

### **Acoustic performance of an additive manufactured lattice structure**

**Auriemma, Fabio; Liu, Le** IOP conference series : materials science and engineering 2021 / art. 012002, 5 p.: ill <https://doi.org/10.1088/1757-899X/1140/1/012002>

### **Acoustic study of multi-layered microperforated elements for fibreless noise control applications**

**Villau, Margus; Rämmal, Hans; Lavrentjev, Jüri** IOP conference series : materials science and engineering 2021 / art. 012015, 7 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012015>

### **Adhesion of AlCrN coating deposited on TiB<sub>2</sub>/Ti composites sintered by SPS dedicated for high temperature tribological applications**

Michalczewski, Remigiusz; Kalbarczyk, M.; Slomka, Z.; **Hussainova, Irina; Liu, Le; Antonov, Maksim** IOP conference series : materials science and engineering 2021 / art. 012010, 9 p <https://doi.org/10.1088/1757-899X/1140/1/012010>

### **Alloying of TiC-FeCr cermet in manganese vapor**

**Kolnes, Märt; Tarraste, Marek; Kübarsepp, Jakob; Juhani, Kristjan; Viljus, Mart** IOP conference series : materials science and engineering 2021 / art. 012043 <https://doi.org/10.1088/1757-899X/1140/1/012043>

### **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>

### **Annealing effect on CdS films : transition from glass to ITO**

**Maticiu, Natalia; Hiie, Jaan** IOP conference series : materials science and engineering 2013 / p. 1-4 : ill <https://doi.org/10.1088/1757-899X/49/1/012061> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **The ARROWS project : robotic technologies for underwater archaeology**

Allotta, Benedetto; Costanzi, Riccardo; Ridolfi, Alessandro; Salvetti, Ovidio; Reggiannini, Marco; **Kruusmaa, Maarja; Salumäe, Taavi**; Lane, David M. Mike; Frost, Gordon; Tsiogkas, Nikolaos; Cocco, Michele IOP conference series : materials science and engineering 2018 / art. 012088 <https://doi.org/10.1088/1757-899X/364/1/012088> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Bioinert ceramics scaffolds for bone tissue engineering by laser-based powder bed fusion : a preliminary review**

**Kamboj, Nikhil Kumar; Piili, H.; Ganvir, A.; Gopaluni, A.; Nayak, C.; Moritz, N.; Salminen, A.** IOP conference series : materials science and engineering 2023 / art. 012022, 10 p. : ill <https://doi.org/10.1088/1757-899X/1296/1/012022>

### **Composition of engineering drawing through communication skills and social/material interactions from the semiotic aspect**

Lille, Harri; **Ruus, Aime** IOP conference series : materials science and engineering 4th International Conference on Innovative Materials, Structures and Technologies (IMST 2019) : 25–27 September 2019, Riga, Latvia 2019 / art. 012011, 6 p <https://doi.org/10.1088/1757-899X/660/1/012011> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Design and optimization of AlN based RF MEMS switches**

**Ziko, Mehadi Hasan; Koel, Ants** IOP conference series : materials science and engineering 2018 / 012002 ; 9 p.: ill <https://doi.org/10.1088/1757-899X/362/1/012002> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Development of virtual learning factory toolkit for production engineering education**

**Mahmood, Kashif; Otto, Tauno; Kuts, Vladimir**; Terkaj, Walter; Urgo, Marcello; Haidegger, Geza IOP conference series : materials science and engineering 2021 / art. 012039, 8 p <https://doi.org/10.1088/1757-899X/1140/1/012039>

### **Effects of long-range forces in nonlinear dynamics of crystals : creation of defects and self-localized vibrations**

Haas, Mati; Hižnjakov, Vladimir; **Klopov, Mihhail**; Shelkan, A. IOP conference series : materials science and engineering 2010 / 1, p. 01245 : ill <https://iopscience.iop.org/article/10.1088/1757-899X/15/1/012045>

### **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 <https://doi.org/10.1088/1757-899X/63/1/012169> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Energy performance of the Serbian and Estonian family house with a selective absorption facade**

Lukic, N.; Nešovic, A.; Nikolic, N.; **Siirde, Andres; Volkova, Anna; Latõšov, Eduard** IOP conference series : materials science and engineering 2019 / art. 012047, 10 p. : ill <https://doi.org/10.1088/1757-899X/659/1/012047> [Conference proceedings at Scopus](#) [Article at Scopus](#)

### **Functionally gradient Ti6Al4V-TiB composite produced by spark plasma sintering**

**Liu, Le; Ivanov, Roman; Kumar, Rahul, 1993-; Minasyan, Tatevi; Antonov, Maksim; Hussainova, Irina** IOP conference series : materials science and engineering 2021 / art. 012004, 6 p.: ill <https://doi.org/10.1088/1757-899X/1140/1/012004>

### **Gas-phase optical fiber photocatalytic reactors for indoor air application : a preliminary study on performance indicators**

**Palmiste, Ülar; Voll, Hendrik** IOP conference series : materials science and engineering 2017 / art. 012055, p. 1-7

<https://doi.org/10.1088/1757-899X/251/1/012055> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Green eco-friendly acoustic materials**

**Lavrentjev, Jüri** IOP conference series : materials science and engineering 2021 / art. 012009, 6 p.: ill <https://doi.org/10.1088/1757-899X/1140/1/012009>

### **Growth of ZnO rods on FTO electrodes by spray pyrolysis**

**Dedova, Tatjana; Volobujeva, Olga; Krunks, Malle; Mikli, Valdek; Gromõko, Inga; Katerski, Atanas; Mere, Arvo** IOP

conference series : materials science and engineering 2013 / [4] p. : ill <https://doi.org/10.1088/1757-899X/49/1/012001> [Conference](#)

[Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **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](#)

### **The influence of carbonation process on concrete bridges and durability in Estonian practice**

**Liisma, Eneli; Sein, Sander; Järvpõld, M.** IOP conference series : materials science and engineering 2017 / art. 012072, 7 p. : ill

<https://doi.org/10.1088/1757-899X/251/1/012072> [Journal metrics at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **The influence of high-energy ball milling and nanoadditives on the kinetics of heterogeneous reaction in Ni-Al system**

**Nazaretyan, Khachik; Kirakosyan, Hasmik; Aydinyan, Sofiya; Zakaryan, Marieta; Abovyan, L. S.; Kulak, M.; Khina, B.** IOP

conference series : materials science and engineering 2021 / art. 012052 <https://doi.org/10.1088/1757-899X/1140/1/012052>

### **In-situ deposition of gold nanoparticles onto different substrates by chemical spray pyrolysis**

**Oja Acik, Ilona; Oyekoya, Gboyega Nathaniel; Mere, Arvo; Katerski, Atanas; Mikli, Valdek; Krunks, Malle** IOP conference

series : materials science and engineering 2015 / 5 p. : ill <https://doi.org/10.1088/1757-899X/77/1/012009> [Conference proceedings at](#)

[Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Investigations on new carbon-based nanohybrids combining carbon nanotubes, HfO<sub>2</sub> and ZnO nanoparticles**

**Rauwel, Protima; Galeckas, Augustinas; Salumaa, Martin; Aasna, Andres; Ducroquet, Frederiquet; Rauwel, Erwan** IOP

conference series : materials science and engineering 2017 / art. 012064, p. 1-5 : ill <https://doi.org/10.1088/1757-899X/175/1/012064>

[Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **Isothermal oxidation of SLM fabricated Mo(Si<sub>1-x</sub>Al<sub>x</sub>)<sub>2</sub>-based composite**

**Minasyan, Tatevik; Liu, Le; Toyserkani, Ehsan; Hussainova, Irina** IOP conference series : materials science and engineering

2021 / art. 012003, 8 p.: ill <https://doi.org/10.1088/1757-899X/1140/1/012003>

### **Modelling FGM materials. An accurate function approximation algorithms**

**Majak, Jüri; Mikola, Madis; Pohlak, Meelis; Eerme, Martin; Karunanidhi, Ramachandran** IOP conference series : materials

science and engineering 2021 / art. 012013, 6 p <https://doi.org/10.1088/1757-899X/1140/1/012013>

### **Modern robot integrated manufacturing cell according to the needs of Industry 4.0**

**Moor, Madis; Vaher, Kristo; Riives, Jüri; Kangro, Tavo; Otto, Tauno** IOP conference series : materials science and engineering

2021 / art. 012034, 5 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012034>

### **Multi-layer cyber-physical low-level control solution for mobile robots**

**Pikner, Heiko; Karjust, Kristo** IOP conference series : materials science and engineering 2021 / art. 012048

<https://doi.org/10.1088/1757-899X/1140/1/012048>

### **nZEB renovation of multi-storey building with prefabricated modular panels**

**Pihelo, Peep; Kalamees, Targo; Kuusk, Kalle** IOP conference series : materials science and engineering 2017 / art. 012056, 8 p. :

ill <https://doi.org/10.1088/1757-899X/251/1/012056> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

### **A numerical sensitivity analysis of fluid-structure interaction simulations on slamming loads and responses**

**Hosseinzadeh, Saeed; Topa, Ameen; Tabri, Kristjan** IOP conference series : materials science and engineering 2023 / art.

012017, 9 p. : ill <https://doi.org/10.1088/1757-899X/1288/1/012017>

### **Numerical study of Tallinn storm-water system flooding conditions using CFD simulations of multi-phase flow in a large-scale inverted siphon**

**Kaur, Katrin; Laanearu, Janek; Annus, Ivar** IOP conference series : materials science and engineering 2017 / art. 012128, 8 p. : ill

<https://doi.org/10.1088/1757-899X/251/1/012128> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**Numerical study on the effect of geometry on mechanical behavior of triply periodic minimal surfaces**  
**Rezapourianghahfarokhi, Mansoureh; Kamboj, Nikhil Kumar; Hussainova, Irina** IOP conference series : materials science and engineering 2021 / art. 012038 <https://doi.org/10.1088/1757-899X/1140/1/012038>

**Optimisation of plant mediated synthesis of silver nanoparticles by common weed Plantago major and their antimicrobial properties**

**Küüna, Siim; Visnapuu, Meeri; Volobujeva, Olga; Soares Rosario, Maria; Rauwel, Protima; Rauwel, Erwan** IOP Conference Series : Materials Science and Engineering 2019 / art. 012003 <https://doi.org/10.1088/1757-899X/613/1/012003> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**Performance of Al<sub>2</sub>O<sub>3</sub>-cBN materials and the perspective of using hyperspectral imaging during cutting tests**

**Antonov, Maksim; Zahavi, Ali; Kumar, Rahul, 1993-; Tamre, Mart; Klimczyk, Piotr** IOP conference series : materials science and engineering 2021 / art. 012029, 5 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012029>

**Phase and structural investigations of the content of natural radionuclides in rock and inorganic building materials**

**Serafimova, Ekaterina; Petkova, Vilma; Kaljuvee, Tiit** IOP conference series : materials science and engineering 2023 / 8 p. : ill <https://doi.org/10.1088/1757-899X/1264/1/012003>

**Preparation of fibrous electrospun membranes with activated carbon filler**

**Krasnou, Illia; Tarasova, Elvira; Malmberg, Siret; Vassiljeva, Viktoria; Krumme, Andres** IOP conference series : materials science and engineering 2019 / art. 012022, 5 p. : ill <https://doi.org/10.1088/1757-899X/500/1/012022> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**Quality of photovoltaic modules, experimental evaluation and mathematical modelling**

**Tšukrejev, Pavel; Karjust, Kristo; Majak, Jüri** IOP conference series : materials science and engineering 2021 / art. 012044, 7 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012044>

**Range sensor overview and blind-zone reduction of autonomous vehicle shuttles**

**Gu, Junyi; Chhetri, Tek Raj** IOP conference series : materials science and engineering 2021 / art. 012006, 7 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012006>

**A review on potential use of low-temperature water in the urban environment as a thermal-energy source**

**Laanearu, Janek; Borodinecs, Anatolijs; Rimeika, M.; Palm, B.** IOP conference series : materials science and engineering 2017 / art. 012054, p. 1-9 : ill <https://doi.org/10.1088/1757-899X/251/1/012054> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**Risk assessment and calibration of risk matrices aspects**

**Sivitski, Alina; Põdra, Priit** IOP conference series : materials science and engineering 2021 / art. 012040, <https://doi.org/10.1088/1757-899X/1140/1/012040>

**ROS middle-layer integration to Unity 3D as an interface option for propulsion drive simulations of autonomous vehicles**

**Kuts, Vladimir; Rassõlkin, Anton; Partyshev, Andriy; Jegorov, Sergei; Rjabtšikov, Viktor** IOP conference series : materials science and engineering 2021 / art. 012008, 7 p.:ill <https://doi.org/10.1088/1757-899X/1140/1/012008>

**Safety assessment and simulation of autonomous vehicle in urban environments**

**Malayjerdi, Mohsen; Baykara, Baris Cem; Sell, Raivo; Malayjerdi, Ehsan** IOP conference series : materials science and engineering 2021 / art. 012032, 6 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012032>

**Self-driving shuttle bus use case in city of Tallinn**

**Kalda, Krister; Sell, Raivo; Soe, Ralf-Martin** IOP conference series : materials science and engineering 2021 / art. 012047, 6 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012047>

**Silver metal nanoparticles study for biomedical and green house applications**

**Rauwel, Erwan; Simon-Gracia, Lorena; Guha, Mithu; Rauwel, Protima; Küüna, Siim; Wragg, David** IOP conference series : materials science and engineering 2017 / art. 012011, p. 1-5 : ill <https://doi.org/10.1088/1757-899X/175/1/012011> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

**Simulation based feasibility analysis of autonomously movable robot arm**

**Vaher, Kristo; Mahmood, Kashif; Otto, Tauno; Riives, Jüri** IOP conference series : materials science and engineering 2021 / art. 012055, 6 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012055>

**Simulation based Performance Analysis of Production Intralogistics**

**Golova, Jelena; Mahmood, Kashif; Raamets, Tõnis** IOP Conference Series : Materials Science and Engineering 2021 / art. 012026, 6p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012026>

**Simulations of propane and butane gas sensor based on pristine armchair graphene nanoribbon**

**Rashid, Muhammad Haroon; Koel, Ants; Rang, Toomas** IOP conference series : materials science and engineering 2018 / art. 012001, 8 p <https://doi.org/10.1088/1757-899X/362/1/012001> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

#### **Supply chain digitalization framework for service/product satisfaction**

**Murumaa, Lea; Ševtšenko, Eduard; Karaulova, Tatjana; Mahmood, Kashif; Popell, Janek** IOP conference series : materials science and engineering 2021 / art. 012041, p. 1–12 <https://doi.org/10.1088/1757-899X/1140/1/012041>

#### **Synthesis of polymerizable ionic liquid monomer and its characterizations**

**Sardar, Jagannath; Mäeorg, Uno; Krasnou, Illia; Baddam, Vikram; Gudkova, Viktoria; Krumme, Andres; Savest, Natalja; Tarasova, Elvira; Viirsalu, Mihkel** IOP conference series : materials science and engineering 2016 / p. 1-5 : ill <https://doi.org/10.1088/1757-899X/111/1/012021> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

#### **ZnO nanorods grown electrochemically on different metal oxide underlays**

**Gromõko, Inga; Dedova, Tatjana; Krunk, Malle; Sõritski, Vitali; Mere, Arvo; Mikli, Valdek; Unt, Tarmo; Oja Acik, Ilona** IOP conference series : materials science and engineering 2015 / p. 1-5 : ill <https://doi.org/10.1088/1757-899X/77/1/012012> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

#### **The effect of UV-C radiation on the durability of 3D printed plastic parts in disinfectant devices**

**Tähemaa, Toivo; Sarkans, Martinš; Sarand, Inga; Pohlak, Meelis; Niidas, Aadu; Saarna, Mart** IOP conference series : materials science and engineering 2021 / art. 012046, 6 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012046>

#### **Thermal investigation on high temperature treatment of cement mortars with high content of marble powder**

**Stoyanov, V.; Petkova, V.; Kostova, B.; Kaljuvee, Tiit** IOP conference series : materials science and engineering 2023 / p. 012005-012014 <https://doi.org/10.1088/1757-899X/1276/1/012005>

#### **Thermal properties of calcium-aluminate based materials**

**Kulu, Priit; Goljandin, Dmitri; Traksmäa, Rainer; Kaljuvee, Tiit; Gregor, Andre** IOP conference series : materials science and engineering 2021 / art. 012028, 7 p. : ill <https://doi.org/10.1088/1757-899X/1140/1/012028>

#### **3D computer drawing competition CADrina**

**Nõmm, Aurika; Mägi, Rein; Meister, Külli** IOP conference series : materials science and engineering 2019 / art. 012012, 5 p. : ill <https://doi.org/10.1088/1757-899X/660/1/012012> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

#### **Three-dimensional vibrations of wind turbines**

**Andriushchenko, Ekaterina;** Meshkov, Aleksandr IOP conference series : materials science and engineering 2019 / art. 012006, 6 p <https://doi.org/10.1088/1757-899X/666/1/012006>

#### **TiO<sub>2</sub> thin films by ultrasonic spray pyrolysis**

**Chen, Zengjun; Dündar, Ibrahim; Oja Acik, Ilona; Mere, Arvo** IOP conference series : materials science and engineering 2019 / art. 012006, 7 p. : ill <https://doi.org/10.1088/1757-899X/503/1/012006> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

#### **Towards the definition of a reference ideal radiator for the assessment of heat emission efficiency in buildings**

**Ferrantelli, Andrea; Vösa, Karl-Villem; Kurnitski, Jarek** IOP conference series : materials science and engineering 2018 / art. 012034, 8 p. : ill <https://doi.org/10.1088/1757-899X/415/1/012034> [Conference proceedings at Scopus](#) [Article at Scopus](#)

#### **User-centered design for Human-Robot Collaboration systems**

**Pizzagalli, Simone Luca; Kuts, Vladimir; Otto, Tauno** IOP conference series : materials science and engineering 2021 / art. 012011, 7 p.: ill <https://doi.org/10.1088/1757-899X/1140/1/012011>

#### **Variation of bending strength of fiber reinforced concrete beams due to fiber distribution and orientation and analysis of microstructure**

**Herrmann, Heiko;** Boris, R.; Goidyk, Oksana; Braunbrück, Andres IOP conference series : materials science and engineering 2019 / art. 012059, 11 p. : ill <https://doi.org/10.1088/1757-899X/660/1/012059> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)