Special Section

Contents, Vol. 22, 1988

No. 1
1 Editorial

Basic Sciences

Apparent Synergism between the Interaction of Saccharin, Acesulfame K, and Fluoride with Hexitol Metabolism by Streptococcus mutans
Brown AT, Best GM  2

Effect of Sucrose Concentration in Saliva after a Sucrose Rinse on the Hydronium Ion Concentration in Dental Plaque
Lindfors B, Lagerlöf F  7

Kinetic and Physical Aspects of Enamel Remineralization - A Constant Composition Study
White DJ, Chen WC, Nancollas GH  11

Effect of Timing of Fluoride Treatment on Enamel De- and Remineralization in vitro: A pH-Cycling Study
ten Cate JM, Timmer K, Shariati M, Featherstone JDB . 20

Reactivity of Fluoride Dentifrices with Artificial Caries. II. Effects on Subsurface Lesions: F Uptake, F Distribution, Surface Hardening and Remineralization
White DJ  27

Influence of the Temperature of Extraoral Immersions in the Intraoral Cariogenicity Test Model Effect on the Demineralization of Enamel and on the pH
van Strijp AJP, ten Brink B, Theuns HM  37

A Novel Replica Technique for Localization of Caries-Associated Bacteria on Tooth Surfaces: Development and Initial Experience (Short Communication; with 1 color plate)
Rosenberg M, Weiss E, Eli I  42

Basic Sciences

Effect of Sodium Fluoride, Stannous Fluoride, Amine Hydrofluoride and Sodium Monofluorophosphate on the Formation of Precipitates Adhering to Bovine Enamel
Duschner H, Uchtmann H  65

Etching Behaviour of Bovine Enamel after the Formation of Precipitates Adhering to the Surface
Duschner H, Uchtmann H  72

No. 2
Clinical Science
Long-Term Exposure of Plaque to Zinc Citrate
Jones CL, Stephen KW, Ritchie JA, Huntington E, Saxton CA, van der Ouderaa FJG 84
Abstracts
Abstracts of Papers Presented at the 34th ORCA Congress
Budapest, Hungary, July 8-11, 1987 91
No. 3
Clinical Science
Constant Proportion of Decayed Teeth in Adults Aged 25, 35, 50 and 65 Years in a High-Caries Area
Tervonen T, Ainamo J 45
Caries Experience in the Primary Dentition of Nursery School Children in Dar es Salaam, Tanzania
Kerosuo H, Ngassapa D, Kerosuo E, Ranta K 50
Collaborative WHO Xylitol Field Study in French Polynesia. I. Baseline Prevalence and 32-Month Caries Increment
Kandelman D, Bar A, Hefti A 55
Announcements 63
Acknowledgements to Referees 64
Basic Sciences
Availability of Fluoride at Different Sites in the Buccal Sulcus
Weatherell JA, Strong M, Ralph JP, Robinson C 129
Patterns of Fluoride Distribution on the Surface of a Tooth Fragment after Clinical Treatment with Fluoride Gel
Athanassouli T, Strong M, Panagopoulos H, Weatherell JA 134
Effect of Sodium Lauryl Sulfate on the Deposition of Alkali-Soluble Fluoride on Enamel in vitro
Barkvoll P, Rolla G, Lagerlöf F 139
Evaluation of the Effects of F in Acidified Gelatin Gel on Root Surface Lesion Development in vitro
Feagin FF, Graves CN 145
Contents III
Fluoride Uptake in vivo by Artificial Caries Lesions in Root Surface Dentin from Sodium Monofluorophosphate Dentifrices (Short Communication)
Sanchez M, Mellberg JR 150
Determination of Mineral Changes in Human Dental Enamel by Longitudinal Microradiography and Scanning Optical Monitoring and Their Correlation with Chemical Analysis
Increased Permeability of Enamel to Iodide Ions following the Ingestion of Cookies Varying in Sucrose or Fat Content Kashket S, Brudevold F, Yaskell T, Makonnen M ... 193
Demineralization Potential of Different Concentrations of Gelatinized Wheat Starch Brudevold F, Goulet D, Attarzadeh F, Tehrani A 204
A Method to Assay Fluoride in Foods, Beverages, and Diets Lopez H, Navia JM 210
Glycogen Synthetic and Degradative Activities by Actinomyces viscosus and Actinomyces naeslundii of Root Surface Caries and Noncaries Sites Komiyama K, Khandelwal RL, Heinrich SE 217
Streptococcus mutans Counts Obtained by a Dip-Slide Method in Relation to Caries Frequency, Sucrose Intake and Flow Rate of Saliva Seppä L, Pöllänen L, Hausen H 226
Optical Quantitation of Natural Caries in Smooth Surfaces of Extracted Teeth Brinkman J, tenBosch JJ, Borsboom PCF 257
Effect of Topical Fluoride Treatments on Fluoride Distribu- tion during in vitro Caries-Like Lesion Formation Clarkson BH, Hansen SE, Wefel JS 263
Comparison of Lycasin® versus Sucrose Sweets in Demineralization Studies of Human Enamel and Hydroxylapatite Grenby TH, Saldanha MG 269
Amylolytic Breakdown of Lycasin® Compared with Other Carbohydrate Derivatives Grenby TH, Bull JM 276
Bactericidal Efficacy of Metronidazole against Bacteria of Human Carious Dentin in vitro Hoshino E, Kota K, Sato M, Iwaku M 280
Ultrastructure, Growth, and Adherence of Streptococcus mu- tans after Treatment with Chlorhexidine and Fluoride Meurman JH 283
Dental Effects of Lycasin® in the Diet of Laboratory Rats Grenby TH 288
Effect of Long-Term Isoproterenol Treatment on Caries Development in the Rat Using a Low-Cariogenic Model
Ryberg M, Johansson I, Mörnstad H, Ericson T  297

IV

Contents

Clinical Science
In vivo Progress of Enamel and Root Surface Lesions under Plaque as a Function of Time
Øgaard B, Rølla G, Arends J  302
Retention of Topical Fluoride in the Mouths of Xerostomic Subjects
Billings RJ, Meyerowitz C, Featherstone JDB, Espeland MA, Fu J, Cooper LF, Proskin HM  306
Caries Prevalence and Length of Residency in Fluoridated and Non-Fluoridated Communities
Clovis J, Hargreaves JA, Thompson GW 311
Dental Plaque Fluoride Is Lower after Discontinuation of Water Fluoridation (Short Communication)
Nobre dos Santos M, Cury JA 316
Caries Incidence and Prevalence in Children Receiving Anti-neoplastic Therapy (Short Communication)
Pajari U, Larmas M, Lanning M 318

No. 6

Basic Sciences
Mineral and Protein Concentrations in Enamel of the Developing Permanent Porcine Dentition
Suitability of Human, Bovine, Equine, and Ovine Tooth Enamel for Studies of Artificial Bacterial Carious Lesions
Edmunds DH, Whittaker DK, Green RM 327
Effect of an Anticalculus Dentifrice on Lesion Progression under pH Cycling Conditions in vitro
Featherstone JDB, Shariati M, Brugler S, Fu J, White DJ 337
Monobacterial and Mixed Bacterial Plaques of Streptococcus mutans and Veillonella alcalescens in an Artificial Mouth: Development, Metabolism, and Effect on Human Dental Enamel
Noorda WD, Purdell-Lewis DJ, van Montfort AMAP, Weerkamp AH 342
Comparison of in vitro Demineralization of Enamel Sections and Slabs (Short Communication)
Strang R, Damato FA, Stephen KW 348
Effect of Orthophosphates and Citrates in Fluoride Tooth pastes on Plaque pH (Short Communication)
Duke SA, Reading JP, Jackson RJ 350

Animal Study