.E.Gabis and J.Graetz. Nanostructured Metal Hydrides For Vehicular Hydrogen Storage. Norwegian Hydrogen Seminar, Bergen, 26-26 September 2008. Oral presentation.
- 163.** V.A.Yartys, J.P.Mæhlen, R.V.Denys, A.A. Poletaev, J.K.Solberg. Nanostructured metal hydrides for energy storage. Norwegian Synchrotron User Meeting. Lillehammer. 18-19 June 2009. Oral presentation.
- 164.** V.A.Yartys, J.P.Mæhlen, R.V.Denys, A.A.Poletaev, J.K.Solberg, M.V.Lototsky. Nanostructured metal hydrides for energy storage.// NANOMAT Conference 2009. June 15-19 2009. Lillehammer. Poster presentation.
- 165.** V.A. Yartys, R.V. Denys, J.P. Mæhlen, C. Webb, E. Gray, T. Blach, A.A. Poletaev, J.K. Solberg, O. Isnard. Nanostructured metal hydrides for hydrogen storage studied by *in situ* synchrotron and neutron diffraction.// 2010 MRS Spring Meeting. Symposium W: Diagnostics and Characterization of Energy Materials with Synchrotron and Neutron Radiation. San Francisco, 5-9 April 2010. Oral Presentation W4.1.
- 166.** J. Graetz, J. Reilly, V.A. Yartys, J.P. Maehlen, B.M. Bulychev, V.E. Antonov, B.P.Tarasov, I.E. Gabis. Aluminum hydride as a hydrogen and energy storage material: past, present and future.// International Symposium on Metal-Hydrogen Systems. Fundamenals and Applications. Moscow, Russia. July 19-23, 2010. Part I. P.5. Invited plenary lecture.
- 167.** M. Lototsky, M. Williams, Y. Klochko and V.A. Yartys. Surface-Modified Advanced Hydrogen Storage Alloys for Hydrogen Separation and Purification.// International Symposium on Metal-Hydrogen Systems. Fundamenals and Applications. Moscow, Russia. July 19-23, 2010. Part I. P.10. Invited lecture.
- 168.** R.V. Denys and V.A. Yartys. Effect of Mg on structure and thermodynamics of La-Mg-Ni hydrides synthesised by hydrogen metallurgy and studied by *in situ* diffraction.// International Symposium on Metal-Hydrogen Systems. Fundamenals and Applications. Moscow, Russia. July 19-23, 2010. Part I. P.11. Invited lecture.
- 169.** J.P. Maehlen, R.G.Delaplane, R.V. Denys, A.J. Ramirez-Cuesta, and V.A. Yartys. Vibrational properties of CeNiSn-Hydrides. // International Symposium on Metal-Hydrogen Systems. Fundamenals and Applications. Moscow, Russia. July 19-23, 2010. Part I. P.54. Oral presentation.
- 170.** V.A. Yartys, R.V. Denys, J.P. Mæhlen, C. Webb, E. Gray, T. Blach, A.A. Poletaev, J.K. Solberg, O. Isnard. Nanostructured metal hydrides for hydrogen storage studied by *in situ* synchrotron and neutron diffraction.// International Symposium on Metal-Hydrogen Systems. Fundamenals and Applications. Moscow, Russia. July 19-23, 2010. Part I. P.121. Oral presentation.

- 171.** A.B.Riabov, R.V. Denys, J.P.Maehlen, **V.A. Yartys**. *In situ* synchrotron diffraction study of the La<sub>0.5</sub>Ce<sub>0.5</sub>Ni<sub>4</sub>Co – H<sub>2</sub> system.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Moscow, Russia. July 19-23, 2010. Part I. P.172. Poster presentation.
- 172.** S. Suwarno, J.K.Solberg, **V.A. Yartys**. Hydrogenation and Microstructural Study of Melt-Spun Ti<sub>0.8</sub>V<sub>0.2</sub>.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Moscow, Russia. July 19-23, 2010. Part II. P.349. Poster presentation.
- 173.** A.A. Poletaev, R.V. Denys, J. K. Solberg , B.P. Tarasov , **V.A. Yartys**. Microstructural optimisation of LaMg<sub>12</sub> alloy for hydrogen storage.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Moscow, Russia. July 19-23, 2010. Part II. P.365. Poster presentation.
- 174.** M.Lototsky, M.Williams, J.Sibanyoni, J.K.Solberg, **V.A. Yartys** and R.Denys. Nanostructured Composites of Magnesium, Hydride-Forming Additives and Carbon for Hydrogen Storage.// International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. Moscow, Russia. July 19-23, 2010. Part II. P.373. Poster presentation.
- 175.** Andrey Andreevich Poletaev, Roman Volodymyrovych Denys, Jan Ketil Solberg, **Volodymyr Yartys**. Hydrogenation behaviour and crystal structure of the LaMg<sub>11</sub> with a giant unit cell synthesized by hydrogen metallurgy.// Renewable Energy Research Conference 2010; 2010-06-07 - 2010-06-08. NTNU. Oral presentation.
- 176.** **V.A. Yartys**. Structure-properties relationship in magnesium alloys for battery and high pressure applications.// Task 22 IEA HIA Expert Meeting, 16-20 January 2011. Fremantle, Australia.
- 177.** **V. A. Yartys**, Suwarno Suwarno, Y. Gosselin, J. K. Solberg, J.P. Maehlen, M. Williams, B. Krogh, B.Børresen, E. Rytter, E. O. Fernández. Selective hydrogen absorption from gaseous mixtures by the BCC Ti-V alloys. International Conference on Hydrogen Production ICH2P-11. Thessaloniki, Greece, June 2011. Oral presentation.
- 178.** **V.A. Yartys**. 4th Chinese-Norwegian Symposium. “Novel Magnesium-based Nanomaterials for Hydrogen and Energy Storage”. Trondheim, Norway. August 2011. Oral presentation.
- 179.** **V.A. Yartys**. NOVEL NANOMATERIALS FOR HYDROGEN AND ENERGY STORAGE. Conference “350 years of Lviv Franko National University”, Lviv, Ukraine. 11 October 2011. Invited talk.
- 180.** A.B. Riabov, **V.A. Yartys**, M. Latroche, F. Cuevas , R.V. Denys and W.-K. Hu. *In situ* PND studies of deuterium absorption-desorption in the La<sub>2</sub>MgNi<sub>9</sub> metal hydride battery alloy.// Norwegian Synchrotron and Neutron Users Meeting (SYNKNOYT), 30-31 January 2012, Stavanger, Norway. Poster presentation.
- 181.** Thomas Holm, **Volodymyr Yartys**, Jan Petter Mæhlen, Roman Denys, Christopher Nwakwo and Jan Ketil Solberg. Rapidly Solidified La-Mg-Ni alloy for Ni-Metal Hydride batteries studied by Synchrotron X-ray Diffraction.// Norwegian Synchrotron and Neutron Users Meeting (SYNKNOYT), 30-31 January 2012, Stavanger, Norway. Oral presentation.
- 182.** **Volodymyr Yartys**. Magnesium-based nanomaterials for hydrogen and energy storage.// MATERIALS CHALLENGES IN ALTERNATIVE AND RENEWABLE

ENERGY. February 26 – March 1, 2012. Hilton Clearwater Beach Resort, Clearwater, FL USA. Oral presentation.

183. **Volodymyr Yartys**. Magnesium-based nanomaterials for hydrogen and energy storage applications: structure-properties relationship.// Task 22 IEA HIA EXPERT MEETING. May 6 – 10, 2012. Palais Prinz Carl, Heidelberg, Germany. Oral presentation.
184. **Volodymyr Yartys**, Roman V. Denys and Weikang Hu. Magnesium-based nanomaterials for hydrogen and energy storage.// WHEC2012. 19<sup>th</sup> WORLD HYDROGEN ENERGY CONFERENCE 2012. June 3 – 7, 2012. TORONTO, CANADA. Oral presentation.
185. Christopher C. Nwakwo, Thomas Holm, Roman V. Denys, Jan Petter Maehlen, Weikang Hu, Jan Ketil Solberg, **Volodymyr A. Yartys**. Structural properties of rapidly solidified  $\text{La}_2\text{MgNi}_9$  battery electrode alloy.// MH2012, Kyoto, Japan, 21-26 October 2012. Poster. MoP-36. Collected Abstracts. P. 90.
186. A.B. Riabov, M. Latroche, F. Cuevas, R.V. Denys, Weikang Hu, **V.A. Yartys**. *In situ* PND studies of deuterium absorption-desorption in the  $\text{La}_2\text{MgNi}_9$  metal hydride battery alloy.// MH2012, Kyoto, Japan, 21-26 October 2012. Poster. WeP-57. Collected Abstracts. P. 421.
187. Jan Petter Maehlen, **Volodymyr A. Yartys**, and Jon Eriksen. Development of the materials and metal hydride hydrogen compressors.// MH2012, Kyoto, Japan, 21-26 October 2012. Poster. WeP-80. Collected Abstracts. P. 444.
188. R.V. Denys, **V.A. Yartys**. Thermodynamics and Crystal Chemistry of the  $\text{RE}_2\text{MgNi}_9\text{H}_{12-13}$  ( $\text{RE}=\text{La}$  and  $\text{Nd}$ ) Hydrides.// MH2012, Kyoto, Japan, 21-26 October 2012. Poster. MoP-34. Collected Abstracts. P. 88.
189. Suworno Suworno, Jan Ketil Solberg, Jan Petter Maehlen, Bente Krogh and **Volodymyr A. Yartys**. Ti-V Alloys for Selective Hydrogen Absorption.// MH2012, Kyoto, Japan, 21-26 October 2012. Poster. TuP-44. Collected Abstracts. P. 256.
190. Weikang Hu, Thomas Holm, Roman Denys, Jan Petter Maehlen and **Volodymyr Yartys**. Electrochemical charge-discharge properties of the  $\text{La}_2\text{MgNi}_9$  anode for Ni-Metal Hydride batteries.// MH2012, Kyoto, Japan, 21-26 October 2012. Oral presentation. WeOA10. Collected Abstracts. P.320.
191. **V.A. Yartys**. Magnesium-Based Nanostructured Hydrides With Advanced H storage and Electrochemical Properties.// MH2012, Kyoto, Japan, 21-26 October 2012. Invited keynote lecture. TuOA09. Collected Abstracts. P.162.
192. Roman V. Denys, **Volodymyr A. Yartys**, and Colin J. Webb.  $\text{LaNi}_5$ -assisted hydrogenation of  $\text{MgNi}_2$  in the hybrid structure of  $\text{LaMg}_2\text{Ni}_9\text{D}_{9.5}$ .// MH2012, Kyoto, Japan, 21-26 October 2012. Poster presentation. MoP38. Collected Abstracts. P.92.
193. Matylda N. Guzik, Stefano Deledda, Magnus H. Sørby, **Volodymyr Yartys** and Bjørn C. Hauback. Ball milling of Mg with Ti/Zr in a reactive hydrogen (deuterium) atmosphere.// MH2012, Kyoto, Japan, 21-26 October 2012. Oral presentation MoOA04. Collected Abstracts. P.40.
194. Volodymyr YARTYS. Mg-based nanocomposites for H Storage and metal hydride battery applications.// Task 32 IEA HIA expert kick-off meeting. April 21 – 25, 2013. Heraklion, Greece.
195. Volodymyr Yartys. Nanostructured RE-Mg-Ni Hydrides for Energy Storage: Structure-Properties Relationship.// GRC 2013 on Hydrogen-Metal Systems Hydrogen Interactions in Energy Storage. Progress in Interstitial Hydrides and Applications. July 14-19, 2013. Lucca (Barga), Italy. Invited talk.

- 196.** Volodymyr Yartys. Mg-based nanocomposites for H Storage and metal hydride battery applications.// The Fifth World Hydrogen Technologies Convention (WHTC2013).  
25<sup>th</sup> – 28<sup>th</sup> September 2013, Shanghai, China. Invited talk.
- 197.** Volodymyr A. Yartys and Roman V. Denys. Nanostructured Mg-Based Hydrogen and Energy Storage Materials Probed by *in situ* Synchrotron and Neutron Powder Diffraction.// 8<sup>th</sup> Int. Symposium Hydrogen & Energy. 16-20 February 2014, Zhaoqing, China 2014. Invited talk.
- 198.** Y.M. Shulga, V.A. Smirnov, S.A. Baskakov, A.S. Arbuzov, B.P. Tarasov and **V.A. Yartys**. Graphene-based materials for energy storage: synthesis and properties.// GRAPHENE 2014, 4<sup>th</sup> Edition. Toulouse, France, 6-9 May 2014. P.151.
- 199.** Rune Wendelbo, Sameer Fotedar and **Volodymyr Yartys**. Reduced graphene oxide decoration with functional nanocrystals.// GRAPHENE 2014, 4<sup>th</sup> Edition. Toulouse, France, 6-9 May 2014. P.151.
- 200.** M. Lototskyy, **V.A. Yartys**. Comparative analysis of the efficiencies of hydrogen storage systems utilising solid state H storage materials.// 14<sup>th</sup> International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. 20-25 July 2014. Manchester, U.K. Collected Abstracts. p.99.
- 201.** **Volodymyr A. Yartys** and Roman V. Denys. Structure-properties relationship in nanostructured Mg-based hydrides for energy storage.// 14<sup>th</sup> International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. 20-25 July 2014. Manchester, U.K. Collected Abstracts. p.107. Invited talk.
- 202.** M. Latroche, F. Cuevas, Weikang Hu, D. Scheptyakov, R.V. Denys and **V.A. Yartys**. Role of the rare earth composition on the performance of working metal-hydride electrodes in Ni-MH alkaline batteries.// 14<sup>th</sup> International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. 20-25 July 2014. Manchester, U.K. Collected Abstracts. p.121.
- 203.** I.E.Gabis, I.A.Chernov, R.V. Denys, M.A.Dobrotvorskiy, W. Hu, M.Latroche, A.P.Voyt, B.P. Tarasov, A.M.Yafyasov and **V.A. Yartys**. Influence of Kinetics of Hydrogen Transport in a Metal Hydride Anode on the Discharge Properties of the Electrodes of the Ni-MH Batteries.// 14<sup>th</sup> International Symposium on Metal-Hydrogen Systems. Fundamentals and Applications. 20-25 July 2014. Manchester, U.K. Collected Abstracts. p.123.
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