Anton TrnÃ-k

List of Publications by Year in descending order

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		393982	433756
156	1,414	19	31
papers	citations	h-index	g-index
159	159	159	922
all docs	docs citations	times ranked	citing authors
159 all docs	159 docs citations	159 times ranked	922 citing authors

ΔΝΤΟΝ ΤΡΝΑκ

#	Article	IF	CITATIONS
1	Energy-efficient thermal treatment of sewage sludge for its application in blended cements. Journal of Cleaner Production, 2016, 112, 409-419.	4.6	99
2	Modified lime-cement plasters with enhanced thermal and hygric storage capacity for moderation of interior climate. Energy and Buildings, 2016, 126, 113-127.	3.1	54
3	Thermomechanical analysis of quartz porcelain in temperature cycles. Ceramics International, 2007, 33, 1287-1291.	2.3	52
4	Experimental Investigation of the Properties of Lime-Based Plaster-Containing PCM for Enhancing the Heat-Storage Capacity of Building Envelopes. International Journal of Thermophysics, 2014, 35, 767-782.	1.0	51
5	DSC and TG Analysis of a Blended Binder Based on Waste Ceramic Powder and Portland Cement. International Journal of Thermophysics, 2016, 37, 1.	1.0	50
6	Biomass ash-based mineral admixture prepared from municipal sewage sludge and its application in cement composites. Clean Technologies and Environmental Policy, 2018, 20, 159-171.	2.1	47
7	Effective thermal conductivity of hollow bricks with cavities filled by air and expanded polystyrene. Journal of Building Physics, 2014, 37, 436-448.	1.2	42
8	Creation of microcracks in porcelain during firing. Journal of the European Ceramic Society, 2011, 31, 2205-2209.	2.8	41
9	Apparent Thermal Properties of Phase-Change Materials: An Analysis Using Differential Scanning Calorimetry and Impulse Method. International Journal of Thermophysics, 2013, 34, 851-864.	1.0	41
10	Simultaneous DSC and TG analysis of high-performance concrete containing natural zeolite as a supplementary cementitious material. Journal of Thermal Analysis and Calorimetry, 2015, 121, 67-73.	2.0	40
11	Characterization of geopolymers prepared using powdered brick. Journal of Materials Research and Technology, 2019, 8, 6253-6261.	2.6	39
12	Kinetics of thermal expansion of illite-based ceramics in the dehydroxylation region during heating. Journal of Thermal Analysis and Calorimetry, 2017, 127, 291-298.	2.0	38
13	Modeling of heat capacity peaks and enthalpy jumps of phase-change materials used for thermal energy storage. International Journal of Heat and Mass Transfer, 2017, 107, 123-132.	2.5	36
14	Rational design of cement composites containing pozzolanic additions. Construction and Building Materials, 2017, 148, 411-418.	3.2	35
15	The study of firing of a ceramic body made from illite and fluidized bed combustion fly ash. Journal of Thermal Analysis and Calorimetry, 2017, 127, 79-89.	2.0	28
16	Determination of Young's Modulus of Ceramics from Flexural Vibration at Elevated Temperatures. Acta Acustica United With Acustica, 2011, 97, 1-7.	0.8	24
17	Fabrication of Dodecanol/Diatomite Shape-Stabilized PCM and Its Utilization in Interior Plaster. International Journal of Thermophysics, 2018, 39, 1.	1.0	23
18	Thermomechanical and thermodilatometric analysis of green alumina porcelain. Ceramics International, 2009, 35, 1181-1185.	2.3	20

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19	Temperature dependence of DC electrical conductivity of kaolin. Journal of Thermal Analysis and Calorimetry, 2014, 118, 597-601.	2.0	20
20	Uncertainty in the Determination of Young's Modulus of Ceramics Using the Impulse Excitation Technique at Elevated Temperatures. Acta Acustica United With Acustica, 2018, 104, 269-276.	0.8	20
21	The influence of heat on elastic properties of illitic clay Radobica. Journal of the Ceramic Society of Japan, 2015, 123, 874-879.	0.5	19
22	Kinetic analysis of sinter-crystallization of mullite and cristobalite from kaolinite. Thermochimica Acta, 2019, 678, 178312.	1.2	19
23	Degree of Conversion of Dehydroxylation in a Large Electroceramic Body. International Journal of Thermophysics, 2011, 32, 729-735.	1.0	18
24	Elastic properties of waste calcite–clay ceramics during firing. Journal of the Ceramic Society of Japan, 2012, 120, 351-354.	0.5	18
25	THERMOMECHANICAL ANALYSIS OF ILLITE FROM FÜZÉRRADVÃNY. Medziagotyra, 2015, 21, .	0.1	18
26	Application of isothermal calorimetry and thermal analysis for the investigation of calcined gypsum–lime–metakaolin–water system. Journal of Thermal Analysis and Calorimetry, 2015, 122, 115-122.	2.0	17
27	Determination of the equivalent thermal conductivity of complex material systems with large-scale heterogeneities. International Journal of Thermal Sciences, 2014, 86, 365-373.	2.6	16
28	The influence of texture on elastic and thermophysical properties of kaolin- and illite-based ceramic bodies. Ceramics International, 2017, 43, 2730-2736.	2.3	16
29	Thermal analysis of ternary gypsum-based binders stored in different environments. Journal of Thermal Analysis and Calorimetry, 2018, 133, 177-188.	2.0	15
30	Mechanical Properties of Kaolin during Heating. Key Engineering Materials, 0, 527, 14-19.	0.4	14
31	Influence of calcite in a ceramic body on its thermophysical properties. Journal of Thermal Analysis and Calorimetry, 2013, 114, 963-970.	2.0	14
32	Preparation and Characterization of Novel Plaster with Improved Thermal Energy Storage Performance. Energies, 2019, 12, 3318.	1.6	13
33	Investigation of kaolinite dehydroxylations is still interesting. ÉpÃtÅ'anyag: Journal of Silicate Based and Composite Materials, 2006, 58, 6-9.	0.0	13
34	Measuring the Flexural Strength of Ceramics at Elevated Temperatures – An Uncertainty Analysis. Measurement Science Review, 2014, 14, 35-40.	0.6	12
35	Investigation of elastic and inelastic properties of Estonian clay from a locality in Kunda during thermal treatment. Journal of Thermal Analysis and Calorimetry, 2016, 124, 1153-1159.	2.0	11
36	Kinetic analysis of the formation of high-temperature phases in an illite-based ceramic body using thermodilatometry. Journal of Thermal Analysis and Calorimetry, 2019, 138, 2289-2294.	2.0	11

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37	The Influence of Fly Ash on Mechanical Properties of Clay-Based Ceramics. Minerals (Basel,) Tj ETQq1 1 0.	784314 rgBT	/Overlock 10 T
38	Acoustic Emission During Firing of the Illite-Based Ceramics with Fly Ash Addition. Acta Physica Polonica A, 2015, 128, 783-786.	0.2	11
39	Chiral segregation in three microscopic statistical-mechanical models. Physical Review E, 2009, 80, 011601.	0.8	10
40	Sound Velocity of Kaolin in the Temperature Range from 20 °C to 1100°C. International Journal of Thermophysics, 2009, 30, 1323-1328.	1.0	10
41	Young's modulus of heatproof tile ceramics Letovice during firing. Journal of the Ceramic Society of Japan, 2011, 119, 645-649.	0.5	10
42	Behavior of Sandstones Under Heat Treatment. International Journal of Thermophysics, 2017, 38, 1.	1.0	10
43	Development of stress on quartz grain in illite ceramics during cooling stage of firing. Journal of the Ceramic Society of Japan, 2020, 128, 117-123.	0.5	10
44	Isothermal Dilatometric Study of Sintering in Kaolin. International Journal of Thermophysics, 2014, 35, 1946-1956.	1.0	9
45	Effects of the Heat Treatment in the Properties of Fibrous Aerogel Thermal Insulation. Energies, 2019, 12, 2001.	1.6	9
46	Thermal Diffusion in Fibrous Aerogel Blankets. Energies, 2020, 13, 823.	1.6	9
47	Heat transport and storage processes in differential scanning calorimeter: Computational analysis and model validation. International Journal of Heat and Mass Transfer, 2019, 136, 355-364.	2.5	8
48	Chiral segregation, an unusual racemic phase, and a residual entropy for a lattice system of model chiral molecules. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P12027.	0.9	7
49	Mechanical Properties of Kaolin-Base Ceramics During Firing. , 2011, , .		7
50	Use of fly ash in ceramic tiles: elastic properties during firing. Journal of the Ceramic Society of Japan, 2013, 121, 925-929.	0.5	7
51	Relationship between Pore Size Distribution and Mechanical Properties of Porous Sedimentary Rocks. Advanced Materials Research, 0, 905, 207-211.	0.3	7
52	Simultaneous Differential Scanning Calorimetry and Thermogravimetric Analysis of Portland Cement as a Function of Age. International Journal of Thermophysics, 2016, 37, 1.	1.0	7
53	Kinetic behaviour of thermal transformations of kaolinite. AIP Conference Proceedings, 2018, ,	0.3	7
54	The influence of compression pressure on thermal expansion, bulk density, and Young's modulus of electroporcelain mixture up to 1100°C. Journal of Thermal Analysis and Calorimetry, 2019, 138, 2035-2042.	2.0	7

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55	Young's Modulus of Different Illitic Clays during Heating and Cooling Stage of Firing. Materials, 2020, 13, 4968.	1.3	7
56	Correction of Errors in DSC Measurements Using Detailed Modeling of Thermal Phenomena in Calorimeter-Sample System. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 8178-8186.	2.4	7
57	Influence of fly ash added to a ceramic body on its thermophysical properties. Thermal Science, 2016, 20, 603-612.	0.5	7
58	Low temperature phases of the Andelman–de Gennes model of chiral discrimination: Rigorous results. Journal of Chemical Physics, 2007, 126, 154512.	1.2	6
59	Estimation of mass transfer parameters during dehydroxylation in a large ceramic body by inverse methods. Ceramics International, 2011, 37, 3299-3305.	2.3	6
60	Thermal analysis of highâ€performance mortar containing burnt clay shale as a partial portland cement replacement in the temperature range up to 1000 °C. Fire and Materials, 2017, 41, 54-64.	0.9	6
61	Non-isothermal kinetic analysis of processes occurring during thermal treatment of kaolinite. AIP Conference Proceedings, 2017, , .	0.3	6
62	Influence of compression pressure on thermal expansion, bulk density, and porosity of electroporcelain after firing. AIP Conference Proceedings, 2020, , .	0.3	6
63	Influence of compression pressure on Young's modulus of ceramic samples. AIP Conference Proceedings, 2017, , .	0.3	6
64	Determination of Time Domain Reflectometry Surface Sensors Sensitivity Depending on Geometry and Material Moisture. Sensors, 2022, 22, 735.	2.1	6
65	Collective surface diffusion near a first-order phase transition. Physical Review B, 2011, 83, .	1.1	5
66	Acoustic emission study of quartz porcelain during heating up to 1150 °C. Ceramics International, 2012, 38, 6919-6922.	2.3	5
67	Thermal Behaviour of New Type of Plaster with PCM Admixture. Applied Mechanics and Materials, 0, 710, 3-7.	0.2	5
68	Thermophysical Properties of Kaolin–Zeolite Blends up to 1100 °C. Crystals, 2021, 11, 165.	1.0	5
69	PREPARATION OF PUZZOLANA ACTIVE TWO COMPONENT COMPOSITE FOR LATENT HEAT STORAGE. Ceramics - Silikaty, 2016, , 291-298.	0.2	5
70	Investigation of sintering in electroceramics by thermodilatometry. Science of Sintering, 2013, 45, 3-12.	0.5	5
71	Multi-site correlation functions in surface diffusion. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P04026.	0.9	4
72	Modelling of phase transitions: do it yourself. European Journal of Physics, 2013, 34, 95-106.	0.3	4

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73	Hydration of calcium aluminate cement determined by thermal analysis. AIP Conference Proceedings, 2017, , .	0.3	4
74	DSC and TGA of a kaolin-based ceramics with zeolite addition during heating up to 1100 ŰC. AIP Conference Proceedings, 2018, , .	0.3	4
75	Influence of firing temperature and compacting pressure on density and Young's modulus of electroporcelain. AIP Conference Proceedings, 2018, , .	0.3	4
76	Thermal characterization of fibrous aerogel blanket. MATEC Web of Conferences, 2019, 282, 01001.	0.1	4
77	Effect of the mode and dynamics of thermal processes on DSC-acquired phase-change temperature and latent heat of different kinds of PCM. Materiali in Tehnologije, 2017, 51, 919-924.	0.3	4
78	Young's modulus of prefired quartz porcelain in a temperature range of 20–1200 °C. Materiali in Tehnologije, 2019, 53, 535-541.	0.3	4
79	Surface diffusion near first-order phase transitions for a model on a triangular lattice. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P01025.	0.9	3
80	Many-particle surface diffusion coefficients near first-order phase transitions at low temperatures. Physical Review E, 2012, 86, 011601.	0.8	3
81	High Temperature Testing of Cement Mortar Containing MSWI Bottom Ash. Applied Mechanics and Materials, 2013, 377, 55-59.	0.2	3
82	A Comparative Study on Thermal Properties of Two Types of Concrete Containing Fine Ceramic Waste and Burnt Clay Shale as a Supplementary Material. Advanced Materials Research, 2014, 982, 79-83.	0.3	3
83	Influence of PCM Admixture on Thermal Behavior of Composite Plaster. Advanced Materials Research, 0, 1054, 209-214.	0.3	3
84	The Influence of Texture and Firing on Thermal and Elastic Properties of Illite-Based Ceramics. Advanced Materials Research, 0, 1126, 53-58.	0.3	3
85	Thermal Properties of High-Performance Concrete Containing Fine-Ground Ceramics as a Partial Cement Replacement. Medziagotyra, 2015, 21, .	0.1	3
86	UHPFRC at high temperatures $\hat{a} \in$ '' Simultaneous thermal analysis and thermodilatometry. AIP Conference Proceedings, 2016, , .	0.3	3
87	Building ceramics with an addition of pulverized combustion fly ash from the thermal power plant NovÃįky. AIP Conference Proceedings, 2016, , .	0.3	3
88	Hydration of blended cement pastes containing waste ceramic powder as a function of age. AIP Conference Proceedings, 2016, , .	0.3	3
89	Effect of silica fume on hydration of air-cured blended cement pastes measured by DSC/TG analysis. AIP Conference Proceedings, 2017, , .	0.3	3
90	Non-isothermal kinetic analysis of illite dehydroxylation. AIP Conference Proceedings, 2019, , .	0.3	3

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91	Analysis of thermal operating conditions of 3D printers with printing chamber. AIP Conference Proceedings, 2021, , .	0.3	3
92	Thermal Properties of Illite-Zeolite Mixtures up to 1100 °C. Materials, 2022, 15, 3029.	1.3	3
93	Adsorption isotherm predicted from a lattice gas with general lateral interactions in a single-phase regime. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P12006.	0.9	2
94	Thermogravimetry of Portland Cement from Argentina and Czech Republic. Advanced Materials Research, 0, 1126, 169-173.	0.3	2
95	Characterization of a lime-pozzolan plaster containing phase change material. AIP Conference Proceedings, 2015, , .	0.3	2
96	Residual Mechanical Properties of Hybrid Fiber Reinforced HPC Exposed to High Temperatures. Key Engineering Materials, 0, 722, 52-58.	0.4	2
97	Utilization of the PCM latent heat for energy savings in buildings. AIP Conference Proceedings, 2017, , .	0.3	2
98	Thermal expansion of ceramic samples containing natural zeolite. AIP Conference Proceedings, 2017, , .	0.3	2
99	Behavior of a PCM at Varying Heating Rates: Experimental and Theoretical Study with an Aim at Temperature Moderation in Radionuclide Concrete Encasements. International Journal of Thermophysics, 2018, 39, 1.	1.0	2
100	Mechanical-acoustic study of electroporcelain mixture made under different compression pressures. Journal of Thermal Analysis and Calorimetry, 2020, 142, 1759-1766.	2.0	2
101	Waste ceramics as supplementary cementitious material: characterization and utilization. , 2014, , .		2
102	The Sonic Resonance Method and the Impulse Excitation Technique: A Comparison Study. Applied Sciences (Switzerland), 2021, 11, 10802.	1.3	2
103	Differential scanning calorimetry of illite/smectite – CaCO3 mixtures. AIP Conference Proceedings, 2021, , .	0.3	2
104	Low-temperature phases obtained by linear programming: An application to a lattice system of model chiral molecules. Physica A: Statistical Mechanics and Its Applications, 2011, 390, 3002-3019.	1.2	1
105	Computational analysis of a modified guarded hot plate experiment. , 2012, , .		1
106	Mechanical properties of alumina porcelain during heating. , 2014, , .		1
107	The Influence of Thermal Expansion and Mass Loss on the Young's Modulus of Ceramics During Firing. International Journal of Thermophysics, 2014, 35, 1879-1887.	1.0	1
108	Heat and Water Vapor Transport Properties of Sandwich Composite with Aerogel Insulation. Advanced Materials Research, 0, 1126, 143-147.	0.3	1

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109	Diatomite/Palm Wax Composite as a Phase Change Material for Latent Heat Storage. Advanced Materials Research, 2015, 1126, 33-38.	0.3	1
110	Latent Heat Storage in Plasters with Incorporated PCM Water Dispersion. Materials Science Forum, 0, 824, 1-6.	0.3	1
111	Chiral discrimination for a system of tetrahedral molecules on a triangular lattice. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P06020.	0.9	1
112	Computational modeling of latent-heat-storage in PCM modified interior plaster. AIP Conference Proceedings, 2016, , .	0.3	1
113	High-temperature testing of high performance fiber reinforced concrete. AIP Conference Proceedings, 2016, , .	0.3	1
114	Young's modulus and thermal expansion of ceramic samples made from kaolin and zeolite. AIP Conference Proceedings, 2016, , .	0.3	1
115	Influence of the Heating and Cooling Rate on Thermal Performance of Cement-Lime Plaster with PCM Admixture. Key Engineering Materials, 0, 677, 150-154.	0.4	1
116	Cement-Lime Plaster with PCM Addition – A Perspective Material for Moderation of Interior Climate. Key Engineering Materials, 0, 707, 43-50.	0.4	1
117	Theoretical predictions for latent heats and phase-change temperatures of polycrystalline PCMs. AIP Conference Proceedings, 2017, , .	0.3	1
118	Theoretical profile for heat capacity peaks of phase-change materials. AIP Conference Proceedings, 2018, , .	0.3	1
119	Computational modelling of thermal processes in a calorimetric experiment. AIP Conference Proceedings, 2018, , .	0.3	1
120	Water thermoporometry of aerated autoclaved concrete. AlP Conference Proceedings, 2018, , .	0.3	1
121	Kinetic analysis of illite dehydroxylation from differential scanning calorimetry. AIP Conference Proceedings, 2019, , .	0.3	1
122	Differential scanning calorimetry and thermodilatometry study of mechanically activated kaolin-CaCO3 mixture with anorthite stoichiometry. AIP Conference Proceedings, 2019, , .	0.3	1
123	Non-isothermal kinetic analysis of spinel phase crystallization from metakaolinite. AIP Conference Proceedings, 2019, , .	0.3	1
124	Firing of illite-based ceramics followed by dynamical thermomechanical analysis. AIP Conference Proceedings, 2020, , .	0.3	1
125	High Temperature Exposure of HPC – Experimental Analysis of Residual Properties and Thermal Response. MATEC Web of Conferences, 2016, 63, 01004.	0.1	1
126	Properties of high-performance fiber-reinforced concrete after thermal treatment at high temperatures. Materiali in Tehnologije, 2019, 53, 481-487.	0.3	1

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127	Thermal expansion and mass change of illite/smectite – waste glass mixtures. AIP Conference Proceedings, 2021, , .	0.3	1
128	Determination of phase change temperature of materials from adiabatic scanning calorimetry data. Journal of Thermal Analysis and Calorimetry, 0, , .	2.0	1
129	Surface free energy of a finite system without interfaces at low temperatures. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 2718-2722.	0.9	0
130	Structural and Thermomechanical Properties of Stove Tile Ceramics. Medziagotyra, 2013, 19, .	0.1	0
131	Rigorous Results on Surface Diffusion Coefficients Near a First-Order Phase Transition. International Journal of Thermophysics, 2014, 35, 1853-1862.	1.0	0
132	Phase Change Materials: A Prospective Solution for Surface Layers of Building Envelopes. Applied Mechanics and Materials, 0, 749, 415-419.	0.2	0
133	Study of Mass Changes of Cement Pastes as a Function of Age Using Thermogravimetry. Materials Science Forum, 0, 824, 43-47.	0.3	0
134	Thermal Properties of Cement Based Composites with Municipal Solid Waste Incinerator Fly Ash Accessed by Two Different Transient Methods. Medziagotyra, 2016, 22, .	0.1	0
135	Preface: Thermophysics 2016. AIP Conference Proceedings, 2016, , .	0.3	0
136	Properties of a Sandwich Thermal Insulation Composite with Silica Aerogel. Key Engineering Materials, 2016, 707, 114-121.	0.4	0
137	Preparation of fine powdered composite for latent heat storage. AIP Conference Proceedings, 2016, , .	0.3	0
138	Young's modulus of alumina ceramics during isothermal heating. AIP Conference Proceedings, 2017, , .	0.3	0
139	Kinetic analysis of thermal expansion of natural zeolite in temperature interval from 700 °C to 1100 °C during isothermal heating. AlP Conference Proceedings, 2018, , .	0.3	0
140	Preface: Thermophysics 2018. AIP Conference Proceedings, 2018, , .	0.3	0
141	The effect of compression pressure on activation energy of spinel formation. AIP Conference Proceedings, 2019, , .	0.3	0
142	Fitting of heat capacity peaks of PCMs with a theoretical formula. Journal of Thermal Analysis and Calorimetry, 2019, 138, 2597-2603.	2.0	0
143	Determination of pore size distribution of porcelain samples using water thermoporometry. AIP Conference Proceedings, 2019, , .	0.3	0
144	The effects of boron addition in kaolin-CaCO3 mixture. AIP Conference Proceedings, 2020, , .	0.3	0

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145	Thermal expansion and mass change of kaolin-waste glass mixtures. AIP Conference Proceedings, 2020, , .	0.3	0
146	Two-particle sintering models and their application. AIP Conference Proceedings, 2020, , .	0.3	0
147	Young's modulus of illite-quartz samples in the temperature interval of 25 °C – 800 °C. AIP Conference Proceedings, 2020, , .	0.3	0
148	Frequency equations for the flexural vibration of samples with a uniform cross-section. AIP Conference Proceedings, 2021, , .	0.3	0
149	mf-TMA of the green and fired heatproof ceramics Letovice. ÉpÃŧÅ'anyag: Journal of Silicate Based and Composite Materials, 2008, 60, 65-67.	0.0	0
150	Application of latent-heat-storage building envelope systems for increasing energy efficiency in the building sector. , 2015, , .		0
151	POZZOLANIC ACTIVITY OF SEWAGE SLUDGE ASH WITH RESPECT TO ITS CALCINATION AND CHEMICAL COMPOSITION. , 2017, , .		0
152	Role of surface effects in the determination of phase change temperature of PCMs. AIP Conference Proceedings, 2021, , .	0.3	0
153	Isothermal thermodilatometric study of illitic clay during sintering. AIP Conference Proceedings, 2021, , .	0.3	0
154	The influence of the compression pressure and firing temperature on the mechanical strength of electroporcelain samples. AIP Conference Proceedings, 2021, , .	0.3	0
155	An influence of the firing temperature on elastic constants of alumina porcelain. AIP Conference Proceedings, 2021, , .	0.3	0
156	Determination of the fundamental mode of flexural vibration of solid materials and its frequency in laboratory work. AIP Conference Proceedings, 2022, , .	0.3	0