



CURRICULUM VITAE

Prof. Dr. Mohamed Ahmed Hassan Heikal
Professor of Inorganic Chemistry



Personal:

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Place of birth: EGYPT

Personal Academic:

1. **Ph.D., 1996:** Ph. D. in Physical and Inorganic Chemistry 1996: Department of Chemistry, Faculty of Science, Zagazig University, Zagazig, Egypt, Thesis Title: "Effect of some Concrete Admixtures on the Silica Fume Blended Cement Pastes."
2. **M.Sc., 1991:** M. Sc. in Physical and Inorganic Chemistry 1992: Department of Chemistry, Faculty of Science, Zagazig University, Zagazig, Egypt, Thesis Title:



"Silica Fume as an Ingredient in Blended Cements."

3. **B.Sc., 1988:** Chemistry Department, Faculty of Science, Zagazig University, Egypt.

Employment:

1. **Professor:** Professor of Inorganic Chemistry, Chemistry Department, Faculty of Science, Benha University, Benha, Egypt from 2008 till now
2. **Professor:** Professor of Inorganic Chemistry, Chemistry Department, College of Science, Al Imam Mohammad Ibn Saud Islamic University (IMSIU), KSA from 2013 till now.
3. **Associate Professor:** Head of the Chemistry Department, Faculty of Science, Najran University, Najran, Kingdom Saudi Arabia 2007-2009.
4. **Associate Professor:** Associate Professor of Applied Inorganic Chemistry: Chemistry Department, Faculty of Science, Benha University, Benha, Egypt, Egypt from 2003-2004 – 2008
5. **Associate Professor:** Associate Professor of Applied Inorganic Chemistry: Zagazig University, Zagazig, Egypt from 29-4-2002 to 18-3-2004.
6. **Assistance Professor:** Assistance Professor of Industrial Chemistry: Zagazig University, Zagazig, Egypt, from 18-3-1997 to 28-4-2002
7. **Assistant Lecturer:** Assistant Lecturer: Institute of Efficient Productivity, Industrial Department, Zagazig University, Zagazig, EGYPT, from 1-2-1993 to 17-3-1997.
8. **Demonstrator:** Demonstrator: Institute of Efficient Productivity, Industrial Department, Zagazig University, Zagazig, EGYPT, from 14-11-1988 to 31-1-1993.

Research interests:

1. Chemistry and Technology of Cements especially the cements containing industrial by-products such as:
 - A- By-pass cement kiln dust is a by-product from cement industry.



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- B- Condensed silica fume from is a by-product from Ferro-silicon alloys factory Edfo-Aswan Egypt.
- C- Air and water cooled slag is by-product from Iron and Steel Company, Helwan, Egypt.
- D- Phosphogypsum is an industrial by-product from phosphoric acid manufacture by dehydrate process in Abo-Zaabal, Kulbia government, Egypt.
- E- Dealuminated kaolin from Egyptian Shaba, Company, from the shaba (aluminum sulphate) manufacture in area of Kulbia government, Abo-Zaabal.
- F- Calcium formate is by-product from produced in the manufacture of the polyhydric alcohols and used as an accelerator in the hydration of Portland and blended cements.
- G- Ground Clay bricks is a solid waste material (broken and crushed bricks) product from the manufacture of clay bricks.
- H- Lime sludge is a solid waste material produced during the manufacture of acetylene gas. Acetylene gas is produced from the hydrolysis of calcium carbide to form acetylene gas and calcium hydroxide (sludge).
2. Physico-chemical and microstructure of blended and pozzolanic cements.
 3. Rheological and electrical properties of Portland, sulphate resisting, blended, pozzolanic aluminous cements.
 4. Durability and chemical attack of Portland, sulphate resisting blended, pozzolanic, and aluminous cements.
 5. Influence of hydrothermal condition on the physico-mechanical, phase composition and microstructure of autoclaving industrial by-products to produce building materials products.
 6. Effect of firing temperature on the structure and strength properties of cement pastes and concrete.
 7. Different advanced techniques used in my research area:
 - Scanning electron microscopy (SEM).
 - Differential thermal analysis (DTA), differential thermal gravimetric analysis (TGA, Differential thermal colorimetry,
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- FI-IR spectroscopy
 - Electrical conductivity and resistivity, and
 - ICP.
8. Uses of nano-material in the field of Building materials and Material Science for improving physico-chemical, mechanical and Durability of Portland and composite cements.
9. Preparation of eco-friendly binder from Alkali-activated aluminosilicate solid industrial wastes.

Member of Committee of Egyptian University Promotion for Professors and Associate Professors:

1. Referee 2012 – 2015.
2. Member of Committee of Egyptian University Promotion for Professors from 2016-2019.

Membership of professional bodies

1. Member of Egyptian Chemical Society.
2. Member of the Egyptian Ceramics Society
3. Member of the Academic Staff Club of Benha University.
4. Member of Chemical Society in Zagazig University.

Editor for International Journals:

1. Modern Chemistry
2. Journal of Basic and Environmental Sciences (<http://jbesci.org/editorial.php>)

A peer reviewer for the international journal

1. Cement and concrete Research
2. Construction and Building Material
3. Applied Polymer Science



4. Construction Materials
5. Materials Letter
6. Building Research Journal
7. Experimental in Physics
8. Advances in Cement Research
9. Beni-Suef University Journal of Applied Sciences
10. Journal of Composite Materials
11. Chemical Industry & Chemical Engineering
12. Thermal analysis and Calorimetry.
13. Journal of Asian Ceramic Societies.
14. Journal of Cleaner Production.
15. International Journal of Pavement Engineering.

An external evaluation for Staff member and Projects:

1. Member of Research Group in the Information and Surface Research Center in Benha University to Evaluation the environmental aspects of Portland Cement Factories – Nile East 2006.
2. Reuse of the by-products from demolition and Building material industries, which causes the environmental pollution in Egypt and possible ways to utilize them, performed by National Research for Housing and Building Materials, Housing and Building National Research Center, HBRC, Dokki, Giza 11511, Egypt.

Research Projects

1. Preparation of eco-friendly binder from Alkali-activated aluminosilicate solid industrial wastes.
2. Physico-chemical, mechanical and corrosion prevention of reinforcement steel embedded rebar in cement mortar containing prepared nano-particles.
3. Immobilization of some toxic metals in hybrid cement containing nano-particles.



Teaching experience:

1. General Chemistry (101 Chem).
2. General Chemistry (103 Chem).
3. Inorganic Chemistry (Main group elements) (243 Chem).
4. Transition Element and Coordination Compounds.
5. Organometallic Chemistry (313 Chem)
6. Radiation and Nuclear Chemistry
7. Chemistry of Material Science
8. Analytical Chemistry (242 Chem)
9. Instrumental Analysis.
10. Advanced Inorganic Chemistry.
11. Solid State Chemistry.
12. Cement Chemistry
13. Refractories
14. Metallurgy

Post Graduated

1. Applied Inorganic Chemistry
2. Heavy Inorganic Industries
3. Advanced Inorganic Chemistry
4. Radiation and Nuclear Chemistry
5. Chemical Industrial (II)

Activities in the Quality Assurance and Accreditation:

1. Workshop on "Concepts of Quality assurance and accreditation Benha University on September 7 2009.
2. Workshop on "Standards of accreditation of higher education institution", Benha University on September 8-9 2009.
3. Workshop on "Procedures of accreditation by the National Authority of quality assurance and accreditation", Benha University on September 14-15, 2009.



Computer and statistical skills:

1. International computer driver license (ICDL) certification (word. Access, excel, PowerPoint, internet, information technology, using the computer and managing files).
2. Microsoft certification for web page
3. Skillful Statistical analysis using Excel, SPSS, Sigma Stat and Sigma plot.
4. Data base creator by using Microsoft access.
5. Web designing using front page and online templates.
6. Professional image processing (Corel Draw, Corel and Adobe Photoshop).

Some Of Training Courses:

1. Training courses for university teaching and preparing of university Professor 1994.
2. Fundamentals of University Teaching, Faculty of Education, Zagazig University, 1994.
3. Time Management & Work Stress, 4.9.2005–7.9.2005, Banha University, 2005.
4. Decision Making & Problem Solving, 20 – 22.3.2006,
5. Banha University .Credit Hours, 28.3.2006,
6. Banha University.The Legal Issues, 3 – 5.4.2006, Banha University.
7. Scientific Research Management, 11 – 14.4.2006, Banha University
8. Teaching Evaluation, 17 – 19.4.2006, Banha University.
9. Training program of Presentations 26-28/7/2009.
10. Training program of Word Processing 2-4/8/2009.
11. Training program of Spreadsheets 10-12/8/2009.
12. Training program of the use of information Resources on Saudi Digital Library, Al Imam Mohammed Ibn Saud, Islamic University (IMSIU), Riyadh, KSA, 27-02-2014

Symposiums, and Conferences:



1. The 1st International Symposium on Cement Industry Research, (Technologies and Environmental Management) 8-10 November 1997, Assuit, University Egypt.
2. Arabic Building Materials and Economic Challenges Symposium, Cairo, Egypt, 9-12 April 2000.
3. Symposium on Metallurgy Science and Cement Industry, 22 June 2005, Ain Shams University, Egypt.
4. 9th Arab Chemical Conference (Egyptian Chemical Society, 10-13 April 1993, National Research Centre, Cairo, Egypt.
5. The 5th International Conference on Chemistry and Its Role in Development (ICCRD1999) 19-22 April Mansoura University Egypt 1999.
6. The 15th Egyptian Chemistry Conference 20-25 Nov. 1999.
7. The 2nd International Conference on Basic Science and Advanced Technology Assiut, Egypt, Nov. 5-8, 2000.
8. The 6th International Conference on Chemistry and Its Role in Development (ICCRD 2001) 17-20 April Mansoura University Egypt 2001.
9. The 6th Arab International Conference on Polymer Science & Technology, Sept. 1-5 Sharm El-Sheikh, Egypt, 2001.
10. Urban Development in Arid Regions & Associated Problems, Riyadh, Soadia Arabia 2-4 November 2002.
11. The 7th International Conference on Chemistry and Its Role in Development (ICCRD 2003) Mansoura & Sharm El-Sheikh, 14-17 April, Egypt 2003.
12. Second International Conference on Chemistry and its applications, December 6-9, 2003 Doha, Qatar.
13. International Conference (Future Vision and Challenges for urban Development) Cairo, Egypt: 20-22 December 2004.
14. First Ain Shams University International Conference on Environmental Engineering, Faculty of Engineering Ain Shams University, Cairo, Egypt: April, 9-11, 2005.
15. 8th International Conference of Chemistry And Its Role in Development, Mansoura&Sharm El-Sheikh (ICCRD 2005) April 11-14, 2005, Egypt.



16. Biannual Conference on Chemistry, (Chem 04), March, 5-8 (2006), Cairo University Egypt.
17. First International Afro-Asian Conference on Advanced Material Science and Technology, Nov., 13-16, (2006) Cairo, Egypt
18. .Symposium of Disasters' Management and Safety of Buildings in Arab Countries, Riyadh, Saudi Arabia 29 march – 1 April, (2008).
19. 9th International Conference on Future of Horizon for environmental Sustainable Development in Arab countries and Facing the Challenges Sharm El-Sheikh April 21-24, 2012.
20. Hosting Major International Events Innovation, Creativity and Impact Assessment, Cairo, Egypt, December, 22-25, 2012.
21. Fifth International Conference on NANO-TECHNOLOGY IN CONSTRUCTION (NTC 2012) 23-25 March, Cairo, Egypt.
22. The First International conference on Crisis and Disaster Mangment, Al-Imam Muhammad Ibn Saud Islamic University, Riyadh, Saudi Arabia 8-9 Septamber, 2013.
23. Sixth International Conference on NANO-TECHNOLOGY IN CONSTRUCTION (NTC 2014) 22-24 March, Cairo, Egypt.

Prizes

1. Holds a Medal of Excellence Award in the World Scientific Publishing from Al Imam Mohammad Ibn Saud, Islamic University (IMSIU), Riyadh, Saudi Arabia 2013.
2. Holds a Medal of Excellence Award in the World Scientific Publishing from Al Imam Mohammad Ibn Saud, Islamic University (IMSIU), Riyadh, Saudi Arabia 2014.
3. Holds a Medal of Excellence Award in the World Scientific Publishing from Benha University, Benha, Egypt 2014.
4. Holds a Medal of Excellence Award in the World Scientific Publishing from Al Imam Mohammad Ibn Saud, Islamic University (IMSIU), Riyadh, Saudi Arabia 2015.
5. Holds a Medal of Excellence Award in the World Scientific Publishing from Benha University, Benha, Egypt 2015.



6. Holds a Medal of Excellence Award in the World Scientific Publishing from Al Imam Mohammad Ibn Saud, Islamic University (IMSIU), Riyadh, Saudi Arabia 2016.
7. Holds a Medal of Excellence Award in the World Scientific Publishing from Benha University, Benha, Egypt 2016.

List of Publications

1. H. El-Didamony, A.A. Amer, E. Ebid and **Mohamed Heikal**, The role of cement dust in some blended cements, *Il Cemento*, 90 (4) (1993) p. 221-230.
2. A.A. Amer, I.M. Helmy, **Mohamed Heikal**, and H. El-Didamony, Chemical durability of silica fume blended cement pastes in aggressive water, 9th Arab Chemical Conference (Egyptian Chemical Society, 10-13 April 1993, National Research Centre, Cairo, Egypt.
3. H. El-Didamony, I.M. Helmy, A.A. Amer and **Mohamed Heikal**, Utilization of some Egyptian by-products in the preparation of blended cements, *Zement-Kalk-Gips (ZKG International)*, 48 (9) (1995) p. 502-507 .
4. H. El-Didamony, A.A. Amer and **Mohamed Heikal**, Effect of calcium lignosulphonate on silica fume blended cement pastes, 1st, Int. Sym. on Cement Industry Assuit Univ., 8-10 Nov., (1997) p. 423-436.
5. H. El-Didamony, A.A. Amer and **Mohamed Heikal**, Improvement of silica fume blended cements by using superplasticizer, *Journal of Ceramics-Silicaty*, 42 (4) (1998) p. 171-176.
6. H. El-Didamony, A.A. Amer, **Mohamed Heikal** and M. Shoaib, Effect of calcium acetate as an acceterator and water reducer on the properties of silica fume blended cement, *Journal of Ceramics-Silicaty*, 43 (1) p. 29-33 (1999).
7. **Mohamed Heikal**, M.S. Morsy, S.A. Abo-El-Enein, Elecrtical conductivity of pozzolanic cement pastes and mortars containing crushed clay bricks (Homra), 15th. Egypt. Chem. Conf. 20-25 Nov., (1999) p. 145-152.
8. H. El-Didamony, **Mohamed Heikal** and M. Shoaib, "Homra pozzolanic cement", *Silicates Industrials, Ceramic Science and Technology*, 65 (3-4) (2000) p. 39-43.
9. **Mohamed Heikal**, H. El-Didamony and A.H. Ali, "Pozzolanic action of Homra with lime", *Indian Journal of Engineering & Material Science*, (2000) p. 154-159.



10. **Mohamed Heikal**, “Effect of temperature on the physico-mechanical and mineralogical properties of Homra pozzolanic cement pastes”, *Cement and Concrete Research*, 30, (2000) p.1835-1839.
11. **Mohamed Heikal**, H. El-Didamony and M.S. Morsy, “Limestone filled pozzolanic cement”, *Cement and Concrete Research*, 30, (2000) p. 1827-1834.
12. **Mohamed Heikal** and H. El-Didamony, “Effect of some superplasticizers on the properties of silica fume blended cement pastes”, *Silicates Industrials (Ceramic Science and Technology)*, 65 (11-12) (2000) 125-130.
13. **Mohamed Heikal**, I. Aiad, M.M. Shoaib and H. El-Didamony, “Physico-chemical characteristics of some polymer cement composites”, *Materials Chemistry and Physics*, 74, (1) (2001) p. 76-83.
14. **Mohamed Heikal**, M.S. Morsy and H-El-Didamony, “Effect of limestone on the hydration characteristics of Portland slag cement”, (*iiC*) *l’industria italiana del Cemento*, (5) (2001) p. 422-432.
15. M.S Morsy, I. Aiad and **Mohamed Heikal**, “Effect of Polymer on the Electrical Behavior of Blended Cement Pastes”, *The 6th Arab International Conference on Polymer Science & Technology*, Sharm El-Sheikh, Egypt, September 1-5, (2001), p. 379-391.
16. N.M. Deraz, **Mohamed Heikal** and H. El-Didamony, “Effect of various superplasticizers on the textural properties of silica fume-pozzolanic cements”, *Adsorption Science and Technology*, 20, (5) p. 453-466 (2002).
17. **Mohamed Heikal**, M.S. Morsy and H. El-Didamony, “Hydration characteristics of limestone slag-cement”, *Mans. Sci. Bull. Suppl.*, (2), (2002) p. 195-215.
18. **Mohamed Heikal**, I. Aiad and I.M. Helmy, “Portland cement clinker, granulated slag and by-pass cement dust composites”, *Cement and Concrete Research*, 32, (2002) p. 1809-1812.
19. **Mohamed Heikal**, I.M. Helmy, and F. Abd El-Raouf, “Hydration characteristics of fly ash-lime pastes”, *Egyptian Journal of Applied Sciences*, 17 (8) (2002) p. 25-40.
20. I. Aiad and **Mohamed Heikal**, “Effect of some superplasticizers on the rheological properties of blended cement pastes containing condensed silica fume”, *Silicates Industrials, Ceramic Science and Technology*, 67 (11-12), (2002) p. 129-134.



21. **Mohamed Heikal**, M.S. Morsy, E. El-Shimy, and S.A. Abo-El-Enein, “Hydrothermal reactivity of granulated slag using a lime-rich industrial waste as an activator”, Urban Development in Arid Regions & Associated Problems, Riyadh, KSA Arabia 2-4 November 501-512 (2002).
22. M.M. Radwan and **Mohamed Heikal**, “Hydration characteristics of tetracalcium aluminoferrite phase in mixes containing β -hemihydrate and phosphogypsum”, Journal of Materials Science, 38 (22) (2003) p. 4499-4505.
23. **Mohamed Heikal**, H. El-Didamony, I.M. Helmy, and F. Abd El-Raouf, “Pozzolanic activity of fly ash”, Silicates Industrials; Ceramic Science and Technology, 68 (9-10) (2003) p. 111-117.
24. **Mohamed Heikal**, “Effect of calcium formate as an accelerator on the physico-chemical and mechanical properties of pozzolanic cement pastes”, Cement and Concrete Research, 34 (6) (2004) p. 1051-1056.
25. **Mohamed Heikal**, H. El-Didamony, I.M. Helmy, and F. Abd El-Raouf, Hydration characteristics of fly ash-lime pastes, Journal of Material Science and Technology, 12, (2004), 395-403.
26. **Mohamed Heikal**, H. El-Didamony, I.M. Helmy, and F. Abd El-Raouf, “Electrical properties, physico-chemical and mechanical characteristics of fly ash-limestone-filled pozzolanic cement”, Journal of Ceramics-Silikáty, 48 (1) (2004) 34-43.
27. **Mohamed Heikal**, M.S. Morsy, E. El-Shimy, and S.A. Abo-El-Enein, “Hydrothermal reactivity of granulated slag and sand using a lime-rich industrial waste as an activator”, l’industria italiana del Cemento (iiC), (7-8) (2004) p. 614-625.
28. M. Abd El.Aziz, S. Abd El.Aleem, **Mohamed Heikal** and H. El. Didamony, “Effect of polycarboxylate on rice husk ash pozzolanic cement”, Silicates Industrials; Ceramic Science and Technology, 69 (9-10), (2004) p. 73-84.
29. M. S. Morsy and **Mohamed Heikal**, “Effect of curing temperature on the thermal expansion and phase composition of slag cement containing limestone”, Journal of Ceramics-Silikáty, 48 (3) (2004) p.110-116.



30. **Mohamed Heikal**, M.M. Radwan and M.S. Morsy, "Influence of curing temperature on the physico-mechanical, characteristics of calcium aluminate cement with air-cooled slag or water-cooled slag", *Journal of Ceramics-Silikáty*, 48 (4) 185-196 (2004).
31. **Mohamed Heikal**, H. El-Didamony, I.M. Helmy, and F. Abd El-Raouf, "Electrical conductivity, physico-chemical and mechanical characteristics of fly ash pozzolanic cement", *Silicates Industrials; Ceramic Science and Technology*, 69 (11-12), pp 93-102 (2004).
32. **Mohamed Heikal**, M.S. Morsy and I. Aiad, "Effect of curing temperature on the electrical resistivity and rheological properties of superplastized blended cement pastes", *L'industria Italiana del Cemento (iiC)*, 802 (10) (2004) pp. 772 –785.
33. **Mohamed Heikal**, M.S. Morsy and I. Aiad, Effect of polycarboxylate superplasticizer on electrical behavior and hydration characteristics of cement pastes containing silica fume, International Conference (Future Vision and Challenges for urban Development) Cairo, Egypt: 20-22 December 2004.
34. **Mohamed Heikal**, M.M. Radwan and H.H.M. Darweesh, "Hydration characteristics and durability of calcium aluminate cement containing some blended systems", *Silicates Industrials; Ceramic Science and Technology*, 70, (3-4) (2005) 41-50 .
35. **Mohamed Heikal**, M.S. Morsy and S.A. Abo-El-Enein, "Influence of hydrothermal condition on the physicommechanical, phase composition and microstructure of autoclaved granulated slag-ground industrial lime sludge as an activator" First Ain Shams University International Conference on Environmental Engineering, ASCEE-1, MA-II: Cement Improvement (Part 1), 9-11 April 2005, Cairo, Egypt 1175-1188.
36. **Mohamed Heikal** and M.S. Morsy and I. Aiad, "Effect of treatment temperature on the early hydration characteristics of superplasticized silica fume blended cement pastes", *Cement and Concrete Research*, 35, (4) (2005) 680-687.
37. **Mohamed Heikal**, M.S. Morsy and M.M. Radwan, "Electrical conductivity and phase composition of calcium aluminate cement containing air-cooled and water cooled slag at 20, 40 and 60 °C", *Cement and Concrete Research*, 35 (7) (2005) p. 1438-1446.



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38. M.M. Radwan and **Mohamed Heikal**, “Hydration characteristics of tricalcium aluminate phase in mixes containing β -hemihydrate and phosphogypsum”, *Cement and Concrete Research*, 35 (8) (2005) p. 1601-1608.
 39. M. Abd El.Aziz, S. Abd El Aleem, **Mohamed Heikal** and H. El. Didamony, “Hydration and durability of sulphate resisting and slag cement blends in Caron’s lake water”, *Cement and Concrete Research*, 35 (8), (2005) p. 1592-1600.
 40. **Mohamed Heikal**, “Physico-mechanical and microstructural characteristics of superplasticized silica fume-blended cement pastes”, *Silicates Industrials; Ceramic Science and Technology*, 70, (9-10) (2005) p. 135-142.
 41. **Mohamed Heikal**, M.S. Morsy and S.A. Abo El-Enein, “Influence of hydrothermal condition on the physico-mechanical, phase composition and microstructure of autoclaved granulated slag-ground sand mixes using an industrial lime rich sludge as an activator”, *Advances in Cement Research* , 17, (4), (2005) p. 153-160.
 42. S. Abd El-Aleem, M.A. Abd-El.Aziz, **Mohamed Heikal** and H. El. Didamony, “Effect of Cement Kiln Dust Substitution on Chemical and Physical Properties and Compressive Strength of Portland and Slag Cements”, *Arabian Journal for Science & Engineering*, 30:2B (2005) p. 263-273.
 43. **Mohamed Heikal**, H.El.Didamony, M.El-Shrief, “Ground clay bricks with blast furnace slag in blended cements as ternary blended system”, *Materials Science An Indian Journal*, Vol. 2, Issue 6, 2006.
 44. **Mohamed Heikal**, M.S. Morsy and I. Aiad, “Effect of polycarboxylate superplasticizer on hydration characteristics of cement pastes containing silica fume”, *Journal of Ceramics-Silikáty*, 50 (1) p. 5-14 (2006).
 45. **Mohamed Heikal**, "Effect of temperature on the structure and strength properties of blended cement pastes", Biannual Conference on Chemistry, (Chem.04), Department of Chemistry, Faculty of Science, Cairo University 8-5 March, 2006.
 46. **Mohamed Heikal**, I. Aiad, and M.S. Morsy, Influence of delaying addition time of water-soluble melamine (formaldehyde-free) poly condensate on physico-chemical properties cement pastes, First International Afro-Asian Conference on Advanced Material Science and Technology, Nov., 13-16, (2006) Cairo, Egypt.
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47. **Mohamed Heikal** and M.M. Radwan, “Physico-chemical properties and microstructure of some blended systems”, *Silicates Industrials; Ceramic Science and Technology*, 71, (9-10) (2006) p. 161-166.
 48. **Mohamed Heikal**, “Effect of temperature on structure and strength properties of cement pastes containing fly ash in combination with limestone”, *Journal of Ceramics-Silikáty*, 50 (3) p.163-173 (2006).
 49. **Mohamed Heikal**, H. El-Didamony, M. Mostafa, "Ground clay bricks with blast furnace slag in blended cements as ternary blended system", *Materials Science; An Indian Journal*, 2, (6) (2006).
 50. H. El-Didamony, **Mohamed Heikal**, T.M.El-sokkary and M. Abdallah Moustafa, Effect of fire on the deterioration of Portland and blended cements, *HBRC Journal VOL. 3 No.3* (2007) p. 23-33.
 51. **Mohamed Heikal** and I. Aiad," influence of delaying addition time of superplasticizers on chemical process and properties of cement pastes", *Journal of Ceramics-Silikáty*, 52 (1) 8-15 (2008).
 52. **Mohamed Heikal**, "Effect of Temperature on the Structure and Strength Properties of Blended Cement Pastes" Symposium of Disasters' Management and Safety of Buildings in Arab Countries, Riyadh, Saudi Arabia 29 march – 1 April, (2008).
 53. **Mohamed Heikal**, H. El-Didamony, T.M. El-sokkary and M. Abdallah Moustafa, "Effect of pozzolanic additions on the resistance of concrete to high temperature" Symposium of Disasters' Management and Safety of Buildings in Arab Countries, Riyadh, Saudi Arabia 29 march – 1 April, (2008).
 54. **Mohamed Heikal** and T.A. Osman, "The assessment of different industrial by-products to produce autoclaving building materials", *Silicates Industrials; Ceramic Science and Technology*, Vol 73, (9-10), pp 155-161, (2008).
 55. **Mohamed Heikal**, “Effect of elevated temperature on the physico-mechanical and microstructural properties of blended cement pastes”, *Building Research Journal*, 56 (2) 157-172 (2008).
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56. **Mohamed Heikal** and M. Abdel Aziz "Physico-chemical and mechanical characteristics and durability of calcium aluminate blended cement" Journal; of Cemento, 79, (916) (2008) 4-18.
 57. **Mohamed Heikal** and M.A. Abd-El.Aziz, "Hydration characteristics and durability of cements containing fly ash and limestone subjected to Caron's Lake water", Advances in Cement Research, 21, (3), 91-99 (2009).
 58. **Mohamed Heikal**, H. El-Didamony, M. Mostafa, "Hydration Characteristics and Physico-chemical and Mechanical Characteristics of Ternary Blended System" Silicates Industrials; Ceramic Science and Technology, Silicates Industrials; Ceramic Science and Technology, Vol 74, N° (5-6), pp 155-161, (2009).
 59. **Mohamed Heikal**, H. El-Didamony, T.M. El-sokkary and M. Abdallah Moustafa, "Effect of pozzolanic additions on the resistance of concrete to high temperature" Building Technology, (2010).
 60. **Mohamed Heikal**, "Effect of temperature on the structure and strength properties of blended cement pastes" Building Technology, (2010).
 61. **Mohamed Heikal**, "Effect of elevated temperature on the physico-mechanical and microstructural of Blended cement pastes", Journal of Taibah University for Science, Accepted for Publication (2010).
 62. M.A. Abd-El.Aziz, and S. Abd.El.Aleem and **Mohamed Heikal**, Physico-chemical and mechanical characteristics of pozzolanic cement pastes and mortars hydrated at different curing temperatures, Construction and Building Materials 26 (2012) pp. 310-316.
 63. H. El-Didamony, Kh. A. Khalil, I.A .Ahmed, **Mohamed Heikal**, Preparation of β -dicalcium silicate (β -C₂S) and calcium sulfoaluminate (C₃A₃ $\overline{\text{CS}}$) phases using non-traditional nano-materials, Construction and Building Materials, 35 (2012) 77– 83.
 64. H. El-Didamony, **Mohamed Heikal**, Kh.A. Khalil and S. Al-Masry, Effect of delaying addition time of SMF superplasticizer on the physic-mechanical properties and durability of cement pastes, Construction and Building Materials, 35 (2012) 261-269.
 65. H. El-Didamony, **Mohamed Heikal** and S. Abd.El.Aleem, Influence of delayed addition time of sodium sulfanilate phenol formaldehyde condensate on the hydration characteristics
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- of sulfate resisting cement pastes containing silica fume, *Construction and Building Materials*, *Construction and Building Materials*, 37 pp. 269-276 (2012).
66. H. El-Didamony, **Mohamed Heikal** and S. Al-Masry, Effect of delaying addition time of SMF superplasticizer on hydration characteristics of blended cement pastes, *Ceramics – Silikáty*, 56 (3) 245-253 (2012).
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