

Cambridge University Press

978-1-107-41122-7 - Rapidly Solidified Alloys and Their Mechanical and Magnetic Properties

Edited by B. C. Giessen, D. E. Polk and A. I. Taub

Index

[More information](#)

459

Author Index

- Alp, E.E., 177
 Altounian, Z., 81
 Ando, T., 105, 455
 Aoki, K., 59
 Ast, D.G., 421
 Aström, H.U., 229
 Atzmon, M., 27

 Barry, J.C., 99
 Bendersky, L.A., 217, 237
 Bergmann, H.W., 3, 335, 429
 Bhatti, A.R., 99
 Brown, A., 285
 Burchards, D., 441

 Calvo, M., 127
 Cammarata, R.C., 69
 Canright, G.S., 159
 Cantor, B., 99
 Chang, Y.A., 207
 Changshu, S., 415
 Chase, S., 181
 Chason, E., 69
 Chen, H.S., 229
 Chermant, J.L., 127
 Chi, C.S., 353
 Chuang, Y-U., 207
 Clark, W.A.T., 23
 Clemens, B.M., 87
 Collins, A.K., 163

 Das, S.K., 281
 Day, R.K., 69
 Dickenson, R.C., 199
 Diebold, A., 115
 Dow, W-H., 169
 Drehman, A.J., 249
 Dunlop, J.B., 69

 Easton, D.S., 93
 Eliezer, D., 293
 Elridge, C.J., 451
 Eylon, D., 365

 Flemings, M.C., 411, 455
 Flinn, J.E., 437
 Pollstaedt, D.M., 233
 Forsyth, D.A., 131
 Froes, F.H., 293, 309, 365

 Gaspar, T., 23
 Giessen, B.C., 131, 241, 299, 377
 Gigliotti, M.F.X., 343

 Grant, N.J., 105, 163, 445
 Gudimetta, K., 203

 Hackman, L.E., 23
 Hadjipanayis, G.C., 187, 199, 203
 Halder, P., 299
 Hara, Y., 105
 Hasegawa, R., 53
 Hehmann, F., 259
 Henning, W., 275
 Henriksen, O., 451
 Hiraga, K., 59
 Hirata, T., 305
 Hoshi, Y., 33, 75
 Hsu, S.E., 19, 169
 Huang, D.R., 19, 169

 Igharo, M., 383
 Inoue, A., 109

 Jackson, A.G., 365
 Jackson, M.R., 389
 Johansen, A., 451
 Johnson, E., 451
 Johnson, W.L., 27, 63
 Jones, H., 259

 Kainer, K.U., 441
 Kaku, S., 305
 Kan, T., 15
 Karpe, N., 229
 Kim, D.Y., 173
 Kim, N.J., 281
 Knapp, J.A., 233
 Koch, E.F., 359
 Kogiku, F., 15
 Kondo, H., 69
 Korth, G.E., 437
 Kroeger, D.M., 93, 159

 Lawless, K.R., 199, 249
 Laxmanan, V., 41
 Lee, N.L., 87
 Lepetre, Y., 177
 Levy, J.C.S., 253
 Lin, J-C., 207
 Lu, Y.Z., 377

 Mahajan, Y.R., 293
 Mahmoud, S.S., 131
 Malik, S.K., 177
 Malmhäll, R., 109, 203, 229
 Mansuripur, M., 181

Cambridge University Press

978-1-107-41122-7 - Rapidly Solidified Alloys and Their Mechanical and Magnetic Properties

Edited by B. C. Giessen, D. E. Polk and A. I. Taub

Index

[More information](#)

460

- Masumoto, T., 59
 McKamey, C.G., 93
 Megusar, J., 445
 Memand, A., 127
 Mercier, D., 253
 Ming, J., 415
 Minor, W., 109
 Mizoguchi, T., 69
 Montano, P.A., 177
 Mordike, B.L., 3, 275, 335, 429, 441
 Mutz, A.H., 123

 Naoe, M., 33, 37, 75, 211, 305
 Nibert, R.K., 123
 Niimura, Y., 211
 Nowotny, H., 425
 Nussbaum, G., 421

 O'Handley, R.C., 141, 163
 Olivier, M., 81
 Osterstock, F., 127
 Otooni, M.A., 405
 Ozawa, M., 15

 Politis, C., 27
 Poon, S.J., 249

 Qi, Z., 415
 Quan, M.X., 241, 299

 Rao, K.V., 109, 203, 229
 Raybould, D., 115, 285
 Riehemann, W., 275
 Roig, A., 109
 Rosenfold, R., 181
 Rowe, R.G., 309, 343, 359, 371
 Ruane, M., 181

 Sahai, Y., 23
 Sarhold-Kristensen, L., 451
 Savage, S.J., 293, 365
 Scarr, G.K., 343
 Schaefer, R.J., 217
 Schulz, R., 87
 Shenoy, G.K., 177
 Shi, C.R., 63
 Shibuya, K., 15
 Shiohara, Y., 411, 455
 Spaepen, F., 69
 Strom-Olsen, J.O., 81
 Strutt, P.R., 425
 Sutliff, J.A., 359, 371

 Tanaka, K., 53
 Tang, J.Y., 63
 Taub, A.I., 389
 Tauqir, A., 425
 Teal, K.R., 365
 Terada, N., 37
 Thadhani, N.N., 123
 Themines, D., 275
 Thomas, S.P., 123

 Unruh, K.M., 27

 Vargas, T., 445
 Vreeland, T., 123

 Walser, R.M., 173
 Wasielewski, G.E., 343
 Werth, J., 299
 Whang, S.H., 353, 377
 Williams, J.C., 343
 Window, B., 69
 Wolniansky, P., 181
 Wood, J.V., 23, 383, 451
 Wright, R.N., 437
 Wu, Y., 411

 Yamamoto, M., 411
 Yao, P.C., 19, 169
 Yeh, X.L., 63
 Yu, H.Y., 19
 Yukumoto, M., 15
 Yunglong, G., 415

 Zhuangqi, H., 415

Cambridge University Press

978-1-107-41122-7 - Rapidly Solidified Alloys and Their Mechanical and Magnetic Properties

Edited by B. C. Giessen, D. E. Polk and A. I. Taub

Index

[More information](#)

461

Subject Index

- activation energy, 241, 377
- Al alloys, 23, 285, 293, 299, 305
- Al-Fe-Mn, 229
- Al-Fe-V, 285
- Al-Li-Zr, 281
- Al-Mn, 217, 229, 233, 237, 241
- Al-Mn-Si, 217
- Al-O, 455
- Al-V, 229, 285
- Al-Y, 299
- amorphous alloys, 3, 19, 27, 53, 59, 63, 69, 75, 81, 87, 93, 99, 105, 109, 115, 123, 127, 141, 159, 169, 173, 177, 181, 229, 249, 253, 275, 309, 405
- anisotropy, 173, 181
- antiphase domains, 365
- atom probe, 127
- atomization, 309, 411, 437, 441
- borides, 3, 99, 309, 389, 415, 445
- boron, 389
- calorimetry, 27, 87, 93, 109, 187, 241, 451
- carbides, 389, 415, 425
- cast iron, 3
- catalysis, 131
- cellular, 41, 441
- Ce, 159
- Ce-S, 359
- Chalmers number, 41
- Co alloys, 141, 163, 445
- Co-B, 173, 445
- Co-Cr, 211
- Co-Fe-B, 173
- Co-Zr, 37, 75
- Co-Ta, 37, 75
- coercivity, 75, 173, 187
- composition modulation, 69, 173
- consolidation, 115, 123, 281, 309, 359, 371, 383, 405, 441
- cooling rate, 3, 15, 23, 41, 241, 275, 309, 353, 389, 441
- creep, 259, 343, 421
- crystal structure, 299
- crystallization, 87, 93, 99, 105, 109, 123, 141, 177, 203, 276, 389, 405, 445
- Cu-B, 451
- Cu-Er, 27
- Cu-Hf, 87
- Cu-Sn, 451
- Cu-Zr, 69, 131
- Curie temperature, 81, 109, 187
- decagonal, 217, 237
- dendrites, 41, 411, 441, 455
- dendrite arm spacing, 15, 23, 411
- diffusion, 63, 69, 421
- dispersoid, 281, 343, 359, 371, 377, 389
- domains, 159, 187
- double roller, 15
- ductility, 87, 127, 159, 259, 343, 359, 389, 405, 441, 445
- elasticity, 211, 285
- electron beam, 217, 233, 425
- embrittlement, 87, 127, 159
- energy product, 187
- equiaxed grains, 15
- Er-O, 309, 359, 371
- eutectoid formers, 309
- EXAFS, 177
- extrusion, 259, 285, 359, 365, 441
- fatigue, 285, 335, 389, 415, 429
- Fe alloys, 37, 163, 207, 441
- Fe-B, 3, 81, 99, 109, 131, 159, 187, 199, 203
- Fe-C, 429, 441
- Fe-Ni-B, 127
- Fe-Ni-Mo-B, 19, 169
- Fe-Cr-Ni-B, 105
- Fe-Si, 15, 75, 99, 109, 159
- Fe-Tb, 187
- Fe-Ti, 69
- flux pinning, 177
- fractals, 253
- fracture toughness, 359
- gas alloying, 3

Cambridge University Press

978-1-107-41122-7 - Rapidly Solidified Alloys and Their Mechanical and Magnetic Properties

Edited by B. C. Giessen, D. E. Polk and A. I. Taub

Index

[More information](#)

462

- glass transition, 87
- grain size, 93, 211, 229, 259, 275, 305, 309, 343, 359, 365, 383, 389, 405, 421, 445
- Hall effect, 229
- hardening, 259, 405, 429
- HIP, 309, 359, 371, 441
- hydrides, 63
- hydrogenation, 131
- hysteresis, 19, 181, 187, 203
- icosahedral, 217, 229, 233, 237, 241, 249, 253
- intermetallics, 87, 187, 217, 259, 359, 389, 421
- ion beam, 37, 69
- ion implantation, 451
- Kerr effect, 181
- laser, 3, 233, 335, 389, 415, 429
- Laves phase, 299
- magnetic shielding, 169
- magnetization, 19, 75, 105, 109, 141, 169, 187, 203
- magnetostriction, 141, 163
- martensite, 353, 383, 451
- melt extraction, 293, 365, 455
- melt overflow, 23
- melt spinning, 15, 19, 93, 99, 123, 131, 159, 163, 169, 199, 203, 229, 259, 281, 359, 383, 389, 445, 451
- metalloids, 187, 309
- metastability, 59, 93, 105, 207, 241, 299, 353, 437
- microcrystalline, 141, 177, 275
- microhardness, 3, 33, 123, 259, 275, 305, 359, 389, 409, 429, 441
- Mg alloys, 23, 259
- Mg-Zn, 275
- Mossbauer, 69
- Nabarro-Herring, 421
- nickel alloys, 207, 389, 405, 415
- Ni-Al, 389
- Ni-B-Si, 53, 421
- Ni-Er, 27
- Ni-Sn, 411
- Ni-Ti, 383
- Ni-Zr, 93, 131, 177
- nucleation, 93, 233
- Ostwald ripening, 377
- particle coarsening, 377
- Pd-Si, 53, 131, 249
- pendant drop, 293, 365
- permanent magnet, 187, 199, 203
- permeability, 19, 141, 169
- phase separation, 87, 93, 141
- planar slip, 281
- plasma deposition, 389
- powder metallurgy, 123, 309, 383, 389
- quasicrystals, 59, 141, 217, 229, 233, 237, 241, 249, 253
- rare earths, 187, 199, 203, 293, 299, 309, 343, 371, 377
- recording, 211
- resistivity, 87, 177, 229
- rolling, 27, 285
- Rutherford backscattering, 451
- short range order, 81, 141, 177, 249
- solute trapping, 455
- spray forming, 389
- sputtering, 33, 37, 69, 75, 173, 211, 305
- steels, 3, 15, 425, 437, 441
- strength, 251, 285, 343, 389, 405, 441, 445
- structural relaxation, 81, 109, 127, 141
- superalloy, 389, 415
- superconducting, 177
- superplastic, 421
- supersaturation, 3, 241, 259, 275, 299, 353, 451

Cambridge University Press

978-1-107-41122-7 - Rapidly Solidified Alloys and Their Mechanical and Magnetic Properties

Edited by B. C. Giessen, D. E. Polk and A. I. Taub

Index

[More information](#)

463

surface treatment, 3, 217,
233, 335, 415, 425, 429
susceptibility, 177

Tb-Fe, 181
TEM, 59, 63, 87, 93, 99, 177,
187, 199, 229, 249, 281,
293, 365, 405, 425, 451,
455
thin film, 33, 37, 69, 75,
173, 211, 305
Ti alloys, 309, 335, 343,
353, 377
Ti-Al, 309, 343, 365, 371
Ti-Al-Nb, 359, 365, 371
Ti-Al-V, 23, 309
Ti-Al-Zr, 343, 365
Ti-N, 33, 335
Ti-Ni, 383
Ti-Ni-Al, 59
Ti-Sn-Y, 377
transformation hardening, 3

undercooling, 411

V-Zr, 177

wear, 123, 335, 429

X-ray, 27, 53, 59, 63, 87,
93, 105, 109, 123, 163,
187, 241, 249, 275, 299,
437

Zr-Hf-Pd-Rh, 63
Zr-O, 455