

Journal of Testing and Evaluation

Subject Index to Volume 12

1984

A-B

Absorbance

Advantages of using data from Fourier transform infrared spectrophotometers for process control (Pike), Jan., 40

Acoustic properties

Analysis of acoustic emissions generated during stress corrosion cracking (Padmanabhan, Suriyayothin, and Wood), Sept., 280

Adhesion

Multistep shear test for bond strength of claddings (Blickensderfer and Burrus), Jan., 3

Adhesive bonding

Multistep shear test for bond strength of claddings (Blickensderfer and Burrus), Jan., 3

Aerobic bacteria

Development of a multiple inoculator system for the identification of aerobic heterotrophic bacteria (Seyfreid, Pickersgill, Vlassoff, and Pagel) Sept., 257

Anisotropy

Deep-drawing of anisotropic work-hardening sheet metals into a high-pressure medium (Bayoumi), Nov., 353

Aquatic animals

Evaluation of the ultrasonic method for solubilizing *Daphnia magna* before liquid scintillation counting (Dauble, Hanf, and Carlile), Nov., 380

Aquatic biology

Evaluation of the ultrasonic method for solubilizing *Daphnia magna* before liquid scintillation counting (Dauble, Hanf, and Carlile), Nov., 380

Aquatic microbiology

Some factors influencing the enumeration of metabolizing aquatic bacteria (Rao, Jurkovic, and Dutka), Jan., 56

Arsenic

Determination of arsenic in geologic, biologic, and water samples by flameless atomic absorption spectrophotometry and inductively coupled plasma atomic emission spectrometry following distillation (Ho, Tweedy, and Mahan), March, 107

Asphalts

Research into aperture parameters of point-bonded waterproof layers (Zhao-dong and De-kun), Nov., 348

Rheology of cold-recycled pavement materials using creep test (Mamlouk), Nov., 341

Atomic absorption spectrophotometry

Quantitative determination of metals in oils by atomic absorption spectrophotometry: inorganic standards in acidified emulsions (Arfelli), May, 152

Attenuation

Absolute measurements of ultrasonic attenuation using damped nondestructive testing transducers (Papadakis), Sept., 257

Austenitic stainless steels

Interstitial carbon and nitrogen effects on the cryogenic fatigue crack growth of AISI 304

type stainless steels (Tobler and Reed), Nov., 364

Bacteria

Development of a multiple inoculator system for the identification of aerobic heterotrophic bacteria (Seyfreid, Pickersgill, Vlassoff, and Pagel), Sept., 257

Some factors influencing the enumeration of metabolizing aquatic bacteria (Rao, Jurkovic, and Dutka), Jan., 56

Bending moments

Multistep shear test for bond strength of claddings (Blickensderfer and Burrus), Jan., 3

Bend tests

Development of a test setup for measuring the deflection of single-edge notched bend (SENB) specimens (Hellman, Rohwerder, and Schwalbe), Jan., 42

Biochemical oxygen demand

Critique of the standard biochemical oxygen demand method (Stack), July, 246

Biological surveys

Hierarchical approach to the measurement of changes in community structure induced by environmental stress (Boyle, Sebaugh, and Robinson-Wilson), July, 241

Bonding

Research into aperture parameters of point-bonded waterproof layers (Zhao-dong and De-kun), Nov., 348

Book reviews

Gas Tables: International Version. Thermodynamic Properties of Air, Products of Combustion and Component Gases, Compressible Flow Functions 2nd Edition (SI Units) by Kennan et al (Olien and Arp), Nov., 416

The Govmark Book on Flammability Standards and Flammability Test Methods of Textiles, Plastics and Other Materials Used in Home and Contract Furnishings by Messina (Huggett), Nov., 415

IP Standards for Petroleum and Its Products Part 1. Methods for Analysis and Testing, Vol. 2 Methods IP321-364 by Institute of Petroleum (Dyloff), Nov., 415

Light-Microscopical Resinography by Rochow (Mark), Sept., 328

Micromechanisms of Plasticity and Fracture by Lewis and Taplin (Fields), Sept., 328

Structural Vibration Analysis: Modelling, Analysis and Damping of Vibrating Structures by Beards (O'Hara), Sept., 329

C

Capillary flow

Estimation of end corrections in capillary flow (Colbert and Ziegel), Nov., 400

Chemical analysis

Guidelines for evaluating the blank correction (Taylor), Jan., 54

Progress in inductively coupled plasma analytical spectroscopy (Barnes), July, 194

Circulation

Rheology of cold-recycled pavement materials using creep test (Mamlouk), Nov., 341

Classification

Current and potential uses for mining and mineral processing wastes in Canada: standards (Collings), Jan., 46

Clays

One-dimensional consolidation under linear loading (Gangopadhyay and Bhattacharya), May, 133

Compression tests

High-speed compression testing at constant true strain rates for hot working studies (Fitzsimmons, Kuhn, DeArdo, and Semple), Jan., 27

Computers

Computers identification of machined surfaces (Shetty and Imbert), Nov., 375

Guiding computers to produce accurate spectrochemical analysis (Jarrell and Borlaug), July, 220

Conservation

Current and potential uses for mining and mineral processing wastes in Canada: standards (Collings), Jan., 46

Consolidation

One-dimensional consolidation under linear loading (Gangopadhyay and Bhattacharya), May, 133

Contamination

Use of a portable vapor analyzer in groundwater contamination studies (Petros and Beckett), July, 251

Copper

Precision of low-level soluble copper measurements in natural freshwater systems (Means and Ferrante), May, 171

Coulometry

Quantitation of carbon in oil shale process wastewaters: coulometry coupled with ultraviolet-peroxydisulfate and high-temperature oxidation (Langlois, Jones, Sakaji, and Daughton), July, 227

Crack propagation

Crack growth in high-density polyethylene pipe (Gradin and Arve), Nov., 371

Determination of fracture toughness of a material that exhibits pop-in behavior (Putatunda and Banerjee), Sept., 305

Discussion of "on the quantitative analysis of fatigue crack propagation" by A. J. McEvily (Lankford, Fine, Alstetter, and Davidson), May, 155

Fatigue crack growth life prediction for a bolthole specimen under constant amplitude loading (Salivar), Sept., 324

Interstitial carbon and nitrogen effects on the cryogenic fatigue crack growth of AISI 304 type stainless steels (Tobler and Reed), Nov., 364

Report on the workshop on high temperature crack growth and fracture (Saxena and Kumar), July, 189

Cracks

Techniques for determination of the crystallographic characteristics of environmentally induced brittle fractures (Meletis and Hochman), May, 142

Creep properties

Report on the workshop on high temperature crack growth and fracture (Saxena and Kumar), July, 189

Cryogenics

Interstitial carbon and nitrogen effects on the cryogenic fatigue crack growth of AISI 304 type stainless steels (Tobler and Reed), Nov., 364

Crystallography

Techniques for determination of the crystallographic characteristics of environmentally induced brittle fractures (Meletis and Hochman), May, 142

D-E**Data**

Assuring the quality of data through laboratory quality assurance (Delvin), Sept., 268

Deep-drawing

Deep-drawing of anisotropic work-hardening sheet metals into a high-pressure medium (Bayoumi), Nov., 353

Deflection

Development of a test setup for measuring the deflection of single-edge notched bend (SENB) specimens (Hellman, Rohwerder, and Schwalbe), Jan., 42

Diesel engines

Piston ring deposits when using vegetable oil as a fuel (Pestes and Stanislaw), March, 61

Dilution

Critique of the standard biochemical oxygen demand method (Stack), July, 246

Direct current

Single specimen fracture toughness testing of low strength steel plate using the direct current electrical potential method (Doig and Abbott), Sept., 297

Distillation

Determination of arsenic in geologic, biologic, and water samples by flameless atomic absorption spectrophotometry and inductively coupled plasma atomic emission spectrometry following distillation (Ho, Tweedy, and Mahan), March, 107

Drying

Effects of mechanical drying on styrene-butadiene rubber (Hall and Trott), Nov., 394

Dynamic tests

Determination of fracture toughness J_{IC} under quasi-static and dynamic loading conditions using wedge loaded specimens (Bayoumi, Klepaczko, and Bassim), Sept., 316

Ecology

Twelve-year macroinvertebrate study in the vicinity of two thermal discharges to the Susquehanna River near York Haven, PA (Wurtz and Skinner), May, 157

Elastomers

Effects of mechanical drying on styrene-butadiene rubber (Hall and Trott), Nov., 394

Estimation of end corrections in capillary flow (Colbert and Ziegel), Nov., 400

Improvement of standard rheological tests for better materials characterization (Koopmann and Kramer), Nov., 407

Processability testing of styrene-butadiene rubber 1500 (Karg), Nov., 382

Elongation

Quantitative relations among measures of ductility in planar and through-thickness tension test of 12.8-mm-diameter specimens (Ludwigson and McDonald), Sept., 288

Emission spectroscopy

Introduction to symposium on advances in atomic spectroscopy (Dyck), July, 193
Progress in inductively coupled plasma analytical spectroscopy (Barnes), July, 194

Emulsification

Quantitative determination of metals in oils by atomic absorption spectrophotometry: inorganic standards in acidified emulsions (Arfelli), May, 152

Energy

Physical properties of densified refuse derived fuel (Eimers and Vesilind), July, 238

Enumeration

Some factors influencing the enumeration of metabolizing aquatic bacteria (Rao, Jurkovic, and Dutka), Jan., 56

Environmental analysis

Guidelines for evaluating the blank correction (Taylor), Jan., 54

Environmental tests

Hierarchical approach to the measurement of changes in community structure induced by environmental stress (Boyle, Sebaugh and Robinson-Wilson), July, 241

Equivalence

Evaluation method for comparing domestic and foreign materials specifications (Early and Hime), May, 125

F**Fatigue curves**

Fitting of fatigue curves with nonconstant standard deviation of data with runouts (Nelson), March, 69

Fatigue life

Fatigue crack growth life prediction for a bolt hole specimen under constant amplitude loading (Salivar), Sept., 324

Fitting of fatigue curves with nonconstant standard deviation of data with runouts (Nelson), March, 69

Fatigue (materials)

Discussion of "on the quantitative analysis of fatigue crack propagation" by A. J. McEvily (Lankford, Fine, Alstetter, and Davidson), May, 155

Field tests

Simple apparatus for conducting in-stream toxicity tests (Newbry and Lee), Jan., 51

Films

Sandwich method — a proposed approach to the measurement of oxygen transmission rate through moisture-sensitive barrier films (Wood), May, 149

Fish cages

Simple apparatus for conducting in-stream toxicity tests (Newbry and Lee), Jan., 51

Fluorometers

Rapid method for determining triuranium oxide (U_3O_8) by fluorometry (Ho, Dupre, and Mahan), May, 177

Fourier transformation

Advantages of using data from Fourier transform infrared spectrophotometers for process control (Pike), Jan., 40

Deconvolution, derivation, and smoothing of spectra using Fourier transforms (Cameron and Moffatt), March, 78

Fractures (materials)

Report on the workshop on high temperature crack growth and fracture (Saxena and Kumar), July, 189

Fracture tests

Determination of fracture toughness J_{IC} under quasi-static and dynamic loading conditions using wedge loaded specimens (Bayoumi, Klepaczko, and Bassim), Sept., 316

Determination of fracture toughness of a material that exhibits pop-in behavior (Putatunda and Banerjee), Sept., 305

Single specimen fracture toughness testing of low strength steel plate using the direct current electrical potential method (Doig and Abbott), Sept., 297

Fresh water

Precision of low-level soluble copper measurements in natural freshwater systems (Means and Ferrante), May, 171

Fuels

Physical properties of densified refuse derived fuel (Eimers and Vesilind), July, 238

G-L**Groundwater**

Use of a portable vapor analyzer in groundwater contamination studies (Petros and Beckett), July, 251

Heat transfer

Insulated masonry construction using knock-out web concrete block (Crandall), Nov., 333

Heat transmission

Insulated masonry construction using knock-out web concrete block (Crandall), Nov., 333

High strength steels

Analysis of acoustic emissions generated during stress corrosion cracking (Padmanabhan, Suriyayothin, and Wood), Sept., 280

Inductive reactance

Principles on analysis by spark sampling and plasma excitation as applied to super alloys (Beatty and Belmore), July, 212

Infrared analysis

Multicomponent infrared analysis using P-matrix methods (Brown), March, 86

Infrared spectroscopy

Fourier transform infrared spectroscopy of polymers—theory and applications (Fantoni), Jan., 33

Inoculation

Development of a multiple inoculator system for the identification of aerobic heterotrophic bacteria (Seyfreid, Pickersgill, Vlassoff, and Pagel), Sept., 257

Inorganic compounds

Pilot study of U. S. Geological Survey standard reference water samples for pesticides (Friedman, Fishman, and Boyle), March, 114

Insulation

Insulated masonry construction using knock-out web concrete block (Crandall), Nov., 333

Iron and steel industry

Application of inductively coupled plasma atomic fluorescence spectrometry in the steel industry (Lancione and Drew), July, 203

Iron ores

Application of inductively coupled plasma atomic fluorescence spectrometry in the steel industry (Lancione and Drew), July, 203

Joints (junctions)

Comparison of nailed joint test methods (Pelliscane and Bodig), Sept., 261

Laboratories

Assuring the quality of data through laboratory quality assurance (Delvin), Sept., 268

Loading rate

Determination of fracture toughness J_{IC} under quasi-static and dynamic loading conditions using wedge loaded specimens (Bayoumi, Klepaczko, and Bassim), Sept., 2316

Low alloy steels

Determination of fracture toughness of a material that exhibits pop-in behavior (Putatunda and Banerjee), Sept., 305

M-O**Machinery**

Computer identification of machined surfaces (Shetty and Imbert), Nov., 375

Materials specifications

Evaluation method for comparing domestic and foreign materials specifications (Early and Hime), May, 125

Measurement

Absolute measurements of ultrasonic attenuation using damped nondestructive testing transducers (Papadakis), Sept., 257

Metals

Evaluation method for comparing domestic and foreign materials specifications (Early and Hime), May, 125

Principles on analysis by spark sampling and plasma excitation as applied to super alloys (Beatty and Belmore), July, 212

Quantitative determination of metals in oil by atomic absorption spectrophotometry: inorganic standards in acidified emulsions (Arfelli), May, 152

Standard-reference water-suspended sediment sample for total recoverable metals (Fishman, Malo, and Boyle), May, 182

Metal sheets

Deep-drawing of anisotropic work-hardening sheet metals into a high-pressure medium (Bayoumi), Nov., 353

Modulus of elasticity

Development of a test setup for measuring the deflection of single-edge notched bend (SENB) specimens (Hellman, Rohwerder, and Schwalbe), Jan., 42

Nails (fasteners)

Comparison of nailed joint test methods (Pelliscane and Bodig), Sept., 261

Nickel alloys

Advances in atomic absorption graphite furnace analysis (Barrett, Barnett, and Fernandez), July, 207

Nitrification

Critique of the standard biochemical oxygen demand method (Stack), July, 246

Nitrogen

Methods for determination of NH_4^+ -N, NO_3^- -N, and organic forms of nitrogen in wastewaters (Ho), March, 100

Nitrogen heterocyclic compounds

Quantitation of carbon in oil shale process wastewaters: coulometry coupled with

ultraviolet-peroxydisulfate and high-temperature oxidation (Langlois, Jones, Sakaji, and Daughton), July, 227

Nonconstant standard deviation

Fitting of fatigue curves with nonconstant standard deviation of data with runouts (Nelson), March, 69

Nondestructive test

Estimation of harness of hardened steels by X-ray diffraction using a Gaussian curve-fitting method (Kurita and Hirayama), Jan., 13

Nuclear power plants

Twelve-year macroinvertebrate study in the vicinity of two thermal discharge to the Susquehanna River near York Haven, PA (Wurtz and Skinner), May, 157

Oil shale

Quantitation of carbon in oil shale process wastewaters: coulometry coupled with ultraviolet-peroxydisulfate and high-temperature oxidation (Langlois, Jones, Sakaji, and Daughton), July, 227

Organic halides

Measurement of organic halide content of aqueous and solid waste samples (Riggin, Lucas, Jungclaus, and Billets), March, 91

Oxidation

Rapid method for determining triuranium octoxide (U_3O_8) by fluorometry (Ho, Dupre, and Mahan), May, 177

P-R**Pavements**

Rheology of cold-recycled pavement materials using creep test (Mamlouk), Nov., 341

Permeability

Sandwich method—a proposed approach to the measurement of oxygen transmission rate through moisture-sensitive barrier films (Wood), May, 149

Pesticides

Pilot study of U. S. Geological Survey standard reference water samples for pesticides (Friedman, Fishman, and Boyle), March, 114

Photogrammetric methods

Techniques for determination of the crystallographic characteristics of environmentally induced brittle fractures (Meletis and Hochman), May, 142

Pipes

Crack growth in high-density polyethylene pipe (Gradin and Arve), Nov., 371

Piston rings

Piston ring deposits when using vegetable oil as a fuel (Pestes and Stanislaw), March, 61

Polyethylene

Advantages of using data from Fourier transform infrared spectrophotometers for process control (Pike), Jan., 40

Crack growth in high-density polyethylene pipe (Gradin and Arve), Nov., 371

Polymers

Effects of mechanical drying on styrene-butadiene rubber (Hall and Trott), Nov., 394

Fourier transform infrared spectroscopy of polymers — theory and applications (Falconi), Jan., 33

Processability testing of styrene-butadiene rubber 1500 (Karg), Nov., 382

Predictions

Fatigue crack growth life prediction for a

bolthole specimen under constant amplitude loading (Salivar), Sept., 324

Quality assurance

Assuring the quality of data through laboratory quality assurance (Delvin), Sept., 268

Quantitative analysis

Discussion of "on the quantitative analysis of fatigue crack propagation" by A. J. McEvily (Lankford, Fine, Alstetter, and Davidson), May, 155

Radiation

Multicomponent infrared analysis using P -matrix methods (Brown), March, 86

Reduction of area

Quantitative relations among measures of ductility in planar and through-thickness tension tests of 12.8-mm-diameter specimens (Ludwigson and McDonald), Sept., 288

Refuse

Physical properties of densified refuse derived fuel (Eimers and Vesilind), July, 238

Residual stress

X-ray diffraction analysis of residual stresses induced by sliding wear of copper-aluminum alloys (Wert, Singerman, Quarles, and Chaudhuri), Jan., 20

Resource recovery

Current research into the potential for utilization of mine waste (Bloomfield), March, 119

Reviews

Fourier transform infrared spectroscopy of polymers — theory and applications (Falconi), Jan., 33

Rheological properties

Processability testing of styrene-butadiene rubber 1500 (Karg), Nov., 382

Rheological tests

Improvement of standard rheological tests for better materials characterization (Koopman and Kramer), Nov., 407

Runoff

Quality of runoff from model coal piles (Stahl and Davis), May, 163

S**Selenium**

Advances in atomic absorption graphite furnace analysis (Barrett, Barnett, and Fernandez), July, 207

Sensitivity

Progress in inductively coupled plasma analytical spectroscopy (Barnes), July, 194

Shear strain

Estimation of end corrections in capillary flow (Colbert and Ziegel), Nov., 400

Slags

Application of inductively coupled plasma atomic fluorescence spectrometry in the steel industry (Lancione and Drew), July, 203

Smoothing

Deconvolution, derivation, and smoothing of spectra using Fourier transforms (Cameron and Moffatt), March, 78

Soil mechanics

One-dimensional consolidation under linear loading (Gangopadhyay and Bhattacharya), May, 133

Solid wastes

Measurement of organic halide content of aqueous and solid waste samples (Riggin, Lucas, Jungclaus, and Billets), March, 91

Spectra

Deconvolution, derivation, and smoothing of

spectra using Fourier transform (Cameron and Moffatt), March, 78

Spectrochemical analysis

Guiding computers to produce accurate spectrochemical analysis (Jarrell and Borlaug), July, 220

Principles on analysis by spark sampling and plasma excitation as applied to super alloys (Beaty and Belmore), July, 212

Spectroscopy

Multicomponent infrared analysis using P-matrix methods (Brown), March, 86

Statistical analysis

Estimation of hardness of hardened steels by X-ray diffraction using a Gaussian curve-fitting method (Kurita and Hirayama), Jan., 13

Precision of low-level soluble copper measurements in natural freshwater systems (Means and Ferrante), May, 171

Standard-reference water-suspended sediment sample for total recoverable metals (Fishman, Malo, and Boyle), May, 182

Statistical tests

Hierarchical approach to the measurement of changes in community structure induced by environmental stress (Boyle, Sebaugh and Robinson-Wilson), July, 241

Steels

Guiding computers to produce accurate spectrochemical analysis (Jarrell and Borlaug), July, 220

Single specimen fracture toughness testing of low strength steel plate using the direct current electrical potential method (Doig and Abbott), Sept., 297

Strain rate

High-speed compression testing at constant true strain rates for hot working studies (Fitzsimmons, Kuhn, DeArdo, and Semple), Jan., 27

Stress corrosion

Analysis of acoustic emissions generated during stress corrosion cracking (Padmanabhan, Suriyayothin, and Wood), Sept., 280

Surface properties

Computer identification of machined surfaces (Shetty and Imbert), Nov., 375

T-Z

Tailings

Current research into the potential for utilization of mine waste (Bloomfield), March, 119

Tension tests

Quantitative relations among measures of ductility in planar and through-thickness tension tests of 12.8-mm-diameter specimens (Ludwigson and McDonald), Sept., 288

Tissues (biology)

Evaluation of the ultrasonic method for solubilizing *Daphnia magna* before liquid scintillation counting (Dauble, Hanf, and Carlile), Nov., 380

Toxicity tests

Simple apparatus for conducting in-stream toxicity tests (Newbry and Lee), Jan., 51

Transmission rate

Sandwich method — a proposed approach to the measurement of oxygen transmission rate through moisture-sensitive barrier films (Wood), May, 149

Ultrasonic testing

Absolute measurements of ultrasonic attenuation using damped nondestructive testing transducers (Papadakis), Sept., 257

Uranium

Rapid method for determining triuranium oxide (U_3O_8) by fluorometry (Ho, Dupre, and Mahan), May, 177

Vegetable oils

Piston ring deposits when using vegetable oil as fuel (Pestes and Stanislaw), March, 61

Viscosity

Improvement of standard rheological tests for better materials characterization (Koopmann and Kramer), Nov., 407

Volatility

Use of a portable vapor analyzer in groundwater contamination studies (Petros and Beckett), July, 251

Waste disposal

Current research into the potential for utilization of mine waste (Bloomfield), March, 119

Waste utilization

Current and potential uses for mining and mineral processing wastes in Canada: standards (Collings), Jan., 46

Wastewater

Measurement of organic halide content of aqueous and solid waste samples (Riggin, Lucas, Jungclaus, and Billets), March, 91

Methods for determination of NH_4^+ -N, NO_3^- -N, and organic forms of nitrogen in wastewaters (Ho), March, 100

Water

Determination of arsenic in geologic, biologic, and water samples by flameless atomic absorption spectrophotometry and inductively coupled plasma atomic emission spectrometry following distillation (Ho, Tweedy, and Mahan), March, 107

try following distillation (Ho, Tweedy, and Mahan), March, 107

Guidelines for evaluating the blank correction (Taylor), Jan., 54

Methods for determination of NH_4^+ -N, and organic forms of nitrogen in wastewaters (Ho), March, 100

Twelve-year macroinvertebrate study in the vicinity of two thermal discharges to the Susquehanna River near York Haven, PA (Wurtz and Skinner), May, 157

Water analysis

Standard-reference water-suspended sediment sample for total recoverable metals (Fishman, Malo, and Boyle), May, 182

Water pollution

Quality of runoff from model coal piles (Stahl and Davis), May, 163

Waterproof coatings

Research into aperture parameters of point-bonded waterproof layers (Zhao-dong and De-kun), Nov., 348

Water quality

Pilot study of U. S. Geological Survey standard reference water samples for pesticides (Friedman, Fishman, and Boyle), March, 114

Quality of runoff from model coal piles (Stahl and Davis), May, 163

Wear

X-ray diffraction analysis of residual stresses induced by sliding wear of copper-aluminum alloys (Wert, Singerman, Quarles, and Chaudhuri), Jan., 20

Wood

Comparison of nailed joint test methods (Pellucane and Bodig), Sept., 261

Workability

High-speed compression testing at constant true strain rates for hot working studies (Fitzsimmons, Kuhn, DeArdo, and Semple), Jan., 27

X-ray diffraction

Estimation of hardness of hardened steels by X-ray diffraction using a Gaussian curve-fitting method (Kurita and Hirayama), Jan., 13

X-ray diffraction analysis of residual stresses induced by sliding wear of copper-aluminum alloys (Wert, Singerman, Quarles, and Chaudhuri), Jan., 20

Zeeman effect

Advances in atomic absorption graphite furnace analysis (Barrett, Barnett, and Fernandez), July, 207