

## **Maria S. Konsta-Gdoutos, Ph.D.**

27, Velissariou st.  
GR-671 00, Xanthi, Greece

Tel: +30-25410-79658, 79661, 26726  
Fax:+30-25410-79652  
e-mail: [mkonsta@civil.duth.gr](mailto:mkonsta@civil.duth.gr)

### **CURRENT POSITION**

Associate Professor (full-time tenure track position)  
Director of the Section of Mechanics  
Department of Civil Engineering  
Democritus University of Thrace  
GR-67100 Xanthi, Greece  
e-mail: [mkonsta@civil.duth.gr](mailto:mkonsta@civil.duth.gr)

### **BIOGRAFICAL NOTES**

Date of Birth: 3-31-62  
City of Birth: *Athens, Greece*  
Marital status: *Married, two children*

### **EDUCATION**

Ph. D.: Civil Engineering, Democritus University of Thrace, Greece, February 1993  
MS CE: Civil Engineering, Democritus University of Thrace, Greece, December 1987

### **LICENCES HELD**

Registered Professional Civil Engineer in Greece

### **SCIENTIFIC AND PROFESSIONAL AFIILIATIONS**

Technical Chamber of Greece, Member  
Society for Experimental Mechanics, Member  
Hellenic Group of Fracture, Member  
American Concrete Institute, Member  
ACI Hellas Chapter, Founding Member,  
RILEM, senior Member

### **AWARDS**

Fulbright Research Scholar Award 2005

### **FIELDS OF SPECIALTY**

- Engineering mechanics
- Fracture Mechanics of Concrete
- Civil Engineering Composites
- Concrete technology and durability

### **RESEARCH INTERESTS**

- Advanced Cement Based Nanocomposites
- Applications of structural engineering materials
- Blended cements
- Corrosion of steel in concrete

- Fracture mechanics of concrete

- Engineering mechanics

## TEACHING EXPERIENCE

- 1993-1999 *Durability of Concrete-Corrosion of Steel in Concrete*, 1 semester course (Undergraduate level)
- 1993-1998 *Special Topics in Concrete Technology*, 1 semester course (Undergraduate level)
- 1993-1998 *Building Materials*, 2 semester course (Undergraduate level)
- 1993-2011 *Engineering Mechanics, Statics*, 2 semester course (Undergraduate level)
- 1998-1999 *Durability of Concrete-Corrosion of Steel in Concrete*, 1 semester course (Graduate level)
- 2002-2011 *Fracture Mechanics-An Introduction (Graduate level)*
- 2009-2011 *Composite Materials (Graduate level)*
- 2009-2011 *Experimental Mechanics (Graduate and Undergraduate level)*

## PUBLICATIONS

- Author of 76 papers in refereed journals and conference proceedings (list of publications is appended).
- Coauthor of the patent “Highly dispersed carbon nanotube reinforced cement based materials” by SP Shah, MS Konsta-Gdoutos and ZS Metaxa, submitted to the US Patent and Trademark Office, reference number NU27146, 2009.
- Coauthor of the patent ““Highly Concentrated Carbon Nanotube Suspensions for Cementitious Materials And Method Of Rein-forcing Such Materials” by SP Shah, MS Konsta-Gdoutos and ZS Metaxa, submitted to the US Patent and Trademark Office in 2011.
- Author of the book *Problems of Fracture Mechanics and Fatigue: A Solution Guide*, edited by E.E. Gdoutos, C.A. Rodopoulos, and J.R. Yates, Kluwer Academic Publishers, 2004.
- Editor of the book *Measuring, Monitoring and Modeling Concrete Properties*, edited by M.S. Konsta-Gdoutos, Springer, 2006

## RESEARCH PROJECTS

- “Center for Multifunctional Nanocomposite Construction Materials (PO-LEI-YLIKA)”, Ministry of Education of Greece, NSRF 2007-2013, Budget: 600,000 €, 2011-2015, Principal Investigator
- “Crack free concrete made with nanofiber reinforcement”, ITI Northwestern University ,DTRT06-G-0015/M1.
- ILTOF, Innovative Learning and Training On Fracture, Leonardo da Vinci European Union co-funded Pilot Project, 2006-2008
- Fulbright Scholar Program Grant, July-October 2005
- Manufacturing of Aircraft Structural Component by Implementing flexible Resin Transfer Techniques and Innovative Nanocomposite Materials, General Secretariat of Research and Technology, EPAN, International Cooperation in research in Industry, Ministry of Development of Greece, Member of the Research Team.

- "International Round Robin Tests for the Development of Guidelines for the Design of Concrete Structures, Reinforced, Prestressed or Strengthened with Advanced Composites" ConFibreCrete, International Federation of Concrete TG 9.3 and ISIS Canada, Principal Investigator of Democritus University of Thrace team
- "Design and Construction of Composite Bridges", European Union, EPET, 1998-2002, Member of Research Team
- "New Materials and Technologies in Designing Reinforced Concrete Structures", European Union, Design of Post Graduate Programs, 1998, Member of the Research Team
- "The Cement Hydration Equation and its Application to the Strength of Concrete According to the Literature", Research Committee, DUTH, 1996, Principal Investigator
- "Fiber Reinforced Plastics (FRP) in Reinforced Concrete", Greek General Secretariat of Research and Technology, 1996, Principal Investigator

## LIST OF PUBLICATIONS

### 1. PATENTS

1. Shah SP, Konsta-Gdoutos MS, Metaxa ZS. Highly dispersed carbon nanotube reinforced cement based materials. US Patent and Trademark Office, United States Patent Application 20090229494, Publication number WO/2009/099640, 2009.
2. Shah SP, Konsta-Gdoutos MS, Metaxa ZS. Highly concentrated carbon nanotube suspensions for cementitious Materials. US Patent and Trademark Office, reference number NU2011-076, 2011.

### 2. PAPERS

3. Konsta-Gdoutos MS, Metaxa ZS, Mavrozoumis A, Shah SP. Electrical resistivity of carbon nanotube and carbon nanofiber cementitious nanocomposites. ACI special publication, (ACI-SP): Fiber Reinforced Concrete: Smart Materials and Sensors, to be presented at the 2011 ACI Fall Convention in Cincinnati, OH.
4. Metaxa ZS, Seo J-WT, Konsta-Gdoutos MS, Hersam MC, Shah SP. Highly Concentrated Carbon Nanotube Suspensions for Cementitious Materials. Cement and Concrete Composites, 2011 (submitted for publication)
5. Shah SP, Konsta-Gdoutos MS, Metaxa ZS. Advanced Cement Based Nanocomposites. In: Kounadis AN, Gdoutos EE, editors. Recent Advances in Mechanics, Springer, 2011, pp. 313-327.
6. Metaxa ZS, Konsta-Gdoutos MS, Shah SP. Carbon Nanofiber-Reinforced Cement-Based Materials. Transportation Research Record: Journal of the Transportation Research Board, 2142, 2010, pp. 114-118
7. Metaxa ZS, Konsta-Gdoutos MS, Shah SP. Mechanical Properties and Nanostructure of Cement Based Materials Reinforced with Carbon Nanofibers and PVA Microfibers. ACI Special Publication 270: Advances in the Material Science of Concrete, SP-270-10, 2010, pp. 115-124.
8. S. P. Shah, M. S. Konsta-Gdoutos. Controlling Properties of Concrete through Nanosized Particles and Fibers, Aachen, Germany, 2010
9. M.S. Konsta-Gdoutos, Z.S. Metaxa, S.P. Shah. Multiscale Fracture Characteristics of Cement Based, Materials Reinforced with Carbon Nanofibers, Proceedings of the International Conference: 18th European Conference of Fracture, ECF18, August 30-September 03, 2010, edited by V. Mechtterine, Dresden, Germany, 2010.
10. Shah SP, Konsta-Gdoutos MS, Metaxa ZS. Exploration of Fracture Characteristics, Nanoscale Properties and Nanostructure of Cementitious Matrices with Carbon Nanotubes and Carbon Nanofibers. Proceedings of the 7th International Conference on Fracture Mechanics of Concrete and Concrete Structures, FramCos-7, May 23-28, 2010 Jeju, Korea.

11. Konsta-Gdoutos MS, Metaxa ZS, Shah SP. Multi-scale mechanical and fracture characteristics and early-age strain capacity of high performance carbon nanotube/cement nanocomposites. *Cement and Concrete Composites*, 32, (2), pp. 110-115, 2010.
12. Konsta-Gdoutos MS, Metaxa ZS, Shah SP. Highly dispersed carbon nanotubes reinforced cement based materials. *Cement and Concrete Research*, 40, pp. 1052-1059, 2010.
13. Metaxa ZS, Konsta-Gdoutos MS, Shah SP. Carbon nanotubes reinforced concrete. In: Sobolev K, Taha MR, editors. *ACI Special Publication on Nanotechnology, SP-267: Nanotechnology of Concrete: The Next Big Thing is Small, SP-267-2*, 2009, pp.11-20. ACI Fall Convention 2009. New Orleans LA, November 8-12 2009.
14. Μαρία Σ. Κώνστα και Δόμνα Θ. Προκοπίδου, Αξιολόγηση Δοκιμών ΑΣΣ σύμφωνα με τα Πρότυπα ACI 237R-07, PCI TR-6-03 και τις Ευρωπαϊκές Οδηγίες για ΑΣΣ, *Τεχνικά Χρονικά*, (υπό δημοσίευση)
15. Shah SP, Konsta-Gdoutos MS, Metaxa ZS, Mondal P. Nanoscale modification of cementitious materials. In: Bittnar Z, Bartos PJM, Nemecek J, Smilauer V, Zeman J, editors. *Nanotechnology in construction 3. Proceedings of the Third International Symposium on Nanotechnology in construction*. Springer, 2009. p. 125-130.
16. Maria S. Konsta-Gdoutos, Zoi S. Metaxa, and Surendra P. Shah, "Mechanical Properties And Nanoimaging Of Highly Dispersed Carbon Nanotube Reinforced Cement Based Materials", *Proceedings of the 7<sup>th</sup> International RILEM Symposium on Fibre Reinforced Concrete: Design and Applications, BEFIB 2008*, pp.125-131, 2008.
17. Ryou, J., Shah, S.P., Konsta-Gdoutos, M.S., Recycling of cement industry wastes by grinding process, *Advances in Applied Ceramics*, Volume 105, Issue 6, December 2006, pp. 274-279.
18. O.G. Stavropoulou, M.S. Konsta-Gdoutos, and G.E. Papakaliatakis, "Finite Element Modeling of Early Age Cracking in Restrained Concrete Ring Specimens", *Proceedings of International Conference on Measuring, Monitoring and Modeling Concrete Properties*, ed. M.S. Konsta-Gdoutos, July 3-7, 2006, Alexandroupolis, Greece, pp. 325-330, 2006.
19. E.E. Gdoutos, V.D. Balopoulos, P.A. Kalaitzidis and M.S. Konsta, "Modelling Core Failure by the Tsai-Wu Criterion in the Design of Foam-Core Sandwich Beams," *Fracture of Nano and Engineering Materials and Structures - Proceedings of the 16th European Conference of Fracture (ECF16)*, edited by E.E. Gdoutos, Alexandroupolis, Greece, July 3-7, 2006, Springer, pp. 561-562, 2006 (full paper in the ECF16 CD)
20. G.A. PAPAPOULOS and M.S. Konsta-Gdoutos, "EDGE-CRACKED STIFFENED PANELS STUDIED BY CAUSTICS" *Theoretical and Applied Fracture Mechanics*, Volume 43, Issue 1, March 2005, Pages 115-120

21. Konsta-Gdoutos, M.S. and Gdoutos, E.E., "The Effect of Load and Geometry on Failure Modes of Sandwich Beams," *Applied Composite Materials*, Vol. 12, No 3-4, pp. 165-176. 2005.
22. Konsta-Gdoutos, M.S. and Gdoutos, E.E., "Load and Geometry Effect on Failure Mode Initiation of Composite Sandwich beams," *Proceedings of International Conference on Advances in Experimental Mechanics*, September 6-8, 2005, Southampton, England, edited by J.M. Dulieu-Barton and S. Quinn, Trans Tech Publications, pp. 173-178, 2005.
23. Gdoutos E.E. and Konsta-Gdoutos, M.S., "Load and Geometry Effects on the Failure of Sandwich Structures," *Proceedings of the 2005 SEM Annual Conference*, June 7-9, 2005, Portland, Oregon.
24. Ryou, J., Voigt T., Konsta-Gdoutos M. S., Varacalle, Jr. D.J., Mason, T., and Shah S. P., "Corrosion Resistance of Functionally Graded Coatings on Plain Steel Rebars" *Journal of Advanced Concrete Technology*, Vol. 3., No.1, pp. 69-75, 2005.
25. Van K. Bui, Maria S. Konsta-Gdoutos, Jaesuk Ryou, and Surendra P. Shah, A NEW TECHNIQUE OF ACTIVATION OF CEMENT KILN DUST (CKD) – FLY ASH SYSTEMS, RILEM International Symposium on Environment-Conscious Materials and Systems for Sustainable Development, Editor(s): N. Kashino and Y. Ohama, RILEM Publications SARL, pp. 93 – 102, 2004
26. Akkaya, Y., Konsta-Gdoutos, M.S. Obla, K., and Shah, S.P., "Development of Porosity and Autogenous Shrinkage of Early Age Concrete," *International RILEM Symposium on Concrete Science and Engineering: A Tribute to Arnon Bentur* (in electronic form), edited by J. Weiss, K. Kovler, J. Marchand, and S. Mindess, RILEM Publications SARL, 2004.
27. Akkaya, Y., Konsta-Gdoutos, M.S. and Shah, S.P., "The Pore Structure and Autogenous Shrinkage of High Performance Concrete with Ternary Binders," *8<sup>th</sup> CAN/MET/ACI International Conference on Fly Ash, Silica Fume, Slag and Natural Pozzolans in Concrete*, Las Vegas, USA, May 23-29, 2004.
28. Akkaya, Y., Konsta-Gdoutos, M.S. and Shah, S.P., "Early Age Properties of High Performance Concrete with Ternary Binders" *Proceedings of 3<sup>rd</sup> PCI/FHWA International Symposium on High Performance Concrete*, Orlando, Florida, October 19-22, 2003.
29. Κώνστα-Γδούτου, Μ.Σ., Κοντομήτρος Χρ., Pilakoutas K., and Guadagnini, M., "Διεθνής Συνεργασία για τη Διερεύνηση Συνάφειας Ράβδων από Σύνθετα Υλικά Οπλισμένων με Ίνες (FRPs): International Round Robin Tests (iRRT) for the evaluation of Bond Properties of FRP bars in Concrete", *14<sup>ο</sup> Συνέδριο Σκυροδέματος*, Κως, 15-17 Οκτωβρίου 2003, Τόμος Β, σελ. 392-398, 2003.
30. Konsta-Gdoutos, M.S., Shah, S.P., and J.K. Dattatraya, "Cement Kiln Dust (CKD): Characterisation and Utilization in Cement and Concrete", *Celebrating Concrete: People and Practice, in Role of Cement Science in Sustainable Development*, edited by R.V. Dhir, M.D. Newlands, and L.J. Csetenvi, pp. 59-70, 2003.

31. Konsta-Gdoutos, M.S., Dattatraya, J.K., and S.P. Shah, "The Influence of Mineral Admixtures on the Autogenous Shrinkage and Porosity of High Performance Concrete," *Sixth CANMET/ACI International Conference on Durability of Concrete, Special Publication (SP 212-15)* June 1-7, 2003, Thessaloniki, Greece, pp. 227-238, 2003.
32. Konsta-Gdoutos, M.S., and Shah, S.P., "Hydration and Properties of Novel Blended Cements based on CKD-Slag Blends," *Cement and Concrete Research*, Vol. 33, pp. 1269-1276, 2003
33. Akkaya, Y., Eckerson, A., Konsta-Gdoutos, M.S., and S.P. Shah, "Analysis of Architectural Concrete of the Bahai'i Temple," *ACI Materials Journal*, Vol. 100, No 3, pp. 222-227, 2003.
34. Batis, G., Routoulas A., and Konsta-Gdoutos, M.S., "Behavior Investigation of FRP Bars in Mortar Specimens Exposed to Extreme Conditions," *International Congress: Challenges of Concrete Construction*, 5-11 September 2002, Dundee, Scotland, UK, pp. 313-322, 2002.
35. Wang, K., Konsta-Gdoutos, M.S., and Shah, S.P., "Hydration, Rheology and Strength of OPC-CKD-Slag Binders," *ACI Materials Journal*, Vol. 99, No 2, pp. 173-179, 2002.
36. Konsta-Gdoutos, M.S., Shah, S.P., and Battacharja, S., "Development and Performance of Cement Kiln Dust-Slag Cement," *International Congress: Challenges of Concrete Construction*, 5-11 September 2002, Dundee, Scotland, UK, pp. 404-410, 2002.
37. Konsta-Gdoutos, M.S., Wang, K., Babaian P.M., and Shah, S.P., "Effect of Cement Kiln Dust (CKD) on the Corrosion of Reinforcement in Concrete," *Third International Conference on Concrete under Severe Conditions of Environment and Loading (CONSEC'01)*, Vancouver, BC, Canada, June 18-20, 2001, Vol. I, pp. 277-284, 2001.
38. Kontomitros, C., Zacharopoulos, D., Karalekas, D., Konsta-Gdoutos, M.S. and Gdoutos, E.E., "Behavior of FRP Bridge Members under Tension, Compression and Bending Loading," *Proceedings on the Second Greek National conference on Composite Materials, HELLAS-COMP 2001*, 6-9 June 2001, pp. 348-355, 2001.
39. Wang, K., Konsta-Gdoutos, M.S., and Shah, S.P., "Study of Cement Kiln Dust-Slag Blended Cement for Durable Concrete," *International Symposium on High Performance Concrete: Workability, Strength and Durability*, Dec. 10-15, 2000, Hong Kong and Shenzhen, China. Vol. II, pp. 805-814, 2000.
40. Konsta-Gdoutos, M. and Gdoutos, E.E., Meissner, J., Raftopoulos, D.D., "Stress Intensity factors Evaluation in Aluminum Specimens by Caustics and Birefringent Coatings", *Proceedings of Conference on Mesomechanics 2000, Xi'an Liaotong University, Tsinghua University Press, Xi'an, China, June 13-16, 2000*, edited by G.C. Sih, pp. 501-510, 2000.

41. Κώνστα-Γδούτου, Μ.Σ., "Ανάλυση του Φαινομένου της Διάβρωσης του Χάλυβα στο Σκυροδέμα λόγω Διάχυσης Ιόντων Χλωρίου" *13<sup>ο</sup> Ελληνικό Συνέδριο Σκυροδέματος*, Κρήτη, Οκτώβριος 1999, Vol. II, pp. 362-370, 1999.
42. Κώνστα-Γδούτου, Μ.Σ., "Προσδιορισμός της Ακαμψίας Θραύσης Σκυροδέματος," *13<sup>ο</sup> Ελληνικό Συνέδριο Σκυροδέματος*, Κρήτη, Οκτώβριος 1999, Vol. I, pp. 268-275, 1999.
43. Konsta-Gdoutos, M. and Karayiannis Ch., "Bending of Concrete Beams Reinforced with FRP Bars," *1999 SEM Annual Conference, Cincinnati, USA*, June 7-9, pp. 499-502, 1999.
44. Raftopoulos, D.D., Zugang Huang, Konsta-Gdoutos, M., and Gdoutos E.E., "Evaluation of the Three Dimensional Region around a crack Tip by Caustics," *International Journal of Fracture*, Vol. 98, pp. 343-350, 1999.
45. Konsta-Gdoutos, M. and Gdoutos E.E., "Evaluation of  $K_{IC}$  of Concrete", *1999 SEM Annual Conference, Cincinnati, USA*, June 7-9, pp. 495-499, 1999.
46. Raftopoulos, D.D., Meissner, J., Konsta-Gdoutos, M. and Gdoutos, E.E., "Fracture Mechanics Study of Human Bone by Birefringent Coatings and Caustics", *International Journal of Fracture*, 91, (4) pp. R51-R54, 1998.
47. M. Konsta-Gdoutos and Ch. Karayiannis, "Flexural Behaviour of Concrete Beams Reinforced with FRP Bars", *Advanced Composite letters*, 7: (5), pp. 133-137, 1998.
48. Konsta-Gdoutos, M. and Gdoutos, E.E., Raftopoulos, D.D., Meissner, J., "Fracture Study of Human Bones by Optical Methods", *Proceedings of the Twelfth European Conference of Fracture, "Fracture from Defects," Sheffield, U.K., September 14-18, pp. 739-743, 1998.*
49. Konsta-Gdoutos, M. and Gdoutos, E.E., Raftopoulos, D.D., Meissner, J., "Stress Intensity Factors in Human Bones by Optical Methods", *Journal of the Mechanical Behavior of Materials*, Vol. 9, No. 1, pp. 17-22, 1998.
50. Κώνστα-Γδούτου Μ. και Σίδερη Κοσμά Κ., "Ενίσχυση Σκυροδέματος με Ράβδους από Σύνθετα Υλικά", *ΚΤΙΠΙΟ, Επιστημονική Έκδοση*, σελ. 27-32, 1998.
51. Konsta-Gdoutos M., Gdoutos E.E., Raftopoulos D., and Meissner, J., Fracture Mechanics Study of Human Bones by Optical Methods, "Proceedings of the Fifth Greek National Congress on Mechanics, edited by P.S. Theocaris, D.I. Fotiadis, and C.V. Massalas, Ioannina, Greece, August 27-30, 1998, pp. 3-9, 1998.
52. Konsta-Gdoutos, M. and Sideris, K., "Applications of Fiber Reinforced Composites in Structural Engineering", *Proceedings of the First Hellenic Conference on Composite Materials and Structures*, Xanthi, July 2-5, 1997, pp. 715-729, 1997.
53. Sideris, K. and Konsta-Gdoutos, M., "The Cement Hydration Equation and its Application to the Strength of Concrete According to the Literature", *Proceedings of the First Hellenic Conference on Composite Materials and Structures*, Xanthi, July 2-5, 1997, pp.789-802, 1997.

54. Sideris, K.K., Savva, A.E. and Konsta-Gdoutos, M., "The Cylinder to Cube Strength Ratio of Concrete as a Function of the Hydration Age", *Proceedings of the First Hellenic Conference on Composite Materials and Structures*, Xanthi, July 2-5, 1997, pp. 803-808, 1997.
55. Konsta-Gdoutos, M., Gdoutos, E.E., Raftopoulos, D.D. and Meissner, J., "Evaluation of Stress Intensity Factors in Metals by Photoelastic Coatings and Caustics", *Journal of the Mechanical Behavior of Materials*, Vol. 6, pp. 135-145, 1996.
56. Konsta-Gdoutos, M., "Limitations in Mixed-Mode Stress Intensity Factors Evaluation by the Method of Caustics", *Engineering Fracture Mechanics*, Vol. 55, pp. 371-382, 1996.
57. Sideris, K.K., Konsta-Gdoutos, M. and Karayiannis, C.G., "Application of the Cement Hydration Equation to Concrete", *Proceedings of International Congress on Concrete in the Service of Mankind*, University of Dundee, Scotland, U.K., June 24-28, 1996, in "Appropriate Concrete Technology", E&FN SPON, pp. 343-349, 1996.
58. Konsta-Gdoutos, M. and Meletis, E.I., "Study of the 3-D Region Around a Crack Tip by Caustics", *International Journal of Fracture*, Vol. 42, pp. R11-R17, 1996.
59. Konsta-Gdoutos, M. and Meletis, E.I., "The Effect of the Three-Dimensionality of the Field Around a Crack Tip on the Evaluation of SIFs by Caustics", *Journal of the Mechanical Behavior of Materials*, Vol. 7, pp. 205-218, 1996.
60. Raftopoulos, D.D., Meissner, J., Konsta-Gdoutos, M. and Gdoutos, E.E., "The Method of Caustics in Conjunction with the Method of Birefringent Coatings for the Solution of Fracture Mechanics Problems", *International Journal of Fracture*, Vol. 74, pp. R39-R43, 1995/96.
61. Konsta-Gdoutos, M., "Influence of the Crack Tip Three-Dimensionality on the Evaluation of SIFs by Caustics", *Proceedings of the Eleventh European Conference on Fracture: Mechanisms and Mechanics of Damage and Failure of Engineering Materials and Structures*, Poitiers, Futuroscope, France, September 3-6, 1996, pp. 2247-2252, 1996.
62. Konsta-Gdoutos, M. and Gdoutos, E.E., "A New Outlook in the Evaluation of Stress Intensity Factors by Caustics", *Proceedings of the 1995 Spring Conference of the Society for Experimental Mechanics (SEM)*, Grand Rapids, Michigan, U.S.A., June 12-14, 1995, SEM, pp. 158-161, 1995.
63. Konsta-Gdoutos, M., "An Improved Technique to Evaluate Stress Intensity Factors by Caustics", *International Journal of Fracture*, Vol. 72, pp. R69-R76, 1995.
64. Konsta-Gdoutos, M., "Three-Dimensional Effects in the Determination of Stress Intensity Factors by the Method of Caustics", *International Journal of Fracture*, Vol. 79, pp. 137-146, 1997.
65. Konsta-Gdoutos, M., "Three-Dimensional Effects in the Determination of Stress Intensity Factors by the Method of Caustics", *Proceedings of the Fourth Greek Na-*

- tional Congress on Mechanics*, Xanthi, Greece, June 26-29, 1995, Vol. I, pp. 359-367, 1995.
66. Sideris, K. and Konsta-Gdoutos, M., "Influence of the Water to Cement Ratio W/C on the Compressive Strength of Concrete - An Application of the Cement Hydration Equation to Concrete", *Journal of Applied Composite Materials*, Vol. 3, pp. 335-343, 1996.
  67. Sideris, K. and Konsta-Gdoutos, M., "Influence of the Water to Cement Ratio W/C on the Compressive Strength of Concrete - An Application of the Cement Hydration Equation to Concrete", *Proceedings of the Fourth Greek National Congress on Mechanics*, Xanthi, Greece, June 26-29, 1995, Vol. I, pp. 167-174, 1995.
  68. Konsta-Gdoutos, M. "Precautions in Determining Mixed-Mode Stress Intensity Factors by Caustics", *International Journal of Fracture*, Vol. 69, pp. R25-R30, 1994/1995.
  69. Σίδηρη Κοσμά Κ. και Κώνστα, Μ., "Μία Νέα Μέθοδος Προσδιορισμού της Εξισώσεως του Υδατοπερατού Πορώδους του Τσιμεντολιθώματος και του Σκυροδέματος", *Πρακτικά του Ενδέκατου Ελληνικού Συνεδρίου Σκυροδέματος*, Κέρκυρα, 18-20 Μαΐου, 1994, Τομ. Ι, σελ. 272-282, 1994.
  70. Konsta-Gdoutos, M. "Solution of Stress-Corrosion Crack Problems by the Method of Caustics", *Engineering Fracture Mechanics*, Vol. 48, pp. 499-503, 1994.
  71. Σίδηρη Κοσμά Κ., Κώνστα, Μ. και Καραγιάννη, Χ., "Επίδραση της Κοκκομετρικής Καμπύλης στην Τελική Θλιπτική Αντοχή του Σκυροδέματος", *Πρακτικά του Ενδέκατου Ελληνικού Συνεδρίου Σκυροδέματος*, Κέρκυρα, 18-20 Μαΐου, 1994, Τομ. Ι, σελ. 29-37, 1994.
  72. Σίδηρη Κοσμά Κ. και Κώνστα, Μ., "Μία Νέα Μέθοδος Προσδιορισμού της Εξισώσεως του Υδατοπερατού Πορώδους του Τσιμεντολιθώματος και του Σκυροδέματος", *Ανακοίνωση 11/93 Εργαστηρίου Δομικών Υλικών Δ.Π.Θ.*, σελ. 29, 1993.
  73. Konsta-Gdoutos, M., Gdoutos, E.E. and Meletis, E.I., "The State of Stress at a Crack Tip Studied by Caustics", *Proceedings of the VII International Congress on Experimental Mechanics*, Las Vegas, U.S.A., June 8-11, 1992, SEM, Vol. 1, pp. 797-801, 1992.
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  76. Konsta-Gdoutos, M. and Gdoutos, E.E., "Guidelines for Applying the Method of Caustics in Crack Problems", *Experimental Techniques*, Vol. 16, pp. 25-28, 1992
  - 77.

## Books

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