文献目録

文献調査委員会

注：○掲載順序：雑誌名・巻号・発行年月・論文名・ページ数・著者.
○目録欄に登載の雑誌はすべて土木学会土木図書館備付図書である.

一般

Civil Engineering 46—6 76—6

1 Today's Northwest Passage—Lower Snake River Project. (41~47) Kaden, R.A., et al.
2 Idaho's Barrel-Arch Roof Features Laminated Wood. (48~51) Dallaire, G.
3 Pilot Plant Program—Treatment of New York City Water Supply. (52~55) Fulton, G.P., et al.
4 Montreal Rushing to Complete Olympic Park as Costs Skyrocket. (56~59)
5 Philadelphia—Civil Engineering News Roundup. (60~64)
6 Courting the Client : Essential Program for Effective Marketing. (65~66) Olitt, A.
7 Highlights of San Diego National Convention. (67~76)
8 Polymer-Concrete Passes Toughest Test. (77~77) Emery, A., et al.

Civil Engineering 46—7 76—7

9 Philadelphia—Three Ages of a City. (44~56)
10 Back to the People : Dallas' Blueprint for the Future. (57~60) McManus, M.J.
11 Birth of the Skyscraper. (61~64)
12 Empire State : Greatest of All Skyscrapers. (65~68)
13 Fazlur Khan : A Look to the Sky. (69~69)
14 The Story of America's Transportation Revolution. (70~74) Dallaire, G.

Civil Engineering (London) 76—7

15 Large Plant (19,21) Ellis, R.
16 Transportation. (24~25) Halsey, D.
17 Leasing for Profit. (28~29) Woodhouse, G.
18 What Really Happens? (30~31) Fletcher, T.
19 Small Plant. (35,37) Raylor, A.W.
20 Symphonic Performance at Kew. (40~41)
21 What Price Assurance? (44~45,47) Shallcross, A.G.
22 Preventing Cracks in Roads. (55~55)
23 Gabions on Site. (56~57) Brown, G.H.

Proc. of A.S.C.E., 102—GT 4 76—4

24 Identification and Nature of Dispersive Soils. (287~301) Sherard, J.L., et al.
25 Stress-Strain Behavior of Sand. (303~321) Khosla, V. K., et al.
26 Pore-Water Pressure Changes during Soil Liquefaction. (323~346) Seed, H.B., et al.
27 Strain Rate Behavior of Compacted Silt. (347~360) Roy, N., et al.
28 Pore Pressures near Moving Underwater Slope. (361~372) Meijer, K.L., et al.

Proc. of A.S.C.E., 102—GT 5 76—5

29 Centrifugal Modelling of Riverbank Failure. (395~409) Frydman, S., et al.
30 Sheet Pile Interlock Tension—Probabilistic Design. (411~423) Kay, J.N.
31 Liquefaction during 1906 San Francisco Earthquake. (425~439) Youd, T.L., et al.
32 Earth Pressure on Precast Panel Retaining Wall. (441~456) Coyle, H.M., et al.
33 Integrated Study of Reinforced Earth—I : Theoretical Formulation. (457~471) Romstad, K.M., et al.
34 Electro-Osmotic Consolidation of Soils. (473~491) Wan, T.Y., et al.
35 Behavior of Drilled Piers under Axial Loading. (493~510) Reese, L.C., et al.
36 Cyclic Triaxial Strength of Standard Test Sand. (511~523) Silver, M.L., et al.
37 Time-Dependent Increase in Shear Modulus of Clay. (525~537) Anderson, D.G., et al.
38 Site Investigation with Static Cone Penetrometer. (539~555) Alperstein, R., et al.

Proc. of A.S.C.E., 102—GT 6 76—6

39 Integrated Study of Reinforced Earth—II : Behavior and Design. (577~590) Shen, C.K., et al.
40 Earth Slope Reliability by a Level-Crossing Method. (591~604) Catalán, J.M., et al.
41 New York's Glacial Lake Formation of Varved Silt and Clay. (605~638) Parsons, J.D.
42 Dynamic Strength of Hydraulic Fill. (641~646) Meehan, R.L.

Proc. of the Institution of Civil Engioeers 60—1 76—8

43 Radiation in the Service of the Technologist. (317~328) Curran, S.
44 Estuarine Pollution Control : Objectives and Priorities. (329~343) Staples, K.D.
45 Construction of Goscote Sewage Pumping Station. (345~365) Cooper, M.L.
46 Bridge Failures. (367~382) Smith, D.W.
47 Coleshill Advanced Wastewater Treatment Project. (383~400) Clough, G.F.G., et al.
48 The Harness Hospital System. Part I : Design of a Standard Structure and Construction of a Prototype. Lewis, H.E., et al., Part II : Testing of a Prototype Structure. Beeby, A.W., et al. (401~443)
49 Beach Replenishment : Sea Defences and a Review of the Role of Artificial Beach Replenishment. (445~460) Newman, D.E.

構造・コンクリート

Proc. of A.S.C.E., 102—ST 4 76—4

50 Inelastic Lateral Buckling of Determinate Beams. (701~717) Nethercot, D.A., et al.
51 Equivalent Static Wind Loads for Tall Building Design. (719~737) Simiu, E.

土木計画便覧

米谷栄二 編 〈A5〉 12,500円

最も現代的かつ実用的なハンドブックを意図して編集されたもので，土木計画の全般にわたって基本的な問題と最新の研究成果をまとめ，必要な統計・データ・法規などの資料を豊富に収録。

現代土木工学

②土木解析学…… 椎貝博美 編 〈A5〉 3,300円
③土木総合計画論……八十島義之助 編 2,800円
⑤土木構造設計…… 松本嘉司 著 3,600円
⑥土木施工管理……河野彰 編 2,800円

●続刊
①土木工学総論 ④土木施設設計概論 ⑦土木施工論

東京・日本橋／振替：東京7-5番 Ⓜ丸善

鋼　　橋 設計編 I・II
小西一郎編 〈B5〉 I)23,000円 II)25,000円

ギャラガー
有限要素解析の基礎
川井忠彦監訳 〈A5〉 4,600円

水質工学 〈全2巻〉
合田健編著 〈A5〉 基礎編2,700円／応用編3,600円

土木設計便覧 改訂3版
編集委員長 鶴岡鶴吉 〈A5〉 11,000円

土木計測便覧
京都大学土木会編 〈A5〉 7,000円

土木計画とOR
石原藤次郎校閲／吉川和広著 〈B5〉 4,000円

破壊力学と材料強度講座

木原　博監修　全17巻

破壊力学の最近の発展は著しい。本講座は関連分野の技術者，研究者に，この新しい工学的な方法を紹介する。即ち，ぜい性破壊，疲労，環境強度のみならず，延性破壊やミクロな破壊機構を追求して，それらを設計に援用し，材料や構造物の安全をはかるものである。

培風館
〒102
東京都千代田区
九段南4-3-12
Tel(03)262-5256
振替東京4-44725

15フラクトグラフィ

北川英夫・小寺沢良一共編
A5・288頁／近刊

本書は，近年，破壊原因の推定および破壊機構の研究の有力な一手段として広く活用されつつあるエレクトロン・マイクロフラクトグラフィについて初めて書かれた入門書で，写真を主として，平易に解説されている。また，破面観察の方法から具体的な事故解析例まで，フラクトグラフィ全般を取り扱っているので，これからフラクトグラフィを新しく学ぼうとする人々にとっても格好の手引書となっている。

1線形破壊力学入門

岡村弘之著　A5・240頁　¥2800

応力拡大係数とエネルギ解放率によって，き裂と，破壊に至る過程の定量的な取扱いを説き，小規模降伏，不静定構造への応用を示す。さらに種々の破壊現象への線形破壊力学適用の工学的有用性を述べる。巻末に弾性論入門を付す。

2き裂の弾性解析と応力拡大係数

石田　誠著　A5・240頁　¥3500

応力拡大係数は，線形破壊力学の基礎となる重要な概念であるが，本書は，これについて平易に説き，き裂先端近傍の力学的環境条件を定量的に取り扱う手法を述べる。さらに，実用の便を考え，基本的で重要な資料を紹介した。

14多結晶体の強度と破壊

大南正瑛・塩沢和章共著　A5・240頁　¥3500

多結晶金属材料の塑性変形や疲労破壊における力学的挙動を研究する上での基本概念を平易に解説したもので，ミクロな構造や性質とどう関連づけられているかを，結晶塑性学および連続体力学の理論と実験的検証の立場から述べた。

5マイクロメカニックス ＝転位と介在物

村外志夫・森　勉共著　A5・224頁　¥3300

転位に伴うひずみの考察から始めて，転位の作る応力場の計算法，楕円体介在物による応力場の計算法，応用に配慮したエネルギー論等を述べ，最後に，本書の基本的計算法が，実際面で有用なことを具体例について示す。

52 Frame Interaction in Nonorthogonal Grids. (739~757) Chriss, S.

53 Structural Characteristics of Weathered Plywood. (759~768) Hunt, M.O., et al.

54 Design of I-Shaped Beams with Diaphragm Bracing. (769~781) Errera, S.J., et al.

55 Survey of Structural Reanalysis Techniques. (783~802) Arora, J.S.

56 Analysis of Sandwich Panels with Formed Faces. (803~819) Hartsock, J.A., et al.

57 Epoxy-Repaired Bolted Timber Connections. (821~838) Avent, R.R., et al.

58 Metal Ties and Anchors for Brick Walls. (839~858) Grimm, C.T.

Proc. of A.S.C.E., 102—ST 5 76—5

59 Ferrocement-Behavior in Tension and Compression. (875~889) Johnston, C.D., et al.

60 Load Factor Analysis for Design of Bridges. (891~897) Porter, J.C.

61 Composite Steel-Deck Concrete Floor Systems. (899~917) Schuster, R.M.

62 Analysis of Fatigue of Welded Crane Runway Girders. (919~933) Demo, D. A., et al.

63 Shakedown of Beams on Flexible Supports. (935~946) Eyre, D.G., et al.

64 Inelastic Cycles of Axially Loaded Steel Members. (947~959) Kahn, L.F., et al.

65 Ultimate Instability of Earthquake Structures. (961~972) Cheng, F.Y., et al.

66 Earthquake Behavior of Suspended-Floor Buildings. (973~992) Goodno, B.J., et, al.

67 Short Duration Analytic Earthquake. (993~1001) Johnson, G.R., et al.

68 Effects of Turbulence on Bridge Model Torsional Stability. (1003~1013) Reinhold, T.A., et al.

69 Elastic Stability of Polygon Folded Plate Columns. (1015~1024) Avent, R.R., et al.

70 Plastic Design of Web Openings in Steel Beams. (1031~1041) Larson, M.A., et al.

71 Cladding and the Wind. (1043~1058) Eaton, K.J.

72 Response to Stochastic Wind of N-Degree Tall Buildings. (1059~1075) Saul, W.E., et al.

73 Optimum Seismic Design of Linear Shear Buildings. (1077~1084) Rosenblueth, E., et al.

74 Elastic Buckling of Arches under Symmetrical Loading. (1085~1095) Austin, W.J., et al.

75 Model Study of Horizontally Curved Box Girder. (1097~1108) Fam, A.R.M., et al.

76 Trapezoidally Corrugated Plates in Shear. (1109~1131) Hussain, M.I., et al.

Proc. of A.S.C.E., 102—ST 6 76—6

77 Approximate Analysis and Economics of Structures. (1177~1196) Lind, N.C.

78 Multistory Frame Design Using Story Stiffness Concept. (1197~1212) Cheong-Siat-Moy, F.

79 Load Factor Design of Continuous-Span Bridges. (1213~1228) Heins, C.P., et al.

80 Reinforced Concrete Corners and Joints Subjected to Bending Moment. (1229~1254) Nilsson, I.H.E., et al.

Proc. of A.S.C.E., 102—EM 4 76—8

81 Base Pressure of Oscillating Circular Cylinders. (591~600) Stansby, P.K.

82 A Numerical Solution of Viscoelastic Half Planes. (601~612) Dasgupta, G.

83 Modal Control of Multistory Structures. (613~623) Martin, C.R., et al.

84 Double-Curved Element for Mooney-Rivlin Membranes. (625~641) Leonard, J.W., et al.

85 Analysis of Torispherical Pressure Vessels. (643~657) Ranjan, G.V., et al.

86 Photoelastic Model of Bridge Cross-Frame Junction. (659~670) Redner, A.S., et al.

87 Influence of Canyon on Soil-Structure Interaction. (671~684) Wong, H.L., et al.

88 Binary Flutter of Suspension Bridge Deck Sections. (685~700) Nakamura, Y., et al.

89 Endochronic Theory of Inelasticity and Failure of Concrete. (701~722) Bažant, Z.P., et al.

The Structural Engineer 54—7 76—7

90 Lateral Loading Tests on Concrete Block Walls. (239~246) Anderson, C.

Jour. of the American Concrete Institute 73—6 76—6

91 Basement under Weatherford Street in Fort Worth. (312~314) Rajagopalan, K.S.

92 A Year of Change. (315~318) Walker, J.H.

93 Proposed ACI Standard : Recommended Practice for the Use of Shrinkage-Compensating Concrete. (319~339) ACI Committee 223

94 Tests of Model Composite Bridge Decks. (340~343) Batchelor, B., et al.

Jour. of the American Concrete Institute 73—7 76—7

95 Acoustic Emission Behavior of Concrete Laboratory Specimens. (367~371) McCabe, W.M., et al.

96 Arizona Slant Shear Test : A Method to Determine Epoxy Bond Strength. (372~373) Kriegh, J.D.

97 Recommendations for Design of Beam-Column Joints in Monolithic Reinforced Structures. (375~393) ACI-ASCE Committee 352

98 Improving the Properties of Hot-Mixed Concrete Using Retarding Admixtures. (394~398) Berge, O.

99 Practical Consideration in the Provision of Formwork for Structural Concrete. (399~404) Richardson, J.

100 Time and Temperature Effects on Tensile, Bond, and Compressive Strengths. (405~409) Gardner, N.J., et al.

101 Analysis of Web Forces in Concrete Beams. (410~415) Rajagopalan, N.

102 Short-Term Deflection in Two-Way Reinforced Concrete Slabs after Cracking. (416~419) Shukla, S.N., et al.

Concrete 10—7 76—7

共立出版

112 東京都文京区小日向4　電話03(947) 2511

構造物解析のプログラム

W・ウィーバー著／山本善之訳　A5判・定価2700円

マトリックス理論とプログラミング技術は、構造解析において重要な役割を演じ、その構造工学の性格を変えている。本書は、骨組構造の解析に対する汎用プログラムのフローチャートを展開し、構造物解析に新たな手法を提起する。

土の力学（エンジニアリング・サイエンス講座26）

山口柏樹著　他の力学分野（弾性力学、塑性力学、流体力学）との関連性を考慮して、土の力学的性質、土の力学的挙動を解析する一般的手法を記述。……A5判・価1400円

コンクリートの特性（コンクリートセミナー1）

岩崎訓明著　コンクリートについての実際的知識や経験的事実を科学的に解説したもので、コンクリートの本質に対する関心と理解を深めた。……A5判・価2000円

特殊コンクリートの施工（コンクリートセミナー3）

宮坂慶男他著　本書は、人工軽量骨材を使用した強度の高いコンクリートなど、特殊なコンクリートの配合の要点、施工法の要領を平易に解説した。…A5判・価2900円

■既刊書より

土質力学	後藤正司著	1500円
土木地質学	宮崎政三・高橋彦治著	3200円
橋梁工学 改訂版	橋善雄著・中井博改訂	3500円
鉄筋コンクリート工学	横道英雄他著	2500円
河川工学	篠原謹爾著	1700円
地震工学	金井　清著	1700円
トンネル工学	柏谷逸男著	2100円

吊構造

日本鋼構造協会 編／
編集委員代表 坪井善勝・伊藤 学
▶B5・764頁／定価15,000円

〈本書の特色〉

全体を三編に分け、まず橋梁編で吊構造の発達に長い歴史をもつ世界各国の吊橋の概要をまとめ、次に建築編で多種多様な形で発達しつつある吊構造の現況と、立体構造の技術的諸問題をノウハウに近く詳述し、最後にケーブル編で使用されるケーブルの規格などを紹介した。

〈主要目次〉

橋梁編―吊橋・斜張橋および吊床板橋／建築編―設計・形状ならびに変形解析・耐風ならびに動的問題・建築吊構造の設計例・実験研究／ケーブル編―ケーブルの基本的性質・ロープ、ケーブルに関する規準・国内ロープメーカー参考規格。

海洋工学ハンドブック

編集委員会 編／編集委員長　渡辺 茂
▶A5・1116頁／定価14,000円

〈本書の特色〉

- 既存の諸技術との関連の中に、システム工学的な発想と手法を取入れ、体系化を試みた。
- 更にエコロジーとの調和技術、将来にわたる技術開発をも含め、わが国海洋開発推進の一指針とした。
- 内容上とくに、マニピュレータ、ロボット、照明など海中作業システムの記述はユニークで、また全体の執筆には、幅広い分野より一流の研究者・技術者が当った。

〈主要目次〉

海洋開発とシステム工学／海洋学／海洋資源の開発／海洋計測システム／海洋通信と航法／海洋エネルギー技術／海中作業技術／海中作業システム／海岸工学と海洋スペース利用。

〈内容見本進呈〉

東京都文京区千石4－46－10
郵便番号 112

CORONA PUBLISHING CO.

コロナ社

振替東京4－14844
電話（03）941－3131（代）

103 Gunite Structures. (16~18) Ryan, T.

104 A Chance to Meet—John Turner. (20~22) Barfoot, R.J.

105 Wilkinson and Reinforced Concrete. (22~24) Sutherland, R.J.M.

106 Not Quite Concrete. (25~25) Robinson, K.

107 Putting the Bridge in the Picture. (26~28) Nissen, J.

108 Rectangular Columns to CP 110. (29~31) Smith, I.A.

109 Current Practice Sheet No. 32—Portland Cements. (37~39) Brittain, K.

Jour. of Prestressed Concrete Institute 21—3 76—5,6

110 Design Proposals for Reinforced Concrete Corbels. (18~42) Mattock, A.H.

111 Precast Concrete Fins Stabilized with Pressure Grouted Epoxy. (43~45)

112 A Philosophy for Structural Integrity of Large Panel Buildings. (46~69) Fintel, M., et al.

113 Cyclic Tests of Welded Headed Stud Connections. (70~83) Spencer, R.A., et al.

114 Prestressing the CN Tower. (84~111) Knoll, F., et al.

Jour. of Fluid Mechanics 73—Part 4 76—2—24

115 Brownian Motion in Thin Sheets of Viscous Fluid. (593~602) Saffman, P.G.

116 Self-Similar, Time-Dependent Flows with a Free Surface. (603~620) Longuet-Higgins, M.S.

117 Inviscid Secondary Motions in a Tube of Slowly Varying Ellipticity(621~639) Sobey, I.J.

118 Magnetohydrodynamic Flow Due to the Discharge of an Electric Current in a Hemispherical Container. (641~650) Sozou, C., et al.

119 The Focusing of Weak Shock Waves. (651~671) Sturtevant, B., et al.

120 Velocity Measurements Close to a Rough Plate Oscillating in its Own Plane. (673~691) Keiller, D.C., et al.

121 An Experimental Study of Turbulent Convection in Air. (693~719) Fitzjarrald, D.E.

122 The Stability of Short Waves on a Straight Vortex Filament in a Weak Externally Imposed Strain Field. (721~733) Tsai, C.Y., et al.

123 Laminar Flow in a Curved Pipe with Varying-Curvature. (735~752) Murata, S., et al.

124 The Influence of Jet Flow on Jet Noise. Part 1. The Noise of Unheated Jets. (753~778) Mani, R.

125 The Influence of Jet Flow on Jet Noise. Part 2. The Noise of Heated Jets. (779~793) Mani, R.

Jour. of Fluid Mechanics 74—Part 1 76—3—9

126 Brownian Diffusion of Particles with Hydrodynamic Interaction. (1~29) Batchelor, G.K.

127 Numerical Simulation of the Transition from Three-to two-Dimensional Turbulence under a Uniform Magnetic Field. (31~58) Schumann, U.

128 Viscous Boundary Layers in Reversing Flow. (59~79) Pedley, T.J.

129 The Dispersion of a Buoyant Solute in Laminar Flow in a Straight Horizontal Pipe. Part 1. Predictions from Erdogan & Chatwin's (1967) Paper. (81~89) Barton, N.G.

130 The Dispersion of a Buoyant Solute in Laminar Flow in a Straight Horizontal Pipe. Part 2. The Approach to the Asymptotic State. (91~112) Barton, N.G.

131 Axisymmetric Turbulent Boundary Layer Along a Circular Cylinder at Constant Pressure. (113~128) Afzal, N., et al.

132 Thermosolutal Convection in a Solution with Large Negative Soret Coefficient. (129~142) Caldwell, D.

133 Non-Equilibrium Ideal-Gas Dissociation after a Curved Shock Wave. (143~159) Hornung, H.G.

134 Large Amplitude Lunate-Tail Theory of Fish Locomotion. (161~182) Chopra, M.G.

135 Internal Waves in a Circular Channel. (183~192) Yang, W.H., et al.

Jour. of Fluid Mechanics 74—Part 2 76—3—23

136 The Far Field of High Frequency Convected Singularities in Sheared Flows, with an Application to Jet-noise Prediction. (193~208) Balsa, T.F.

137 On the Two-Dimensional Mixing Region. (209~250) Champagne, F.H., et al.

138 Turbulence Correlations in a Compressible Wake. (251~267) Demetriades, A.

139 The Maintenance of Turbulent Shear Stress in a Mixing Layer. (269~295) Jones, I.F.

140 Laminar Film Flow on a Cylindrical Surface. (297~315) Becker, E.

141 The Distortion of a Flexible Inextensible Thread in a Shearing Flow. (317~333) Hinch, E.J.

142 On a Rotational Flow Disturbed by Gravity. (335~351) Greenspan, H.P.

143 Nonlinear Effects in Edge Waves. (353~368) Whitham, G.B.

144 Nonlinear Edge Waves and Shallow-Water Theory. (369~374) Minzoni, A.A.

145 Nonlinear Energy Transfer and the Energy Balance of the Internal Wave Field in the Deep Ocean. (375~399) Olbers, D.J.

Jour. of Fluid Mechanics 74—Part 3 76—4—6

146 Mass Transport in the Bottom Boundary Layer of Cnoidal Waves. (401~413) Isaacson, M. deST Q.

147 Free Convection and the Burning of a Horizontal Fuel Surface. (415~431) Clarke, J.F., et al.

148 Application of Central-Limit Theorems to Turbulence and Highe-rorder Spectra. (433~468) Lumley, J.L., et al.

149 Structure of a Linear Array of Hollow Vortices of Finite Cross-Section. (469~476) Baker, G.R., et al.

150 Oxygen Vibrational and Dissociation Relaxation Behind Regular Reflected Shocks. (477~495) Oertel, H.

151 Density Profiles in Argon and Nitrogen Shock Waves Measured by the Absorption of an Electron Beam. (497~513) Alsmeyer, H.

152 The Structure of Jets from Notched Nozzles. (515~528) Pannu, S.S., et al.

153 Convective Amplification of Real Simple Sources. (529~546) Dowling, A.

出版案内
目録呈:読者Q係

最新 構造力学
最新土木工学シリーズ1　白石成人・著

著者は、構造力学をよく理解するためには、構造特性の基本的性質を中心に力学的性質を明らかにすることが何よりも大切であると考え、材料の力学的性質、構造要素の特性、構造解析法を平易に説述する。構造力学を初めて学ぶ学生、再入門を試みる新進技術者にとってまたとないテキストといえよう。　＊A5／1800円

新しい土質力学 全2巻
ゴールドシュテイン・原著
大草重康・訳

①理論的基礎：⑪土の主要構成成分とその相互作用　原著者は、曲り角に来ているといえる土質力学に、熱力学、連続体力学、統計力学、強度論、数理統計学などの理論と手法を意欲的に導入することによって、新しい息吹を与えかつ今後の発展方向を追求し、関係者にとって有益な参考書。　＊菊判／①2600円⑪4000円

フローリンの土質力学 全3巻
大草重康・訳　A5／①3000円⑪2800円⑩1800円

土質力学特論 土木工学大成7
赤井浩一・著　菊／2500円

ボーリングハンドブック
岩松一雄・著　A5／4500円

配管工学ハンドブック 全2巻
川下研介・若林鐵生・監訳　菊／①5000円⑪4500円

衛生工学 森北土木工学全書16
徳平 淳・著　A5／1900円

道路施設工学
市原 薫・枝村俊郎・編　A5／4000円

森北出版
〒102/東京都千代田区富士見1-4-11／☎03-265-8341代表／振替東京1-34757

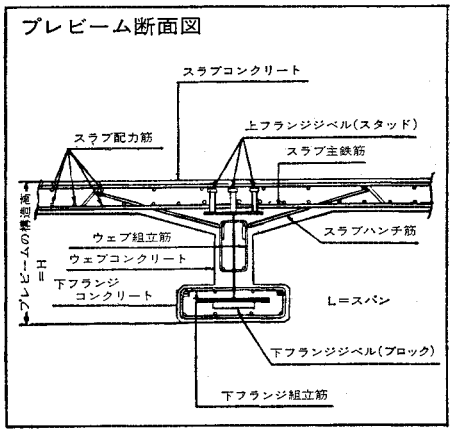
最新刊　好評発売中！

プレビーム合成げた道路橋標準設計集

¥1,200　〒200

◆長　所

(1) 桁の剛度が大きいので桁高制限を受ける場合に経済的となる。
(2) 活荷重による応力振幅が小さいから、疲労強度が高い。
(3) 製作、架設が簡素化され、人件費が少ない。
(4) 維持管理費が低減される。
(5) 外観が軽快で、優美である。
(6) H/Lは1/38まで可能である。



好評発売中
プレビーム合成げた橋設計施工指針
¥750　〒200

プレビーム振興会　東京都北区滝野川1-3-11 TEL(915)5394
郵便振替口座 東京6—51727

154 Intrusion into a Stratified Fluid. (547~560) Manins, P.C.
155 Supersonic Viscous Flow Over Cones at Large Angles of Attack. (561~591) Fletcher, C.J., et al.

——水理・水文・港湾・発電・衛生——

Jour. of Hydraulic Research 14—1 76

156 Their Role in the Initial Dispersion of a Surface Fleld. (1~7)
157 The Movement of Surges in a Turbulent Environment and Their Role in Surface Fleld Dispersion. (8~16) Beltaos, S.
158 Oblique Impingement of CircularTurbulent Jets. (17~36) John, P.H., et al.
159 A Conductivity Flow Meter. (37~44) Jonsson, I.G., et al.
160 Experimental and Theoretical Investigations in an Oscillarv Turbulent Boundary Layer. (45~60) Kreeke, J.
161 Tide-Induced-Mass Transport; A Flushing Mechanism for Shallow Lagoons. (61~67) Sleath, J.F.A.
162 On Rolling-Grain Ripples. (69~81)

Water Resources Research 12—3 76—6

163 Evapotranspiration from a Shortgrass Prairie Subjected to Water and Nitrogen Treatments. (437~442) Lauenroth, W.K., et al.
164 Estimating Groundwater Evapotranspiration from Streamflow Records. (360~364) Daniel, J.F.
165 A Proposed Algorithm for the Solution of the Large-Scale Inverse Problem in Groundwater. (365~374) Chang, S., et al.
166 One-Dimensional Simulation of Aquifer System Compaction Near Pixley, California, 2, Stress-Dependent Parameters. (375~391) Helm, D.C.
167 The Age of Groundwater in the Chalk of the London Basin. (392~404) Smith, D.B., et al.
168 Hydrodynamics of Groundwater Flow in a Fractured Formation. (405~414) Streltsova, T.D.
169 Analysis of Aquifer-Aquitard Flow. (415~422) Streltsova, T.D.
170 A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells. (423~428) Bouwer, H., et al.
171 Shapes of Steady State Perched Groundwater Mounds. (429~436) Khan, M.Y., et al.
172 A Note on Computing Finite Difference Interblock Transmissivities (Brief Report). (561~563) Appel, C.A.
173 Comment on 'A Stochastic-Conceptual Analysis of One-Dimensional Groundwater Flow in Nonuniform Homogeneous Media' by R.A. Freeze. (567~568) Dagan, G.
174 A Markov Chain Model of Daily Rainfall. (443~449) Haan, C.T., et al.
175 Rainfall Generation : A Nonstationary Time-Varying Multidimensional Model. (450~456) Bras, R.L., et al.
176 Atmospheric Input of Some Cations and Anions to Forest Ecosystems in North Carolina and Tennessee. (541~546) Swank, W.T., et al.
177 Fine-Scale Time Variations of Rainfall in Western Oregon. (556~560) Trump, C.L., et al.
178 Comment on 'Acid Precipitation in the Northeastern United States' by Charles V. Cogbill and Gene E. Likens. (569~571) Gatz, D.F.
179 Effect of Sequence Length n on the Choice of Assumed Distribution of Floods. (457~471) Wallis, J.R., et al.
180 Estimating Selected Parameters for the Kentucky Watershed from Watershed Characteristics. (472~476) Magette, W.L., et al.
181 Parmeter Optimization for Watershed Mobels. (477~486) Johnston, P.R., et al.
182 Travel Times and Nonlinearity of Flood Runoff from Tracer Measurements on a Small Watershed. (487~496) Pilgrim, D.H.
183 The Hypsometric Integral and Low Streamflow in Two Pennsylvania Provinces. (497~502) Kowall, S.J.
184 An Analysis of Water Flow in Dry Snow. (523~527) Colbeck, S.C.
185 On The Stochastic Foundations of the Theory of Water Flow Through Unsaturated Soil. (503~512) Bhattacharya, R.N., et al.
186 A New Model for Predicting the Hy 'raulic Conductivity of Unsaturated Porous Media. (513~522) Mualem, Y.
187 Wetting Front Pressure Head in the Infiltration Model of Green and Ampt. (564~566) Neuman, S.P.
188 Analytical Solution of the Equation for Transport of Reactive Solutes Through Soils. (528~532) Selim, H.M., et al.
189 Analytical Three-Dimensinal Transient Modeling of Effluent Discharges. (533~540) Yeh, G.T., et al.
190 An Analysis of the Numerical Solution of the Transport Equation, (547~555) Gray, W.G., et al.
191 Investment Sequencing, Allocation, and Learning in the Design of Water Resources Systems : An Empirical Application. (317~330) Rausser, G.C., et al.
192 A Linear Programing Model for Use in Guiding Urban Floodplain Management. (349~359) Day, J.C., et al.
193 Irrigation Systems in Taiwan : Management of a Decentralized Public Enterprise. (341~348) Abel, M.E.
194 Metagame Theory and Its Applications to Water Resources. (331~339) Hipel, K.W.

Jour. of Hydrology 30—3 76—7

195 Some Aspects of Stochastic Reservoir Theory. (199~217) Phatarfod, R.M.
196 Discharge Prediction, Present and Foririer, from Channel Dimensions. (219~245) Dury, G.H.
197 A Note on the Step of Some Finite-Difference Schemes Used to Solve Kinematic Wave Equations. (247~255) Singh, V.P.
198 Mises au Point sur les Differents Facteurs Physicochimique Influant sur la Mesure de Concentration de Traceurs Fluorescents et Leurs Conséquences Pratiques en Hydrologie (Physicochemical Conditions

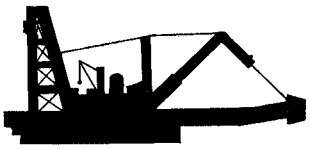
新刊

INTERNATIONAL DREDGING ABSTRACTS

bhra fluid engineering

International Dredging Abstracts

調べ易く・最新の情報
〔国際浚渫抄録誌〕



4回／年：発行　年間予約購読料￥27,000
Published dy BHRA Fluid Engineering in co-operation with the International Association of Dredging Companies

最近の浚渫技術は港湾、河口、ダムの維持整備にとどまらず、港湾、河川などの土地造成並びに諸施設に関する施工の合理化、ポンプ浚渫船、その他の作業船、機械装置の改良、効率化等、常に開発研究がなされております。
こゝに新しく刊行される「国際浚渫抄録誌」は浚渫・港湾工学、河川工学、沿岸工学、海洋開発等の技術・研究者の有力な情報源として是非ご検討下さい。

1.収録範囲
土質力学、砂利の採掘、沖合掘削、しゆんせつ土砂の投棄、沿岸・河川の保全、整備、浚渫機械、作業工程、経済性等、浚渫の全領域を網羅。

2.情報源
1)世界の浚渫関連分野の重要技術雑誌550点
2)関連調査レポート、会議録
3)単行本

3.抄録分類　毎号8部門に分類。

4.抄録件数　800件～／毎号

■ご注文は最寄りの洋書取扱店にて承ります。

■カタログご希望の方はご一報下さい。

SCIENCE & INDUSTRY INFORMATION SERVICE
USACO®

日本販売総代理店
株式会社 ユー・エス・エシアテック カンパニー
■本　社 〒105 東京都港区新橋1丁目13番12号 堤ビル ☎東　京(03)502-6471(代表)
■大　阪 〒530 大阪市北区堂島船大工町14番地日昭ビル ☎大　阪(06)344-6624(代表)
■名古屋 〒461 名古屋市東区橦木町3丁目17番地 ☎名古屋(052)931-2601(代表)
■土　浦 〒300 茨城県土浦市富士崎町122-1 和光ビル ☎土　浦(0298)23-1773(代表)

Which Affect the Concentration Measurements of Fluorescent Tracers and Their Practical Consequences in Hydrology). (257~285) André, J.C., et al.

199 Presence d'Eaux Anciennes dans les Eaux du Forage de N'Tarla, Region de Koutiala (République du Mali) (Occurrence of Ancient Waters in the N'Tarla Bore-Hole, Koutiala County, Republic of Mali). (287~292) Jusserand, C.

200 Effect of Semi-Circular Arches at Drain Gaps on Drain Conductance. (293~294) Sneyd A.D.

Jour. of Hydrology 30—4 76—8

201 The Measurement of Water Losses from a Forested Area Using a "Natural" Lysimeter. (311~325) Calder, I.R.

202 Normal-Mode Analysis of the Stusture of Baseflow-Recession Curves. (327~340) Nutbrown, D.A., et al.

203 Incertitude dans les Débits de Crues : Approche Bayésienne (Uncertainty in Fiood Flows : A Bayesian Approach). (341~349) Rousselle, J., et al.

204 The Response of Natural River Channels to Urbanization : Two Case Studies from Southeast England. (351~363) Hollis, G.E., et al.

105 Adjustment of Stream-Channel Shape to Hydrologic Regime. (365~373) Pickup, G.

206 A Nomogram to Estimate the Heat-Exchange Coefficient at the Air—Water Interface As a Function of Wind Speed and Temperature; A Critical Survey of Some Literature. (375~401) Sweers, H.E.

207 The Design of Large Plastic-Sheet Net-Rainfall Gauges. (403~405) Calder, I.R., et al.

208 Note on the Definition and the Stationarity of Fractional Gaussian Noise. (407~409) Mandelbrot, B.B.

Inter. Water Power & Dam Construction 28—5 76—5

209 Tidal Power : Closing the Gap (24~28) Shaw, T.L.

210 Surge Tank Analysis : A Graphical Solution-Ⅰ. (28~32) Li, Y.T.

211 Pantabangan : Home-Built Dam in the Philippines. (33~34)

212 Characteristics of High-Head Pumped-Storage Plants. (35~39) Jog. M.G.

213 Hydropower and the Environment. (40~43) Biswas, A.K.

214 The Effect of Geology on the Design of Two Welsh Dams. (44~48) Cochrane, N.J., et al.

215 Thirty Years' Development of the Rhine-Ⅰ. (49~52) Lefoulon, R.

Inter. Water Power & Dam Construction 28—6 76—6

216 Reports from the XII ICOLD Congress. (22~34)

217 Cornell Hydro Plant Redevelopment. (35~37) Eberhardt, A.

218 Foundation Treatment for the Gathright Dam. (38~42) Bowman, J.C., et al.

219 Surge Tank Analysis : A Graphical Solution-Ⅱ. (42~44) Li, Y.T.

220 Thirty Years' Development of the Rhine-Ⅱ. (45~48) Lefoulon, R.

Dock & Harbour Authority 56—665 76—4

221 France's Maritime Policy. (364~367) Zwijger, F.

222 Hydraulics Research Group. (368~369) Stickland, I.W.

223 Port Organisation. (372~372) Gifford, J.M.

224 Dimensions of Bulk Carriers. (373~373) Report by the University of Liverpool.

225 Legal Notes. (375~375) Poole, F.T.

Dock & Harbour Authority 56—666 76—5

226 Dubai Dry Dock. (2~5) Halcrow, W., et al.

227 The Building of North Port. (10~13) Teplicki, Z.

Dock & Harbour Authority 56—667 76—6

228 Ocean Terminal Grain Silos. (38~42) Faber, J.

229 Breakwater Design. (43~46) Stickland, I.W., et al.

230 Dockers' Attitude to Change. (47~51) Bescoby, J.H., et al.

Jour. of Water Pollution Control Federation 48—2 76—2

231 Estimating Personnel Needs for Wastewater Treatment Plants. (241~255) Burke, Jr., G.W.

232 Waste Treatment at a Complex Plastics Manufacturing Plant. (256~273) Campbell, Jr., H.J., et al.

233 The Use of Fluid Catalytic Cracking Catalyst in Activated Sludge Wastewater Treatment. (274~280) Schwartz, R.D., et al.

234 Verification Studies of the Biofilm Model for Bacterial Substrate Utilization. (281~296) Williamson, K., et al.

235 Odor Control with Hydrogen Peroxide. (297~306) Cole, C.A., et al.

236 Effect of Wastewater Composition and Cell Residence Time on Phosphorus Removal in Activated Sludge. (307~322) Stall, T.R., et al.

237 Comparative Effects of Chemical Pretreatment on Carbon Adsorption. (323~338) Westrick, J.J., et al.

238 Nitrogen Availability in Urban Runnoff. (339~345) Cowen, W.F., et al.

239 Stimulation of Denitrification in Soil Columns by Adding Organic Carbon to Wastewater. (346~356) Lance, J.C., et al.

240 Modeling of Vented Hydroturbine Reaeration. (357~366) Quigley, J.T., et al.

241 Pseudomonas Aeruginosa-Fecal Coliform Relationships in Estuarine and Fresh Recreation Waters. (367~376) Cabelli, V.J., et al.

242 The Significance of Pore Diffusion to Filter Denitrification. (377~388) Harremoës, P.

243 Silver in Photoprocessing Effluents. (389~394) Bard, C.C., et al.

Jour. of Water Pollution Control Federation 48—5 76—5

244 Laboratory Evaluation of Nutrient Inactivation Compounds for Lake Restoration. (817~832) Peterson, S.A., et al.

245 Acclimation of Wastewater Bacteria by Induction or Mutation Selection. (832~834) Varma, M.M., et al.

246 Inhibition of Nitrification by Ammonia and Nitrous

朝倉土木工学講座

井島・岡田
春日屋　編集
〔全27巻・既刊15冊〕

第2巻 構造力学　吉田 俊弥著　価 3000円
第3巻 水理学　岩佐 義朗著　価 2300円
第4巻 水文学　金丸・高棹著　価 2800円
第5巻 土質力学　赤井 浩一著　価 2300円
第6巻 土木地質学　大草 重康著　価 3000円
第7巻 土木材料学　大浜 文彦著　価 3600円
第8巻 鉄筋コンクリート工学　岡田 清著　価 3200円
第11巻 橋梁工学　渡辺 昇著　価 5800円
第12巻 道路工学　槙下 加藤著　価 2500円
第15巻 交通計画　小川 博三著　価 2000円
第17巻 河川工学　吉川 秀夫著　価 2300円
第18巻 発電工学　高畑 政信著　価 2500円
第19巻 海岸工学　井島 武士著　本社品切
第22巻 環境衛生工学　庄司・山本著　本社品切
第23巻 岩盤力学　川本 眺万著　価 3000円

土木工学基礎講座

丸安・尾崎
山内　編集
〔全15巻・既刊8冊〕

最新刊・8回配本
第13巻 道路工学　渡辺 隆著　価 2800円

第1巻 構造力学 I（訂正版）　能町 純雄著　価 2500円
第2巻 構造力学 II　能町 純雄著　価 2300円
第3巻 測量学　中川 徳郎著　価 2500円
第4巻 水理学　松梨順三郎著　価 3000円
第7巻 土木施工　伊勢田哲也著　価 2800円
第8巻 橋梁工学　小堀 為雄著　価 2300円
第10巻 土木材料　西村 新蔵著　価 2300円

土木計画数理

北大教授 工学博士 五十嵐日出夫編著　〔最新刊発売中〕

土木計画に応用されている数理を実際への応用を第一として、厳密性を尊重しながら平易に解説。〔内容〕概説、集合論、確率と確率分布、統計的推論、実験計画法、多変量解析、マルコフ連鎖、待ち行列理論、ネットワーク理論、線形計画法。　★A5判　価3500円

地図にみる世界の百万都市

藤岡謙二郎
谷岡武雄　編　〔最新刊発売中〕〔内容見本進呈〕

都市の未来はどうなるのか、新しい都市観の確立は環境問題をも加えて大きな関心の的となりつつある。本書は地図の読解を中心としながら世界71の巨大都市を地域的にも歴史的にも広く概観し、比較研究した都市地理学書である。都市計画関係者の必読書。　★B5判　価8000円

リモートセンシング

和達・土屋・江森・安田・飯坂・長尾編著　価 3800円

日本の衛星写真 人工衛星データの解析

丸安・土屋・中島・渡辺著　推薦：NASA　価 10000円

ホログラフィー入門

村田和美著　価 2900円

土木建築 基礎工学ハンドブック

村山朔郎・大崎順彦編　価 13000円

コンクリート工学ハンドブック

近藤泰夫・坂 静雄監修　価 10000円

衛生工学ハンドブック

大橋・久保・松本・合田・徳平・杉木編　価 18000円

排水設備ハンドブック（増訂版）

東京都下水道局排水設備研究会編　価 4500円

本誌名記入の上お申込次第総合目録進呈

朝倉書店
〒162 東京都新宿区新小川町2－10
電話(260)0141(代) 振替東京6-8673

Acid. (835~852) Anthonisen, A.C., et al.

247 Measurement of Metal Toxicity by Biochemical Oxygen Demand. (853~866) Mowat, A.

248 Distribution of Stream Pollution in Lake Water. (867~871) Tew, R.W., et al.

249 Characteristics of Klebsiella from Textile Finishing Plant Effluents. (872~879) Dufour, A.P., et al.

250 Phosphorus Transport in a Packed-Bed Reactor. (880~888) Overman, A.R., et al.

251 Least Cost Design of Activated Sludge Systems. (889~905) Middleton, A,C., et al.

252 Response of Activated Sludge to Quantitative Shock Loading (906~919) Krishnan, P., et al.

253 An Evaluation of Aqueous Phase Catalytic Oxidation. (920~933) Katzer, J.R., et al.

254 Efficiency of a Septic Tile System. (934~944) Viraraghavan, T., et al.

255 Ultrafiltration of Wool Scouring Effluents. (945~953) Pearson, A.J.C., et al.

256 A Comparison of Several Water Quality Indeves. (954~958) Landwehr, J., et al.

257 The Use of Carbon Dioxide in Sampling and Preserving Natural Leachates. (959~961) Korte, N.E., et al.

258 Alteration of Microbial Populations in Thermal Stress. (962~965) Guthrie, R.K., et al.

Jour. of Water Pollution Control Federation 48—6 76—6

259 Inorganics. (998~1037) Shuman, M.S., et al.

260 Water Characteristics. (1037~1042) Ghosh, M.M., et al.

261 Organics. (1042~1077) Chlan, E.S.K., et al.

262 Continuous Monitoring, Automated Analysis and Sampling Procedures. (1077~1086) Brezonik, P.L., et al.

263 Physical and Chemical Methods. (1086~1096) Scaramel, A.B., et al.

264 Biological Filters. (1096~1098) Bunch, R.L.

265 Activated Sludge. (1098~1107) Schroeder, E.D.

266 Lagoons and Oxidation Ponds. (1107~1110) O'Brlen, W.J.

267 Detergents. (1110~1115) Banerjl, S.K.

268 Anaerobic Processes. (1115~1137) Ghosh, S., et al.

269 Sludge Treatment, Utilization, and Disposal. (1137~1166) Dick, R.I.

270 Disinfection. (1166~1170) Hoadley, A.W., et al.

271 Wastewater Collection. (1170~1174) Singh, T., et al.

272 Water Reclamation and Reuse. (1174~1180) English, J.N., et al.

273 General Principles, Economics, and Conferences. (1180~1191) Tofflemlre, T.J.

274 Urban Runoff and Combined Sewer Overflow. (1191~1206) Field, R.

275 Instrumentation and Automation of Wastewater Collection and Treatment Systems. (1206~1217) Wise, R.H., et al.

276 Meat, Fish and Poultry Processing Wastes. (1217~1223) Litchfield, J.H.

277 Fruit, Vegetable, and Grain Processing Wastes. (1223~1229) Graham, J.L., et al.

278 Fermentation Industry—Sugar, Pharmaceuticals, Corn. (1229~1234) Germain, J.E., et al.

279 Paper and Allied Products. (1234~1263) Gove, G.W., et al.

280 Agricultural Wastes. (1263~1280) Jewell, W.J., et al.

281 Tannery Waste Management. (1280~1282) Eye, J.D.

282 Textile Wastes. (1282~1284) Talbot, R.S.

283 Coal and Coal Mine Drainage. (1284~1287) Boyer, J.F., et al.

284 Steel Industry Wastes. (1287~1293) Smith, D.W.

285 Petroleum Processing Wastes. (1293~1295) Hornung, W.L., et al.

286 Plating and Cyanide Wastes. (1295~1299) Torpy, M.F., et al.

287 Solid Wastes and Water Quality. (1299~1305) Heidman, J A., et al.

288 Radioactive Wastes. (1305~1311) Straub, C.P.

289 Diary Wastes. (1311~1313) Pico, R.F.

290 Chemicals and Allied Products. (1313~1318) Nelson, R.F., et al.

291 Freshwater Macroinvertebrates. (1318~1335) Ischinger, L.S., et al.

292 Eutrophication. (1335~1338) Welch, E.B.

293 Microbiology of Water. (1338~1356) Geldreich, E.E.

294 Bioassays—Procedures and Results. (1356~1366) Little, L.W.

295 Microbiology of Waste Treatment. (1367~1378) Unz, R.F.

296 Microbiology—Waterborne Outbreaks. (1378~1397) Craun. G.F.

297 Microbiology—Detection of Bacterial Pathogens and Their Occurrence. (1397~1410) Reasoner, D.J.

298 Microbiology—Detection, Occurrence and Removal of Viruses. (1410~1416) Berg, G.

299 Oxygen Sag and Stream Purification. (1417~1420) Neal, L.A., et al.

300 Pollution Effects on Surface Waters and Ground Waters. (1420~1433) Terry, R.D., et al.

301 Aquatic Sediments. (1433~1439) Powers, C.F., et al.

302 Marine and Estuarine Pollution. (1439~1459) Reish, D.J., et al.

303 Heavy Metals and Related Trace Elements. (1459~1486) Leland, H.V., et al.

304 Thermal Effects. (1486~1544) Coutant, C.C., et al.

305 Effects of Pollution on Freshwater Fish. (1544~1620) McKim, J.M., et al.

306 Mixing and Transport. (1620~1639) Ditmars, J.D.

Water & Wastes Engineering 13—3 76—3

307 There is Something New under the Sun. (18~22) Wilke, D.

308 New York Takes Another Giant Step. (24~26,28,48) Gerber, H.B., et al.

309 Oxygen, Other Innovations Help Lick Tough Waste Problem. (30~31,50) Safhay, M.

310 Many Changes Urged for PL 92~500. (34,36,39) Heckroth, C.

311 How High Will Utility Costs Climb? (41~44,46~47)

全巻特価予約募集・分冊特価予約募集（10冊以上）

あすの国土環境を創る——新しい発想に基づく土木工学

土木工学大系 全35巻

監修＝樋口芳朗・福岡正巳・八十島義之助　編集委員長＝高橋　裕

①土木工学概説／土木技術論　②自然環境論（I）／自然条件と開発保全　③自然環境論（II）／植生と開発保全　④自然環境論（III）／人文社会と開発保全　⑤連続体の力学（I）／基礎　⑥連続体の力学（II）／構造　⑦連続体の力学（III）／流体　⑧土質力学／土の力学的挙動と地盤の動力学　⑨材料工学（I）／総論　⑩材料工学（II）／基礎　⑪材料工学（III）／応用　⑫計画論　⑬景観論　⑭環境アセスメント　⑮設計論　⑯施工論　⑰プロジェクト・マネジメント　⑱国土調査論　⑲地域開発論（I）／地形と国土利用　⑳地域開発論（II）／社会経済と国土利用　㉑都市環境論　㉒国土計画　㉓都市および農村計画　㉔水資源　㉕交通（I）／輸送の計画　㉖交通（II）／施設の計画　㉗エネルギー開発　㉘環境衛生　㉙国土保全　㉚観光・レクリエーション計画　㉛土地開発　㉜橋　㉝ダム　㉞土構造　㉟海工システム（㉒～㉟ケーススタディ）

第一回配本好評発売中

⑰プロジェクト・マネジメント

執筆者＝赤木俊允・赤塚雄三・北村黎夫・渋谷　実・杉田美昭　横山義雄・吉田仁一

建設プロジェクトとして、オーナー、コンサルタンツ、コントラクターの三者が建設契約に基づいて、独自のエンジニアリング活動と経済活動を行なうとき、いかにして建設プロジェクトに要求される基本条件を満たすべきかを考察したものである。

●A5判・336頁／特価3060円（定価3400円）

第二回配本（11月5日の予定）

⑨材料工学（I）総論

執筆者＝西沢紀昭・波木　守

建設分野における「材料工学」の立場を、「材料」を軸とした「計画」「施工」との関係において考え、また、土木構造物または施設を機能要素に分解し、それと「材料」との関係を、具体的資料を用いて解説したものである。

●A5判・412頁／特価3690円（定価4100円）

予約〆切＝昭和51年11月30日（当日の消印有効）

●パンフレットは左記宛ご請求ください

彰国社＝東京都新宿区坂町25番地・〒160／電話03・359・3231

Water & Wastes Engineering 13—4 76—4

312 Who Says Sewage Treatment Plants Have to Be Ugly? (20~23) Dinges, W.R.

313 Nitrates : What's Happening in Britain? (26~28,30,48) Ray, W.

314 Standpipe is Built 'Upside Down'. (25,36) Wittenmyer, J.

315 House Is a Home for Pump. (35~36) Phillips, S.

316 Designing Microscreens? Here's Some Help. (41~42,44~45) Saffran, E.P. et al.

Water & Wastes Engineering 13—5 76—5

317 Big Intake is Coming to New Orleans. (20~23) Jackson, M.F.

318 AWT Energy Needs a Prime Concern. (24~26,77) Argo, D.G.

319 What's Best for Disinfection? (52~54,56) Gupta, K.B., et al.

320 PL 92~500 : Mid-course Corections Grant Options; Next Move up to Congress. (28~30,32) Heckroth, C.W.

321 Underlake Sewer Spurs Resort Development. (70,72) McDonald, N. et al.

322 Submerged Static Aerators : What are They All About? (37~40) Bennett, C., et al

323 Town Maintains Sewers Despite 'Sugar Sand'. (45,48) Venable, J.H.

324 How to Fathom Liquid Level Sensing. (58~60,62,64) Gardeen, J.A.

Water & Sewage Works 123—3 76—3

325 Rehabilitation Program Helps Restore Well Capacity. (70~71)

326 Canal Reduces Groundwater Extractions. (77~79)

327 Floating Covers Protect Reservoirs. (92~95) Rizzio, F.J.

328 Alum Sludge from Water Plant Conditions Sewage Sludge. (62~64) Hsu, D.Y.

329 Iowa Townspeople Install Their Own Water Meters. (60~61)

330 Potable Water Treatment : Technical and Economic Analysis Chapter 1. (80~83) Cheremisinoff, P., et al.

331 Sewer Cleaner Flushes out Acid. (65~65) Eadens, C.

332 Wastewater Plant Will Use No Chemicals for Sludge Conditioning. (68~69) Josti, J.

333 How to Design Aerated Lagoon Systems to Meet 1977 Effluent Standards Experimental Studies. (85~87) White, S.C. et al.

334 Evaluating Rotating Biological Contactor Performance. (88~91) Stover, E.L., et al.

335 Phenols a Water Pollution Control Assessment. (96~99) Rosfjord, R.E., et al.

336 Conditioning Improves Sludge Filterability. (72~76) El-Gohary, F.A.

337 Industrial Spills What Do You Do about Them? (84~84) Pagorski, A.D.

Water & Sewage Works 123—4 76—4

338 PL 92~500 Problems and Solutions (47~54)

339 Saving Money with Pre-pilot Plant Studies. (72~75) Bryant, E.A.

340 Potable Water Treatment : Technical and Economic Analysis Chapter 2. (66~68) Cheremisinoff, P.N., et al.

341 Water Utility "Wins" with Meter Replacement Program. (89~91) Lieding, R.

342 Good Maintenance is Important for Water Utilities. (79~79) Batchelor, R.B.

343 Emergency Planning for Water Utilities. (80~81)

344 Polyethylene Pipe Insertion Rehabilitates Old Sewers. (92~94) Prefer, E.H.

345 Ozone Provides Alternative for Secondary Effluent Disinfection Part 1. (76~78) Nebel, C., et al.

346 How to Design Aerated Lagoon Systems to Meet 1977 Effluent Standards Soluble Substrate Removal Relationships. (82~83) White, S.C. et al.

347 Mathematical Model Simplifies Design of Sludge Drying Beds. (64~65) Walski, T.M.

348 How to Build a Better Bench Sheet. (69~71) Clark, D. W.

349 Municipal Industrial Waste Program Nets $8.9 Million in Two Years. (84~88) Parkhurst, J.D., et al.

Water & Sewage Works 123—5 76—5

350 Colorado Pumping Station Reaches New Heights. (58~59)

351 An Automated Rapid Method for Measuring Fecal Pollution. (66~67) Moran, J.W., et al.

352 Radioactivity in Groundwaters. (80~81) Markwood, I.M. et al.

353 Laser Radiation Reduces Coliform Counts in Water. (52~53) Parker, J.G.

354 Potable Water Treatment : Technical and Economic Analysis Chapter 3. (70~73) Cheremisinoff, P.N., et al.

355 Calculating Pipe Friction Factor. (54~57) Barr, D.I.H.

356 Preventative Maintenance Systems. (86~87)

357 Municipal Water Supplies—Past, Present and Future. (92~92) Calmon, C.

358 Comparing Inflow and Infiltration. (68~69) Lutz, J.J.

359 Cleveland Mixes Methods in Sewer Construction. (90~91)

360 Technique Alternatives for a Package Stabilization Plant. (60~61) Li, E.C.C.

361 Sluice GatesHelp Regulate Hydraulic Flows. (77~79)

362 Ozone Provides Alternative for Secondary Effluent Disinfection Part 2. (82~85) Ronald, C.N. et al.

363 How to Design Aerated Lagoon Systems to Meet 1977 Effluent Standards System Design. (88~89) Rich, L.G. et al.

364 Hydrogen Peroxide Solves Sludge Odor Problem. (74~76) Miller, R.G.

365 Operation and Impact of NPDES in Region II. (62~65) Muszynski, W.J. et al.

Water Pollution Control 75—Part 2 76—4

366 The Disposal of Sewage from Coastal Towns : The Case for Treatment. (146~152) Whitaker, E.C.

367 The Disposal of Sewage from Coastal Towns : The Case for Sea Outfalls. (153~161) Calvert, F.T.

極低温領域でも高精度に測定できる

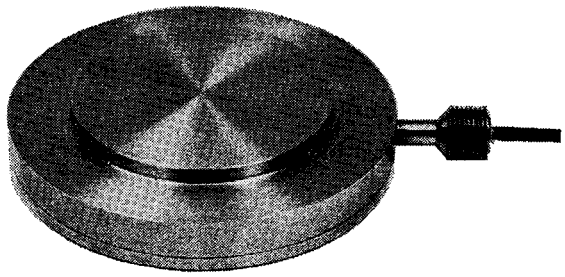
共和式土木用変換器　ひずみ計・鉄筋計・土圧計

極低温用の共和式土木用変換器は、専用のひずみゲージの開発をはじめ接着剤、起わい部コード等に、特に厳選した材料を使用していますので、極低温域まで安定した動作をします。これは他の方式の土木変換器では得られない、ひずみゲージ式のみのすぐれた特長です。極低温域での応力測定に最適なものとしておすすめいたします。



BS-25AS
極低温用ひずみ計

容　量……±1000×10^{-6}ひずみ
標点距離……250mm
保証温度範囲…−200〜+80°C
非直線性……2%FS

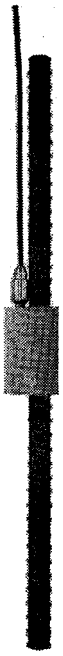


BE-J
極低温用土圧計

容　量……2、5kg/cm^2
受圧面直径……105φmm
保証温度範囲…−160〜+30°C

BF-AS
極低温用鉄筋計

容　量……応力±24000kg/cm^2
適応鉄筋……D22、D25、D32
保証温度範囲…−200〜+80°C
非直線性……1%FS
許容負荷……120%FS



●極低温用ひずみゲージKFL型(−200°Cまで)あります。

未来をひらく電子計測器メーカー
株式会社 共和電業

カタログお送りいたします。
本社またはもよりの営業所まで

本社・工場●〒182 東京都調布市調布ヶ丘3の5の1 電話＝0424-87-2111(大代)
東京営業所●〒105 東京都港区芝西久保明舟町19 電話＝03-502-3551(大代)
大阪営業所●〒540 大阪市東区森之宮東之町544(三双ビル) 電話＝06-942-2661(代)
名古屋営業所●〒464名古屋市千種区田代町字瓶杁1の57(東山大木ビル) 電話＝052-782-2521(代)
福岡営業所●〒812 福岡市博多区博多駅東2の5の20(松永ビル) 電話＝092-411-6744(代)
広島営業所●〒730 広島市東白島町5の9(くにまさビル) 電話＝0822-21-9536
札幌営業所●〒060 札幌市中央区南四条西9丁目(観光ビル) 電話＝011-261-7629
水戸営業所●〒310 水戸市上水戸2の6の5 電話＝0292-25-1074

368 Small Sewage Works that Function Satisfactorily. (162~175) Banks, D.H.

369 A Feasibility Study of the Control of Pollution from Industrial Waste Waters Discharged into the Lagoon of Venice. (176~191) Chalmers R.K. et al.

370 Evaluation of the CIRIA Prototype Model for the Design of Sewage-Treatment Works. (192~205) Bowden, K., et al.

371 Oxygen Activated-Sludge Systems—
I. Technical Review of the Use of Oxygen in the Treatment of Waste Water. (206~213) Boon, A.G.

372 II. UK Work on the Use of Oxygene in the Treatment of Waste Water, Associated with the CCMS Advanced Waste Water Treatment Project. (214~220) Banks, N.

373 III. Development in the Application of Oxygen in the Activated-Sludge Process in the Federal Republic of Germany. (221~226) Hegemann, W. et al.

374 IV. Treatment of Industrial Waste Waters Using Oxygen Activated-Sludge Systems in France. (227~237) Bebin, F.

375 The New National Industry : A Review. (238~243) Statt P.C.

376 Financing the Water Cycle. (244~256) Fenking, R.C.

377 The Local Authority Agency Function for Sewerage. (257~265) Redknap, B.V., et al.

378 The Reorganization of Water Services in Scotland : Water and Sewage. (266~271) Greer, W.T.

379 The Reorganization of Water Services in Scotland : Rivers. (272~285) Woodward, G.M.

Water Pollution Control 75—3 76—5

380 Some Recent Research and Development in the Field of Industrial Effluent Treatment. (299~310) Wheatland, A.B., et al.

381 Operating Experiences at the City and Royal Burgh of Perth's Sewage-Treatment Works. (311~321) McLeod, I.

382 Pollution of the River Tyne Estuary—The Use of Mathematical Models. (322~340) Fames, A.

383 Experimental Purification Lakes on the River Tame. (341~352) Clayfield, G.W., et al.

384 Practical Aspects of Primary Lime Treatment. (353~359) Walton, E.

385 The Application of Static Column Tests to Sedimentation Tank Design. (360~376) Clements. M.S·

386 Air Pollution in Sewerage and Sewage Treatment. (377~389) Matthews, P.F.

387 Small Sewage Works that Function Satisfactorily. (390~392) Banks, D.H.

Proc. of A.S.C.E., 102—HY 1 76—1

388 Wastewater Disposal by Submerged Manifolds. (1~14) Liseth, P.

389 Estimating Stock Water Use in Rural Water Systems. (15~28) Schulz, R.S. et al.

390 Menabrea's Note on Waterhammer : 1858 (29~39) Anderson, A.

391 Skin Friction in Unsteady Laminar Pipe Flow. (41~56) Letelier, M.F. et al.

392 Hydraulic Performance of Tilting-Disk Check Valves. (57~72) Kane, R.S., et al.

393 Discharge Equations for HS, H and HL Flumes. (73~88) Gwinn, W.R.

Proc. of A.S.C.E., 102—HY 2 76—2

394 Perforated-Pipe Water Intake for Fish Protection. (139~149) Richards, R.T. et al.

395 Upstream Flood Lowering in Reservoirs. (151~170) Buehler, B.

396 Dimensionless Solution of Dam-Break Flood Waves. (171~184) Sakkas, J.G., et al.

397 Simulation of Hydraulic Processes in Open Channels. (185~200) Chiu, C.L., et al.

398 Channel Flow Over Permeable Beds of Graded Spheres. (207~222) Zagni, A.F.E. et al.

Proc. of A.S.C.E., 102—HY 3 76—3

399 One-Dimensional Temperature Predictions in Unsteady Flows. (227~240) Brocard, D.N.

400 Flood Estimation from Short Records. (241~253) Boughton, W.C.

401 Numerical Prediction of Thermal-Regime of Rivers. (255~294) Paily, P.P., et al.

402 Climatological Estimates of Evapotranspiration. (275~291) Morton, F.I.

403 Transient Aquifer Flows by Characteristics Method. (293~305) Wylie, E.B.

404 Flow Resistance in Broad Shallow Grassed Channels. (307~322) Chen, C.

405 Finite Element Model for Cohesive Sediment Transport. (323~338) Ariathurai, R., et al.

406 Pressure Fluctuations in Submerged Jump. (339~350) Narasimhan, S., et al.

407 Three-Dimensional Pollutant Modeling in Shear Flow. (351~365) Yeh, G.T.

408 Computation of Tidal Flow in Well-Mixed Estuaries. (367~377) Pearson, C.E., et al.

409 Radial Dispersion through Adsorbing Porous Media. (379~396) Prakash, A.

410 Suppression of Waves in Slotted-Walled Channel. (397~409) Binnie, A.M.

Proc. of A.S.C.E., 102—PO 1 76—1

411 Thermodynamic Models of Dry-Wet Cooling Towers. (1~19) Croley II, T.E., et al.

412 Dry-Wet Tower Evaporation and Fog Psychometrics (21~33) Croley II, T.E., et al.

413 Three-Dimensional Analysis of Hydroelectric Power Station. (35~52) Nigam, P.S., et al.

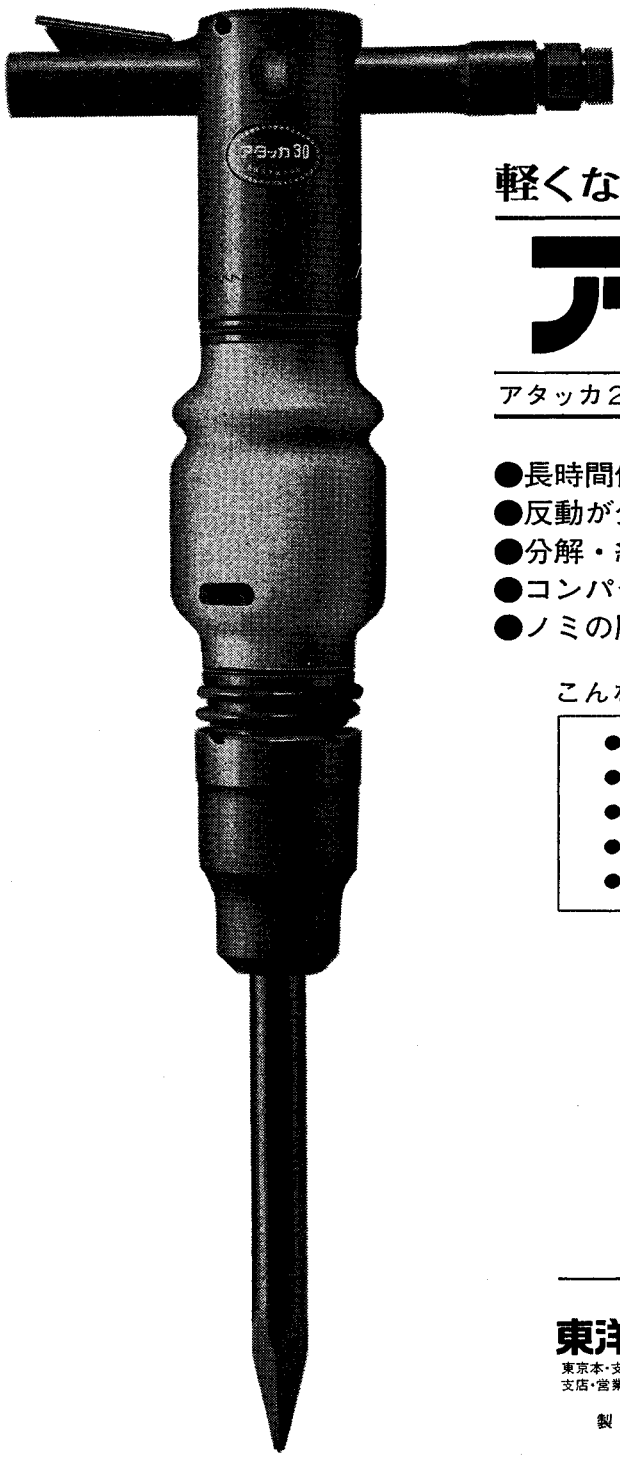
414 Runner Diameter of Tubular Turbines. (53~61) Heinemann, E., et al.

415 Integrated River System Operation in a Major Flood. (63~80) Cooper, A.J., et al.

416 Impact Assessment of Power Plants. (81~94) Hagerty, D.J., et al.

417 Stresses in Concrete around Spiral Case. (95~111) Nigam,

らくらくブレーカー



軽くなって、ますます能率向上

アタッカ

アタッカ２０・アタッカ３０の２機種あります。

- ●長時間使えるオイラー内蔵式
- ●反動が少ないダイレクトフローバルブ付
- ●分解・組立ての楽なクラッチ式
- ●コンパクトな軽量マフラー
- ●ノミの脱着が楽なスプリングクランク式

こんな現場でアタックしてください

- ●狭い場所・足場の悪い場所
- ●壁面の破砕
- ●高所・梁上での破砕
- ●アスファルト道路の切り破り
- ●建造物・基礎の取りこわし

TOYO
ROCK DRILL

発売元
東洋さく岩機販売株式会社
東京本・支店：東京都品川区東五反田1丁目13-12(秀和五反田ビル)
支店・営業所：大阪・名古屋・福岡・札幌・仙台・広島・高松

製造元 **東洋工業株式会社**

P.S., et al.

418 Seismic Qualification—Philosophy and Methods. (113~120) Roberts, C.W., et al.

419 Vertical Seismic Response Spectra. (121~141) Rizzo, P.C., et al.

Proc. of A.S.C.E., 102—WW 1 76—2

420 Numerical Computation of Two-Dimensional Flows, (1~12) Grubert, J.P.

421 Oregon Coast Shoreline Changes Due to Jetties. (13~30) Komar, P.D., et al.

422 Energy Dissipation on a Rough Slope. (31~48) Madsen, O.S., et al.

423 Transverse Forces on Vertical Cylinders in Waves. (49~60) Isaacson, M.Q., et al.

424 Wind-Driven Flow of Water Influenced by a Canopy. (61~77) Reid, R.O., et al.

425 Volume and Strength of a Dolos. (79~88) Desai, H.C.

Proc. of A.S.C.E., 102—WW 2 76—5

426 Gravity Waves Propagated over Permeable Bottom. (111~121) Massel, S.R.

427 Thermal Analysis of Frozen Embankment Islands. (123~139) Bafus, G.R. et al.

428 Parameters Affecting Stability of Rubble Mounds. (141~164) Bruun, P., et al.

429 Interaction of Water Waves with Cylinder Barrier. (165~187) Massel, S.R.

430 Remote Sensing of Mississippi River Characteristics. (189~202) Ruff, J.F., et al.

431 Wave Forces on Vertical Circular Cylinder. (203~221) Chakrabarti, S.K., et al.

432 Increasing the Mean Current in Coastal Channels. (223~234) Kreeke, J.

433 Coastal Dispersion of Pollutants. (235~254) Zeidler, R.B.

434 Wave-Induced Mass Transport in Water Waves. (255~264) Dalrymple, R.A.

Proc. of A.S.C.E., 102—WW 3 76—8

435 Sinkage and Resistance for Ships in Channels. (287~300) McNown, J.S.

436 Forces due to Nonlinear Waves on Vertical Cylinders. (301~316) Raman, H., et al.

437 Similitude in Coastal Engineering. (317~335) LeMéhauté, B.

438 Economic Role of the Waterway in Western Europe. (337~346) Marchal, M.

Proc. of A.S.C.E., 102—IR 1 76—3

439 Operation and Maintenance of Irrigation and Drainage Systems : Section Ⅳ.—Maintenance (1~107) the Committee on Operation and Maintenance of Irrigation and Drainage Systems of the Irrigation and Drainage Division.

440 Intercontinental Comparison of Evaporation Estimates. (109~118) Burman, R.D.

441 Quantitative Assessment of Changes in Urban Runoff. (119~125) Cech, I., et al.

442 Infiltration into Increasingly Permeable Soils. (127~136) Bouwer, H.

443 Estimating Seepage Losses from Canal Systems. (137~147) Worstell, R.V.

444 Evaluation of Nonuniformity in Irrigation and Yield. (149~164) Varlev, I.

Proc. of A.S.C.E., 102—IR 2 76—6

445 Water Movement in Soil from Trickle Source. (179~192) Hachum, A.Y., et al.

446 Transient Drainage with Nonlinearity and Capillarity. (193~204) McWhorter, D.B., et al.

447 Water Quality and Aquitard Permeability. (205~220) Hardcastle, J.H., et al.

448 Saturated and Unsaturated Flow to Parallel Drains. (221~238) Skaggs, R.W., et al.

449 Solutions to Green-Ampt Infiltration Equation. (239~248) Li, R.M., et al.

450 Aqueduct Optimization with Intermediate Storage. (249~264) Sathaye, J., et al.

Proc. of A.S.C.E., 102- EE 1 76—2

451 Land Use and Water Quality in New York Rivers. (1~15) Haith, D.A.

452 Laboratory Evaluation of Polymeric Flocculants. (17~28) Benedek, A., et al.

453 Persistence of Virus on Sewage-Irrigated Vegetables. (29~35) Larkin, E.P., et al.

454 Design of Integrated Approach to Nutrient Removal. (37~54) Eisenhauer, D.L.

455 Influence of Activated Sludge CRT on Adsorption. (55~70) Kim, B.R., et al.

456 Land-Use Model for Service Area Projection. (71~85) Meier, P.M.

457 Solution for Radial-Flow with Nonlinear Adsorption. (87~94) Gupta, S.P., et al.

458 Shooting Models for Salinity and Coliform. (95~109) Olufeagba, B.J., et al.

459 Models for Evaluation of Hazardous Wastes. (111~125) Klee, A.J.

460 Segmented Population Model of Primary Productivity. (127~138) Slawson, Jr., G.C., et al.

461 Practical Refuse Recycling. (139~148) Walter, C.E.

462 Two-Dimensional Mathematical Water Quality Model. (149~163) Williams, B.J., et al.

463 Optimization of Evaporation Pond Cost. (165~173) Mehrotra, S.C.

464 Performance of Single Household Treatment Units. (175~189) Otis, R.J.

465 Large-Scale Estuarine Water Quality Matrix Model. (191~209) Penumalli, B.R., et al.

Proc. of A.S.C.E., 102—EE 2 76—4

466 Phosphate Release and Sorption by Lake Mohegan Sediments. (239~249) Fillos, J., et al.

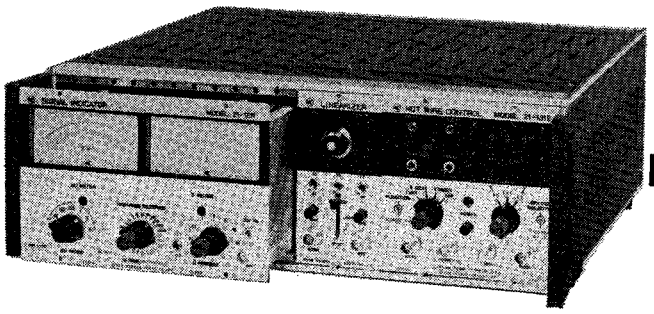
467 Optimizing Flocculator Power Input. (251~263) Andreu-Villegas, R., et al.

468 Distributions of BOD and DO in Rivers and Lakes. (265~280) Banks, R.B.

469 Energy Recovery from Refuse.—State-of-the-Art. (281~300) Payne, J.

空気、ガス、液体……の

平均流、乱流測定に。



平均流速の測定から乱流強度の測定、２方向性乱流成分の測定、相関係数の測定など、巾広い測定領域をカバーします。プローブと組み合わせて、流速―電圧の変換器の働きをするコントロールユニット、不必要な信号を除去するハイパス・ロウパスフィルタ内蔵の指示計ユニット、係数が自由に選べるリニアライザユニット、最大6コのプローブを接続することができるプローブセレクタユニット、温度補償ユニット、演算器ユニット、電源・ケースユニットなど、それぞれユニットの組み合わせで使用できるようにしています。

標準仕様

測定対象　液体流・気体流の平均流速・乱流値・温度変化
周波数応答　50KHz(5$\mu\phi$タングステンプローブ使用時)
雑音　1KHz帯域幅:0.1mV R.M.S
ブリッジ比　1：1、1：20、1：100
出力電圧　20V（MAX）

その他　リニアライザ、シグナルインディケータ、電源・ケース、コントロール、の各ユニットに分化など数10種類を用意しています。

熱線流速計 21-1000ser.

KANOMAX
日本科学工業株式会社

本社・工場／大阪営業所
大阪府吹田市清水２番１号 〒565 TEL 大阪(06)877-0443(代)
東京営業所
東京都千代田区１番町９番地 〒102 TEL 東京(03)265-4861(代)
名古屋営業所
名古屋市中区大須4-1-71(時計ビル) 〒460 TEL 名古屋(052)241-0535

470 Pollutional Analysis of Combined Sewer Systems. (301~312) Lindholm, O.G.

471 Simplified Optimization of Water Supply Systems. (313~327) Rasmusen, H.J.

472 Is Undergraduate Environmental Engineering Education Desirable? (329~336) Purdom, P.W.

473 Population Balance Use in Dilute Impurity Problems. (337~346) Stevens, J.D. et al.

474 Evaluation Strategies of Metal Pollution in Oceans. (347~359) Chen, K.Y. et al.

475 Cost and Pricing Relationships in Water Supply. (361~373) Clark, R.M.

476 Disease Risks of Occupational Exposure to Sewage. (375~388) Clark, C.S., et al.

477 Water Quality Effects of a Dredging Disposal Area. (389~409) Krizek, R.J. et al.

478 Sanitary Landfill Leachates and Their Treatment. (411~431) Chian, E.S.K.

479 Statistical Study of Phosphorus Removal in Wisconsin. (433~447) David, M.H., et al.

480 Nitrifying Organism Concentration and Activity. (449~463) Srinath, E.G., et al.

481 Longitudinal Dispersion Coefficients for Streams. (465~474) Jain, S.C.

482 Effluent Irrigation of Rye and Ryegrass. (475~483) Overman, A.R., et al.

Proc. of A.S.C.E., 102—EE 3 76—6

483 Role of Eddy Diffusivity in Thermocline Formation. (517~531) Henderson-Sellers, B.

484 Characteristics of Rural Household Wastewater. (533~548) Siegrist, R., et al.

485 Environmental Health Impact Assessment. (549~554) Morris, S.C., et al.

486 Nonpoint Sources of Pollution : A Federal Perspective. (555~565) Pisano, M.A.

487 Water to Air Bacterial Transfer by Bursting Bubbles. (567~570) Wozniak, D., et al.

488 Dispersion of Pollutants in Automobile Wakes. (571~580) Lane, D.D., et al.

489 Water Reclamation : Technology and Public Acceptance. (581~594) Stone, R.

490 Discounted Cash Flow Analysis to Select Equipment. (595~611) Briller, R.

491 Equalization of Time Variable Waste Loads. (613~625) Novotny, V. et al.

492 Measured Versus Predicted Air Quality Near Highways. (627~643) Miller, T.L., et al.

493 Decision Criteria in Solid Waste Collection. (645~655) Ouano, E.A.R., et al.

494 Optimal Activated Sludge Design under Uncertainty. (657~673) Tarrer, A.R., et al.

495 Fate of Metals in Wastewater Discharge to Ocean. (675~685) Rohatgi, N.K., et al.

——交通・道路・都市計画・トンネル——

Proc. of A.S.C.E., 102—TE 1 76—2

496 Design of Transit Structures for Urban Areas. (1~16) Hammond, D.G., et al.

497 Economic Measure of Benefits of Transportation. (17~26) Brotchie, J.F.

498 Transportation Energy Considerations. (27~45) French, A.

499 Gate-Arrival Terminals—Solution for Air Cargo? (47~60) Neufville, F.C.R.

500 Roadside Slope Design for Safety. (61~74) Marquis, E.L., et al.

501 Access Control on Arterial Highways. (75~90) Glennon, J.C., et al.

502 Processing Variable Forms for Travel Estimation. (91~104) Yu, J.C., et al.

503 Use of Finite Element Analyses for Railcar Design. (105~116) Dennis, M.J.

504 Measuring Watershed Land-Use Changes with Airphotos. (117~129) Stafford, D.B., et al.

505 State-of-the-Art of Ballastless Track at-Grade. (131~145) Wheeler, W.L.

506 Factors Affecting Reliability of Urban Bus Services. (147~159) Sterman, B.P., et al.

507 An Algorithm for Route Deviation Service. (161~176) Lung, S.T.L., et al.

Proc. of A.S. C.E., 102—TE 2 76—5

508 High-Temperature Drying of Thick Concrete Slabs. (185~200) Mehta, H.C., et al.

509 I-70 Glenwood Canyon—Design Concept. (201~213) Looper. J.H.

510 Entropy Model and Intercity Modal Split in UK. (215~228) Leake, G.R., et al.

511 The Resurgence of Light Rail Transit. (229~242) Lenow, M.

512 Traffic Generation from Land Development Proposals. (243~254) Sharma, S.C., et al.

513 Effect of Energy Shortage and Land Use on Auto Occupancy. (255~270) Behnam, J., et al.

514 Regional Transport Development and Economic Growth. (271~290) Brewer, K.A., et al.

515 Cable-Stayed Versus Classical Suspension Bridge. (291~311) Podolny, Jr. W.

516 Airport Upgrading Versus Landing Gear Optimization. (313~329) Griffis, Jr. F.H., et al.

517 Cost Effectiveness Maintenance-Management Systems. (331~346) Shofner, G.N.

518 Bicycle Accidents in the City of Milwaukee. (347~362) Abou-Loghd, Z.

519 Structural Design of Space Telescope. (363~375) Arnts, Jr., G.W.

520 Contribution to Selection of Railroad Ballast. (377~394) Gaskin, P.N., et al.

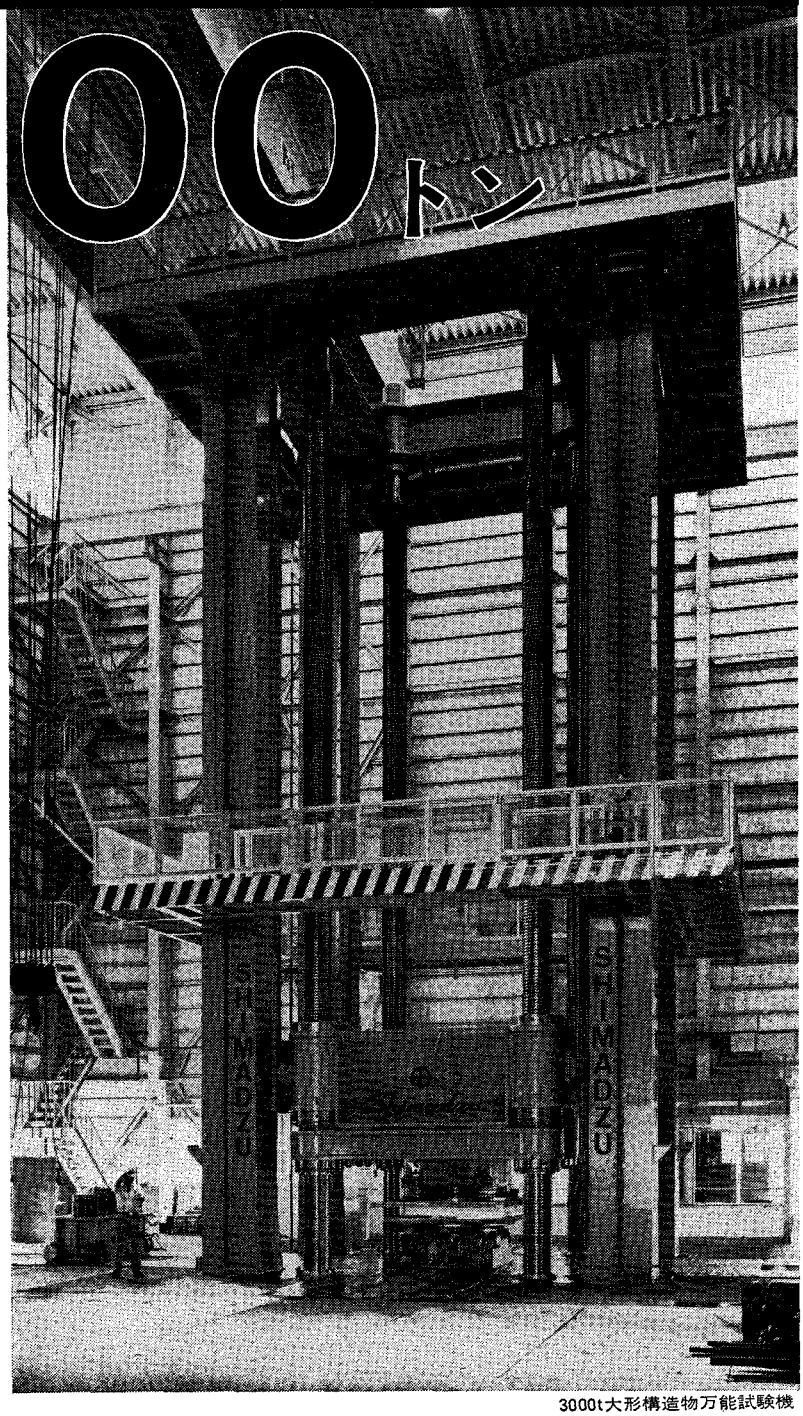
521 Modeling Social Impacts of Urban Highways. (395~410) Colony, D.C., et al.

522 Transportation, Land Use, and Air Quality Programs. (411~425) Dare, C.E.

523 High-Accident Spot-Improvement Program. (427~445)

島津3000t大形構造物万能試験機

3000トン



3000t大形構造物万能試験機

橋りょう，構造物などの巨大化，複雑化に伴い，その安全性は，大形部材の実物試験によって実証されることが必要です。島津3000t大形構造物試験機は，わが国最大，世界有数の規模をもつもので，工学的，社会的，経済的に果たす役割は大きいと確信いたします。

おもな仕様

容　　量
圧縮3000tf，引張1000tf

形　　式
複数シリンダ，内圧計測方式

主柱間隔
3×3m

圧盤間隔
最長10m

偏心荷重
最大許容値1000tf×200mm

曲げスパン
20m(X方向)，8m(Y方向)

曲げモーメント
正曲げ3000tf・m，逆曲げ1500tf・m

プログラム制御
1) ディジタル変位制御
2) 荷重一変位 交換制御
3) 圧盤平行負荷制御

島津製作所
精機事業部
603 京都市北区紫野西御所田町1 (075)431-2111
●お問合せはもよりの営業所へ　東京 296−2209(大学，官公庁担当)・296−2217(会社担当)／大阪 373−6607／福岡 271−0331／名古屋 562−3571／広島 48−4311
京都 251−2845／札幌 231−8811／仙台 21−6231／神戸 331−9661／大分 36−4226

Agent, K.R.

Proc. of A.S.C.E., 102—TE 3 76—8

524 Demand Model for Bus Network Design. (451~460) Hsu, J., et al.

525 Air Passenger Handling Facilities : Future Planning-Design Impacts. (461~474) the Committee on Terminal Facilities of the Air Transport Division

526 Remote Sensing of Turbidity Plumes in Lake Ontario. (475~488) Pluhowski, E.J.

527 Competition in the Transportation Industry. (489~505) Clark, D.M., et al.

528 Apparel-Goods Movement Process. (507~524) Kahan, S. et al.

529 Two-Dimensional Logit Modal Split Model. (525~536) Cherwony, W., et al.

530 Satellite Observations of Water Quality. (537~554) Harris, G.P., et al.

531 Sensitivity of Trip Distribution to Subarea Focusing. (555~569) Nihan, N.L., et al.

532 Public Response to Carpooling Programs. (571~583) Kidder, A.E., et al.

533 Urban Travel Demand Models with Competitive Modes. (585~598) Ossenbruggen, P.J., et al.

Proc. of A.S.C.E., 102—UP 1 76—8

534 The Changing Scene. (3~7) Nelson, H.E.

535 National Land-Use Policy : Is it Needed? (9~13) Dreyfus, D.A.

536 Intergovernmental Guidance of Land Use and Growth. (15~23) McDowell, B.D.

587 Changes in the Private Sector. (25~27) Stahl, D.

538 Changes in Socioeconomic Considerations. (29~33) Lewis, W.E.

539 Integrating Evaluation at the Project Scale. (35~39) Voorhees, A.M.

540 An Issue-Based Land-Use Planning Process. (41~47) Lockwood, S.C.

541 Developing Alternative Futures. (49~68) Courtney, J.M.

542 Economic and Social Issues of Our Cities. (69~72) Hammer, P.

543 Land-Use and Growth Management—A Comment for Professionals. (73~79) Scott, R.

544 Water—An Element of Land-Use and Urban Growth Policies. (81~94) Walker, W.R., et al.

545 Air Quality Management through Land-Use Measures. (95~103) Venezia, R.A.

546 Evaluating Economic and Energy Consequences of Land-Use Decisions. (105~110) DeVoy, R.S.

547 Social Evaluation of Land-Use Controls. (111~115) Lusting, M.

548 Integrated Evaluation Programs. (117~124) Hand, I.

549 Integrated Evaluation from a Regional Perspective. (125~136) Rodgers, J., et al.

550 Integrated Evaluation Programs for Fairfax County, Va. (137~145) Reid, J.

551 Summary of Land-Use Policy Papers. (147~155) Notess, C.B.

552 Modeling of Health Care Delivery. (157~170) Hwang, J.W., et al.

553 Masjid (Mosque) Planning. (171~176) Hussain, A.

554 Masjid (Mosque) Designing. (177~185) Hussain, A.

555 Multiple Criteria Theory and Airport Site Evaluation. (187~199) Jarvis, J.J., et al.

556 Use of an EIR Process in Controlling Urban Sprawl. (199~212) Brodersen, R.M., et al.

557 Water Supply Economics. (213~224) Clark, R.M.

558 Public Acceptance of New Mass Transit System. (225~234) Trent, R.B., et al.

Highways and Road Construction International 44—1796 76—4

559 Lean Concrete roadbases, Part II. (4~7~9~11)

560 Boughton Bypass. (11~11)

561 Liskeard Bypass. (12~13)

Public Roads 39—4 76—3

562 Highways and the Bioenvironment. (137~141) Wood, L.E., et al.

563 The Bridge Deck Problem—An Analysis of Potential Solutions. (142~147) Hay, R.E.

564 Road Roughness Measurement and Its Applications. (148~153) Balmer, G.G.

565 A New Approach to Pavement Design. (154~) Kenis, W., et al.

566 Does Voltage Measurement Detect Salt Corrosion of Concrete Reinforcing Steel? (158~) Berman, H.A. et al.

567 Highway Design for Motor Vehicles—A Historical Review Part 5 : The Dynamics of Highway Curvature. (163~171) Cron, F.W.

Public Roads 40—1 76—6

568 Surface Impregnation of New Concrete Bridge Decks (1~5) Smoak, W.G.

569 Breakaway Barricades. (6~8) Miller, A.S.

570 Highway Design for Motor Vehicles—A Historical Review Part 6 : Development of a Rational System of Geometric Design. (9~18) Cron, F.W.

571 Right Turn on Red. (19~31) McGee, H.W., et al.

572 Driver Expectations at Freeway Lane Drops. (32~35) Roberts, K.M., et al.

573 Twenty-two Nations Working Together in Highway Research. (36~43) Horn, B.E., et al.

Tunnels & Tunnelling 18—3 76—3,4

574 Fast Finish for Dubai Tunnel. (22~23)

575 Tunnelling Harmony. (31~31)

576 Some Reservations on the Use of Shotcrete. (40~41) Selmer-Olsen, R.

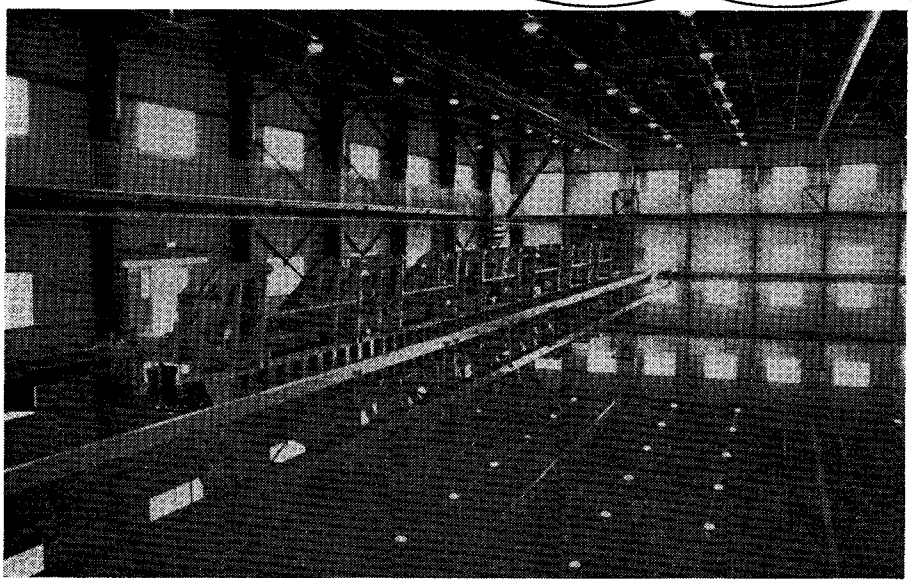
577 Innovations at Seikan. (47~50)

578 The Effects of Stop-Go Policy on the Tunnelling Industry. (75~80)

579 Early History of Sapper Tunnelling. (83,85,87)

580 Immersed Tubes. (91~95,97~98) Culverwell, D.R.

水理実験装置・機器



★造波装置（規則波および不規則波）

平面水槽および二次元水路用各型式の造波機を製作しています。

特　長

1. 特に平面大型造波機は造波板長を２連～６連式に分割し、これらの単独運転および同期運転等を行い位相差等にて波の向きを変えることが可能です。

2. 不規則波造波機は、制御およびデータ処理用としてコンピューターシステムを採用しています。

3. 運転、速度設定、振幅可変等はすべてリモコン操作しています。

★その他主な実験用装置として次のものを製造販売しております。

1. 二次元可変勾配水路
2. 二次元回流型拡散水槽
3. 起潮装置
4. 往復流発生装置
5. 振動流水槽
6. 落下実験用水槽
7. 採水装置（拡散実験用）
8. 測定用台車（造波水槽および拡散水槽用）
9. 自動ゲート
10. 各種測定機器

★主な納入先　電力中央研究所・建設省・通産省・運輸省・農林省・水資源開発公団・各大学関係・建設技術研究所・日本港湾コンサルタント・各企業研究所・会社研究所

製造元 **興和精機株式会社**

本　社　〒332 埼玉県川口市前川町２－2038－５
電話（0482）66－1483
浦和工場　〒336 埼玉県浦和市大字山久保之上峰403
電話（0488）52－0198
水理機械テストプール　浦和工場内

販売元 **日製産業株式會社**

機械電機部
〒105 東京都港区西新橋2－15－12 日立愛宕ビル
電話(03)503－2311(大代)