CURRICULUM VITAE

GLIKERIA KAKALI

Professor NTUA

In: Chemistry and Technology of Aluminosilicate Materials

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Education

- (1983): M.Sc. in Chemical Engineering, University of Thessaloniki, Greece.
- (1988): Ph.D. thesis in Materials Engineering: "The effect of transition element oxides on the chemical and physic-mechanical properties of clinker", NTUA, Greece.

Work Experience

- 2012-today: Professor, School of Chemical Engineering, NTUA, Greece
- 2008-today: Education consultant in Hellenic Open University
- 2007-2012: Associated Professor, School of Chemical Engineering, NTUA, Greece
- 1999-2007: Assistant Professor, School of Chemical Engineering, NTUA, Greece
- 1990-1999: Lecturer, School of Chemical Engineering, NTUA, Greece
- 1986-1990: Education consultant in IDEA-E
- 1989-1990: Teaching staff in Technological Educational Institute of Athens
- 1984-1990: Research and education collaborator in Laboratory of Inorganic and Analytical Chemistry of NTUA

Teaching

- *Advanced Inorganic Chemistry*, undergraduate course, School of Chemical Engineering of NTUA
- *High Temperature Processes*, undergraduate course, School of Chemical Engineering of NTUA
- *Special Topics in Inorganic Chemistry*, undergraduate course, School of Chemical Engineering of NTUA
- *Solid Waste management*, postgraduate course in "Waste Management" of Hellenic Open University

Research areas

- Synthesis, structure and properties of aluminosilicate materials
- Chemistry and technology of cement
- Chemistry and technology of inorganic polymers
- Soft chemistry synthesis of inorganic compounds and nanopowders
- Exploitation of industrial minerals and by-products in the field of building materials.

Publications in International Journals:	71
Presentations in Conferences:	103
Funded Projects:	6
Citations (Scopus):	1057
H-index:	17

Reasearch Projects

- Multifunctional facades of reduced thickness for fast and cost-effective retrofitting, FP7-2013-NMP-env-eeb, 2013-2016
- Synthesis and structure refinement of doped La silicates. NTUA, 2012-2014
- Synthesis, characterization and properties of $La_{0.8}Sr_{0.2}A_yB_{1-y}O_3$ (A,B: Mn, Fe, Co, $0 \leq y \leq 1$) nanopowders. NTUA, 2008-2010
- Development of materials suitable for Solid Oxide Fuel Cells. Synthesis, characterization and properties of $La_{1-x}Sr_xMnO_3$, $LaCoO_3$ and $La_{0.9}Sr_{0.1}Ga_{0.8}Mg_{0.2}O_3$ nanopowders. G.S.R.T., Joint research and technology programmes, Greece - Poland, 2006-2008
- Synthesis of mixed oxides $xCaO{\cdot}yAl_2O_3$ ($x:y \geq 1$) using the Pechini technique. NTUA, 2004-2006
- Synthesis of hydraulic calcium silicate and Calcium aluminate compounds using low temperature techniques. Alternative ways to produce clinker. G.S.R.T. 2003-2007

Review and Editorial Services

- Reviewer of the journals: *Cement and Concrete Composites, Cement and Concrete Research, Construction and Building Materials, Applied Clay Science, Chemical and Biochemical Engineering Quarterly, Journal of Hazardous Materials, Materials Research Bulletin, Journal of the Air and Waste Management Association, Environmental Science and Technology, Journal of Thermal Analysis and Calorimetry, Journal of Materials Science, Materials Chemistry and Physic, Powder Technology, Journal of Alloys and Compounds, Journal of the American Ceramic Society, Journal of Rare Earth Elements, Environmental Progress and Sustainable EnergyJjournal*
- 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

1. M. Statheropoulos, G. Kakali. A parallel study of PVC degradation and stabilization by Ba/Cd stearates using Differential Scanning Calorimetry and Mass spectroscopy. European Polymer Journal, 25/4, 405,1989.
2. G. Kakali, V. Kasselouri, G. Parissakis. Hydration and strength development of cements produced from raw mixes containing MoO_3, Nb_2O_5, WO_3 and ZrO_2. Cem Concr Res, 19, 968, 1989.
3. G. Kakali, V. Kasselouri, G. Parissakis. Investigation of the effect of Mo, Nb, W and Zr oxides on the formation of Portland cement clinker. Cem Concr Res, 20, 131, 1990.
4. Tsivilis S., Kakali G., Alamanou T. A comparative study of intergrinding and separate grinding of cement raw mix. ZKG-Internaional, 44, 74, 1991.
5. Kakali G., Tsivilis S. The effect of intergrinding and separate grinding of cement raw mix on the burning process. Cem Concr Res, 23, 651, 1993.
6. G. Kakali, G. Parissakis. Investigation of the effect of Zn oxide on the formation of Portland cement clinker. Cem Concr Res, 25/1, 79, 1995.
7. Tsivilis S., Kakali G., Haldeou K., Parissakis G. A mathematical model for the control of cement setting using $CaCl_2$. Cem Concr Res, 25, 948, 1995.
8. G. Kakali, G. Parissakis, D. Bouras. A study on the burnability and phase formation of clinker containing Cu oxide. Cem Concr Res, 26/10, 1473, 1996.
9. G. Kakali, V. Kasselouri, S. Sioutis, A study on the gas permeability of concrete made of cement raw mix containing transition element oxides, World Cement, 27/10,77, 1996.
10. Tsivilis S., Kakali G., A study on the grindability of Portland cement clinker containing transition metal oxides, Cem Concr Res, 27/ 5, 673, 1997.
11. S. Tsimas, G. Kakali, P. Merkos, A. Moutsatsou. Utilization of lignite fraction high in inerts as part of cement raw meal, ZKG-Internaional, 50/8, 464, 1997.
12. Kasselouri V., Batis G., Kakali G. Corrosion resistance of steel in mortars made from cement raw mix containing transition element oxides, World Cement, 28/7, 104, 1997.

13. Kakali G., Tsivilis S., Tsialtas A., Hydration of O.P. cements made from raw mix containing transition element oxides, Cem Conc Res, 28/ 3, 335, 1998.
14. Kakali G., Chaniotakis E., Tsivilis S., Danassis E., Differential scanning calorimetry: a useful tool for the prediction of the cement raw mix reactivity, J Therm Anal Cal, 52, 871, 1998.
15. Tsivilis S., Kakali G., Chaniotakis E., Souvaridou A., A study on the hydration of portland limestone cement by means of TGA, J Therm Anal Cal, 52, 863, 1998.
16. Tsivilis S., Chaniotakis E., Batis G., Meletiou C., Kasselouri V., Kakali G., Sakellariou G., Paulakis G., Pseimidas Chr. The Effect of Clinker and Limestone Quality on the Gas Permeability, Water Absorption and Pore Structure of Limestone Cement Concrete. Cem Conc Comp, 21, 139, 1999.
17. Kaloumenou M., Badogiannis E., Tsivilis S., Kakali G., Effect of kaolinite particle size on the pozzolanic behavior of the produced metakaolinite, J Therm Anal Cal, 56, 901, 1999.
18. Kakali G., Tsivilis S., Aggeli E., Bati M., Hydration products of C_3A, C_3S and Portland cement in the presence of $CACO_3$, Cem Concr Res, 30/7, 1073, 2000
19. Voglis N., Kakali G., Tsivilis S., Identification of composite cement hydration products by means of X-ray diffraction, Mikrochimica Acta, 136, 181, 2001.
20. Kolovos K., Loutsi P., Tsivilis S., Kakali G., The effect of foreign ions on the reactivity of the $CaO-SiO_2-Al_2O_3-Fe_2O_3$ system. Part I: Anions, Cem Concr Res, 31, 425, 2001.
21. Kakali G., Perraki T., Tsivilis S., Badogiannis E., Thermal treatment of kaolin: the effect of mineralogy on the pozzolanic activity, Applied Clay Science, 20, 73, 2001.
22. S. Tsivilis, E. Chaniotakis, G. Kakali, G. Batis, Portland Limestone Cements: A Global Approach of their Production, Properties and Use, Cement Concrete World, 5/30, 56, 2001
23. Kakali G., Ramanujachary K.V., Greenblatt M. Application of alkali metal molybdenum bronzes as Na^+-ion selective sensors, Sensors and Actuators B, 4003, 1, 2001.
24. Kolovos K., Tsivilis S., Kakali G., The effect of foreign ions on the reactivity of the $CaO-SiO_2-Al_2O_3-Fe_2O_3$ system. Part II: Cations, Cem Concr Res, 32, 463, 2002
25. Tsivilis S., Chaniotakis E., Kakali G., Batis G., An analysis of the properties of limestone cements and concrete, Cem Concr Comp, 24, 371, 2002
26. M. Perraki, T. Perraki, K. Kolovos, S. Tsivilis, 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 Cal., 70/1, 143, 2002.
27. E. Badogiannis, G. Kakali, S. Tsivilis, K. Choupa, E. Chaniotakis, Parameters Affecting the Kaolinite to Metakaolinite Conversion and the Pozzolanic Behavior of the Product, Cement Concrete World, 7/39, 60, 2002
28. Perraki Th., Kakali G., Kontoleon F., The effect of natural zeolites on the early hydration of portland cement, Microporous and Mesoporous Materials, 61, 205, 2003.
29. G. Kakali, S. Tsivilis, K. Kolovos, K. Choupa, T. Perraki, M. Perraki, M. Stamatakis, Ch. Vasilatos. Use of secondary mineralizing raw materials in cement production. The case study of a stibnite ore. Materials Letters. 57/20, 3117, 2003
30. G. Kakali, S. Tsivilis, A. Skaropoulou, J. H. Sharp, R. N. Swamy. Parameters affecting thaumasite formation in limestone cement mortar, Cem Concr Comp, 25, 987, 2003.
31. S. Tsivilis, J. Tsantilas, G. Kakali, E. Chaniotakis, A. Sakellariou. The permeability of limestone cement concrete, Cem Concr Res, 33, 1465, 2003
32. S.Tsivilis, 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, 979, 2003.
33. K. G. Kolovos, S. Tsivilis, G. Kakali, Study of clinkers doped with S and P compounds, J.Therm Anal Cal. 77, 759, 2004
34. S. Tsivilis, G. Kakali, Cement and Concrete Research in Greece, Editorial, Cem Concr Comp, 27, 153, 2005.
35. K. Kolovos, S. Tsivilis, G. Kakali, SEM examination of clinkers containing foreign elements, Cem Concr Comp, 27, 163, 2005
36. E. Badogiannis, G. Kakali, S. Tsivilis, Metakaolin as supplementary cementitious material: Optimization of kaolin to metakaolin conversion, J.Therm Anal Cal. 81, 457, 2005
37. K. G. Kolovos, G. Dousis, S. Tsivilis, G. Kakali, The effect of SnO_2 on the burnability of Portland cement raw mix, the structure and the properties of clinker, ZKG-International, 58/2, 81, 2005.
38. K. G. Kolovos, S. Barafaka, G. Kakali, S. Tsivilis, CuO and ZnO addition in the cement raw mix: Effect on clinkering process and cement hydration and properties, Ceramics-Silicaty, 49, 205, 2005
39. N. Voglis, G. Kakali, E. Chaniotakis, S. Tsivilis, Portland-limestone cements. Their properties and hydration compared to those of other composite cements, Cem Concr Comp, 27, 191, 2005.

40. G. Kakali, S. Tsivilis, K. Kolovos, N. Voglis, J. Aivaliotis, T. Perraki, E. Passialakou, M. Stamatakis. Use of secondary mineralizing raw materials in cement production. The case study of a wolframite-stibnite ore. Cem Concr Comp, 27, 155, 2005
41. E. Badogiannis, G. Kakali, G. Dimopoulou, E. Chaniotakis, S. Tsivilis, Metakaolin as a main cement constituent. Exploitation of poor Greek kaolins Cem Concr Comp, 27, 197, 2005.
42. S. Liodakis, G. Katsigiannis and G. Kakali, Ash properties of some dominant Greek forest species Thermochimica Acta, 437/1-2, 158, 2005.
43. Perraki Th., Kakali G., Kontori E. Characterization and pozzolanic activity of thermally treated zeolite, J Therm Anal Cal, 82/1, 109-113, 2005.
44. D. Kastis, G. Kakali, S. Tsivilis, M.G. Stamatakis, Properties and hydration of blended cements with calcareous diatomite as a main constituent, Cem Conc Res, 36/10, 1821-1826, 2006
45. A. Gaki, R. Chrysafi, Th. Perraki, G. Kakali, Synthesis of calcium aluminates through the polymeric precursor route, Chemical Industry and Chemical Engineering Quarterly, 12(2), 137-140,2006.
46. Skaropoulou A, G. Kakali, S. Tsivilis, A study on thaumasite form of sulfate attack (TSA) using XRD, TGA and SEM, J Therm Anal Cal, 84/1, 135-139, 2006.
47. Gaki A., Chrysafi, R., Kakali G., Chemical synthesis of hydraulic calcium aluminate compounds using the Pechini technique, Journal of the European Ceramic Society, 27(2-3), 1781-1784, 2007
48. R. Chrysafi, Th. Perraki, G. Kakali, Sol gel preparation of $2CaO{\cdot}SiO_2$, Journal of the European Ceramic Society, 27(2-3), 1707-1710, 2007
49. Gaki A., Th. Perraki, G. Kakali, Wet chemical synthesis of monocalcium aluminate, Journal of the European Ceramic Society, 27(2-3), 11785-1789, 2007
50. Ch. Panagiotopoulou, E. Kontori, Th. Perraki, G. Kakali, Dissolution of aluminosilicate minerals and by-products in alkaline media, Journal of Materials Science, 42, 2967-2973, 2007.
51. Skaropoulou, K. Sotiriadis, G. Maniatopoulos, G. Kakali, S. Tsivilis, Effect of mineral admixtures addition on the durability of limestone cement paste under sulfate attack, Chemical Industry and Chemical Engineering Quarterly, 12(2), 141-144, 2006
52. G. Kakali, V. Benekis, O. Leventi, S. Tsivilis, Behaviour of blended cement pastes at elevated temperature, Chemical Industry and Chemical Engineering Quarterly, 12(2), 133-136,2006.
53. Gaki A., Anagnostaki O., Kioupis D. , Perraki T., Gakis D. , Kakali G., Optimization of $LaMO_3$ (M: Mn, Co, Fe) synthesis through the polymeric precursor route, Journal of Alloys and Compounds, 451(1-2), 305-308, 2008
54. V. G. Charalampopoulos, J.C. Papaioannou, G. Kakali, H.S. Karayianni, Metal-heptaiodide interactions in cyclomaltoheptaose (β-cyclodextrin) polyiodide complexes as detected via Raman spectroscopy, Carbohydrate Reseach, 343(3), 489-500, 2008
55. E. Kontori, T. Perraki, S Tsivilis and G. Kakali, Zeolite blended cements: Evaluation of their hydration rate by means of Thermal Analysis, Journal of Thermal Analysis and Calorimetry, 96, 993-998, 2009.
56. R.J. Wiglusz, A. Gaki, G. Kakali, A. Chuchmała and W. Stręk, "Conductivity and electric properties of $La_{1-x}Sr_xMnO_{3-\delta}$ nanopowders", Journal of Rare Earths, 27(4), 651-654, 2009
57. A. Skaropoulou , S. Tsivilis, 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 Materials, 23, 2338-2345, 2009.
58. A. Skaropoulou, S. Tsivilis, 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, 628-636, 2009.
59. Panagiotopoulou, Ch., Perraki, T., Tsivilis, S., Skordaki, N., Kakali G. , A study on alkaline dissolution and geopolymerisation of hellenic fly ash, Ceramic Engineering and Science Proceedings, 29(10), 2009, 165-174.
60. Kioupis D, Gaki A, Kakali G, "Wet Chemical Synthesis of $La_{1-x}Sr_xGa_{0.8}Mg_{0.2}O_{3-\delta}$ (x=0.1, 0.2, 0.3) Powders", Materials Science Forum,. 636-637, 908-913, 2010
61. Gaki A, Karavangelis C, Kakali G, Wiglusz RJ, Strek W, "Synthesis of $La_{1-x}Sr_xCoO_{3-\delta}$ by a Polymeric Precursor Route using Microwave Heating", Materials Science Forum,. 636-637, 901-907, 2010
62. Tsitouras A, Perraki T, Perraki M, Tsivilis S, Kakali G, "The effect of synthesis parameters on the structure and properties of metakaolin based geopolymers", Materials Science Forum,. 636-637, 149-154, 2010
63. Ch. Panagiotopoulou, G. Kakali , S. Tsivilis , Th. Perraki, M. Perraki , "Synthesis and characterisation of slag based geopolymers", Materials Science Forum,. 636-637, 155-160, 2010
64. Th. Perraki, E. Kontori, S. Tsivilis, G. Kakali, The effect of zeolite on the properties and hydration of blended cements, Cement and Concrete Composites, 32, 128-133, 2010
65. Gaki, G. Kakali, R. J. Wiglusz, W. Strek, G. Paściak, Synthesis, characterization and electrical properties of single phase $La_{0.9}Sr_{0.1}Ga_{0.8}Mg_{0.2}O_3$, Materials Science Forum, 636/637, 874-879,2010
66. Charalampopoulos V.G., Papaioannou J.C., Viras K., Karayianni H.S., Kakali G., An insight into the disorder properties of the α-cyclodextrin polyiodide inclusion complex with Sr^{2+} ion: Dielectric, DSC and FT-Raman spectroscopy studies, Supramolecular Chemistry, 22/9, 499-510, 2010

67. Charalampopoulos, V.G., Papaioannou, J.C., Tsekouras, A.A., Kakali, G., Karayianni, H.S. Significant modification of the I^-_3 Lewis base character in the β-cyclodextrin polyiodide inclusion complex with Co^{2+} ion: An FT-Raman investigation. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy 83 (1) , 279-287, 2011
68. Panagiotopoulou, Ch., Asprogerakas, A., Kakali, G., Tsivilis, S. Synthesis and thermal properties of fly-ash based geopolymer pastes and mortars. Ceramic Engineering and Science Proceedings, 32/10, 17-26, 2011.
69. Skaropoulou A., Kakali G., Tsivilis S., Thaumasite form of sulfate attack in limestone cement concrete: The effect of cement composition, sand type and exposure temperature, Construction and Building Materials, 36, 527-533, 2012
70. Skaropoulou A., Sotiriadis K., Kakali G., Tsivilis S., Use of mineral admixtures to improve the resistance of limestone cement concrete against thaumasite form of sulfate attack. Accepted in Cement and Concrete Composites, January 2013.