

Author Index

- Alford, N.McN., 181, 189
 Angelini, P., 241
 Anxionnaz, F., 231
 Becher, P.F., 241
 Birchall, J.D., 181, 189
 Bowman, K.J., 51
 Brasfield, R.G., 215
 Buckabee, M.L., 295
 Buljan, S.T., 273, 295
 Chen, I-W., 51, 75
 Chevacharoenkul, S., 295
 Chokshi, A.H., 289
 Cook, R.F., 199
 Coyle, T.W., 89
 Cutler, R.A., 155
 Dalgleish, B.J., 259
 Davis, B.F., 295
 Dugne, O., 231
 Endo, T., 147
 Evans, A.G., 259
 Fukushima, T., 147
 Hanaue, Y., 165
 Hansen, J.J., 155
 Heuer, A.H., 107
 Hori, S., 283
 Ingel, R.P., 89
 Ishida, H., 43
 Ishitani, A., 17, 43
 Johnson, III, W.L., 215
 Kaji, H., 283
 Katagiri, G., 43
 Kendall, K., 181, 189
 Kitano, Y., 17
 Lambropoulos, J.C., 35
 Lancin, M., 231
 Lankford, J., 61
 Lange, F.F., 289
 Lowden, R.A., 223
 Mader, W., 241
 Marmach, M., 97
 Marshall, D.B., 175
 Masaki, T., 17, 43
 Mori, Y., 17
 Morrison, C.T., 207
 Muddle, B.C., 3
 Nixon, R.D., 295
 Nolan, T.A., 223
 Noma, T., 165
 Ohtaki, S., 147
 Porter, J.R., 289
 Rawlins, M.H., 223
 Readey, M.J., 107
 Reidinger, F., 25
 Reyes-Morel, P.E., 51, 75
 Routbort, J.L., 207
 Rühle, M., 259
 Sato, T., 147
 Scattergood, R.O., 207
 Schumacher, M., 231
 Shetty, D.K., 155
 Shimada, M., 147
 Sōmiya, S., 165, 283
 Steinbrech, R.W., 107
 Stinton, D.P., 223
 Swab, J.J., 137
 Swain, M.V., 97
 Takahata, T., 123
 Thouless, M.D., 259
 Trebbia, P., 231
 Tsukuma, K., 123
 Veitch, S., 97
 Virkar, A.V., 155
 Whalen, P.J., 25
 Willging, P.A., 89
 Winterton, R.C., 155
 Yoshimura, M., 165, 283
 Zilberstein, G., 273

Cambridge University Press

978-1-107-41115-9 - Advanced Structural Ceramics: Materials Research Society

Symposia Proceedings: Volume 78

Editors: P. F. Becher, M. V. Swain and S. Sōmiya

Index

[More information](#)

Subject Index

- aging effects in zirconia
 - at high temperature, 137
 - in moist environment, 147
- alumina, 199
- alumina-titania composites, 283
- alumina-SiC whisker composites, 241
- composites
 - alumina, 155, 189, 241
 - fiber reinforced ceramics, 175, 181, 189, 215, 223, 231
 - mullite, 165
 - silicon carbide, 223, 231, 273
 - silicon nitride, 207, 273, 289, 295
 - whisker reinforced ceramics, 189, 199, 241, 273, 289, 295
 - zirconia, 123, 155, 165
- crack growth behavior
 - Al₂O₃-SiC whisker composites, 241
 - Mg-PSZ, 107
- creep in Si₃N₄-SiC whisker composites
 - compressive, 295
 - flexure, 289
- crystallography
 - ZrO₂, 3
- erosion
 - high temperature gas, 215
 - solid particle, 207
- fatigue, 51
- fibers
 - coatings, 223, 231
 - interfaces, 175, 181, 223, 231
 - strength, 175, 181
- fracture
 - criteria for fiber reinforced ceramics, 175, 181
 - strength
 - whisker reinforced ceramics, 241, 273, 289
 - zirconia ceramics, 97, 123, 137, 147, 155, 165
 - weibull modulus, 181
- grain boundary toughness, 199
- layered structured composites
 - Al₂O₃-ZrO₂, 155
- microcracking
 - Mg-PSZ, 107
- microstructural effects
 - grain boundary crystallization, 223
 - grain boundary segregation, 199
 - grain size, 199, 273
 - second phase morphology, 283
- processing, 165, 273, 283, 289
- R-curve behavior
 - fiber reinforced ceramics, 189
 - Mg-PSZ, 97, 107
 - Y-TZP, 107
- residual stress
 - Al₂O₃-ZrO₂ layered composites, 155
 - in SiC whisker reinforced Al₂O₃, 241
- toughening processes in composites
 - bridging, 175, 241
 - crack deflection, 241, 283
 - fiber reinforcement, 175, 181, 189
 - plati-like second-phase, 283
 - pull-out, 175, 241
 - whisker reinforcement, 189, 241

Cambridge University Press

978-1-107-41115-9 - Advanced Structural Ceramics: Materials Research Society

Symposia Proceedings: Volume 78

Editors: P. F. Becher, M. V. Swain and S. Sōmiya

Index

[More information](#)

306

- transformation of zirconia
 - phase transformations, 3, 17, 25, 43, 51, 61, 75, 89, 97, 123, 147
 - phase stability, 137, 147
 - plasticity, 51, 61, 75
 - reversible, 51
 - temperature dependence, 51, 61, 75, 97, 123
 - texture, 25
 - toughening, 75, 89, 97, 107, 123, 137, 155, 165, 189
 - zones, 43, 75, 107
- zirconia ceramics, 3, 17, 25, 43, 51, 75, 89, 97, 107, 123, 137, 147, 155, 165, 189
 - Ce-TZP, 3, 123
 - Mg-PSZ, 3, 51, 61, 97, 107
 - pure ZrO_2 , 89
 - Y-TZP, 17, 25, 43, 61, 97, 123, 137, 147
 - Y-Ce-TZP, 147
- mechanical properties, 97, 123, 137, 147, 155, 165
- orthorhombic phase, 3
- plastic deformation, 61, 89
- rhombohedral phase, 17