

# CURRICULUM VITAE SOTIRIOS TSIVILIS

*Professor NTUA*

*In: Chemistry and Technology of Building Materials*



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**Nationality:** GREEK  
**Place of Birth:** ATHENS, GREECE  
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## Education

- (1980): M.Sc. in Chemical Engineering, National Technical University of Athens, Greece.
- (1985): Ph.D. thesis in Materials Engineering: "Selective grinding of materials", NTUA, Greece.
- (1990): B.Sc. in Business Administration, Athens University of Economics and Business, Greece

## Work Experience

- 2008-today: Professor, School of Chemical Engineering, NTUA, Greece
- 2005-today: Education consultant in Hellenic Open University
- 2002-2008: Associated Professor, School of Chemical Engineering, NTUA, Greece
- 1993-2002: Assistant Professor, School of Chemical Engineering, NTUA, Greece
- 1987-1993: Lecturer, School of Chemical Engineering, NTUA, Greece
- 1981-1983: Scientific collaborator in "Heracles" General Cement Company"
- 1981-1987: Research and education collaborator in Laboratory of Inorganic and Analytical Chemistry, School of Chemical Engineering, NTUA, Greece
- 1980-1981: Chemical Engineer in "Ktiriaka Stoixeia Co.", light weight building materials industry

## Teaching

- *Introduction to Chemical Engineering*, undergraduate course, School of Chemical Engineering of NTUA
- *Inorganic Chemical Technology*, undergraduate course, School of Chemical Engineering of NTUA
- *Inorganic Industry*, undergraduate course, School of Chemical Engineering of NTUA
- *Chemistry and Technology of Building Materials*, undergraduate course, School of Chemical Eng. of NTUA
- *Economics and Logistics*, postgraduate course in "Materials Science and Technology" of NTUA
- *Marketing*, postgraduate course in "Materials Science and Technology" of NTUA
- *Construction Economics and Management*, postgraduate course in "Engineering Project Management" of Hellenic Open University (HOU).

## Research areas

- Chemistry and technology of building materials (cement and concrete).
- Exploitation and management of industrial minerals and by-products in the field of building materials.
- Powder science and technology (size reduction operations).
- Building materials and environment.

Publications in International Journals:	103
Presentations in Conferences:	140
Funded Projects:	13
Citations (Scopus):	4840
H-index (Scopus):	36

## Research Projects

- Development – Production – Properties of Portland limestone cements, G.S.R.T., PENED 95, 1996-1998.
- Development of low energy Portland cements using Greek minerals as mineralizers, G.S.R.T., 2000-2001.
- The role of limestone on the deterioration of cement constructions. Problems arising from the use of limestone cement and/or calcareous aggregates, G.S.R.T., Joint research and technology programmes–Greece/Britain, 1999-2001.
- Seismic performance of recently prepared reinforced concrete, Hellenic Cement Research Center (HCRC), 2000-2002.
- Characterization of the historic mortars of the Laskari house in the archaeological site of Mystras. Suggestion of new compatible mortars. Hellenic Ministry of Culture, 2004.
- The potential of white Mg-rich carbonates from Kozani, Greece and British Columbia, Canada for use as non-toxic flame-retardants, G.S.R.T., Scientific and Technological Cooperation Between RTD Organisations in Greece and Canada, 2003–2006.
- Concrete durability at temperatures 10-90°C. Use of concrete tanks for seasonal thermal storage, Nat. Centre for Scientific Research “Demokritos”, 2003–2006.
- Comparative study of physicochemical properties of mortars used for monument restoration, Hellenic Ministry of Culture, 2005-2014.
- Characterization, tests and evaluation of the materials used in the building sector, 2005-2015.
- Multifunctional facades of reduced thickness for fast and cost-effective retrofitting, FP7-2013-NMP-env-eeb, 2013-2016.
- Properties, characterization and evaluation of conventional and innovative building materials, 2015-2022.
- Green Instruct: Green Integrated Structural Elements for Retrofitting and New Construction of Buildings, H2020-EEB-2016, 2016-2020.
- PVadapt: Prefabrication, Recyclability and Modularity for cost reductions in Smart BIPV systems, H2020, 2018-2021.

## Review and Editorial Services

- Reviewer of the journals: *ACI Materials Journal*, *Acta Chimica Slovenica*, *Advances in Civil Engineering*, *Ain Shams Engineering Journal*, *Applied Clay Science*, *Cement and Concrete Composites*, *Cement and Concrete Research*, *Chemical and Biochemical Engineering Quarterly*, *Chemosphere*, *Clay Minerals*, *Computer and Concrete*, *Construction and Building Materials*, *Fresenius Environmental Bulletin*, *Journal of Chemical Engineering and Materials Science*, *Journal of Chemical Technology & Biotechnology*, *Journal of Hazardous Materials*, *Journal of Materials in Civil Engineering*, *Journal of Thermal Analysis and Calorimetry*, *Journal of Zhejiang University-Science A*, *International Journal of Environment and Waste Management*, *Materiales de Construcción*, *Materials*, *Materials and Structures*, *Mechanics Research Communications*, *Powder Technology*, *The Canadian Journal of Chemical Engineering*, *Thermochimica Acta*.
- Guest Editor of the special issue “Cement and Concrete Research in Greece” of *Cement and Concrete Composites* (Vol. 27, Issue 2, 2005).

## Publications in Scientific Journals ([Google Scholar](#), [Scopus](#))

1. S. Tsimas, S. Tsvivilis, G. Parissakis, Interaction of the constituents of a mixture during the co-grinding process, *Ciments, Betons, Platres, Chaux* 748 (1984) 147-151.
2. S. Tsvivilis, S. Tsimas, G. Parissakis, T.T.P.: A new concept for the selective grinding of materials, *World cement* 18 (1987) 336-338.
3. S. Tsimas, A. Moutsatsou, S. Tsvivilis, Study of the homogeneity of Santorin earth and its consequences on the cogrinding with clinker, *Ciments, Betons, Platres, Chaux* 770 (1988) 43-45.
4. S. Tsvivilis, S. Tsimas, A. Benetatou, E. Chaniotakis, Study on the contribution of the fineness on cement strength, *Zement-Kalk-Gips* 43 (1990) 26-29.
5. S. Tsimas, S. Tsvivilis, A. Moutsatsou, Upgrading of limestones for cements and lime industries, *Zement-Kalk-Gips* 43 (1990) 601-604.
6. S. Tsimas, A. Moutsatsou, S. Tsvivilis, G. Parissakis, Upgrading of medium-grade celestite ore with varying gypsum content by treatment with (NH<sub>4</sub>)<sub>2</sub>SO<sub>4</sub>, *T I Min Metall C* 100 (1991) C61-C64.
7. S. Tsvivilis, G. Kakali, T. Alamanou, A comparative study of intergrinding and separate grinding of cement raw mix, *Zement-Kalk-Gips* 44 (1991) 74-78.
8. S. Tsvivilis, A software program for the cement grinding process, *World Cement* 22 8 (1991) 2-6.

9. S. Tsvivilis, S. Tsimas, A. Moutsatsou, Contribution to the problems arising from the grinding of multicomponent cements, *Cem Concr Res* 22 (1992) 95-102.
10. S. Tsvivilis, S. Tsimas, Estimation of the specific surface of the cement industry materials according to their particle size distribution, *Zement-Kalk-Gips* 45 (1992) 131-134.
11. G. Kakali, S. Tsvivilis, The effect of intergrinding and separate grinding of cement raw mix on the burning process, *Cem Concr Res* 23 (1993) 651-662.
12. S. Tsvivilis, S. Tsimas, L. Kelemanis, G. Parissakis, Upgrading of the T.T.P. mill - Application to the selective grinding of clinker, *World Cement* 22 6 (1994) 2-4.
13. S. Tsvivilis, G. Parissakis, A mathematical model for the prediction of cement strength, *Cem Concr Res* 25 (1995) 9-14.
14. A. Moutsatsou, S. Tsvivilis, S. Tsimas, Composition of complexes with Fe(III), Mo(VI), Cr(III) and Ni(II) by metal extraction with Versatic acid, *Hydrometallurgy* 38 (1995) 205-213.
15. S. Tsvivilis, G. Kakali, K. Haldeou, G. Parissakis, A mathematical model for the control of cement setting using  $\text{CaCl}_2$  *Cem Concr Res*, 25 (1995) 948-954.
16. S. Tsvivilis, G. Kakali, A study on the grindability of Portland cement clinker containing transition metal oxides, *Cem Concr Res* 27 (1997) 673-678.
17. G. Kakali, S. Tsvivilis, A. Tsialtas, Hydration of O.P. cements made from raw mix containing transition element oxides, *Cem Concr Res* 28 (1998) 335-340.
18. G. Kakali, E. Chaniotakis, S. Tsvivilis, E. Danassis, Differential scanning calorimetry: a useful tool for the prediction of the cement raw mix reactivity, *J Therm Anal* 52, (1998) 871-879.
19. S. Tsvivilis, G. Kakali, E. Chaniotakis, A. Souvaridou, A study on the hydration of portland limestone cement by means of TGA, *J Therm Anal* 52 (1998) 863-870.
20. S. Tsvivilis, E. Chaniotakis, E. Badogiannis, G. Pahoulas, A. Ilias, A study on the parameters affecting the properties of Portland limestone cements, *Cem Concr Compos* 21 (1999) 107-116.
21. S. Tsvivilis, E. Chaniotakis, G. Batis, C. Meletiou, V. Kasselouri, G. Kakali, A. Sakellariou, G. Paulakis, C. Psimadas, The effect of clinker and limestone quality on the gas permeability, water absorption and pore structure of limestone cement concrete, *Cem Concr Compos* 21 (1999) 139-146.
22. M. Kaloumenou, E. Badogiannis, S. Tsvivilis, G. Kakali, Effect of the kaolin particle size on the pozzolanic behavior of the marakaolinite produced, *J Therm Anal* 56 (1999) 901-907.
23. S. Tsvivilis, N. Voglis, J. Photou, A study on the intergrinding of clinker and limestone, *Miner Eng* 12 (1999) 837-840.
24. G. Kakali, S. Tsvivilis, E. Aggeli, M. Bati, Hydration products of  $\text{C}_3\text{A}$ ,  $\text{C}_3\text{S}$  and Portland cement in the presence of  $\text{CaCO}_3$ , *Cem Concr Res* 30 (2000) 1073-1077.
25. S. Tsvivilis, G. Batis, E. Chaniotakis, G. Grigoriadis, D. Theodossis, Properties and behavior of limestone cement concrete and mortar, *Cem Concr Res* 30 (2000) 1679-1683.
26. N. Voglis, G. Kakali, S. Tsvivilis, Identification of composite cement hydration products by means of X-ray diffraction, *Mikrochimica Acta*, 136 (2001) 181-183.
27. K. Kolovos, P. Loutsi, S. Tsvivilis, G. Kakali, The effect of foreign ions on the reactivity of the  $\text{CaO-SiO}_2\text{-Al}_2\text{O}_3\text{-Fe}_2\text{O}_3$  system. Part I: Anions, *Cem Concr Res*, 31 (2001) 425-429.
28. G. Kakali, T. Perraki, S. Tsvivilis, E. Badogiannis, Thermal treatment of kaolin: the effect of mineralogy on the pozzolanic activity, *Applied Clay Science*, 20 (2001) 73-80
29. S. Tsvivilis, E. Chaniotakis, G. Kakali, G. Batis, Portland Limestone Cements: A Global Approach of their Production, Properties and Use, *Cement Concrete World*, 5 30 (2001) 56-63
30. K. Kolovos, S. Tsvivilis, G. Kakali, The effect of foreign ions on the reactivity of the  $\text{CaO-SiO}_2\text{-Al}_2\text{O}_3\text{-Fe}_2\text{O}_3$  system. Part II: Cations, *Cem Concr Res*, 32 (2002) 463-469
31. S. Tsvivilis, E. Chaniotakis, G. Kakali, G. Batis, Portland Limestone Cements: An analysis of the properties of limestone cement and concrete, *Cem Concr Compos*, 24 (2002) 371-378
32. M. Perraki, T. Perraki, K. Kolovos, S. Tsvivilis, G. Kakali, Secondary raw materials in cement industry. evaluation of their effect on the sintering and hydration processes by means of thermal analysis, *J Therm Anal*, 70 (2002) 143-150.
33. E. Badogiannis, G. Kakali, S. Tsvivilis, K. Choupa, E. Chaniotakis, Parameters Affecting the Kaolinite to Metakaolinite Conversion and the Pozzolanic Behavior of the Product, *Cement Concrete World*, 7 39 (2002) 60-67.
34. S. Tsvivilis, J. Tsantilas, G. Kakali, E. Chaniotakis, A. Sakellariou, The permeability of limestone cement concrete, *Cem Concr Res*, 33 (2003) 1465-1471.
35. G. Kakali, S. Tsvivilis, K. Kolovos, K. Choupa, T. Perraki, M. Perraki, M. Stamatakis, Ch. Vasilatos, Use of secondary mineralising raw materials in cement production. The case study of a stibnite ore, *Materials Letters*, 57 20 (2003) 3117-3123.
36. G. Kakali, S. Tsvivilis, A. Skaropoulou, J. H. Sharp, R. N. Swamy, Parameters affecting thaumasite formation in limestone cement mortar, *Cem Concr Comp*, 25 (2003) 977-981.

37. S. Tsvivilis, G. Kakali, A. Skaropoulou, J. H. Sharp, R. N. Swamy, Use of mineral admixtures to prevent thaumasite formation in limestone cement mortar, *Cem Concr Comp*, 25 (2003) 969-976.
38. E. Badogiannis, V. Papadakis, E. Chaniotakis, S. Tsvivilis, Exploitation of poor Greek kaolins: Strength development of metakaolin concrete and evaluation by means of k-value, *Cem Concr Res*, 34 (2004) 1035-1041.
39. K. Kolovos, S. Tsvivilis, G. Kakali, Study of clinker dopped with P and S compounds, *J Therm Anal*, 77 3 (2004) 759-766.
40. G. Batis, P. Pantazopoulou, S. Tsvivilis, E. Badogiannis, The effect of metakaolin on the corrosion behavior of cement mortars, *Cem Concr Comp*, 27 (2005) 125-130.
41. G. Kakali, S. Tsvivilis, K. Kolovos, N. Voglis, J. Aivaliotis, T. Perraki, E. Passialakou, M. Stamatakis, Use of secondary mineralising raw materials in cement production. The case study of a wolframite-stibnite ore. *Cem Concr Comp*, 27 (2005) 155-161.
42. K. Kolovos, S. Tsvivilis, G. Kakali, SEM examination of clinkers containing foreign elements *Cem Concr Comp*, 27 (2005) 163-170.
43. N. Voglis, G. Kakali, E. Chaniotakis, S. Tsvivilis, Portland-limestone cements. Their properties and hydration compared to those of other composite cements *Cem Concr Comp*, 27 (2005) 191-196.
44. E. Badogiannis, G. Kakali, G. Dimopoulou, E. Chaniotakis, S. Tsvivilis, Metakaolin as a main cement constituent. Exploitation of poor Greek kaolins *Cem Concr Comp*, 27 (2005) 197-203.
45. S. Tsvivilis, G. Kakali, Cement and Concrete Research in Greece, editorial, *Cem Concr Comp*, 27 (2005) 153-154.
46. K. Kolovos, G. Dousis, G. Kakali, S. Tsvivilis, Investigation on the effect of tin dioxide introduction on the burnability of Portland cement raw mix, the structure and the properties of clinker, *ZKG International*, 58, 2 (2005) 81-87.
47. E. Badogiannis, G. Kakali, S. Tsvivilis, Metakaolin as supplementary cementitious material: Optimization of kaolin to metakaolin conversion, *J Therm Anal*, 81 (2005) 457-462.
48. K. G. Kolovos, S. Barafaka, G. Kakali, S. Tsvivilis, CuO and ZnO addition in the cement raw mix: Effect on clinking process and cement hydration and properties, *Ceramics-Silicaty*, 49 (2005), 205-212.
49. D. Kastis, G. Kakali, S. Tsvivilis, M.G. Stamatakis, Properties and hydration of blended cements with calcareous diatomite, *Cem Concr Res*, 36, 10 (2006), 1821-1826.
50. A. Skaropoulou, G. Kakali, S. Tsvivilis, A study on thaumasite form of sulfate attack (TSA) using XRD, TGA and SEM, *J Therm Anal*, 84 (2006) 135-139.
51. G. Kakali, V. Benekis, O. Leventi, S. Tsvivilis, Behaviour of blended cement pastes at elevated temperature, *Chemical Industry and Chemical Engineering Quarterly*, 12, 2 (2006) 133-136.
52. S. Tsvivilis, K. Sotiriadis, A. Skaropoulou, Thaumasite form of sulfate attack (tsa) in limestone cement pastes, *Journal of the European Ceramic Society*, 27 2-3 (2007) 1711-1714.
53. S. Kourounis, S. Tsvivilis, P.E. Tsakiridis, G.D. Papadimitriou, Z. Tsibouki, Properties and Hydration of Blended Cements with Steelmaking Slag, *Cement and Concrete Research*, 37 6 (2007) 815-822.
54. P. Tsakiridis, G. Papadimitriou, S. Tsvivilis, C. Koroneos, Utilization of Steel Slag for Portland Cement Clinker Production, *Journal of Hazardous Materials*, 152 2 (2008) 805-811.
55. Ch. Panagiotopoulou, T. Perraki, S. Tsvivilis, N. Skordaki, G. Kakali, A study on the alkaline dissolution and geopolymerisation of hellenic fly ash, *Ceramic Engineering and Science Proceedings*, 29 10 (2009) 165-174.
56. E. Badogiannis, S. Tsvivilis, Exploitation of poor Greek kaolins: Durability of metakaolin concrete, *Cem Concr Comp*, 31 (2009) 128-133.
57. A. Skaropoulou, S. Tsvivilis, G. Kakali, J. H. Sharp, R. N. Swamy, Thaumasite form of sulfate attack in limestone cement mortars: A study on long term efficiency of mineral admixtures, *Constr Build Mater*, 23 (2009) 2338-2345.
58. E. Kontori, T. Perraki, S. Tsvivilis, G. Kakali, Zeolite blended cements: Evaluation of their hydration rate by means of Thermal Analysis, *J Therm Anal*, 96 (2009) 993-998.
59. A. Skaropoulou, S. Tsvivilis, G. Kakali, J. H. Sharp, R. N. Swamy, Long term behavior of Portland limestone cement mortars exposed to magnesium sulfate attack, *Cem Concr Comp*, 31 (2009) 628-636.
60. K. Sotiriadis, E. Nikolopoulou, S. Tsvivilis, The effect of chlorides on the thaumasite form of sulfate attack in limestone cement concrete, *Materials Science Forum*, 636-637 (2010) 1349-1354.
61. A. Tsitouras, T. Perraki, M. Perraki, S. Tsvivilis, G. Kakali, The effect of synthesis parameters on the structure and properties of metakaolin based geopolymers, *Materials Science Forum*, 636-637 (2010) 149-154.
62. C. Panagiotopoulou, G. Kakali, S. Tsvivilis, T. Perraki, M. Perraki, Synthesis and characterisation of slag based geopolymers, *Materials Science Forum*, 636-637 (2010) 155-160.
63. S. Tsvivilis, A. Asprogerakas, A study on the chloride diffusion into Portland limestone cement concrete, *Materials Science Forum*, 636-637 (2010) 1355-1361.
64. T. Perraki, E. Kontori, S. Tsvivilis, G. Kakali, The effect of zeolite on the properties and hydration of blended cements, *Cem Concr Comp*, 32 (2010) 128-133.
65. Ch. Panagiotopoulou, A. Asprogerakas, G. Kakali, S. Tsvivilis, Synthesis and thermal properties of fly-ash based geopolymer pastes and mortars, *Ceramic Engineering and Science Proceedings*, 32 (2011) 17-28.

66. K. Sotiriadis, E. Nikolopoulou, S. Tsvivilis, Sulfate resistance of limestone cement concrete exposed to combined chloride and sulfate environment at low temperature, *Cem Concr Comp*, 34 (2012) 903-910.
67. A. Skaropoulou, G. Kakali, S. Tsvivilis, Thaumassite form of sulfate attack in limestone cement concrete: The effect of cement composition, sand type and exposure temperature, *Constr Build Mater*, 36 (2012) 527-533.
68. A. Skaropoulou, K. Sotiriadis, G. Kakali, S. Tsvivilis, Use of mineral admixtures to improve the resistance of limestone cement concrete against thaumasite form of sulfate attack, *Cem Concr Comp*, 37 (2013) 267-275.
69. E. Zacharopoulou, A. Zacharopoulou, A. Sayedalhosseini, G. Batis, S. Tsvivilis, Effect of Corrosion Inhibitors in Limestone Cement, *Materials Sciences and Applications*, 4 (2013) 12-19.
70. K. Sotiriadis, S. Tsvivilis, J. Kosíková, V. Petránek, Long Term Behaviour of Portland Limestone Cement Concrete Exposed to Combined Chloride and Sulfate Environment. The Effect of Limestone Content and Mineral Admixtures, *Adv Mat Res*, 688 (2013) 185-192.
71. K. Sotiriadis, E. Nikolopoulou, S. Tsvivilis, A. Pavlou, E. Chaniotakis, R.N. Swamy, The effect of chlorides on the thaumasite form of sulfate attack of limestone cement concrete containing mineral admixtures at low temperature, *Constr Build Mater*, 43 (2013) 156-164.
72. K.G. Kolovos, P.G. Asteris, D.M. Cotsovos, E. Badogiannis, S. Tsvivilis, Mechanical properties of soilcrete mixtures modified with metakaolin, *Constr Build Mater*, 47 (2013) 1026-1036.
73. K. Sotiriadis, S. Tsvivilis, V. Petránek, Chloride Diffusion in Limestone Cement Concrete Exposed to Combined Chloride and Sulfate Solutions at Low Temperature, *Adv Mat Res*, 897 (2014) 171-175.
74. A. Tsitouras, S. Tsvivilis, G. Kakali, A., Taguchi Approach for the Synthesis Optimization of Metakaolin Based Geopolymers, *Adv Sci Tech*, 92 (2014) 44-49.
75. A. Asprogerakas, A. Koutelia, G. Kakali, S. Tsvivilis, Durability of Fly Ash Geopolymer Mortars in Corrosive Environments, Compared to that of Cement Mortars, *Adv Sci Tech*, 92 (2014) 84-89.
76. E.G. Badogiannis, I.P. Sfikas, D.V. Voukia, K.G. Trezos, S.G. Tsvivilis, Durability of metakaolin self-compacting concrete, *Constr Build Mater* 82 (2015) 133-141.
77. C. Panagiotopoulou, S. Tsvivilis, G. Kakali, Application of the Taguchi approach for the composition optimization of alkali activated fly ash binders, *Constr Build Mater* 91 (2015) 17-22.
78. E. Badogiannis, E. Aggeli, V.G. Papadakis, S. Tsvivilis, Evaluation of chloride-penetration resistance of metakaolin concrete by means of a diffusion – binding model and of the k-value concept, *Cem Concr Comp* 63 (2013) 1-7.
79. M. Fitos, E. Badogiannis, S. Tsvivilis, M. Perraki, Pozzolanic activity of thermally and mechanically treated kaolins, *Applied Clay Science* 116-117 (2015) 181-192.
80. K.G. Kolovos, P.G. Asteris, S. Tsvivilis, Properties of sandcrete mixtures modified with Metakaolin, *European Journal of Environmental and Civil Engineering*, V. 20, Issue sup1 (2016) s18-s37.
81. K. Sotiriadis, E. Rakanta, M.-E. Mitzithra, G. Batis, S. Tsvivilis, Influence of sulfates on chloride diffusion and chloride-induced reinforcement corrosion in limestone cement materials at low temperature, *Journal of Materials in Civil Engineering*, 29(8) (2017) 04017060 1-12.
82. A. Skaropoulou, A. Ntziouni, D. Kioupis, S. Tsvivilis, G. Kakali, Synthesis and characterization of innovative insulation materials, *MATEC Web of Conferences*, 149 (2018) 01078.
83. G. Kakali, D. Kioupis, A. Skaropoulou, S. Tsvivilis, Lightweight geopolymer composites as structural elements with improved insulation capacity, *MATEC Web of Conferences*, 149 (2018) 01042.
84. D. Kioupis, A. Skaropoulou, S. Tsvivilis, G. Kakali, The application of experimental design models in order to optimize the synthesis of geopolymers, *MATEC Web of Conferences*, 149 (2018) 01029.
85. D. Kioupis, A. Skaropoulou, S. Tsvivilis, G. Kakali, Alkali leaching control of construction and demolition waste based geopolymers, *MATEC Web of Conferences*, 149 (2018) 01064.
86. D. Kioupis, C. Kavakakis, S. Tsvivilis, G. Kakali, Synthesis and Characterization of Porous Fly Ash-Based Geopolymers Using Si as Foaming Agent, *Advances in Materials Science and Engineering*, (2018), Article ID 1942898.
87. K. Sotiriadis, S. Tsvivilis, Performance of limestone cement concretes in chloride–sulfate environments at low temperature, *Magazine of Concrete Research*, 70(20) (2018) 1039–1051.
88. N. Nikoloutsopoulos, A. Sotiropoulou, G. Kakali, S. Tsvivilis, The effect of Solid/Liquid ratio on setting time, workability and compressive strength of fly ash based geopolymers, *Materials Today: Proceedings*, 5(4) (2018) 27441-27445.
89. D. Kioupis, S. Tsvivilis, G. Kakali, Development of green building materials through alkali activation of industrial wastes and by-products, *Materials Today: Proceedings*, 5(4) (2018) 27329-27336.
90. K. Sotiriadis, E. Rakanta, M.-E. Mitzithra, G. Batis, S. Tsvivilis, Chloride-related phenomena in limestone cement materials: Effect of mineral admixtures and sulfates, *ACI Materials Journal*, 116(6) (2019) 19-30.
91. K. Sotiriadis, P. Macova, A.S. Mazur, A. Viani, P.M. Tolstoy, S. Tsvivilis, Long-term thaumasite sulfate attack on Portland-limestone cement concrete: A multi-technique analytical approach for assessing phase assemblage, *Cem Concr Res*, 130 (2020), 105995.

92. D. Kioupis, A. Skaropoulou, S. Tsivilis, G. Kakali, Valorization of Brick and Glass CDWs for the Development of Geopolymers Containing More Than 80% of Wastes. *Minerals*,10, 672 (2020), 1-16.
93. K. Aspiotis, K. Sotiriadis, I. Kumpová, P. Mácová, E. Badogiannis, S. Tsivilis, Evaluation of Self-Healing in Concrete by Means of Analytical Techniques. *Solid State Phenomena*, 309 (2020), 38–43.
94. N. Nikoloutsopoulos, A. Sotiropoulou, G. Kakali, S. Tsivilis, Physical and mechanical properties of fly ash based geopolymer concrete compared to conventional concrete, *Buildings*, 11(5) (2021),178.
95. D. Kioupis, A. Zisimopoulou, S. Tsivilis, G. Kakali, Development of porous geopolymers foamed by aluminum and zinc powders, *Ceramics International*, 47(18) (2021) 26280-26292.
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97. G. Georgopoulos, E. Badogiannis, S. Tsivilis, M. Perraki, Thermally and mechanically treated Greek palygorskite clay as a pozzolanic material, *Applied Clay Science* 215 (2021) 106306.
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