

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
- Cascinate, 223-229

- Caseinate/locust bean gum,
 phase diagrams, 241,242
 microstructure, 242
- Caseinomacropptide, 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, weak 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