

A study on hard cyclic viscoplastic deformation behavior of bulk UFG metals

Kommel, Lembit International Symposium Bulk Nanostructured Materials : from Fundamentals to Innovations : BNM-2007 : Ufa, 14-18 August 2007 / p. 262-263

AFM characterization of the surface morphology of the severe plastic deformed copper [Electronic resource]

Hussainova, Irina; Lõhmus, Rünno; **Kommel, Lembit**; Siimon, H. Proceedings of Material Research Society Spring Meeting : March 28 - April 1, 2005, San Francisco, CA, USA 2005 / [CD-ROM]

Analysis of the reciprocal wear testing of Aluminum AA1050 processed by a novel mechanical nanostructuring technique

Omranpour Shahreza, Babak; **Kommel, Lembit**; **Sergejev, Fjodor**; **Ivanisenko, Yulia**; **Antonov, Maksim** IOP conference series : materials science and engineering 2021 / art. 012051, 6 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012051>

Application of the continuous indentation test method for the characterization of mechanical properties of B4C/Al composites

Kimmari, Eduard; **Kommel, Lembit** Proceedings of the Estonian Academy of Sciences. Engineering 2006 / 4, p. 399-407 : ill

Boron carbide based composites manufacturing and recycling features

Kommel, Lembit; **Kimmari, Eduard** Materials science = Medžiagotyra 2006 / 1, p. 48-52 : ill

Boron carbide based composites microstructure and properties relationships to processing features

Kommel, Lembit; **Kübarsepp, Jakob**; **Klaasen, Heinrich** European Powder Metallurgy Conference on Meeting the Challenges of a Changing Market Place : EURO PM2003 : Valencia, Spain, October 20-22, 2003 : conference proceedings. Volume 2 2003 / p. 87-92

Boron containing solid and superhard composites production techniques and properties [Electronic resource]

Kommel, Lembit; **Kübarsepp, Jakob**; **Tarraste, Marek**; **Kolnes, Märt** World PM2016 proceedings 2016 / [6] p. : ill. [USB]

Characterisation of TiC powders milled by attritor technique

Letunovitš, Sergei; **Kommel, Lembit**; **Viljus, Mart**; **Pirso, Jüri** Proceedings of the 2nd International Conference, 27-29th April 2000, Tallinn, Estonia / DAAAM International Vienna, DAAAM National Estonia 2000 / p. 153-156 : ill

Characterization of the viscoplastic behavior of nanocrystalline metals at HCV deformation

Kommel, Lembit; **Hussainova, Irina**; **Traksmaa, Rainer** Reviews on advanced materials science 2005 / p. 447-453

Composites compaction by severe plastic deformation

Kommel, Lembit; **Kollo, Lauri** Materials engineering & Baltrib 2010 : materials of the XIX-th International Baltic Conference : October 28-29, 2010, Riga, Latvia 2010 / p. 29

Damage evolution of structure and fracture of nanocrystalline copper at cyclic deformation

Kommel, Lembit; **Kommel, Igor** "Deformation & Fracture of Materials" : DFM2006 : сборник статей по материалам Первой международной конференции "Деформация и разрушение материалов". I 2006 / p. 411-414 : ill

Dependence of wear of Cu-Cr-S alloy on hardness and electrical conductivity in sliding electrical contact

Kommel, Lembit; **Baroninš, Janis** Materials Engineering 2017 : selected, peer reviewed papers from the 26th International Baltic Conference on Materials Engineering 2017, October 26-27, Kaunas, Lithuania 2017 / p. 229-233 : ill
<http://dx.doi.org/10.4028/www.scientific.net/SSP.267.229>

Design of superhard c-BC2N-precipitates in B4C/Al-composites through SHS and heat treatment

Kommel, Lembit; **Metsvahi, Rainer**; **Viljus, Mart**; **Kimmari, Eduard**; **Kolju, Karl**; **Traksmaa, Rainer** Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering, 19-21st April 2012, Tallinn, Estonia. 2 2012 / p. 645-650 : ill

Diffusion and phase transformation in SC superalloys aided by HCV deformation

Kommel, Lembit Abstracts of the XVI-th International Baltic Conference "Engineering Materials & Baltrib" : 2007, October 25-26, Riga, Latvia 2007 / p. 11

Diffusion and phase transformation influences on life extension of superalloys

Kommel, Lembit Book of abstracts of International Conference on Diffusion in Solids : Past, Present and Future : DiSo-05 : 23-27 May, Moscow, Russia 2005 / p. 28

Diffusion in SC Ni-base superalloy under viscoplastic deformation

Kommel, Lembit; **Straumal, B.** Defect and diffusion forum 2010 / p. 1340-1345 : ill

Diffusion in SC Ni-base superalloys under viscoplastic deformation

Kommel, Lembit; **Straumal, B.** Diffusion in Solids and Liquids V 2010 / p. 1340-1345

Diffusion in the interface region of Ti/TiAl-Nb bonding

Kommel, Lembit Defects and diffusion forum 2006 / p. 193-200

https://www.researchgate.net/publication/240837273_Diffusion_in_the_Interface_Region_of_TiTiAl-Nb_Bonding

Diffusion in the interface region of Ti/TiAl-NB buding

Kommel, Lembit Book of abstracts of International Conference on Diffusion in Solids : Past, Present and Future : DiSo-05 : 23-27

May, Moscow, Russia 2005 / p. 29 https://www.researchgate.net/publication/240837273_Diffusion_in_the_Interface_Region_of_TiTiAl-Nb_Bonding

Dry sliding friction of cubic boron nitride based composite synthesized by SHS [Electronic resource]

Kimmari, Eduard; Kommel, Lembit Proceedings of 12th Nordic Symposium in Tribology : NORDTRIB 2006 : Helsingor, Denmark, 7-9 June 2006 2006 / [CD-ROM]

Effect of attrition milling on grain size and properties of composites

Kommel, Lembit; Kimmari, Eduard; Traksmaa, Rainer Engineering Materials & Tribology : BALTMATTRIB - 2003 : 12th International Baltic Conference : October 2-3, 2003, Tallinn, Estonia : abstracts 2003 / p. 25

Effect of EUP on evolution of microstructure and properties of advanced superalloys

Kommel, Lembit Abstracts of 3rd International Conference "Phase Transition and Strength of Crystals" : September 20-24, 2004, Chernogolovka, Russia 2004 / p. 81

Effect of hard cyclic viscoplastic deformation on hardening/softening of SPD-copper

Kommel, Lembit TMS 2004 : 133rd Annual Meeting & Exhibition : The Minerals, Metals & Materials Society welcomes you to the technical program for the 133rd TMS Annual Meeting & Exhibition, to be held March 14-18, 2004, in Charlotte, North Carolina 2004 / p. 258

https://www.researchgate.net/publication/360806886_Effect_of_Hard_Cyclic_Viscoplastic_Deformation_on_the_Microstructure_Mechanical_Properties_and_Electrical_Conductivity_of_Cu-Cr_Alloy

Effect of hard cyclic viscoplastic deformation on phases chemical composition and micromechanical properties evolution in single crystal Ni-based superalloy

Kommel, Lembit Acta physica polonica A 2015 / p. 681-683 : ill <http://dx.doi.org/10.12693/APhysPolA.128.681>

Effect of hard cyclic viscoplastic deformation on the microstructure, mechanical properties, and electrical conductivity of Cu-Cr alloy

Kommel, Lembit; Huot, Jacques; Omranpour Shahreza, Babak Journal of Materials Engineering and Performance 2022 / p. 9690-

9702 <https://doi.org/10.1007/s11665-022-06997-w> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Effect of new superhard phases formation on properties of composite processed by SHS

Kommel, Lembit; Tamm, Toomas; Metsvahi, Raido Engineering materials and tribology 2013 / p. 137-142

Electrical conductivity and mechanical properties of Cu-0.7wt% Cr and Cu-1.0wt% Cr alloys processed by severe plastic deformation

Kommel, Lembit; Pokatilov, Andrei IOP conference series : materials science and engineering 2014 / p. 1-7 : ill

Enhancement of hydrogen storage in metals by using a new technique in Severe Plastic Deformations

Omranpour Shahreza, Babak; Kommel, Lembit; Sanchez, E. Garcia Modern Materials and Manufacturing 2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATTRIB 2019. Selected, peer reviewed papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. 173-178 : ill <https://doi.org/10.4028/www.scientific.net/KEM.799.173> <https://www.scientific.net/KEM.799.173> https://www.ester.ee/record=b5235278*est [Conference proceeding at Scopus](#) [Article at Scopus](#)

Evaluation of microstructure and properties of heat-proof superalloy enforced by electrical upsetting forging

Kommel, Lembit Деформация и разрушение материалов = Deformation and fracture of materials 2005 / 3, p. 21-27

Evolution of microstructure and hardness in aluminum processed by high pressure torsion extrusion

Omranpour Shahreza, Babak; Ivanisenko, Yulia; Kulagin, Roman; Kommel, Lembit; Sanchez, E. Garcia; Nugmanov, Dayan; Scherer, Torsten; Heczal, Anita; Gubicza, Jeno Materials Science and Engineering : A 2019 / art. 138074, 10 p. : ill

<https://doi.org/10.1016/j.msea.2019.138074> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Evolution of microstructure and properties in Ti-alloys during rapid electrocontact heating with SPD

Kommel, Lembit; Peetsalu, Priidu; Veinthal, Renno Materials Engineering & Baltrib 2001 : materials of the X-th International Baltic Conference : September 27-28, Jurmala, Latvia 2001 / p. 62-66 : ill

Evolution of the characteristics of light weight boron carbide cermet after heat treatment

Kommel, Lembit; Kurik, Lembit; Traksmaa, Rainer EUROMAT 2001 : 7th European Conference on Advanced Materials and Processes : Rimini, Italy, 10-14 June, 2001 : conference abstracts 2001 / p. 319

Evolution of the characteristics of light weight boron carbide cermet after heat treatment [Electronic resource]

Kommel, Lembit; Kurik, Lembit; Traksmaa, Rainer Proceedings of 7th European Conference on Advanced Materials and Processes : EUROMAT 2001 : Italy 2001 / [CD-ROM]

Fabrication, control and properties of nanocrystalline copper

Kommel, Lembit; Kübarsepp, Jakob; Veinthal, Renno; Traksmaa, Rainer Nano-architected and nanostructured materials : fabrication, control and properties 2004 / p. 27-37 : ill

Formation of the nanomeasures refractory compounds in the B₄C based composites and their influence on wear resistance

Kommel, Lembit; Kimmari, Eduard Abstracts of the 12th Joint Nordic Conference on Powder Technology : Tampere, Finland, 2003 2003 / p. 40

Friction and wear changes of boron carbide cermet depending on the structure

Kommel, Lembit; Kimmari, Eduard Abstracts of International Conference Materials Engineering and Tribology 2002 / p. 35

Friction and wear changes of boron carbide cermets depending on the structure

Kommel, Lembit; Kimmari, Eduard Materials science = Medžiagotyra 2003 / 1, p. 51-53 : ill

Gradient microstructure in tantalum formed under the wear track during dry sliding friction

Kommel, Lembit; Põdra, Priit; Mikli, Valdek; Omranpour Shahreza, Babak Wear 2021 / art. 203573, 7 p. : ill

<https://doi.org/10.1016/j.wear.2020.203573> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Grain boundary phase transformations in superalloys

Kommel, Lembit Book of abstracts of 10th International Symposium on Physics of Materials : ISPMA10 : August 30 - September 2, 2005, Prague, Czech Republic 2005 / p. 30

Hardness of hot consolidated Al-SiC nanocomposites from planetary milled powders

Kollo, Lauri; Leparoux, Marc; Bradbury, Christopher R.; Kommel, Lembit; Carreno-Morelli, Efrain; Rodriguez-Arbaizar, M. World PM2010 proceedings. Vol. 1, Powder Manufacturing and Processing, Miniaturization and Nanotechnology, Powder Pressing 2010 / p. 341-346

High-strength aluminum alloy of ultrafine grained by consolidation-ECAP

Pramono, Agus; Kollo, Lauri; Kommel, Lembit; Veinthal, Renno IOP conference series : materials science and engineering 2019 / art. 012035, 7 p. : ill <https://doi.org/10.1088/1757-899X/478/1/012035> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Hot and cold of pressing effect on ECAP-parallel channel composite based on Al/ANF material

Pramono, Agus; Kommel, Lembit; Kollo, Lauri; Veinthal, Renno Advanced materials research 2015 / p. 343-347

<http://dx.doi.org/10.4028/www.scientific.net/AMR.1123.343>

Hot consolidation of aluminum and aluminum nano-MMC powders by Equal Channel Angular Pressing

Kollo, Lauri; Kallip, Kaspar; Gomon, Jaana-Kateriina; Kommel, Lembit Materials science = Medžiagotyra 2012 / p. 234-237 : ill

https://www.researchgate.net/publication/267226658_Hot_Consolidation_of_Aluminium_and_Aluminium_nano-MMC_Powders_by_Equal_Channel_Angular_Pressing

Impact fused-forging modeling technique

Kommel, Lembit Proceedings of the 8th International Baltic Conference : Materials Engineering-99 : September 23-24, Kaunas, Lithuania 1999 / p. 117-120

The impact of microstructural refinement on the tribological behavior of niobium processed by Indirect Extrusion Angular Pressing

Omranpour Shahreza, Babak; Hernandez-Rodriguez, Marco A. L.; Hernandez-Rodriguez, Edgar; Kommel, Lembit; Sergejev, Fjodor Tribology international 2022 / art. 107412 <https://doi.org/10.1016/j.triboint.2021.107412> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Impact pressure on mechanical properties of aluminum based composite by ECAP-parallel channel

Pramono, Agus; Dhoska, Klodian; Markja, Irida; Kommel, Lembit Pollack periodica 2019 / p. 67-74

<https://doi.org/10.1556/606.2019.14.1.7> [Journal metrics at Scopus](#) [Article at Scopus](#)

Increase of life extension compressor blades of the turbo-jet by electroupsetting

Kommel, Lembit; Teterin, G.; Traksmaa, Rainer Advances in mechanical behaviour, plasticity and damage : proceedings of EUROMAT 2000. Volume 2 2000 / p. 1143-1148 : ill

https://www.researchgate.net/publication/321711508_Increase_of_life_extension_compressor_blades_of_the_turbo-jet_by_electro_upsetting_In_Advances_in_Mechanical_Behaviour_Plasticity_and_Damage_Proc_of_the_EUROMAT_2000_vol_2_Tours_France_07-09

Influence of binder composition and microhardness on wear properties of light weight composites

Kommel, Lembit; Traksmaa, Rainer; Kimmari, Eduard Powder metallurgy progress 2003 / 3, p. 140-145 : ill
https://www.researchgate.net/publication/269035885_Influence_of_binder_composition_and_microhardness_on_wear_properties_of_light_weight_composites

Influence of hard cyclic viscoplastic deformation on chemical composition and micromechanical properties of phases of single crystal Ni-base superalloys

Kommel, Lembit 13th International Symposium on Physics of Materials : ISPM 13 : Prague 31.8-4.9.2014 : the book of abstracts 2014 / [1] p

Influence of SPD on structure and properties of copper

Kommel, Lembit; Kenk, Kalju; Veinthal, Renno Proceedings of the 3rd International Conference Industrial Engineering - New Challenges to SME : 25-27 April 2002, Tallinn, Estonia 2002 / p. 161-164 : ill

Influence of the SPD processing features on the nanostructure and properties of a pure niobium

Kommel, Lembit; Mikli, Valdek; Traksmaa, Rainer; Saarna, Mart; Pokatilov, Andrei; Pikker, Siim; Kommel, Igor Materials science forum ; 667/669 2011 / p. 785-790 : ill

Investigation of steam turbine blades damage and reliability in a power plant

Molodtsov, Artjom; Dedov, Andrei; Klevtsov, Ivan; Kommel, Lembit; Lausmaa, Toomas; Mikli, Valdek Modern Materials and Manufacturing 2019 : 12th International DAAAM Baltic Conference and 27th International Baltic Conference BALTMATTRIB 2019. Selected, peer reviewed papers from the conference Modern Materials and Manufacturing 2019 (MMM 2019), April 24-26, 2019, Tallinn, Estonia 2019 / p. 89-94 : ill <https://www.scientific.net/KEM.799.89> https://www.eester.ee/record=b5235278*est
<https://doi.org/10.4028/www.scientific.net/KEM.799.89> Conference proceeding at Scopus Article at Scopus

Investigations of structure and tribological properties of the lightweight c-BN-based composites

Kommel, Lembit; Kimmari, Eduard Materials science = Medžiagotyra 2005 / 4, p. 394-397 : ill

Mechanical and structural characterization of multiphase B4C/Al composites synthesized by SHS

Kimmari, Eduard; Kommel, Lembit 15th International Baltic Conference "Engineering Materials & Tribology. Baltmattrib - 2006" : October 5-6, 2006, Tallinn, Estonia : abstracts 2006 / p. 33-34

Mechanical behaviour of nanostructured copper produced by SPD method

Hussainova, Irina; Kommel, Lembit; Lõhmus, Rünno; Lõhmus, Ants Proceedings of International Conference on Modern Materials Science > September 26-30, 2005, Kiev, Ukraine 2005 / ? p

Mechanism for single crystal refinement in high purity niobium during equal-channel angular pressing

Kommel, Lembit; Laev, Natalja 17th International Baltic Conference : Materials Engineering 2008 : November 6-7, Kaunas, Lithuania : abstracts of papers 2008 / p. 12

Mechanism for single crystal refinement in high purity niobium during equal-channel angular pressing

Kommel, Lembit; Laev, Natalja Materials science 2008 / p. 319-323 : ill

Metals microstructure improving under hard cyclic viscoplastic deformation

Kommel, Lembit Nanomaterials by severe plastic deformation IV. Part 1 2008 / p. 361-366 : ill

Micromechanical properties and electrical conductivity of Cu and Cu-0.7wt% Cr alloy

Kommel, Lembit; Pardis, N.; Kimmari, Eduard Proceedings of the 9th International Conference of DAAAM Baltic Industrial Engineering, 24-26th April 2014, Tallinn, Estonia 2014 / p. 354-359 : ill

Microscopic characterization of surface morphology of nanostructured copper

Hussainova, Irina; Kommel, Lembit; Lõhmus, Rünno; Volobujeva, Olga Reviews on advanced materials science 2005 / p. 266-271 : ill

Microstructural control of TiAl intermetallic alloys

Kommel, Lembit Proceedings of the 8th International Baltic Conference : Materials Engineering-99 : September 23-24, Kaunas, Lithuania 1999 / p. 121-124

Microstructural evolution and mechanical properties of nanostructured copper

Kommel, Lembit; Hussainova, Irina; Volobujeva, Olga; Lõhmus, Rünno Proceedings of the Estonian Academy of Sciences. Engineering 2005 / 3, p. 187-197 : ill

Microstructural features of ultrafine grained copper under severe deformation

Kommel, Lembit; Rõzkina, Anna; Vlasieva, Inna Materials science 2008 / 3, p. 206-209 : ill
<https://matssc.ktu.lt/index.php/MatSc/article/view/26212>

Microstructural features of ultrafine grained copper under severe deformation

Kommel, Lembit; Rõzkina, Anna; Vlasieva, Inna 17th International Baltic Conference : Materials Engineering 2008 : November 6-7, Kaunas, Lithuania : abstracts of papers 2008 / p. 15 <https://matisc.ktu.lt/index.php/MatSc/article/view/26212>

Microstructure and microhardness characteristics in the interface region of Ti/TiAl-Nb diffusion bonding

Kommel, Lembit Engineering Materials & Tribology : BALTMATTRIB - 2003 : 12th International Baltic Conference : October 2-3, 2003, Tallinn, Estonia : abstracts 2003 / p. 56

Microstructure and physical-mechanical properties evolution of pure tantalum processed with hard cyclic viscoplastic deformation

Kommel, Lembit; Omranpour Shahreza, Babak; Mikli, Valdek International journal of refractory metals and hard materials 2019 / art. 104983, 10 p. : ill <https://doi.org/10.1016/j.jirmhm.2019.104983> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Microstructure and properties characterization of polycrystalline Ni-Fe-Cr-based superalloy EP-718E after electric upsetting

Kommel, Lembit Engineering materials and tribology XXV 2017 / p. 467-472 <http://dx.doi.org/10.4028/www.scientific.net/KEM.721.467>

Microstructure and properties development of copper during severe plastic deformation

Kommel, Lembit; Hussainova, Irina; Volobujeva, Olga Materials & design 2007 / 7, p. 2121-2128 : ill <https://www.sciencedirect.com/science/article/pii/S0261306906001713>

Microstructure and properties development of copper during severe plastic deformation [Electronic resource]

Hussainova, Irina; Kommel, Lembit Nanotechnology in Northern Europe : Congress : Finland, 2005 2005 / p. 54 [CD-ROM]

Microstructure and properties of UFG metals and alloys

Kommel, Lembit XII International Conference on Nanostructured Materials (NANO 2014) : July 13-18, 2014 : program 2014 / p. 103

Microstructure and properties that change during hard cyclic visco-plastic deformation of bulk high purity niobium

Kommel, Lembit International journal of refractory metals and hard materials 2019 / p. 10-17 : ill <https://doi.org/10.1016/j.jirmhm.2018.10.009> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Microstructure control of titanium aluminides intermetallic by impact fused-forging modelling

Kommel, Lembit; Teterin, G.; Kodess, Boris N. Proceedings of NATO Advanced Research Workshop : Investigations and Applications of Severe Plastic Deformation : August 2-6, 1999, Moscow, Russia 1999 / p. 79

Microstructure evolution in Ti-alloys during severe deformation by electric upsetting and impact fused-forging modeling

Kodess, Boris N.; **Kommel, Lembit; Teterin, G.P.; Ovcharov, V.K.** Investigations and applications of severe plastic deformation 2000 / p. 211-218 : ill

Microstructure evolution in Ti-alloys during severe plastic deformation by electric upset forging

Kommel, Lembit; Teterin, G. Proceedings of NATO Advanced Research Workshop : Investigations and Applications of Severe Plastic Deformation : August 2-6, 1999, Moscow, Russia 1999 / p. 78

Microstructure evolution in titanium alloys enforced by Joule heating and severe plastic deformation concurrently

Kommel, Lembit Journal of manufacturing technology research 2010 / 1/2, p. 59-76

Microstructure, properties and atomic level strain in severely deformed rare metal niobium

Kommel, Lembit; Saarna, Mart; Traksmäa, Rainer; Kommel, Igor Materials science = Medžiagotyra 2012 / p. 330-335 : ill

Microstructure, texture and mechanical properties of cyclic expansion-extrusion deformed pure copper

Pardis, N.; Chen, C.; Ebrahimi, R.; Kommel, Lembit Materials science and engineering : A 2015 / p. 423-432 : ill <http://dx.doi.org/10.1016/j.msea.2015.01.003>

Multiphase forming in lightweight composites during SHS reaction

Kommel, Lembit; Kimmari, Eduard 17th International Baltic Conference : Materials Engineering 2008 : November 6-7, Kaunas, Lithuania : abstracts of papers 2008 / p. 19-20 <https://www.matisc.ktu.lt/index.php/MatSc/article/view/26220>

Multiphase forming in lightweight composites during SHS reaction

Kommel, Lembit; Kimmari, Eduard Materials science 2008 / p. 242-246 : ill <https://www.matisc.ktu.lt/index.php/MatSc/article/view/26220>

Multiphase microstructure forming purpose in lightweight composites

Kommel, Lembit; Kimmari, Eduard Proceedings of the 6th International Conference of DAAAM Baltic "Industrial Engineering" : 24-26th April 2008, Tallinn, Estonia. [2] 2008 / p. 479-484 : ill

Nanostructured copper manufacturing features and mechanical/physical properties forming

Kommel, Lembit Nanopowders, Nanostructured Materials and Coatings : Network for Nanostructured Materials of ACC : March 17, 2005, Tallinn, Estonia : book of abstracts 2005 / p. 22-24 : ill

Nanostructure and properties study of advanced high purity rare metals

Kommel, Lembit; Saarna, Mart; Laev, Natalja 18th International Baltic Conference : Engineering Materials & Tribology : BALTMATTRIB-2009 : October 22-23, 2009, Tallinn, Estonia : abstracts 2009 / p. 43

Nanostructure development in refractory metals : ECAP processing of Niobium and Tantalum using indirect-extrusion technique

Omranpour Shahreza, Babak; Kommel, Lembit; Mikli, Valdek; Garcia, Edgar; Huot, Jacques International journal of refractory metals and hard materials 2019 / p. 1-9 : ill <https://doi.org/10.1016/j.jirmhm.2018.10.018> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

New advanced technologies for nanocrystalline metals manufacturing

Kommel, Lembit Proceedings of the 4th International Conference Industrial Engineering - New Challenges to SME : 29-30 April 2004, Tallinn, Estonia 2004 / p. 195-198 : ill

New technique for characterization of microstructure of the nickel-base superalloy

Kommel, Lembit Proceedings of the 7th International Conference of DAAAM Baltic Industrial Engineering : 22-24th April 2010, Tallinn, Estonia. [II] 2010 / p. 498-503 : ill

Order change and phase's redistribution in single crystal of Ni-based superalloy during hard cyclic viscoplastic deformation

Kommel, Lembit; Kodess, Boris N.; **Kommel, Igor** Acta crystallographica section A : foundations and advances 2016 / p. 304 <http://journals.iucr.org/a/issues/2016/a1/00/a54456/a54456.pdf>

Overview of hard cyclic viscoplastic deformation as a new SPD method for modifying the structure and properties of niobium and tantalum

Kommel, Lembit Nanotechnology and advanced material science 2024 / 15 p <http://doi.org/10.31038/NAMS.2024721>

Peculiarities of microstructure evolution and property changes of titanium alloys in situ during electric forging

Kommel, Lembit Materials performance and characterization 2020 / p. 75-88 : ill <https://doi.org/10.1520/MPC20190109> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Phase equilibrium evolution in single-crystal Ni-based superalloys

Kommel, Lembit Superalloys 2015 / p. 171-202 : ill <http://dx.doi.org/10.5772/61102>

Phase transformations in titanium alloys by rapid electric conduction heating with SPD

Kommel, Lembit Book of abstracts of 10th International Symposium on Physics of Materials : ISPMA10 : August 30 - September 2, 2005, Prague, Czech Republic 2005 / p. 31 https://www.researchgate.net/publication/281554583_Phase_transformation_in_titanium_alloys_by_rapid_electric_conduction_heating_with_SPD

Phases micromechanical properties of Ni-base superalloy measured by nanoindentation

Kommel, Lembit; Kimmari, Eduard; Viljus, Mart; Traksmaa, Rainer; Volobujeva, Olga; Kommel, Igor Materials science = Medžiagotyra 2012 / p. 28-33 : ill <https://matssc.ktu.lt/index.php/MatSc/article/view/1337>

Phases properties of SC superalloy measured by nanoindentation

Kommel, Lembit; Kimmari, Eduard; Viljus, Mart Materials engineering & Baltrib 2010 : materials of the XIX-th International Baltic Conference : October 28-29, 2010, Riga, Latvia 2010 / p. 22

Preparation of multiphase lightweight c-BN-based composite

Juhani, Kristjan; Kimmari, Eduard; Kommel, Lembit International Powder Metallurgy Congress & Exhibition : EURO PM2008 : 29th September - 1st October 2008, Mannheim, Germany : proceedings. Vol.1 2008 / p. 231-236 : ill

Processing and properties of bulk ultrafine-grained pure niobium

Kommel, Lembit; Kimmari, Eduard; Saarna, Mart; Viljus, Mart Journal of materials science 2013 / p. 4723-4729 : ill

Production of hard refractory compounds on base of aluminium and boron carbide powders

Kommel, Lembit; Kollo, Lauri World PM2010 proceedings. Vol. 2, Sintering, Secondary and Finishing Operations, Full Density and Alternative Consolidation 2010 / p. 337-343

Production of superhard carbon rich boron carbon (B_{11.72}C_{3.28}) based composite in the B₄C-Al-WC-Co-Cu system through SHS and SPS techniques [Electronic resource]

Kommel, Lembit; Tarraste, Marek; Kolnes, Märt; Veinthal, Renno; Kübarsepp, Jakob Euro PM2015 Congress & Exhibition : proceedings : 4-7 October 2015, Reims Congress Centre, Reims, France 2015 / [6] p. : ill. [USB]

Production technology elaboration and characterization of Al-MWCNT, Al-fullerenes and Al-B4C composites

Kommel, Lembit; Metsvahi, Rainer; Mihhaltsekov, M. Proceedings of the 8th International Conference of DAAAM Baltic Industrial Engineering, 19-21st April 2012, Tallinn, Estonia. 2 2012 / p. 651-656 : ill

Properties development of ultrafine-grained copper under hard cyclic viscoplastic deformation

Kommel, Lembit Materials letters 2010 / p. 1580-1582 : ill

Recycling of light weight B4C based composites

Kommel, Lembit; Kimmari, Eduard Proceedings of the 4th International Conference Industrial Engineering - New Challenges to SME : 29-30 April 2004, Tallinn, Estonia 2004 / p. 199-202 : ill

Relationship of strength and durability of nanometals

Kommel, Lembit Abstracts of the XVI-th International Baltic Conference "Engineering Materials & Baltmattrib" : 2007, October 25-26, Riga, Latvia 2007 / p. 10

Relationship of strength and durability of nanometals

Kommel, Lembit; Rõzkina, Anna; Vlasieva, Inna Latvijas kimijas žurnals = Latvian journal of chemistry 2008 / 1, p. 55-61 : ill

Rüütel on isiksus, mitte müügimees : [lugeja kiri presidendivalimistest]

Kommel, Lembit Äripäev 2001 / lk. 23 <https://www.aripaev.ee/uudised/2001/09/24/ruutel-on-isiksus-mitte-muugimees>

Solid phase's transformations in boron carbide based composites during heat treatment

Kommel, Lembit; Kimmari, Eduard Solid state phenomena 2008 / p. 175-180

Stability and damage of nanocrystalline copper at cyclic elastic-plastic deformation

Kommel, Lembit; Hussainova, Irina; Veinthal, Renno; Saarna, Mart Ultrafine Grained Materials - from Basics to Applications : UFG-2006 : September 25-27, 2006, Kloster Irsee, Germany 2006 / p. 3-17 - 3-19

Strength and plasticity of nanocrystalline copper

Kommel, Lembit; Hussainova, Irina; Volobujeva, Olga Деформация и разрушение материалов = Deformation and fracture of materials 2005 / 11, p. 17-23

Strength and plasticity of nanocrystalline copper after HCV deformation

Kommel, Lembit; Hussainova, Irina; Volobujeva, Olga Abstracts of 3rd International Conference "Phase Transition and Strength of Crystals" : September 20-24, 2004, Chernogolovka, Russia 2004 / p. 47-48

Structural behavior and damage evolution of nanocrystalline copper at HCV deformation

Kommel, Lembit; Hussainova, Irina; Nisumaa, Reet; Volobujeva, Olga; Saarna, Mart 15th International Baltic Conference "Engineering Materials & Tribology. Baltmattrib - 2006" : October 5-6, 2006, Tallinn, Estonia : abstracts 2006 / p. 40-41 : ill

Structural behaviour of NC copper at hard cyclic viscoplastic deformation

Kommel, Lembit; Hussainova, Irina; Nisumaa, Reet; Volobujeva, Olga Ultrafine Grained Materials - from Basics to Applications : UFG-2006 : September 25-27, 2006, Kloster Irsee, Germany 2006 / p. 6-16 - 6-17

Structural optimisation of titanium alloys by electric upset forging

Kommel, Lembit Proceedings of the First International Conference on Modeling, Simulation and Appliance Optimisation : ICMSAO-05 : February 1-3, Sharjah, United Arab Emirates 2005 / ? p

Structure and mechanical properties of the engine valves with intermetallic disk

Kodess, Boris N.; Teterin, G.; **Kommel, Lembit;** Ovcharov, V. Journal of materials research 1999 / p. 652-657

Structure and mechanical properties of Ti-Al

Kommel, Lembit; Ovcharov, V.; Kodess, Boris N.; Teterin, G.; Kisel, N.; Ermolova, M. Acta Metallurgica : Proceedings of IUCr'99 meeting : Glasgow, August 7-9, 1999 1999 / [0,2ap]

Structure and properties evolution of superalloy in zone of uniform deformation by electroupsetting

Kommel, Lembit; Viljus, Mart EUROMAT 2001 : 7th European Conference on Advanced Materials and Processes : Rimini, Italy, 10-14 June, 2001 : conference abstracts 2001 / p. 402-403

Structure and properties evolution of superalloy in zone of uniform deformation by electroupsetting [Electronic resource]

Kommel, Lembit; Viljus, Mart Proceedings of 7th European Conference on Advanced Materials and Processes : EUROMAT 2001 : Italy 2001 / [CD-ROM]

Structure and properties of boron nitride based composite produced by SHS method

Kommel, Lembit; Kübarsepp, Jakob; Hussainova, Irina; Kimmari, Eduard Fifth International Conference on Composite Science and Technology : ICCST/5 : 1-3 February 2005, Sharjah, United Arab Emirates : proceedings 2005 / p. 461-466 : ill

Structure evolution of submicrocrystalline copper during cyclic deformation

Kommel, Lembit; Dobatkin, S.; Straumal, B.; Kommel, Igor; Kuznetsov, A. Bulk Nanostructured Materials : from Fundamentals to Innovations 2009 / p. 237-238

Study of the ultrafine-grains intrinsic nanostructure refinement by severe plastic deformation of copper alloys

Kommel, Lembit; Veinthal, Renno; Mikli, Valdek; Dedov, Andrei OAS 2015 : proceedings of the 3rd [i.e. 3rd] International Conference Optimization and Analysis of Structures III : Tartu, Estonia, August 23-25, 2015 2015 / p. 28-32 : ill

Synthesis and characterization of mechanical properties of boron-carbon-based superhard composites

Kommel, Lembit; Omranpour Shahreza, Babak Carbon Letters 2023 / p. 1311-1319 <https://doi.org/10.1007/s42823-022-00351-9>

Synthesis of superhard lightweight composites and improvement of their properties via chemical processing

Kommel, Lembit; Tamm, Toomas; Metsvahi, Raido; Nokkur, Kadri Frontiers in materials processing, applications, research and technology : select proceedings of FiMPART 2015 2018 / p. 53-61 : ill https://doi.org/10.1007/978-981-10-4819-7_6
http://www.ester.ee/record=b4762647*est

Tailoring the microstructure and tribological properties in commercially pure aluminium processed by High Pressure Torsion Extrusion

Omranpour Shahreza, Babak; Kommel, Lembit; Sergejev, Fjodor; Ivanisenko, Yulia; Antonov, Maksim Proceedings of the Estonian Academy of Sciences 2021 / p. 540-548 : ill <https://doi.org/10.3176/proc.2021.4.23> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

The aluminum based composite produced by Self propagating High temperature Synthesis

Pramono, Agus; Kommel, Lembit; Kollo, Lauri; Veinthal, Renno Materials science = Medžiagotyra 2016 / p. 41-43 : ill
<http://dx.doi.org/10.5755/j01.ms.22.1.7500>

The characterization of TiAl intermetallics after rapid solidification by IFFM technique

Kommel, Lembit; Traksmaa, Rainer EUROMAT 2001 : 7th European Conference on Advanced Materials and Processes : Rimini, Italy, 10-14 June, 2001 : conference abstracts 2001 / p. 339

The characterization of TiAl intermetallics after rapid solidification by IFFM technique [Electronic resource]

Kommel, Lembit; Traksmaa, Rainer Proceedings of 7th European Conference on Advanced Materials and Processes : EUROMAT 2001 : Italy 2001 / [CD-ROM]

The copper structure and properties evolution in zone of severe plastic deformation

Kommel, Lembit; Kenk, Kalju; Veinthal, Renno Abstracts of International Conference Materials Engineering and Tribology 2002 / p. 19

The copper structure and properties evolution in zone of severe plastic deformation

Kommel, Lembit; Kenk, Kalju; Veinthal, Renno Medžiagotyra = Materials science 2002 / 4, p. 396-398 : ill

The effect of HCV deformation on hardening/softening of SPD copper

Kommel, Lembit Ultrafine grained materials III : proceedings of Symposium : held during the 2004 TMS Annual Meeting in Charlotte, North Carolina, U.S.A., March 14-18, 2004 2004 / p. 571-576

The effect of microstructure evolution on the wear behavior of tantalum processed by Indirect Extrusion Angular Pressing

Omranpour Shahreza, Babak; Huot, Jacques; Antonov, Maksim; Kommel, Lembit; Sergejev, Fjodor; Perez Trujillo, Francisco Javier; Heczal, Anita; Gubicza, Jeno International journal of refractory metals and hard materials 2023 / art. 106079, 11 p. : ill
<https://doi.org/10.1016/j.ijrmhm.2022.106079>

The formation of structure and change of properties during heat treatment of boron carbide cermets

Kommel, Lembit; Veinthal, Renno; Kimmari, Eduard Abstracts of International Conference Materials Engineering and Tribology 2002 / p. 56

The formation of structure and change of properties during heat treatment of boron carbide composites

Kommel, Lembit; Veinthal, Renno; Kimmari, Eduard Materials science = Medžiagotyra 2003 / 1, p. 99-101 : ill

The formation of wear resistant properties of boron carbide cermet

Kommel, Lembit; Kimmari, Eduard Proceedings of the 3rd International Conference Industrial Engineering - New Challenges to SME : 25-27 April 2002, Tallinn, Estonia 2002 / p. 165-168 : ill

The influence of binder phase status on the wear resistance of boron carbide cermet by friction

Kommel, Lembit; Kimmari, Eduard; **Peetsalu, Priidu** Materials Engineering & Balttrib 2001 : materials of the X-th International Baltic Conference : September 27-28, Jurmala, Latvia 2001 / p. 202-206 : ill

The influence of development of new technology and materials on resource of gas turbine engines

Kommel, Lembit Baltica V : Condition and Life Management for Power Plants : Porvoo, Finland, June 6-8, 2001. Vol. 1 2001 / p. 173-184 : ill

The influence of refractory composition in binder phase on wear properties of boron carbide aluminium composites

Kommel, Lembit; Traksmäa, Rainer; Kimmari, Eduard Abstracts of 10th Nordic Symposium on Tribology NORDTRIB 2002 / p. 97

The influence of refractory composition in binder phase on wear properties of boron carbide aluminium composites

[Electronic resource]

Kommel, Lembit; Traksmäa, Rainer; Kimmari, Eduard Proceedings of 10th Nordic Symposium on Tribology NORDTRIB 2002 / Ref. 18 [CD-ROM]

The investigation mechanism of structure forming in titanium alloys by electric upset forging

Kommel, Lembit Proceedings of the International Symposium-Exhibition on Advanced Materials, Technologies, Equipment and Tools in Mechanical Engineering : April 20-23, 1999, Kiev, Ukraine 1999 / p. 66

The investigation of advanced constructional materials and manufacturing technologies

Kommel, Lembit; Veinthal, Renno Materials Engineering & Balttrib 2001 : materials of the X-th International Baltic Conference : September 27-28, Jurmala, Latvia 2001 / p. 41-45 : ill

The investigation of metals joint zone in bimetallic parts acquired by impuls fused-forging modeling

Kommel, Lembit Proceedings of the International Symposium-Exhibition on Advanced Materials, Technologies, Equipment and Tools in Mechanical Engineering : April 20-23, 1999, Kiev, Ukraine 1999 / p. 65

The investigation of structure and properties of TiAl-Nb alloy

Kommel, Lembit Proceedings of the International Symposium-Exhibition on Advanced Materials, Technologies, Equipment and Tools in Mechanical Engineering : April 20-23, 1999, Kiev, Ukraine 1999 / p. 67

The light weight boron carbide cermet as tribomaterial

Kommel, Lembit; Pirso, Jüri; Traksmäa, Rainer 9th Nordic Symposium on Tribology NORDTRIB 2000 : Porvoo, Finland, 11-14 June 2000. Vol. 3 2000 / p. 886-895 : ill

The metal ceramic boron carbide light alloy produced by powder metallurgy

Kommel, Lembit; Traksmäa, Rainer Proceedings of Joint Nordic Conference in Powder Technology 2000 / p. 37

The plastic flow of alloys in zone of angular deformation by electroupsetting forging

Kommel, Lembit Materials Engineering & Balttrib 2001 : materials of the X-th International Baltic Conference : September 27-28, Jurmala, Latvia 2001 / p. 67-71 : ill

The structure and properties forming in boron carbide aluminium composites during processing

Kommel, Lembit; Hussainova, Irina; Kimmari, Eduard Proceedings of World Congress on Powder Metallurgy and Particulate Materials, USA. Vol. 6 2002 / p. 182-187

Thermally induced cracking in aluminum/boron carbide composite

Kimmari, Eduard; Kommel, Lembit Proceedings of the 6th International Conference of DAAAM Baltic "Industrial Engineering" : 24-26th April 2008, Tallinn, Estonia. [2] 2008 / p. 467-472 : ill

Titaani alumiinid kui järgmise sajandi konstruktsioonimaterjalid masinaehituses

Kommel, Lembit IV Välis-Eesti kongress, 29.-30. juunil 1999. a. Tallinnas : ettekannete kokkuvõtteid 1999 / lk. 89-90

Tribological behavior at dry sliding by electric current of Cu-Cr-S alloy after equal channel angular pressing

Kommel, Lembit Engineering materials and tribology XXV 2017 / p. 430-435 <http://dx.doi.org/10.4028/www.scientific.net/KEM.721.430>

UFG microstructure processing by ECAP from double electron-beam melted rare metal

Kommel, Lembit Nanomaterials by severe plastic deformation IV. Part 1 2008 / p. 349-354 : ill

Wear and friction in boron carbide cermet-steel sliding system

Kommel, Lembit; Hussainova, Irina; Kimmari, Eduard Abstracts of papers from 2nd World Tribology Congress 2001 / p. 93

Wear and friction in boron carbide cermet-steel sliding system [Electronic resource]

Kommel, Lembit; Hussainova, Irina; Kimmari, Eduard WTC 2001 : 2nd World Tribology Congress : Vienna, Austria, 03-07 September 2001 2001 / [4] p.: ill. [CD-ROM]

Wear resistance behavior of light-weight composites

Kommel, Lembit; Kimmari, Eduard Abstracts of the XVI-th International Baltic Conference "Engineering Materials & Baltmattrib" : 2007, October 25-26, Riga, Latvia 2007 / p. 22

Viscoelastic behavior of a single-crystal nickel-base superalloy

Kommel, Lembit Materials science 2009 / p. 123-128 : ill

Viscoplastic behavior of SPD copper

Kenk, Kalju; Kommel, Lembit; Veinthal, Renno Engineering Materials & Tribology : BALTMATTRIB - 2003 : 12th International Baltic Conference : October 2-3, 2003, Tallinn, Estonia : abstracts 2003 / p. 47-48

X-ray diffraction studies of nanocrystalline niobium

Kommel, Lembit; Traksmaa, Rainer; Kommel, Igor; Saarna, Mart Materials engineering & Baltrib 2010 : materials of the XIX-th International Baltic Conference : October 28-29, 2010, Riga, Latvia 2010 / p. 20

X-ray investigation of microstructure and properties evolution on superalloy Inconel-718 derivative during rapid joule heating and severe plastic deformation in-situ

Kommel, Lembit; Traksmaa, Rainer; Mikli, Valdek International journal for innovation education and research 2018 / p. 12-22 : ill
<http://ijer.net/index.php/ijer/article/download/1145/813/>

Влияние теплофизических свойств титановых сплавов на параметры электровысадки

Kommel, Lembit; Teterin, G.; Kodess, Boris N. Кузнечно-штамповочное производство 1998 / 7, с. 29-34: ил

Исследование методом наноиндетирования микромеханических свойств полос сдвига в нанокристаллическом чистом ниобии, полученном при интенсивной пластической деформации

Kommel, Lembit НАНО 2013 : в Всероссийская конференция по наноматериалам : сборник материалов : 23-27 сентября 2013 г., г. Звенигород 2013 / с. 414-416

Структурные характеристики легированных жаропрочных сплавов на основе Ni3Al

Kommel, Lembit; Kodess, Boris N.; Kommel, Igor Сборник тезисов Первого Российского кристаллографического конгресса : 21-26 ноября 2016, г. Москва 2016 / с. 375 http://www.issp.ac.ru/ebooks/conf/Cryst_Congress_1.pdf

Электровысадка заготовок под штамповку короткоперьевых лопаток компрессора

Kommel, Lembit; Teterin, G. Кузнечно-штамповочное производство 1998 / 10, с. 18-22: ил

Электровысадка титановых заготовок с регламентируемыми структурой и свойствами

Kommel, Lembit; Teterin, G. Кузнечно-штамповочное производство 1998 / 8, с. 35-40: ил