



Key Word Index

- AARS, 1013
Acceleration, 371, 571, 1375, 1815
Acid, 481
Acid Corrosion, 803
Actinide Simulants, 1619
Activation, 881
Activator, 51, 607, 645, 1239
Adhesion, 1421
Admixture, 241, 511, 683, 827, 993, 1175, 1263, 1349, 1421
Admixtures, 1367
Adsorption, 267, 823, 887, 993, 1615, 1767, 1841
AE, 1495
Aerated Concrete, 457
Ageing, 1869
Aggregate, 59, 351, 683, 1105, 1413, 1841
Aging, 977, 1255, 1741
Agricultural Wastes, 13
Air-Entraining Agent, 1313
Air Entrainment, 1037
Alkali-Activated Cement, 791, 963, 1367, 1375, 1401, 1641, 1879
Alkali-Activated Slag, 803, 849
Alkali-Aggregate Reaction, 339, 419, 1063
Alkali Silica Reaction (ASR), 1987, 1139
Alkali Sulfate, 887
Alkaline Hydrolysis, 1689
Alkalies, 1801, 1987
Amorphous Material, 437, 1023, 1097
Ancient Mortar, 1609
Anhydrite, 993
Apparent Energy Activation, 301
Arrhenius Relationship, 1395
Autoclaved Aerated Concrete, 1741
Autoclaved Curing, 1993
Autogenous Shrinkage, 915
Avrami Equation, 1853
Backscattered Electron Imaging, 849, 1517, 1941
Bagasse, 1485
BFS, 1239
Biogenic Sulfuric Acid, 623
Blast Furnace Slag Cement, 371
Blended Cement, 345, 561, 703, 1037, 1225, 1395, 1485
Blockworks, 13
Bond Strength, 253, 281, 371, 937
Breakage, 473
 $\text{Ca}_3\text{Al}_2\text{O}_6$, 1073
 CaCO_3 , 1073, 1151, 1413, 1663, 1961
 CaCO_3 Mortar, 481
 CaCrO_4 , 1361
Calcination, 7
Calcined Alumstone, 1169
Calcined Gypsum, 1169
Calcium Aluminate Cement, 307, 1023, 1057, 1689
Calcium Aluminosilicate Hydrate, 7
Calcium Leaching, 1961
Calcium–Magnesium Acetate Deicers, 1389
Calcium-Silicate-Hydrate (C-S-H), 101, 371, 817, 855, 1185
Calcium Sulphoaluminate, 429
Calorimetry, 511, 1375, 511
 $\text{Ca}(\text{OH})_2$, 529, 607, 709, 1655
Capillary Transport Coefficient, 1559
Carbon Black, 865
Carbon Fibers, 651, 1289
Carbonation, 699, 1255, 1565, 1689, 1741
 Ca_3SiO_5 , 1073, 1853
(C) Bond Strength, 781
C. Corrosion, 635
C. Electrochemical Properties, 635
Cement, 385, 497, 571, 645, 767, 931, 1105, 1251, 1305, 1619, 1723, 1755, 1929, 1983
Cement Hydration, 865, 1017, 1655
Cement Kiln Dust, 371,
Cement Paste, 1, 59, 83, 227, 241, 281, 359, 481, 521, 661, 747, 827, 855, 895, 953, 1057, 1157, 1175, 1289, 1295, 1421, 1443, 1477, 1543, 1633, 1671, 1759, 1767, 1979
Cement Replacement, 865
Cement Systems, 1895, 1955
Cenospheres, 1715
Characterization, 175, 437, 491, 517, 1023, 1097, 1151, 1395, 1413, 1421
Chemical Composition, 1961
Chemical Gypsum, 1755
Chemical Reaction, 1895
Chemical Structure, 197
Chemically Bonded Ceramics, 315
Chloride, 37, 217, 291, 529, 895, 1047, 1199, 1565, 1879
Chloride; Barium Sulfate, 1435
Chloride Binding, 1215
Chloride Diffusion Coefficients, 1885
Chloride Diffusivity, 725
Chloride-Ion Penetration, 1037
Chloride Ions, 1581
Chloride Permeability, 465
Chloride Threshold Level, 725
Chromium, 385
Clayey Aerated Concrete, 1559
Clays, 7
Clinker, 967, 1023, 1113
Coarse Aggregate for Concrete, 351
Composite, 391, 403, 585, 799, 977, 1251, 1593
Compound Amixture, 45
Compressive Strength, 1715
Compression, 1573
Compressive Strength, 77, 91, 153, 247, 379, 447, 511, 543, 599, 645, 739, 767, 1031, 1037, 1175, 1185, 1209, 1245, 1283, 1305, 1389, 1485, 1489, 1501, 1565, 1641, 1785, 1827, 1835
Concrete, 63, 91, 1553, 259, 301, 323, 327, 339, 419, 447, 465, 491, 579, 599, 643, 651, 699, 715, 739, 799, 973, 981, 1031, 1037, 1063, 1105, 1121, 1199,

- 1245, 1313, 1389, 1427, 1495,
1573, 1593, 1647, 1679, 1723,
1785, 1885, 1929, 1969, 1993
- Concrete Cover, 725
- Corrosion, 481, 623, 843, 989, 1047,
1565, 1679, 1731, 1941
- Corrosion Inhibitors, 635
- Corrosion Rate, 1047
- Crack Detection, 1453, 1969, 791
- Crack Width, 725
- Cracks, 37
- Creep, 125, 183, 1701
- Cr₂O₃, 1361
- Crystal Size, 101
- Crystal Structure, 191, 307, 1619
- C₃S, 1361
- C-S-H, 1869
- Curing, 275, 465, 543, 703, 791, 977,
1157, 1255
- Cycles, 323, 799, 1199
- (D) Cement, 781
- Damage Monitoring, 1979
- Damping, 327
- D. Chloride, 635
- D-dry and Compliance Rates, 1465
- Deflection, 593
- Degradation, 153, 843, 1407, 1527,
1741, 1747, 1815
- Degree of Hydration, 301, 561, 1861
- Delayed Ettringite Formation (DEF),
1987, 1407
- Desalinisation, 615
- Differential Scanning Calorimeter,
1827
- Diffusion, 37, 217, 419, 535, 703,
953, 1121, 1151, 1199, 1215,
1879, 1911
- Diffusion Coefficient, 615
- Diffusion Coefficient of Chloride Ion,
989
- Diffusion-Limited Aggregation, 1853
- Digital Image Processing, 351
- Dimensional Analysis, 907
- Dispersing Mechanism, 887
- Dispersion, 197, 1139
- 3-D Profile, 981
- Drying, 359, 1157, 1401
- Durability, 25, 233, 345, 419, 623,
725, 973, 977, 1189, 1231, 1389,
1407, 1453, 1741, 1903, 1947,
1961
- Dynamic Modulus of Elasticity, 1283
- Early Age, 915, 1573
- (E) Composite, 781
- EDX, 1941
- (E) Fiber Reinforcement, 781
- Effect, 827
- Efficiency, 1031
- Efflorescence, 1535
- Elastic Moduli, 125, 709, 937, 1299,
1633
- Electrical Conductivity, 1827, 1861
- Electrical Properties, 323, 585, 643,
651, 661, 683, 799, 923, 973,
1057, 1251, 1289, 1295, 1395,
1593, 1979
- Electric Arc Furnace Slag, 517
- Electroacoustics, 1767
- Electrochemical Impedance Spectros-
copy (EIS), 1723
- Electrochemical Removal of Chlor-
ides, 615
- E. Mortar, 635
- Epoxy, 259
- Ettringite, 117, 233, 429, 529, 623,
775, 1535
- Ettringite Formation, 411
- Expansion, 117, 281, 359, 419, 757,
843, 1063, 1139, 1267, 1485
- Fabric, 781
- Fast-Setting Early Strength Agent, 45
- Fatigue, 1453
- Fiber Reinforced, 1593
- Fiber-Reinforced Concrete, 1277
- Fiber Reinforcement, 183, 241, 585,
661, 1251, 1295, 1495, 1747
- Filler, 703, 1663
- Filmy Matters, NO PAGE
- Fingerprinting, 1105
- Finite Element Analysis, 715
- Finite Volume Analysis, 83
- Fire Behavior, 1915
- Flexural Toughness Factor, 593
- Fluorogypsum, 275
- Fluxmeter, 301
- Fly Ash, 19, 63, 175, 253, 275, 291,
447, 457, 543, 553, 699, 747, 823,
881, 989, 1037, 1063, 1239, 1263,
1489, 1785
- Fly Ash–Belite Cement, 1231
- Fly Ash Effect, 71
- Fly Ash–Slag Complex Cement,
1381
- Fractal Dimensions, 1853
- Fracture, 731
- Fracture Toughness, 579, 1427
- Freeze/Thaw, 191
- Freezing and Thawing, 843, 1929
- Fresh Concrete, 809, 1245, 1663
- Fresh Mortar, 915
- Friedel's Salt Formation, 411
- Friedel's Salt, 1535
- Frost Durability, 1929
- Frost/Salt-Scaling Resistance, 1313
- Frumkin Isotherm, 823
- Gel/Space Ratio, 747
- Glass, 419
- Granulated Blast Furnace Slag, 19,
465, 473, 599, 645, 791, 963,
989, 1031, 1375, 1389, 1401,
1791, 1879
- Granulation, 1113
- Grinding, 543, 1037, 1185
- Ground Ash, 13
- Ground Brick, 757
- Ground-Granulated Blast Furnace
Slag, 1367
- Ground Quartz Sand, 1993
- Ground Waste Glass, 91
- Grout, 937
- Gypsum, 1535
- Heating, 209
- Heat of Hydration, 209
- Heat Treatment, 1835
- Heavy Metals, 429, 1079
- High-Calcium Fly Ash, 1647
- High-Content Slag Cement, 45
- High Frequency Measurements, 1057
- High Performance, 907
- High-Performance Concrete, 247,
379, 989, 1225, 1283, 1299,
1349, 1489, 1501, 1701, 1791,
1841, 1915
- High-Range Water Reducer, 767, 1663
- High Strength, 1239, 1993
- High Temperature, 247, 379
- High Volume Fly Ash, 71
- Homra, 1827
- Homra Pozzolanic Cement, 1835
- Humidity, 1527
- Hydration, 177, 267, 315, 447, 645,
693, 747, 817, 931, 953, 993,
1013, 1121, 1239, 1395, 1633,
1709, 1791, 1801, 1853, 1911,
1947
- Hydration Degree, 1381
- Hydration Kinetics, NO PAGE
- Hydration Mechanism, 1983
- Hydration Products, DEF, 137, 223,
227, 267, 607, 1073, 1435
- Hydraulic Profiles, 1559
- Hydrogarnet, 1869
- Hygic Properties, 1267

- Ice Formation, 1929
Image Analysis, 25, 491, 849, 981, 1517
Impact, 907
Impact Resistance, 1277
Impedance, 585
Initial Surface Absorption, 1501
Insoluble Residue, 1209
Interface, 1983
Interfacial Transition Zone, 253, 457, 579, 683, 715, 849, 1299, 1427, 1911, 1941
Internal Release, 1969
Ionic Diffusion, 1895
Isothermal Calorimeter, 301
- Kinetic Analysis, 1017, 1655
Kinetics, 51, 473, 693, 1597, 1929
- Leaching, 895
Leaching Behavior, 1079
Light Concrete, 1715
Lime–Fly Ash Cement, 803
Limestone, 7, 145, 1827
Limestone Cement, 1073
LMDC Test Method, 1581
Long-Term Performance, 125, 843, 943, 1079, 1903
Low Vacuum, 775
- Magnesia, 1807
Magnesium Silicate Formation, 411
Magnetic Water, 599
Marine, 259
Masonry, 731
Mass Loss, 1915
Mathematical Modeling, 419, 615, 1017
Mean Field, 1853
Mechanical Loading, 25
Mechanical Properties, 1, 101, 145, 315, 419, 553, 703, 739, 937, 981, 1131, 1443, 1689, 1903
Median Pore Radius, 1381
Medium Temperature, 1283, 1501
Mercury Porosimetry, 19, 359, 1267, 1517
Metakaolin, 209, 339, 561
MgO, 315, 1663
Microcracking, 651, 931, 943, 1289, 1453, 1979
Micromechanics, 731, 1299
Microstructure, 1, 101, 145, 379, 457, 553, 571, 607, 683, 715, 817, 855, 881, 943, 977, 1097, 1113, 1443, 1517, 1551, 1609, 1723, 1747, 1815, 1835, 1853, 1947
Microstructures, 1983
Migration Tests, 1581, 1885
Mineral Additives, 1477
Mineral Admixture, 1543
Mineral Component, 1349
Mineralization, 1113
Mineralizers, 967
Mixture Proportioning, 1031
Model, 699, 1723
Modeling, 37, 217, 247, 291, 521, 693, 709, 731, 809, 855, 953, 1079, 1121, 1151, 1215, 1245, 1647, 1853, 1895, 1929, 1955
Modelling, 1801
Modulus of Elasticity, 1501
Monosulfate, 233
Mortar, 19, 83, 145, 209, 323, 327, 553, 731, 757, 1131, 1209, 1413, 1495, 1679, 1731, 1773, 1807
Mullite, 175
- Neural Network, 1245, 1277
Neutron Diffraction, 191
Neutron Scattering, 1853
Nitrate, 307
Numerical Model, 1581
- Oil Well Cement, 1551, 1709, 1759, 1767
OPC, 1485
- Packing, 1715
Packing Density, 351
Particle Shape Analysis, 351
Particle Size Distribution, 1543, 1767
Paste, 803, 1655
Paste Mineralogy, 1869
Percolation Theory, 1861
Performance, 259
Permeability, 643, 937, 973, 1435, 1815, 1903, 1911, 1969
Petrography, 1747
PFA, 1225
pH, 529, 895, 1079, 1801
Phase Composition, 1835
Phase Transformation Kinetics, 1853
Phenomenological Model, 1885
Phosphate, 1013
Phosphate Cement, 1807
Phosphorous Slag, 1169
Physical Properties, 59, 385, 497, 571, 1225, 1453, 1551, 1597, 1755
Plant Fiber, 1983
- PNS Superplasticizer, 887
Polycarboxylate, 197
Polyester Resin, 171
Polymer, 183, 227
Polymer Concrete, 171
Polymorphs, 1361
Polyolefin Fiber, 391, 403
Polypropylene Fibre, 63
Pore Pressure, 1915
Pore Size Distribution, 1, 19, 101, 191, 447, 465, 521, 1401, 1517, 1879, 1929,
Pore Solution, 339, 1063, 1731, 1801, 1987
Pore Structure, 259, 1169, 1381
Porosity, 561, 1255, 1565
Porous Media, 1895
Portland Cement, 429, 585, 693, 803, 267, 1131, 1185, 1209, 1349, 1671,
Portland Limestone Cement, 1679
Pozzolan, 51, 91, 253, 339, 437, 497, 607, 757, 1641
Pozzolanicity, 13
Pozzolanic Reaction, 204, 607, 817
Precast Units, 345
Product Form, 1139
Properties, 1679
Push-Out Strength, 281
- Radioactive Waste, 1619, 1947, 281
Radioisotope Imaging, 809
Reaction, 51, 1151, 1647, 1955
Reaction Kinetics, 419
Reactive Powder Concrete, 1861
Refractory Cement, 1597
Reinforcement, 327, 1047, 1731
Repair, 259
Repair of Concrete, 1807
Retardation, 267, 923, 1013, 1375, 1755
Retrofit, 799
Reuse, 1773
Rheology, 511, 809, 827, 1263, 1477, 1551, 1633, 1663, 1709, 1759
Rheometry, 1551
Rice Husk Ash, 13
- Salt Slag, 1131
Sandcrete, 13
Saponin, 1313
Schikorr Reaction, 1941
SEM, 1, 457, 775, 849, 1267, 1527, 1609, 1747
Service Life, 1929
Service Life Predictions, 1215

- Setting Process, 1671
Sewage Sludge, 1671
Shear Thickening, 1477
Shrinkage, 125, 791, 943, 1367, 1401, 1597, 1701
Silane, 1175
Silica, 817
Silica Fume, 59, 145, 241, 291, 437, 579, 661, 895, 923, 943, 953, 1121, 1139, 1175, 1225, 1283, 1295, 1305, 1427, 1501, 1655, 1701, 1791
Silts and Clay, 865
Slag, 823, 1277
Slump Loss, 1489
Sodium Carbonate Formation, 411
Sodium Sulfates, 1527
Sodium Sulphate, 1169
Solubility, 1361
Solvent Exchange, 359, 1465
Sorption, 1255
Spalling, 1915
Specific Basic Creep, 1465
Specific Strength, 71
Spectroscopy, 535
SSPF, 1841
Stability, 1671
Steam Curing, 1993
Steel Fiber, 907
Steel Fiber-Reinforced Concrete, 593
Steel Fibre, 63, 1573
Strain Effect, 651, 1289, 1979
Strain Softening, 153
Strength, 71, 275, 473, 865, 1313, 1807
Strength Properties, 1367
Stress Corrosion, 1443
Stress–Strain Relationship, 1573
Strontium Isotopes, 1105
Structural Interaction, 125
Sulfate, 967, 117, 253
Sulfate Attack, 117, 345, 411, 623, 757, 775, 1189, 1535
Sulfated and Chloride Aggressive, 1231
Sulfoaluminate, 1731, 1987
Superplasticizers, 1477
Surface Area, 101, 855, 981, 1543
Sustainable Development, 1349
Sustained Loading, 183
Synchrotron, 491
TEM, 175, 1619
Temperature, 915, 301, 1251, 1791
Tensile Properties, 1305, 1701
Tensile Strength, 1277
Thaumasite, 529, 775
Thermal Analysis, 137, 307, 1413, 1597, 1609
Thermal Conductivity, 59, 1715
Thermal Dilation Coefficient, 915
Thermal Gravity Analysis, 881
Thermal Treatment, 543, 571
Thermoelectric, 661, 1295
Threshold, 1047
Titanium, 1097
Toughness, 593
Transference Numbers, 1885
Transport Properties, 217, 1199, 1267, 1911, 1929, 1947, 1955
Trass Cement, 1615
Triethanolamine, 1615
Ultrasonic Shear Wave Reflection, 1633
Vibration, 809
Vibration Damping, 171
Voltammetry, 1615
Volume Stability, 1961
Volumic Water Content, 1559
Warm Curing, 1869
Waste Catalyst, 1773
Waste Ceramic tile, 497
Waste Management, 83, 91, 137, 385, 429, 437, 967, 1131, 1421, 1641, 1755
Waste Recycling, 419
Water, 1465
Water Demand, 1785
Water Movement, 1157
Waterproofing, 227
Water-Reducing Ratio, 1785
Wheat Straw Ash, 1189
Workability, 599, 767, 1305, 1367, 1543
Work Index, 473
 $(3-x)\text{CaO} \cdot x\text{BaO} \cdot 3\text{Al}_2\text{O}_3 \cdot \text{CaSO}_4$, 77
X-ray Absorption, 1157
X-ray Diffraction, 137, 175, 385, 491, 517, 709, 967, 1023, 1435, 1527, 1609, 1689
Zeolite, 1641