

# Indexes to the *Technical Quarterly* Volume 41 (2004)

—Compiled by James J. Hackbarth, The Gambrinus Company

## Author Index

- |                           |                              |                               |                                      |
|---------------------------|------------------------------|-------------------------------|--------------------------------------|
| Aerts, G., 298            | Engelmann, J., 366           | Li, Y., 104                   | Robinson, L. H., 353                 |
| Agius, G., 42             | Evans, D. E., 353            | Lusk, L. T., 282, 293         | Rodrigues, J. A., 277                |
| Agu, R. C., 386           | Ferreira, A. A., 277         | Martin, S. A., 18             | Ryder, D., 282, 293                  |
| Aldred, P., 353           | Fischborn, T., 366           | McLaren, J., 366              | Savel, J., 374                       |
| Amoo, I. A., 398, 403     | Geiger, E., 366              | Mitani, Y., 363               | Scheer, F. M., 120                   |
| Andrews, J., 45           | Glas, K., 366                | Morikawa, M., 317             | Schwarz, P. B., 248                  |
| Bamforth, C. W., 97       | Gonçalves, C., 277           | Muroyama, K., 363             | Seabrooks, J., 282, 293              |
| Barros, A. A., 277        | Gonçalves Rodrigues, P., 277 | Mussche, R., 298              | Snaird, J., 115                      |
| Basarova, G., 282, 293    | Hammond, J. R. M., 277       | Mynatt, J., 42                | Soti, A., 50                         |
| Beimfohr, C., 115         | Hezekiah, A., 403            | Navarro, A., 293              | Soukup, T. J., 33                    |
| Bland, J., 33             | Home, S., 353                | Odibo, F. J. C., 386          | Speers, R. A., 231, 241, 248,<br>268 |
| Brantley, J. D., 371      | Huige, N. J., 9              | Ogawa, Y., 317                | Stewart, G. G., 18                   |
| Briem, F., 366            | Inui, T., 305                | Ogu, E. O., 386               | Stewart, R. J., 231                  |
| Briggs, D. E., 390        | Itoi, K., 363                | Ohkochi, M., 317              | Tada, N., 305                        |
| Burkeen, S., 42           | Jin, Y.-L., 231              | Oonsivilai, R., 241           | Takamoto, Y., 363                    |
| Colosia, M., 111          | Kageyama, N., 305            | Oshodi, A. A., 398, 403       | Takaoka, S., 305                     |
| Combes, F. J., 27         | Kanagachandran, K., 394      | Palmer, G. H., 386            | Takashio, M., 363                    |
| De Buck, A., 298          | Kaukovirta-Norja, A., 353    | Park, S. K., 310              | Thelen, K., 115                      |
| De Cooman, L., 298        | Kawasaki, Y., 305            | Patelakis, S. J. J., 241      | van Waesberghe, J., 298              |
| De Rouck, G., 298         | Kelly, A., 379               | Paulson, A. T., 231, 241, 268 | Vesely, P., 282, 293                 |
| Delvaux, F., 27           | Kim, J. Y., 310              | Pénzes, Z., 298               | Vilpola, A., 353                     |
| Delvaux, F. R., 27        | Kinsey, J., 371              | Pfisterer, E., 50             | Volgyi, A., 293                      |
| Duncombe, D., 282         |                              | Richardson, I., 50            | Yano, M., 317                        |
| Egi, A., 104, 248, 268    |                              | Riddell, P., 379              | Yasui, T., 317                       |
| Eleyinmi, A. F., 398, 403 |                              |                               |                                      |

## Subject Index

- |                                   |   |  |
|-----------------------------------|---|--|
| AC Metcalfe, 104                  | Beer  | Cleaning-in-place, 42                  |
| Acid cleaning, 42, 111            | aging, 353, 374                               | Colloidal                              |
| Acidogenesis, 394                 | flavor stability, 97, 282, 293, 298, 305, 317 | haze, 27                               |
| Acrospire, 305                    | off-flavor, 50                                | stabilization, 353                     |
| Aftertaste, 305                   | quality, 403                                  | Copper electrolysis, 50                |
| Anaerobic digestion, 394          | storage, 374                                  | Crown rusting, 33                      |
| Ancient brewing, 120              | Bioavailability, 366                          | Degradation                            |
| Antimicrobial activity, 398       | Brewing conditions, 353                       | of $\beta$ -glucans, 231               |
| Antioxidant, 298                  | Can spotting, 33                              | enzymatic, 248                         |
| Arabinoxylans, 248, 268           | Carbon dioxide                                | Enzymatic degradation, 248             |
| Astringent, 305                   | emissions, 363                                | Esterase, 293                          |
| Bacteria, beer-spoiling, 115, 398 | venting, 111                                  | Esters, 18                             |
| Barley, 104                       | CDC Copeland, 104                             | Fatty acids, 18                        |
|                                   | CDC Kendall, 104                              | Fermentation                           |
|                                   | CDC Stratus, 104                              | hydrogen sulfide, produced during, 310 |
|                                   | Chemical engineering, 9                       |  |
|                                   | Chlorine dioxide, 42                          |  |
|                                   |   |  |

- performance, 277, 366  
temperature, 282  
wort clarity, effect on, 18
- Filtration  
and colloidal stability, 353  
membrane, 268, 371, 379  
sterile, 248
- Flavor stability, 97, 282, 293, 298, 305, 317
- Foam  
quality, 305  
stability, 379
- Friability of barley, 390
- Fungal contamination, 390
- Gallotannins, 298
- Gene probes, 115
- Germination, 390
- $\beta$ -Glucan, 231, 386
- $\beta$ -Glucanase, 231
- Glucose, 386
- Haze, 27, 353
- Head retention, 379
- Higher alcohols, 18
- Hop substitute, 398, 403
- Hot-water washing, 390
- Hydrogen sulfide, 50, 310
- Intrinsic viscosity, 268
- Laminar flow, 241
- Lauter tun, 45
- Life cycle assessment, 363
- Life cycle inventory analysis, 363
- Lipoxygenase, 298
- Malt protein, 353
- Malting studies, 386
- Maltose, 386
- Mash separation, 45
- Medicinal plants, 398
- Membrane filtration, 268, 371, 379
- Methane, 363
- Methanogenesis, 394
- Microfiltration, 379
- Microporous membrane, 379
- Ninkasi, 120
- Off-odors, 310
- Oxygen, 97
- Package quality, 33
- Pasteurization, 374
- Pasteurizer, 33
- pH, 317
- Protein, 27, 353, 386
- $Q_{(init)}$ , 268
- Quality  
assurance, 115  
brewing, 9
- Rapid detection test, 115
- Sensory  
properties, 403  
unit, 374
- Servomyces, 366
- Shear rate, 241
- Shearing, 231
- Shelf life, 9
- Solids, 18
- Sorghum malt, 386
- Spent grains, 363, 394
- SPME/GC/MSD, 293
- Staling, 97
- Tank implosion, 111
- Temperature,  
of beer, 97  
during fermentation, 282  
of processes, 374
- Thermal load, 317
- trans*-2-Nonenal, 317
- Turbidity  
flow, 241  
in white beers, 27
- Unit operations, 9
- Varieties  
barley, 104, 353  
sorghum, 386
- vermion identification technology  
(VIT), 115
- $V_{(max)}$ , 268
- Viscosity, 231, 268
- Vitaltitration, 277
- Wastewater, 394
- Wheat beer, 27
- Wheat malt, 27
- Wort  
boiling, 317  
clarity, 18, 317  
viscosity, 241
- Yeast  
metabolism, 282  
reductase, 282  
screening test, 310  
viability, 277  
vitality, 277
- Zinc, 366