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Infiltration of Al Alloys into MgAl₂O₄ under Different Atmospheres M. Bilen, A. Mergen, M. Gürü and A. Alıcılar	1795
Refractory Olivine Bricks Application from the Ağla-Köyceğiz (Turkey) Dunite M. Çolak, T. Oyman, İ.A. Altun and Ö. Pişkin	1799
The Corrosion Resistance of Alumina-Mullite-Zircon Refractories in Molten Glass C. Aksel, F.L. Riley and F. Konieczny	1803
The Effect of Fused Magnesia Addition on the Properties of Chamotte Refractories R. Artır, V. Gunay and B. Bekişoğlu	1807
The Influence of Fine Alumina Particles on the Mechanical Properties and Thermal Shock Behaviour of Slip-Cast Alumina-Mullite Refractories C. Aksel	1811
Thermal Behaviour and Structural Transformations of Andalusite-Rich Aluminous Nodules from Morocco A. Arib, R. El Ouatib, T. Remmal and R. Moussa	1815
Effect of Fe₂O₃ Additions on Sinterability of Konya Dolomite of Turkey H.A. Yeprem and H. Hübner	1819
The Linear Relationship between Compressive Strength and Ultrasonic Velocity in Castable Refractories C. Yaman, T. Abkan and A. Akdoğan	1823
Engineering Residual Stress Profiles for Increased Mechanical Reliability D.J. Green	1829
New Glass-Ceramic Materials for Ceramic Industry G. Baldi, A. Barzanti and V. Faso	1835
Production of Fly Ash Based Glass-Ceramics by Sintering M. Erol, S. Küçükbayrak, A. Ersoy-Meriçboyu and M.L. Öveçoğlu	1839
Crystallization Behavior of CaO-Al₂O₃-SiO₂ Glass-Ceramics Prepared from Wastes of Glass and Clay Raw Materials (Kira) T. Toya, Y. Kameshima, A. Yasumori and K. Okada	1843
Effect of Pyrolysis Temperature on the Texture of Ormoborosil Materials for Obtaining SiBOC Oxycarbide Glasses R. Peña-Alonso, F. Rubio, J. Rubio and J.L. Oteo	1847
Structure of Gel-Derived and Quenched Glasses in the Al₂O₃-ZrO₂-SiO₂ System M. Popa, J. Frantti and M. Kakihana	1851
A Design Model for Glass Elements Based on the Statistical Distribution of Crack Sizes M.A. García-Prieto, A.F. Canteli, M.J. Lamela and E. Castillo	1855
Effects of Tin on the Physical Properties and Crack Growth in Soda-Lime-Silica Float Glass M.H. Krohn, J.R. Hellmann, C.G. Pantano, N. Lower and R.K. Brow	1859
The Effect of Nitrogen on Crystallisation Products of Y and Er-SiAlON Glasses E. Dolekcekic, M.J. Pomeroy and S. Hampshire	1863
Rheological Properties of the Rare-Earth Doped Glasses F. Lofaj, R.L. Satet, M.J. Hoffmann, F. Dorčáková and A.R. de Arellano-López	1867
Reduction of Lanthanide Ions in Si-Al-O-N Glasses D. de Graaf, S. Le Rol, H.T. Hintzen, L. Le Gendre and G. de With	1871
Optical Properties and Crystallization Kinetics of TeO₂-GeO₂-ZnO Glasses F. Altın, V. Kalem, G. Özen, M.L. Öveçoğlu and M.R. Özalp	1875

Basalt Based Glass Ceramics. Kinetic Studies of the Crystallization Processes I. Lazău, C. Păcurariu, G. Kovacs, R.I. Lazău and C. Lonaşcu	1879
Characterization of Glass-Ceramics Produced from Waste Materials M. Erol	1883
Chemical Durability Behaviour of Bulk Glasses in the Er-SiAlON System: Surface Characterisation by SEM E. Dolekcekic, G. Kaya, B. Karasu, M.J. Pomeroy and S. Hampshire	1887
Crystallization Behaviour of some TeO₂-ZnO Glasses M.L. Öveçoğlu, M.R. Özalp, G. Özen, F. Altın and V. Kalem	1891
Crystallization Kinetics of Fly Ash-Based Glasses M. Erol, S. Küçükbayrak, A. Ersoy-Meriçboyu and M.L. Öveçoğlu	1895
Determination the Crystallization Kinetic Parameters of Fly Ash-Based Glasses by JMA Equation M. Erol	1899
Crystallization Behavior of some TeO₂-GeO₂-ZnO Glasses F. Altın, M.L. Öveçoğlu, V. Kalem, B. Özkal and G. Özen	1903
Effect of Modifier Content on the Crystallization and the Optical Gaps of a TeO₂-ZnO Glass M.R. Özalp, G. Özen, F. Altın, V. Kalem and M.L. Öveçoğlu	1907
Extension and Representation of the Glass Forming Region in the Nd-Si-Al-O-N System W. Redington, M. Redington and S. Hampshire	1911
Crystallization Behavior of (1-x)TeO₂- xGeO₂ (x = 0.1 and 0.3 mol.) Glasses V. Kalem, F. Altın, M.L. Öveçoğlu, G. Özen and B. Özkal	1915
Kinetic Study and Optical Investigations of some TeO₂-GeO₂ Glasses V. Kalem, G. Özen, F. Altın, M.L. Öveçoğlu and M.R. Özalp	1919
Strength Characterization of Glass by Means of the Statistical Theory of Confounded Data E. Castillo, A.F. Canteli, M.A. García-Prieto and M.J. Lamela	1923
The Effect of Preparation Route and Nitrogen Content on Properties of Y- SiAlON Glasses E. Dolekcekic, M.J. Pomeroy and S. Hampshire	1927
Characterization of Fly Ash-Based Glass-Ceramic Samples Quenched in Air Followed by Crystallization Stage M. Erol, S. Küçükbayrak, A. Ersoy-Meriçboyu and M.L. Öveçoğlu	1931
Biologically Inspired Synthesis of Nanocomposites for Bone Tissue Regeneration A. Tampieri, G.C. Celotti, E. Landi, M. Sandri, N. Roveri and G. Falini	1937
Silicon-Substituted Hydroxyapatite Derived from Coral S.R. Kim, S.J. Jung, Y.J. Lee, H. Song and Y. Kim	1941
Cadmium Uptake by Synthetic Hydroxyapatite in Aqueous Solution D. Marchat, D. Bernache-Assollant, R. Alshukry and E. Laborde	1945
Production of Hydroxylapatite from Animal Bone Ş. Gören, H. Gökbayrak and S. Altıntaş	1949
Preparation and Characterization of PolyLactide-Hydroxyapatite Biocomposites N. Gültekin, F. Tihmınlıoğlu, R. Çiftçioğlu, M. Çiftçioğlu and Ş. Harsa	1953
A Promising Load Carrier Grafting Material; Sintered Enamel Hydroxyapatite Bodies F.N. Oktar, G. Göller, L.S. Özyeğin, E.Z. Erkmen, D. Toykan, H. Demirkıran and H. Haybat	1957
Sintering Effect on Mechanical Properties of Enamel Derived and Synthetic Hydroxyapatite-Zirconia Composites Y. Genc, F.N. Oktar, E.Z. Erkmen, G. Göller, D. Toykan and H. Haybat	1961
Comparative Study of Apatite Formation on CaSiO₃ Ceramics Prepared by Glass Crystallization and Sintering Methods in Simulated Body Fluid Y. Limori, Y. Kameshima, A. Yasumori and K. Okada	1965
Participation of Calcium Phosphate Bone Substitutes in the Bone Remodeling Process: Influence of Materials Chemistry and Porosity A.C. Tas	1969
Analysis of In-Vitro Reaction Layers Formed on Plasma Sprayed Bioglass-Titanium Coatings G. Göller, T. Yazıcı, F.N. Oktar, E. Demirkesen and E.S. Kayali	1973

Influence of Firing Time on Micro-Mechanical Properties of Glass Based Coating on Ti6Al4V for Biomedical Applications	
J. Pavón, G. Franchi, E. Jiménez-Piqué, M. Anglada, S. López-Esteban, E. Saiz and A.P. Tomsia	1977
Slow Crack Growth in Bioactive Ceramics	
C. Benaqqa, J. Chevalier, M. Saâdaoui and G. Fantozzi	1981
Mechanical Properties of Hydroxyapatite Composites Reinforced with Hydroxyapatite Whiskers	
D. Şimşek, R. Çiftçioğlu, M. Güden, M. Çiftçioğlu and Ş. Harsa	1985
Mechanical Properties of Dental Porcelain Veneers on Indentation Technique	
I. Ozdemir, M. Toparlı and E. Çelik	1989
Shear Bond Strength of Three Luting Cements to Two Ceramic Materials	
B. Öztürk, N. Öztürk, H.S. Öveçoğlu and F. Özer	1993
A Comparative Study of the Effect of Different Polishing Systems on Ceramic Dental Surfaces	
G. Sınmazışık, D. Şen, B. Tunçelli, E. Poyrazoğlu, B. Özkal and M.L. Öveçoğlu	1997
An Evaluation of Surface Hardness, Roughness and Wear of Restorative Composites, Porcelain, and Enamel Following Abrasion by Enamel	
N. Ünlü, N. Dönmez, A. Şengün and F. Özer	2001
An in Vitro Wear Investigation of Dental Ceramic Porcelain Veneers	
B. Uyulgan, I. Ozdemir, Ç. Tekmen, M. Toparlı and E. Çelik	2005
Chemical Degradation of Restorative Materials	
H. Sazak-Öveçoğlu, M. Günday, M.L. Öveçoğlu, F. Özer and B. Tarçın	2009
Development of Advanced Zirconia-Toughened Alumina Nanocomposites for Orthopaedic Applications	
S. Deville, J. Chevalier, G. Fantozzi, J.F. Bartolomé, J. Requena, J.S. Moya, R. Torrecillas and L.A. Díaz	2013
Discussion on the Structure of Boron Containing Apatite	
A. Baykal, G. Gürbüz, M. Kızılyallı and R. Kniep	2017
The Effect of Different Dental Porcelain Surface Treatments on Plaque Formation	
B. Şermet, S. Değer, M.C. Balkaya, D. Kaya and G. Külekçi	2023
Effect of Photopolymerization Variables on Composite Hardness	
H. Sazak-Öveçoğlu, M.L. Öveçoğlu, M. Günday, B. Tarçın and E. Eti	2027
Effect of Stabilised ZrO₂ on Sintering of Hydroxyapatite	
F.Z. Mezahi, A. Harabi and S. Achour	2031
Effects of Different Acid Treatments on Dental Ceramic Surfaces	
D. Şen, G. Sınmazışık, E. Poyrazoğlu, B. Tunçelli, B. Özkal and M.L. Öveçoğlu	2035
Evaluation of Porcelain Surface Treatments and Agents for Composite to Porcelain Repair	
H. Sazak-Öveçoğlu, G. Sınmazışık, Y. Garip, M. Günday, E. Eti, T. Gülmez and M.L. Öveçoğlu	2039
Ferromagnetic Biocomposites with Improved Bioactivity	
M. Birsan, E. Andronescu, C. Birsan, C. Ghiţulica and E.M. Stefan	2043
Hydroxyapatite Ceramics with Tailored Pore Structure	
U. Deisinger, F. Stenzel and G. Ziegler	2047
Magnesium Doped Hydroxyapatite: Synthesis and Characterization	
A. Tampieri, G.C. Celotti, E. Landi and M. Sandri	2051
Mechanical Properties of Ceramics and Composite Resins	
H. Sazak-Öveçoğlu, B. Tarçın, F. Özer, M. Günday, M.L. Öveçoğlu and T. Gülmez	2055
Mechanical Properties of Endodontic Posts	
H. Sazak-Öveçoğlu, G. Sınmazışık, Y. Garip, E. Eti and T. Gülmez	2059
Microstructural Characterization and Bond Strength of the Interface Area between Dental Core and Body Porcelains	
M. Aydın, G. Sınmazışık and T. Gülmez	2063
Fracture Strength of In-CeramTM Prostheses Fabricated by Double Sintering and Glass Infiltration	
G. Sınmazışık, G. Tırakyalı, T. Gülmez and S. Akesi	2067
New Method to Prepare Natural-Like Carbonate Apatite for Bone Replacement	
G.C. Celotti, E. Landi, M. Sandri and A. Tampieri	2071
Preparation and Characterization of Hydroxyapatite/Calcium Phosphate Powders	
D. Şimşek, R. Çiftçioğlu, Ş. Harsa and M. Çiftçioğlu	2075

Preparation of Porous Bioceramics by a Simple PVA-Processing Route A.C. Tas	2079
Preparation of Suspensions for Ceramic Layers J. Andertová and J. Havrda	2083
Sintering of Synthetic Hydroxyapatite Compacts F.N. Oktar, Y. Genc, G. Göller, E.Z. Erkmen, D. Toykan, L.S. Özyeğin, H. Demirkıran and H. Haybat	2087
Sintered Hydroxyapatite with Additives I. Teoreanu, M. Preda and A. Melinescu	2091
Surface Roughness and Hardness of Some Dental Ceramics and Restorative Resins Ş. Karakaya, N. Ünlü, H.S. Öveçoğlu and F. Özer	2095
Disinfection of Water with Antibacterial Ceramic Filled Columns S. Kopardal, A. Dogan, F. Bayrakci, E. Uzgur and U.B. Ogutveren	2099
Fabrication and Mechanical Behavior of Calcium-Phosphate in Situ Coating on Ti6Al4V Substrates M. Demircioğlu, A. Pasinli, N. Arda, İ. Özdemir, S. Aksoy and H. Yıldız	2103
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Effect of Different Surface Treatments on the Surface Roughness and Hardness of Dental Porcelain S. Değer, B. Şermet, Z. Cömert and Ö. Bultan	2123
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