Building and Construction Materials
Edited by Masters (Lieff), Sept., 274
SI Units in Radiation Protection and Measurements (Barbrow), July, 227
TEQCR83: Testing, Evaluation and Quality Control of Composites edited by Fost (Adsit), Sept., 274
Ultrasonic Transducers for Nondestructive Testing by Silk (Bray), Nov., 332

A-B

Abrasives
Erosion by solid-particle impacts: a testing update (Wood), Jan., 23
Adhesive bonding
Linear elastic fracture mechanics applied to an adhesive spar—wingskin joint (Gradin and Nilsson), Nov., 326
Alloy 718
Estimation of fatigue life at elevated temperature of electron beam weldments of Alloy 718 (Fukakura and Mori), Jan., 7
Alluvium
In situ dynamic estimates of the equation of state for alluvium for intermediate pressures and high rates (Rinehart), Sept., 243
Asphalt content
A rapid test for asphalt content of bituminous mixtures (Chavez and Winslow), Jan., 28
Axial compression
Effect of axial compression (Javorik), July, 213
Effect of bearing plate properties on the behavior of block masonry prisms under axial compression (Hamid and Chukwuneye), May, 156
Bitumen exposure
Measurement of granule coverage on bituminous roofing surfaces (Dutt), May, 163
Bituminous mixtures
A rapid test for asphalt content of bituminous mixtures (Chavez and Winslow), Jan., 28
Bituminous surface
Measurement of granule coverage on bituminous roofing surfaces (Dutt), May, 163
Bolts
An ultrasonic method for determining axial stress in bolts (Johnson, Holt, and Cunningham), Sept., 253
Book reviews
Appliance Switch Standards: Approvals and Safe Electrical Control by Honey (Hoffman), July, 227
Electron Beam Analysis of Materials by Loretto (Ashbee), July, 227
Finite Element Analysis of Shells of Revolution by Gould (Wu), July, 228
International Advances in Nondestructive Testing—Vol. 11 edited by McGonnagle (Berger), Sept., 274
Probabilistic Methods in the Mechanics of Solids and Structures edited by Esgewertz and Lind (Alexander), Nov., 332
Problems in Service Life Prediction of an adhesive spar—wingskin joint (Gradin and Nilsson), Nov., 326
Compression
Fatigue crack growth threshold and crack opening of a mild steel (Yu, Topper, Du-Quesnay, and Pompetzki), May, 145
Compressive loading
Modified lever system for constant-stress compressive creep machine (Dobes, Zvěřina, and Čadek), Sept., 271
Compressive strength
Using an impact device with sliding drop collar for in situ evaluation of compressive strength of insulating cellular concrete (Reichverger), Nov., 298
Concrete blocks
Direct modeling of concrete block masonry under shear and in-plane tension (Hamid and Abboud), March, 112
Effect of bearing plate properties on the behavior of block masonry prisms under axial compression (Hamid and Chukwuneye), May, 156
Constant-K specimen
Development of a constant-K specimen for materials testing (Huculak), July, 200
Constant stress
Modified lever system for constant-stress compressive creep machine (Dobes, Zvěřina, and Čadek), Sept., 271
Contaminants
Bibliography on clean glass: Supplement I (Campbell and Adams), Sept., 260
Contraction ratio
Poisson's ratio as determined for elastic and plastic deformation and for monotonic and cyclic loading—Part I: critical review (Rahha and Laird), July, 173
Crack closure
A method for determining conservative fatigue threshold while avoiding crack closure (Matsuoka, Takeuchi, Kosage, Shimoda, Ohta, and Nishijima), Nov., 312
Crack growth
A computerized test system for thermal-mechanical fatigue crack growth (Marchand and Pelloux), Nov., 303
Crack initiation
On the determination of crack initiation using standard test methods (Hellmann and Schwab), Nov., 292
Crack tip opening displacement
 Determination of fracture toughness by CTOD resistance curve method (Putatalunda), Jan., 49
On the determination of crack initiation using standard test methods (Hellmann and Schwab), Nov., 292
Creep test
Modified lever system for constant-stress compressive creep machine (Dobel, Zefinna, and Cadek), Sept., 271

Diametral strain response
Cyclic stress and diametral strain response during high strain amplitude fatigue of a 1Cr-1.3Mo-0.3V bainitic rotor steel at elevated temperature—Part II (Rahka and Laird), Nov., 277

Direct modeling
Direct modeling of concrete block masonry under shear and in-plane tension (Hamid and Abboud), March, 112

Dynamic fracture toughness
An evaluation of dynamic fracture toughness of Type A508 Class 3 steel (Fujii, Sakai, and Ando), July, 181
Investigation of dynamic $J_{c}$ for alloy steel weldments using the split Hopkinson pressure bar (Basim, Bayoumi, Hsu, and Matthews), Sept., 229

Elevated Temperature
Cyclic stress and diametral strain response during high strain amplitude fatigue of a 1Cr-1.3Mo-0.3V bainitic rotor steel at elevated temperature—Part II (Rahka and Laird), Nov., 277
Estimation of fatigue life at elevated temperature of electron beam weldments of Alloy 718 (Fukakura and Morii), Jan., 7

Erosion
Erosion by solid-particle impacts: a testing update (Wood), Jan., 23

Erosion testing
Erosion by solid-particle impacts: a testing update (Wood), Jan., 23

Fiber diameter
Effect of fiber loss by according on average fiber diameter of core samples of grease wool (Stobart and Morrison), Sept., 266

Fire endurance
An empirical model for predicting performance of fire-resistant coatings in wood construction (White), March, 97

Fire-resistive coatings
An empirical model for predicting performance of fire-resistant coatings in wood construction (White), March, 97

Fire toxicity
A suggested role of combustion toxicity in fire risk assessment (Altzeff and Packham), Nov., 321

Floors
Evaluation of the effect of contact-time when measuring floor slip resistance (Irvine), Jan., 19

Food microbiology
Precision testing of standardized microbiological methods (Beckers), Nov., 318
Reference samples for the evaluation of *Salmonella* isolation methods (Beckers), Sept., 269

Four-point bend specimen
On the determination of crack initiation using standard test methods (Hellmann and Schwalbe), Nov., 292

Fracture
Evaluation of plane-stress fracture testing methods (Pearson), July, 224
*R-curve* round-robin program for ASTM Recommended Practice for *R-Curve* Determination (E 561) (Pearson and McCabe), July, 191

Fracture application
References and conference proceedings towards the understanding of fracture mechanics (Toor and Hudson), March, 61

Fracture mechanics
Fracture mechanics evaluation of irradiation embrittlement in reactor vessel steels based on the rate process concept (Nogata and Takahashi), Jan., 40
References and conference proceedings towards the understanding of fracture mechanics (Toor and Hudson), March, 61

Fracture testing
Evaluation of plane-stress fracture testing methods (Pearson), July, 224
*R-curve* round-robin program for ASTM Recommended Practice for *R-Curve* Determination (E 561) (Pearson and McCabe), July, 191

Fracture toughness
Determination of fracture toughness by CTOD resistance curve method (Putatunda), Jan., 49

Granular protection
Measurement of granule coverage on bituminous roofing surfaces (Dutt), May, 163

Grease wool
Effect of fiber loss by carding on average fiber diameter of core samples of grease wool (Stobart and Morrison), Sept., 266

Heat treatment
Effect of axial compression (Javorik), July, 213

High-speed compression test
A microcomputer-based system for the high-speed compression test by the split Hopkinson pressure bar technique (Yokoyama and Kishida), Sept., 236

High strain-rate tests
A microcomputer-based system for the high-speed compression test by the split Hopkinson pressure bar technique (Yokoyama and Kishida), Sept., 236

Hole drilling technique
Determination of calibration constants for hole drilling technique using special strain gage rosette (Rao, Sankar, and Narayanan), July, 207

In situ quality control
Using an impact device with sliding drop collar for *in situ* evaluation of compressive strengths of insulating cellular concrete (Reichverger), Nov., 298

In situ testing
*In situ* dynamic estimates of the equation of state for allium for intermediate pressures and high rates (Rinehart), Sept., 243

Intergranular corrosion
A modified metallographic method to detect sensitization in Type 316 stainless steel (Parvathavarthini, Dayal, and Gnanamoorthy), Jan., 3

Interpretive report on the sensitization of Type 304 stainless steel (Loria), March, 61

Iodometric method
Simple analysis of gluconate in cleaner (Hwang), March, 128

Irradiation embrittlement
Fracture mechanics evaluation of irradiation embrittlement in reactor vessel steels based on the rate process concept (Nogata and Takahashi), Jan., 40

J-integral
Determination of fracture toughness by CTOD resistance curve method (Putatunda), Jan., 49

Laboratory quality assurance
Precision testing of standardized microbiological methods (Beckers), Nov., 318
Reference samples for the evaluation of *Salmonella* isolation methods (Beckers), Sept., 269

Lightweight cellular concrete
Using an impact device with sliding drop collar for *in situ* evaluation of compressive strength of insulating cellular concrete (Reichverger), Nov., 298

Linear elastic fracture mechanics
Linear elastic fracture mechanics applied to an adhesive spar—wing skin joint (Gradin and Nilsson), Nov., 326
Low cycle fatigue
Cyclic stress and diametral strain response during high strain amplitude fatigue of a 1Cr-1.3Mo-0.3V bainitic rotor steel at elevated temperature—Part II (Rahaka and Laird), July, 173

Piping failures
Analysis of service failures in thermoplastic pressure piping water systems (Reinhart and Furno), March, 109

Phosphor bronze
Erosion of phosphor bronze under cavitation attack in a mineral oil (Rao and Buckley), Jan., 13

Piping failures
Analysis of service failures in thermoplastic pressure piping water systems (Reinhart and Furno), March, 109

Poisson’s ratio
Poisson’s ratio as determined for elastic and plastic deformation and for monotonic and cyclic loading—Part I: critical review (Rahaka and Laird), July, 173

Precision testing
Precision testing of standardized microbiological methods (Beckers), Nov., 318

Protozoa
Factors affecting results of chemotaxis inhibition tests with protozoa (Berk and Mills), May, 140

Quenching (cooling)
Use of X-ray diffraction with the Gaussian curve method to evaluate the hardening in quenched steels (Kurita, Ishara, Shinho, and Koguchi), Jan., 33

Rapid-load plane-strain fracture toughness
Analysis of dynamic fracture toughness of Type A508 Class 3 steel (Fujii, Saka, and Ando), July, 181

Rate effects
In situ dynamic estimates of the equation of state for allium for intermediate pressures and high rates (Rinehart), Sept., 243

Residual stresses
Determination of calibration constants for hole drilling technique using special strain gage rosette (Rao, Sankar, and Narayan), July, 207

Risk assessment
A suggested role of combustion toxicity in fire risk assessment (Alexeef and Parvathavarthini, Hsu, and Abboud), March, 112

Salmonella isolation
Reference samples for the evaluation of Salmonella isolation methods (Beckers), Sept., 269

Sensitization
A modified metallographic method to detect sensitization in Type 316 stainless steel (Parvathavarthini, Dayal, and Gnanamoorthy), Jan., 3

Shear tension
Direct modeling of concrete block masonry under shear and in-plane tension (Hamid and Abboud), March, 112

Shend
A preliminary examination of the laboratory shear test (Jones), May, 133

Size effect
A better way to present results from a least-squares fit to experimental data: an example from microhardness testing (Sargent), March, 122

Subcritical crack growth
Determination of fracture toughness for brittle nonmetallic materials at the subcritical crack growth stage (Naumenko), March, 76

T-Z
Temperature
Investigation of dynamic J R for alloy steel weldments using the split Hopkinson bar (Bassim, Bayoumi, Hsu, and Matthews), Sept., 229

Tempering
Use of X-ray diffraction with the Gaussian curve method to evaluate the hardening in quenched steels (Kurita, Ishara, Shinho, and Koguchi), Jan., 33

Test method
A rapid test for asphalt content of bituminous mixtures (Chavez and Winslow), Jan., 28

Thermal fatigue
A personal computer based thermal-mechanical fatigue test system, May (Elzey, Henry, and Anderson), 152

Thermal-mechanical fatigue
A computerized test system for thermal-mechanical fatigue crack growth (Marcand and Pelloix), Nov., 303

Thermoplastic piping
Analysis of service failures in thermoplastic pressure piping water systems (Reinhart and Furno), March, 109

Toughness
Evaluation of plane-stress fracture testing methods (Pearson), July, 224

Type 304 stainless steel
Interpretive report on the sensitization of Type 304 stainless steel (Loria), March, 81

Type 304 stainless steel
A modified metallographic method to detect sensitization in Type 316 stainless steel (Parvathavarthini, Dayal, and Gnanamoorthy), Jan., 3

Chromium conservation in stainless steel (Heger), May, 160

Steels
Use of X-ray diffraction with the Gaussian curve method to evaluate the hardening in quenched steels (Kurita, Ishara, Shinho, and Koguchi), Jan., 33

Subject index
339
**Ultrasonic**
An ultrasonic method for determining axial stress in bolts (Johnson, Holt, and Cunningham), Sept., 253

**Wastewater sludges**
Wastewater sludge treatment and utilization in the USSR (Yakovlev and Dvinskych), May, 168

**Water systems**
Analysis of service failures in thermoplastic pressure piping water systems (Reinhart and Furno), March, 109

**Wood**
An empirical model for predicting performance of fire-resistive coatings in wood construction (White), March, 97

**Work hardening**
Effect of axial compression (Javorik), July, 213