

	PAGE.
Rama Rao, D. A., and Sreenivasaya, M. ... ..	241
Rama Rao, D. A., see Norris, Roland V. ... ..	75
Ranganathan, S. (junior)... ..	80
Saha, J. M., see Chakravarti, G. C. ... ..	226
Sanjiva Rao, B., Shintre, V. P. and Simonsen, J. L. ... ..	187, 195
Sanjiva Rao, B., see Pillay, P. P. ... ..	181
Sastri, B. N. ... ..	14
Sastri, B. N. and Norris, Roland V.... ..	1
Sastri, B. N. and Sreenivasaya, M. ... ..	31
Sastri, B. N., see Sreenivasaya, M. ... ..	23
Shintre, V. P., see Sanjiva Rao, B. ... ..	187, 195
Simonsen, J. L., see Gibson, C. S. ... ..	215
Simonsen, J. L., see Hariharan, K. V. ... ..	207
Simonsen, J. L., see Pillay, P. P. ... ..	181, 200
Simonsen, J. L., see Sanjiva Rao, B. ... ..	187, 195
Sreenivasaya, M. and Gopalaswami Naidu, G. ... ..	244
Sreenivasaya, M. and Sastri, B. N. ... ..	23
Sreenivasaya, M., see Rama Rao, D. A. ... ..	241
Sreenivasaya, M., see Sastri, B. N. ... ..	31
Thakur, A. K. and Norris, Roland V. ... ..	141
Venugopalan, M. ... ..	17
Watson, H. E. ... ..	41
Watson, H. E., see Mudbidri, S. M.... ..	173

### Subject Index

	PAGE.
<i>Acacia farnesiana</i> as host-plant for sandal ... ..	245
Acetaldehyde-recognition in fermenting toddy ... ..	70
Acetamide hydrolysed by <i>Aspergillus flavus</i> ... ..	153
Acetic acid in fermenting toddy ... ..	71
<i>Acetobacter</i> types in fermenting toddy ... ..	68
Acetone as precipitant of invertase ... ..	5
Acetonedicarboxylic ester condensed with isopropyl iodide ... ..	211
Acidity of sandal leaf-sap ... ..	106
<i>Acrostalagma</i> found in soil ... ..	145
Activated sludge—Oxidation of sulphur by ... ..	85
<i>Adenanthera pavonina</i> —Oil from seeds of ... ..	173
Adsorption applied to purification of enzymes ... ..	2
Air—Dielectric constants of ... ..	57
Alanine hydrolysed by <i>Aspergillus flavus</i> ... ..	153
Alcohol as precipitant of invertase ... ..	5
„ in fermenting toddy—Estimation of ... ..	72
Allantoin indifferent to <i>Aspergillus flavus</i> ... ..	153

	PAGE.
Aluminium hydroxide as adsorbent of invertase ... ..	8
„ sulphate as catalyst in sulphur-oxidation ... ..	89
Amidase from <i>Aspergillus flavus</i> ... ..	152
Amino-acids as affecting cholam amylase ... ..	129
Ammonia as elutant for invertase—Failure of ... ..	10
„ — Dielectric constants of ... ..	55
„ production by soil fungi ... ..	141
Ammonium sulphate as precipitant of invertase ... ..	7
<i>Amoeba limax</i> , <i>polypodia</i> , <i>proteus</i> , <i>radiosa</i> and <i>verrucosa</i> from soil ... ..	113
Amylase and the two-enzyme theory ... ..	134
„ from cholam ( <i>Sorghum vulgare</i> ) ... ..	121
„ in ripening plantains—Absence of ... ..	81
<i>Andropogon nardus</i> or <i>coloratus</i> —Oil from ... ..	181
Antimony—Atomic weight of ... ..	161
<i>Arcella discoides</i> from soil... ..	113
<i>Armillaria</i> found in soil ... ..	145
Arsine—Dielectric constants of ... ..	56
Ash of spiked sandal leaves ... ..	101
„ „ „ twigs ... ..	241
Asparagine hydrolysed by <i>Aspergillus flavus</i> ... ..	153
<i>Aspergillus candidus</i> , <i>flavus</i> , <i>fumigatus</i> , <i>fuscus</i> , <i>nidulans</i> , <i>niger</i> and <i>repens</i> from soil ... ..	145
„ <i>oryzae</i> —Limit of infection with ... ..	37
Atomic weight of antimony from different sources ... ..	161
Autolysis of yeast ... ..	3
Bacteria present in fermenting toddy ... ..	67
Barley malt compared with cholam malt ... ..	123
Benzene—Dielectric constants of ... ..	57
Biuret indifferent to <i>Aspergillus flavus</i> ... ..	153
<i>d</i> -Borneol from <i>Curcuma zedoaria</i> .. ..	198
<i>l</i> - „ „ <i>Cymbopogon coloratus</i> ... ..	185
Botha grass—Oil from ... ..	181
<i>Botrytis Cinerea</i> in soil ... ..	145
Budding—Transmission of spike-disease by ... ..	244
Cadalene from <i>Curcuma zedoaria</i> ... ..	199
<i>l</i> -Cadinene from cubeb oil ... ..	193
Calcium-content of spiked sandal leaves ... ..	100
<i>d</i> -Camphene from <i>Curcuma zedoaria</i> ... ..	197
<i>l</i> - „ „ <i>Cymbopogon coloratus</i> ... ..	184
<i>d</i> -Camphor from <i>Curcuma zedoaria</i> ... ..	198
<i>l</i> - „ „ <i>Cymbopogon coloratus</i> ... ..	185
Capric acid from „ „ ... ..	186
Carbamide indifferent to <i>Aspergillus flavus</i> ... ..	153
Carbamidobisbenzeneazodimethylaniline ... ..	236
Carbamidobisbenzeneazo- $\beta$ -naphthol ... ..	236, 238

	PAGE.
Carbamidobisbenzeneazoresorcinol ... ..	236
Carbohydrate-changes in plantain-ripening ... ..	80
"    content of spiked sandal leaves ... ..	99
Carbohydrates as affecting ammonia-production ... ..	151
Carbon dioxide—Dielectric constants of ... ..	57
<i>Carchesium polypinium</i> from soil ... ..	114
<i>d</i> - $\Delta^4$ -Carene from cubeb oil ... ..	191
<i>d</i> -Carene- $\beta$ -glycol and its hydrogen phthalate... ..	203
Carene, hydroxychloro- ... ..	205
<i>l</i> -Carene oxide from <i>d</i> -carene- $\beta$ -glycol ... ..	204
Caronic acid methyl ester—Reduction of ... ..	213
$\alpha$ -Caryophyllene from <i>Cymbopogon coloratus</i> ... ..	186
Catalysis of sulphur-oxidation in activated sludge ... ..	89
<i>Caudalina armata</i> and <i>Bangalorensis</i> from soil ... ..	115
Cellulose-decomposition by soil fungi ... ..	147
<i>Cephalosporium acremonium</i> in soil ... ..	145
<i>Cereomonas longicauda</i> in soil ... ..	115
Cervantite—Preparation of antimony from ... ..	165
Chlorides as affecting cholam amylase ... ..	127
Cholam ( <i>Sorghum vulgare</i> )—Amylase from ... ..	121
1 : 4-Cineole from cubeb oil ... ..	191
1 : 8- " " <i>Curcuma zedoaria</i> ... ..	198
<i>Citromyces glaber</i> in soil ... ..	145
Coconut-toddy—Micro-organisms in fermentation of ... ..	63
<i>Colpidium striatum</i> in soil ... ..	114
<i>Colpoda cucullus</i> and <i>steni</i> in soil ... ..	114
Compound, $C_3H_6S_2$ , from ethylene mercaptan and dichloroacetic acid... ..	228
" $C_4H_6O_2S_2$ , from potassium ethylene mercaptan and dichloro- acetate ... ..	229
" $C_5H_{10}S_4$ , from ethylene mercaptan and trichloroacetic acid... ..	230
" $C_{15}H_{24}O$ , from <i>Cymbopogon coloratus</i> ... ..	185
<i>Condylostoma patens</i> in soil ... ..	115
Cubeb oil—Constituents of ... ..	187
<i>Curcuma zedoaria</i> Roscoe—Oil from ... ..	195
<i>Cymbopogon coloratus</i> Stapf—Oil from ... ..	181
$\beta$ -Cymene from <i>d</i> -carene- $\beta$ -glycol ... ..	204
Date-toddy—Micro-organisms in fermentation of ... ..	69
<i>pp</i> -Diacetylamindiphenylthiocarbamide ... ..	238
Dialysis, electro-, for resolving enzymes ... ..	136
Dialysis in enzyme purification ... ..	11
Diastase—Micro-determination of ... ..	33
Diastatic activity of spiked sandal leaves ... ..	23
Dicarboxyglutaconic ester condensed with <i>isopropyl</i> iodide ... ..	209
Dichloroacetic acid and ethylene mercaptan ... ..	227, 229
Dielectric constants—Determination of ... ..	41

	PAGE.
Diethylenetetrasulphido-acetic acid, ethyl ester	229
Diethylsaffraninecarboxylic acid—Selective staining by	117
<i>Dimastigamoeba Gruberi</i> in soil	113
$\beta\beta$ -Dimethyladipic acid from caronic acid	214
Dimethyleneaminodiphenylcarbamide	237
Dimethyleneaminodiphenylthiocarbamide	236
Dimethylmalonic acid from 4-hydroxy-2: 2-dimethyl- $\Delta^3$ -cyclopenten-3-one-1-carboxylic acid	220
3: 3-Dimethylcyclopentan-1: 2-dione	219
2: 2-Dimethylcyclopentan-3-one-1-carboxylic acid—Derivatives of	215
" " " ester,	
4: 4-dibromo	218
3: 3-Dimethylcyclopentan-2-one-1: 4-dicarboxylic acid	218
2: 2-Dimethyl- $\Delta^4$ -cyclopenten-3-one-1-carboxylic acid, 4-hydroxy-	220
2: 2-Dimethyl- $\Delta^5$ -cyclopenten-3-one-1-carboxylic acid, 4-acetoxy-and 4-hydroxy-	219
as-Dimethylsuccinic acid from 2: 2-dimethyl- $\Delta^4$ -cyclopenten-3-one-1-carboxylic acid	220
Diphenylcarbamide, diamino-	236, 238
Diphenylcarbamidodiphenylcarbamide	237
Diphenylcarbamidodiphenylthiocarbamide	235
Diphenylcarbohydrazide—Inversion of	236
Diphenylthiocarbamide, diamino-	234
" $\beta\beta$ -dinitro—Reduction of	237
Diphenylthiocarbamidodiphenylcarbamide	238
Diphenylthiocarbamidodiphenylthiocarbamide	235
Diphenylthiocarbohydrazide—Preparation of	233
Disodium hydrogen phosphate as elutant	11
Dithiodibenzoyl- <i>oo</i> -dicarboxylic acid	224
Dithiophthalic acid—Hydrolysis of ditolyl ester of	225
Electrical conductivity of sandal leaf-sap	107
Electro-dialysis—Resolution of an enzyme by	136
Electro-osmosis—Resolution of an enzyme by	136
<i>Eleusine corocana</i> (ragi)—Proteins of	91
Eleusin, the alcohol-soluble protein of ragi	93
Elution of invertase by salts	10
Enzymes—Detection and characterisation of	31
" from malted barley and cholam	123
" " soil fungi	146
Essential oils—Constituents of	181, 187, 195
Ethylenedisulphido-acetic acid, ethyl ester	229
Ethylene mercaptan and dichloroacetic acid	227, 229
" and trichloroacetic acid	230
<i>Euplotes patella</i> in soil	114
Fermentation of toddy—Micro-organisms concerned in	66

	PAGE.
Ferrous sulphate as catalyst in sulphur-oxidation	89
Foodstuffs, Indian—Proteins of	91
Fungi of soil—Ammonia-production by	141
Furfural-recognition in fermenting toddy	70
<i>Fusaria</i> found in soil	145
Geraniol from <i>Cymbopogon coloratus</i>	185
Glycerol in fermenting toddy	72
Glycine hydrolysed by <i>Aspergillus flavus</i>	153
<i>Heteromita ovata</i> in soil	114
Hippuric acid indifferent to <i>Aspergillus flavus</i>	153
<i>Humicola</i> —Decomposition of proteins by	150
Hydrogenation of oil from <i>Adenanthera pavonina</i>	175
Hydrogen-ion concentration as affecting adsorption	9
"    "    "    ammonia-production	156
"    "    "    cholam amylase	130
"    "    of sandal leaf-sap	107
Hypochlorite solution—Preparation of	19
Invertase—Micro-determination of	34
"    —Preparation and purification of	1
Iodine in soils—Estimation of	75
Iron-content of spiked sandal leaves	101
Kaolin as an aid to enzyme-purification	4
Lac—Bleaching of	17
Lactic acid in fermenting toddy	70
Lauric acid from <i>Cymbopogon coloratus</i>	186
<i>Laxophyllum rostratum</i> in soil	114
Leaves of spiked sandal—Analysis of	97
"    —Diastatic activity of	25
Lemon-grass—Oil from	181
Lignoceric acid from <i>Adenanthera pavonina</i>	178
<i>l</i> -Limonene from <i>Cymbopogon coloratus</i>	184
Linoleic acid from <i>Adenanthera pavonina</i>	178
Liquefaction of starch by malt from barley and cholam	124
Malt from barley and cholam—Comparison of	121
Maltose-production as affected by electro-dialysis and osmosis	137
Manganous sulphate as catalyst in sulphur-oxidation	89
$\beta$ -Methylbutyric ester, $\alpha\beta$ -dicyano-, in action with ethyl $\beta$ -iodopropionate	217
$\beta$ -Methylpentane- $\gamma\alpha$ -dicarboxylic acid—Lactone of $\gamma$ -hydroxy-	211
$\beta$ -Methylpentane- $\gamma\epsilon$ -dicarboxylic ester, $\beta\gamma$ -dicyano-	217
$\beta$ -Methylpentane- $\beta\gamma\epsilon$ -tricarboxylic acid	217
Methylisopropylcyclohexane, dichlorodihydroxy.	205
<i>d</i> -1-Methylisopropyl- $\Delta^1$ -cyclohexen-4-ol	192
Micro-determination of enzyme activity	31
Micro-organisms concerned in toddy-fermentation	63

	PAGE.
Mitochondria in soil protozoa—Function of ... ..	117
Moisture-determination in bleached lac ... ..	21
<i>Mucor glomerula</i> , <i>plumbeus</i> and <i>racemosus</i> in soil ... ..	145
Myristic acid from <i>Adenanthera pavonina</i> ... ..	178
Nephelometry in atomic weight determination ... ..	169
Nitrogen-content of spiked sandal leaves ... ..	100
"                    "            twigs ... ..	241
Nitrogen-fixation by soil fungi not proved ... ..	145
<i>Octocirrus spheratus</i> in soil ... ..	116
<i>Oocomonas termo</i> in soil ... ..	113
<i>Oidium lactis</i> in soil ... ..	145
Oil from <i>Adenanthera pavonina</i> ... ..	173
"    flower-heads of <i>Cymbopogon coloratus</i> ... ..	181
"    fruits of <i>Piper cubeba</i> ... ..	187
"    rhizomes of <i>Curcuma zedoaria</i> ... ..	195
Oleic acid from <i>Adenanthera pavonina</i> ... ..	178
Osmosis, electro-, for resolving enzymes ... ..	136
Osmotic, concentration of sandal leaf-sap ... ..	107
Palmitic acid from <i>Adenanthera pavonina</i> ... ..	178
<i>Pelomyxa palustris</i> in soil ... ..	113
<i>Penicillium digitatum</i> , <i>glaber</i> , <i>glaucum</i> and <i>oxalicum</i> in soil... ..	145
Pentamethylene tetrasulphide ... ..	228
<i>p</i> -Phenylenediamine, acetyl, in action with carbon disulphide ... ..	238
<i>p</i> -Phenyleneguanidinebenzeneazo- $\beta$ -naphthol ... ..	238
Phenyldiazine phenyldithiocarbazinate—Action of heat on ... ..	233
Phenyl- <i>p</i> -phenyleneguanidine, <i>p</i> -amino- ... ..	237
Phenylthiocarbamidophenyl- <i>p</i> -phenyleneguanidine ... ..	238
Phosphate as affecting ammonia-production ... ..	157
Phosphate-solubilisation in activated sludge medium ... ..	86
Phosphine—Dielectric constants of ... ..	56
Phosphorus-content of spiked sandal leaves ... ..	101
Phthalyl chloride and potassium hydrosulphide—Interaction of ... ..	223
<i>d</i> - $\alpha$ -Pinene from <i>Curcuma zedoaria</i> ... ..	197
<i>Pinus longitolia</i> Roxb.—Constituents of ... ..	200
<i>Piper cubeba</i> Linn.—Oil from fruits of ... ..	187
Plantains—Carbohydrate-changes in ripening of ... ..	80
<i>Pleuromonas jaculaus</i> in soil ... ..	114
Potash-content of spiked sandal leaves ... ..	101
Propionamide hydrolysed by <i>Aspergillus flavus</i> ... ..	153
Propionic acid from <i>Cymbopogon coloratus</i> ... ..	186
"    ester, $\beta$ -iodo-, condensed with isopropylcyanoacetic ester ... ..	210
"    "    "    condensed with $\alpha\beta$ -dicyano- $\beta$ -methylbutyric ester ... ..	217
$\alpha$ -isoPropylacetonedicarboxylic ester ... ..	211
isoPropylcyanoacetic ester and $\beta$ -iodopropionic ester ... ..	210

	PAGE.
<i>cis</i> - $\alpha$ - <i>iso</i> Propylglutaconic acid ... ..	213
<i>trans</i> - $\alpha$ - <i>iso</i> Propylglutaconic acid ... ..	213
$\alpha$ - <i>iso</i> Propylglutaconic ester ... ..	212
$\alpha$ - <i>iso</i> Propylglutaric acid ... ..	210
"        ester, $\beta$ -chloro- ... ..	211
"        " $\alpha$ -cyano- ... ..	210
"        " $\beta$ -hydroxy- ... ..	211
$\alpha$ - <i>iso</i> Propylglutaryl chloride—Bromination of ... ..	209
<i>iso</i> Propyl iodide and ethyl potassioacetonedicarboxylate ... ..	211
"        "        sodiodicarboxylglutaconate ... ..	209
Protein-decomposition by soil fungi ... ..	148
Proteins of Indian foodstuffs ... ..	91
Protozoan fauna of Mysore soils ... ..	111
Quinoxaline derivative of 2 : 2-dimethylcyclopentan-3 : 4-dione ... ..	220
Ragi ( <i>Eleusine coracana</i> )—Proteins of ... ..	91
<i>Rhizocarpus nigricans</i> in soil ... ..	145
<i>d</i> -Sabinene from cubeb oil ... ..	190
<i>dl</i> -Sabinene from cubeb oil ... ..	194
Saccharification by malt from barley and cholam ... ..	124
<i>Santalum album</i> Linn.—Spike disease of ... .. 23, 97, 103, 241, 244	244
Sap-extraction—Process for ... ..	24, 102
Semicarbazone, $C_{10}H_{17}O_3N_3$ , from oxidation of <i>l</i> -carene oxide ... ..	205
Sesquiterpene alcohols from cubeb oil ... ..	193
"        "        " <i>Curcuma zedoaria</i> ... ..	199
"        "        " <i>Cymbopogon coloratus</i> ... ..	186
Sesquiterpenes from Indian essential oils ... ..	181, 187, 195
Shellac—Bleaching of ... ..	20
Silica-content of spiked sandal leaves ... ..	101
Silver—Ratio of silver chloride to ... ..	167
Sitosterol from <i>Adenanthera pavonina</i> ... ..	176
Sodium hypochlorite in lac-bleaching ... ..	18
Soil fungi—Ammonia-production by ... ..	141
Soil protozoa ... ..	111
"        —Mitochondria in some ... ..	117
Soils—Estimation of iodine in ... ..	75
<i>Sorghum vulgare</i> (cholam)—Amylase from ... ..	121
Spike-disease of sandal ... ..	23, 97, 103, 241, 244
Spiked sandal stems—Chemical composition of ... ..	241
<i>Sporotrichum roseum</i> in soil ... ..	145
Starch-content of spiked sandal leaves ... ..	99
"        -hydrolysis by taka-diastrase ... ..	34
"        -liquefaction as affected by electro-dialysis and osmosis ... ..	136
"        —Malt liquefaction and saccharification of ... ..	124
Stearic acid from <i>Adenanthera pavonina</i> ... ..	178
Stibnite—Preparation of antimony from ... ..	165
Succinic acid in fermenting toddy ... ..	70

	PAGE.
Sucrose-hydrolysis by invertase ... ..	35
Sulphur oxidation in activated sludge ... ..	85
Taka-diastase—Micro-determination of ... ..	33
Tannin in ripening plantains ... ..	82
Tartaric acid in fermenting toddy ... ..	70
Temperature co-efficient of invertase-adsorption ... ..	10
<i>trans</i> -Terpinene-terpin from cubeb oil ... ..	192
Thiocarbamidobisbenzeneazodimethylaniline ... ..	235
Thiocarbamidobisbenzeneazo- $\beta$ -naphthol ... ..	235
Thiocarbamidobisbenzeneazoresorcinol ... ..	235
Thiophthalic acid, mono- ... ..	224
Time-value as a measure of enzyme purity ... ..	2
Toddy—Fermentation of ... ..	63
Tricalcium phosphate solubilised in activated sludge ... ..	86
Trichloroacetic acid and ethylene mercaptan ... ..	230
<i>Trichoderma album</i> in soil ... ..	145
Trimesic acid—Ethyl ester of ... ..	209
Trimethylene disulphide ... ..	228
Turpentine, Indian—Constituents of ... ..	200
Tyrosine indifferent to <i>Aspergillus flavus</i> ... ..	153
<i>Uronema accuminata</i> and <i>Marina</i> in soil ... ..	114
<i>Verticillium glaucum</i> in soil ... ..	145
<i>Vorticella microstoma</i> in soil ... ..	114
Yeast autolysis ... ..	3
„ in toddy-fermentation—Types of ... ..	65
Zingiberene probably present in <i>Curcuma zedoaria</i> ... ..	199
Zirconium hydroxide as adsorbent of invertase ... ..	13