

Subject Index

- Acacia gum,
electrophoretic mobility, 212
hydrodynamic diameter, 212
- Acacia gum,
lactoglobulin / mixtures, 211-222
phase diagram, 213
interfacial behaviour, 213-215
- AFM images, interfacial, 371-374
- AFM imaging, 369
- AFM topography images,
lactoglobulin films, 387-393
- Agarose, shear moduli, 86-92
- Agrobacterium radiobacter*, 51-60
- Air bubble,
interface, 214, 215
size, 218
- Air-filled emulsions, 113-124
- Alginate / pectin mixtures, 347-353
- Alginate / protein mixtures, 342-353
- Alginate hydrogels, 407-412
- Alginate viscosity, 128-136
- Amination, reductive, 10
- Aminofluorescein, 397
- Amorphophallus konjac*, 201
- Amylose content, 302
- Antimicrobial properties, 290-300
- Antioxidants, 263
- Appetite, 341-353, 356-363
- Arabinase, 11
- Arabinogalactan, 3
- Arrhenius fits, 88
- Astringency mechanism, 137-145
- Backscattering change, 236
- Balangu shirazi seed gum, 190-199
- Beta lactoglobulin / acacia gum mixtures,
211-222
- Beverage emulsions, 257-265
- Beverages, 137
- Binodal curves, 224-228
- Binodal, 241
- Bioactivity, 395-401
- Biodegradable films, 290
- Bitterness, 264
- Bleaching, 310
- Body weight, 356
- Bovine serum albumin, 116-124
- Bread improver, 309-316
- Bread making, 310
- Bubble stability, 115
- Calcein -AM, 409
- Carboxymethyl cellulose gel, 427-434
- Carboxymethyl cellulose, 267-273, 323-
328, 381
- Carrageenan hydrogels, 407-412
- Carrageenan, shear moduli, 87
- Caseinate, 223-229

- Caseinate/locust bean gum, phase diagrams, 241,242
 microstructure, 242
 Caseinomacropeptide, 230
 Cell wall components, 3-12
 Cellulose fibrils, 110
 Cellulose, 79-82
 Citrus flavours, 257
 Coacervates, 211-222
 Colour determination, 319
 Compatibility, 223-229
 Complex coacervation, 211
 Complexes, protein-polysaccharide, 211-222
 Compression experiments, gellan gels, 155-160
 Compression test, 433
 Confectionery, 219-221
 Confocal micrographs, cream cheese, 105, locust bean gum, 107
 LBG/caseinate, 243
 maltodextrin, 106
 pectin, 106,107
 starch, 128-136
 sugar beet pectin, 106
 Confocal microscopy, 127-136, 340
 Confocal scanning laser micrographs, of interfaces, 214
 of ice cream, 216
 of coemulsions, 219
 of confectionery, 220
 Conformational transition, xanthan, 249
 Conjugation, 223-229
 Consistency coefficient, 193-198
 Consistency index, 149-152
 Contour plots, 271,272
 Controlled delivery, 264
 Coupling theory, 84-92
 Cox-Merz superposition, 205
 Cream cheese, 105
 Creaming stability, 120
 Crosslinking, 375
 Crystallinity index, 80
 Curdlan, 79-82, 420-425
 Custard, 283
 Dairy desserts, 282-289
 Date syrup, biogum, 51-60
 Desserts, 282-289
 Dietary fibre, 26, 282, 333-339
 Differential scanning calorimetry, ethyl cellulose,419
 gelatine, 39, 43-48
 gum Arabic, 70-76
 Digestion, 384-393
 Dough, 309-316
 Drug delivery, 414-419
 Dynamic rheology, 151
 Dynamic viscoelastic study, gelatine, 39, 41-48
 Dynamic viscoelasticity, gellan, 155-160
 Edible films, 301-307
 Elastic modulus, evolution of, 269, 270
 Electron micrographs, psyllium gels, 187
 starch, 62, 64-67
 Electrophoresis, gelatine, 39, 41
 Electrophoresis, SDS, 225-229
 Electrophoretic mobility, 370
 acacia gum, 212,
 sunflower emulsions, 219
 Elongation, 303-307
 Emulsification capacity, 232-236
 Emulsifiers, 259
 Emulsifying properties, 225
 Emulsion stability, 230-238
 Emulsion structure, 104
 Emulsion, sunflower, 214
 Emulsion, triphasic, 115-124
 Emulsions, 267-273, 369, 384-393
 Emulsions, air-filled, 113-124
 Emulsions, beverage, 257-265
 Encapsulation, 277
 Enzyme-modified, starch, 290-300
 Epidemiologic studies, 334,335
 Epithelial proteins, 137-145
 Esterases, 5
 Esterification pattern, 13-25
 Ethyl cellulose, 414-419
 Exopolysaccharide, succinoglycan, 51-60
 Farinograph, 313
 Fat reduction, 119
 Fibres, soluble, 341
 Fibroblasts, 408-412

- Film thickness, 303
Films,
 edible, 301-307
 interfacial, 386
 lactoglobulin, 385-393
 starch-based, 290-300
Fish gelatine, 37-49
Flavour delivery, 275-281
Flavour protection, 263
Flavours, 257-265
Flaxseed gum, 26-36
Flory – Fox model, 276
Flow behaviour index, 193
Flow curves,
 guar gum, 244
 LBG, 244
 xanthan/LBG, 250-252
Flow cytometry, 398
Fluid gels, 155-160
Fluorescent labelling, 397
Food structure, 103-111
Force spectroscopy, 399-401
Fracture, 345, 346
Freezing bound water, 69-76
Friction measurements 115
Fructans, 356-363
FTIR spectra,
 Balangu seed gum, 191, 193
 biogum, 53, 55, 56
 CMC gels, 430-434
 curdlan, 79-82, 424
 psyllium gum, 174-176
 starch films, 303, 306
- Galactanase, 7
Galectin 3, 395-401
Garlic oil, 290-300
Gastric gelation, 342-353
Gastrointestinal tract, 377-383
Gel strength, 248, 252
Gel strength, gelatine, 38, 40
Gel, carboxymethyl cellulose, 427-434
Gelatine extraction, 38
Gelatine, 84
Gelatine, fish, 37-49
Gelation kinetics, 237
Gelation, gastric, 342-353
Gelation, whey protein, 230-238
Gellan gum, 155-160, 161-166
Gellan gum, shear moduli, 88-92
Gelling profile, xanthan/LBG, 250
Gels, ethyl cellulose, 415-419
Gels, gellan, 155-160, 161-166
Gels, xanthan/LBG, 247-253
Glass transition temperature, 86, 278
Glucose absorption, 380-383
Glucose syrups, 275
Gluten, 95-99, 317-322
Guar gum, 267-273, 381
Guar gum, flow curves, 244
Guar viscosity, 128-136
Gum Arabic, 69-76, 260, 262
Gum ghatti, 261, 262
Gut hormones, 338, 358, 367
Gut peptides, 359
- Homogalacturonan, 3-12, 14, 396
Hormones, gut, 338, 358, 367
Hydration, hydrocolloid, 126-136
Hydrogel, carboxymethylated curdlan, 420-425
Hydrogels, 407-412
Hydrogen peroxide bleaching, 310
Hydrophobins, 113-124
Hydroxypropylmethyl cellulose, 317-322
Hygroscopicity, 278
- Ice cream, 215-216
Interfacial behaviour, 213-215
Interfacial structures, 367-373, 384-393
Interfacial tension, 259
Intervention studies, 335
Intestinal cell, 380
Intestine, small, 377-383
Intrinsic viscosity,
 pectin 16-25
 starch, 62, 65
Inulin, 356-363
Inulin, in dairy desserts, 282-289
Isoelectric point, gelatine, 38, 41, 42
Ispaghula husk, 173-180
- Ketchup, 325-328
Kinetics, 234-237
Konjac glucomannan, 110

Konjac glucomannan, wek gel networks, 201-210

Lactoglobulin, 138-145, 385-393

L-ascorbic acid, 61-67

L-cysteine, 61-67

Lipolysis 370

Locust bean gum /Xanthan, gels, 247-253

Locust bean gum, /caseinate,

microstructure, 242

phase diagrams, 241, 242,

Locust bean gum, 267-273

Locust bean gum, flow curves, 244

Low fat, desserts, 282-289

Magnetic resonance imaging, 343,350, 434

Maltodextrins, 275

Maltopolymers, 277

Mark- Houwink equation, 275, 276

Mass transfer coefficients, 380-383

Mechanical properties, of films, 303-307

Mechanical spectra,

custard, 285

konjac glucomannan, 202-210

Mechanical spectra

Microbubbles, 113-124

Microflora, 359

Microstructure, 242

Microstructure, bread, 311-316

Milk proteins, 223-229

Mixture design approach, 267-273

Modelling, non-linear, 267

Molecular parameters, of pectin, 16-25

Molecular weight, flaxseed gum, 29-34

Molecular weight, pectin, 16-25

Mousse, 218

MTT assay, 410

Mucin, 137-145

Mung bean flour, 301-307

Neoglycoprotein, 10

Obesity, 356-363, 367-373, 384

Octenyl succinate modified starch, 261

Oil-holding capacity, 232

Oil-in-water emulsions, 259

Oligofructose, 356-363

Oligosaccharides, pectic, 3-12

Organoleptic evaluation, 314

Ozonated pectin, 147-152

Ozone treatment, 148

Packaging, 280, 301

Particle size distribution, 282-289

Pasta, 317-322

Pasting properties, of starch, 63-67

Pectic oligosaccharides, 3-12

Pectin / alginate mixtures, 347-353

Pectin dispersions, 147-152

Pectin extracts, 396

Pectin methyl esterase, 4-12

Pectin, 3-12, 13-25, 223-229

Pectin, molecular parameters, 16-25

Pectin-galectin 3 interactions, 395-401

Peptides, gut, 359

Permeability, 292-295

Phase angle, gelatine, 45

Phase behaviour 241, 242

Phase diagram, beta lactoglobulin / acacia gum, 213

Phase diagrams, 240-246

Phase equilibria, 239-246

Phase separation, 105, 225

Plantago ovata, 173-180

Polygalacturonase, 5-12

Polyphenols, 137

Polysaccharide interactions, 267-273

Polysaccharide, protein- complexes, 211-222, 239-246

Polysorbates, 259

Potato starch, 313-1-36

Prebiotic fructans, 356-363

Prebiotic, 282

Propylene glycol dicaprylate, 415-419

Protein / alginate mixtures, 342-353

Protein astringency, 137-145

Protein displacement, 369-374

Protein - polysaccharide complexes, 211-22, 239-246

Proteins, milk, 223-229

Protopectinase, 16

Psyllium, 173-180, 181-188

Relaxation dynamics, 84-92

Relaxation spectra, 94-99

Response surface methodology,

Balangu seed gum, 195

- psyllium gum, 177, 185
Rhamnogalacturonan, 3-12, 14, 396
Rheological behaviour, 239-246
Rheological measurements,
 Balangu, seed gum, 191-198
 biogum, 53,56-59
 custard, 283-289
 dough, 310-316
 flaxseed gum, 32-34
 gellan gum, 155-160, 161-166
 konjac glucomannan, 201-210
 of emulsions, 267-273
 pectin, 147-152
Plantago ovata, 173-180, 181-188
psyllium gum, 174-180, 181-188
whey protein-xanthan, 230-238
Rheology, large deformation, 343
Rheology,
 surface dilatational, 385-393
surface shear, 386
- Sago flour, 301-307
Sago starch, 291-300
Salad dressing, 115, 119
Saliva buffer, 139
Satiety, 333-339, 341,342,367-374
Scaffolds, 407-412
Scanning electron micrographs,
 of bread, 316
 of starch films, 293-299
SDS-PAGE, 140-145
Sensory evaluation, 319-322
Shear moduli,
 agarose, 86-92
 carrageenan, 87
 gellan gum, 88-92
Shear thinning, 204
Sherbert, 217
Shift factors, 87-92
Small deformation dynamic oscillation,
 415-419
Smoluchowski equation, 370
Sodium caseinate, 368-373
Soluble fibres, 341
Spaghetti, 320-322
Spray drying, 277
Starch films, 301-307
Starch hydration, 126-136
Starch hydrolysates, 275
Starch, octenyl succinate, 261
Starch, sago, 301-307
Starch, wheat, 61-67
Starch-based films, 290-300
Starch-based, desserts, 282-289
Storage modulus, ethyl cellulose, 415-419
Strain values, gellan gels, 164,165
Stress relaxation, 94-99
Stress values, gellan gels, 163-165
Succinoglycan, 51-60
Sugar beet pectin, 105,106
Sugar beet pectin, 7, 262
Sugar beet pulp, 309-316, 323-328
Sulphur content, 79-81
Surface dilatational rheology, 385-393
Surface plots, 271,272
Surface pressure, 371-374
Surface tension,29
Surimi processing, 37-49
- Technofunctionality, 103-111
Tensile strength, 303,304
Tensile strength, of films, 292
Texture analysis, 318
Thermal characterisation, fish gelatine, 36-
 49
Thermal properties, of starch, 63-67
Tie lines, 241,242
Tissue engineering, 407-412
TLC, on biogum, 52,54,55
Tragacanth gum, 326-328
Transglutaminase treatment, 369-375
Tribological behaviour, 121-124
- Ultrasonication, polysaccharide, 77-82
UV treatment, 301-307
- Vapour sorption, 277, 278
Viscoelasticity, dairy desserts, 282-289
Viscometry, 241, 343
Viscosity development, 126-136
Viscosity,
 alginate, 346-353
 hydrocolloid, 127-136
 LBG/caseinate, 243,244
 pectin, 149-152
 xanthan, 351
 xanthan/LBG, 250-252
Volume change kinetics, 234

- Water absorption, 320, 428-434
Water sorption, 292- 297
Water transfer, 280
Water vapour permeability, 292, 295,
 303-305
Weak gel, konjac glucomannan, 201-210
Weight management, 335
Wheat flour, 317-322
Wheat starch, 61-67
Whey protein isolate, 223-229
Whey protein, 137-145, 230-238
Williams-Landel-Ferry, 84-92
Xanthan gum, 230-238, 267-273
Xanthan, conformational transition, 249
Xanthan, viscosity, 128-136
Xanthan/LBG gels, 247-253
X-ray diffraction,
 CMC gels, 432-434
 on starch, 63,65
X-ray powder diffraction, 79-82
Xylogalacturonan, 3-12
Young's modulus, gellan gels, 164,165
Zeta potential, 374