

Cambridge University Press

978-1-107-40983-5 - Materials Research Society Symposium Proceedings: Volume 229:

Structure/Property Relationships for Metal/Metal Interfaces

Editors: Alton D. Romig, David E. Fowler and Paul D. Bristowe

Index

[More information](#)

355

Author Index

- Alber, I., 65
 Bassani, J.L., 65
 Benoit, W., 255
 Bitler, William R., 233
 Bruynseraede, Y., 41
 Campbell, G.H., 191
 Cao, B., 255
 Chambliss, David D., 15
 Chiang, Shirley, 15
 Chien, C.J., 115
 Cosandey, F., 255
 Dahmen, U., 167
 Danial, M.M., 261
 Dettelbacher, C., 123
 Dowben, P.A., 221
 Dregia, Suliman, 159
 Edmonds, D.V., 273, 325
 Egelhoff, Jr., William F., 27
 Eisenbraun, E.T., 123
 Falco, Charles M., 103
 Farrow, R.F.C., 115
 Foiles, S.M., 179, 191
 Frear, D.R., 303
 Fullerton, Eric E., 41
 Giannuzzi, Lucille A., 233
 Glicksman, M.E., 333
 Gobran, N.K., 261
 Gonis, A., 129
 Hagstrom, S.B., 115
 Hansen, J.C., 9
 Hermsmeier, B.D., 115
 Hillairet, J., 97
 Ho, Paul S., 153
 Howell, Paul R., 233
 Hues, Steven M., 91
 Inoue, Yasushi, 141, 249
 Ito, Toshiya, 79
 Jankowski, Alan F., 53
 Jaszczak, J.A., 85
 Jones, Russell H., 213
 Juhas, Mary C., 319
 Kaizuka, Takeshi, 147
 Kaloyeros, A.E., 123
 Kamel, R., 261
 Kaneko, Takeo, 141, 245, 249
 Kearney, Patrick A., 103
 Khalid, F.A., 273, 325
 Khantha, M., 65
 Kime, Y.J., 221
 King, A.H., 227, 343
 King, Wayne E., 191
 Krause, S.J., 313
 Kumano, Tadashi, 245
 Kwok, Thomas, 153
 Kyuno, Kentaro, 141, 249
 Lanford, W.A., 123
 Lavernia, E.J., 239
 Lee, C.H., 115
 Li, H., 123
 Li, S., 255
 Liang, X., 239
 Lin, C.J., 115
 Mae, Kazuki, 141
 Makous, John L., 91
 Marinero, E.E., 115
 Marks, R.F., 115
 Marsh, S.P., 333
 Mayo, M.J., 197
 Merkle, K.L., 185
 Michael, J.R., 303
 Moody, N.R., 179
 Murarka, S., 123
 Nguyen, Tue, 153
 Nitta, Cynthia, 153
 O'Meara, David L., 281
 Ogu, Shinzo, 141, 249
 Ohyama, Masanori, 147
 Olowolafe, J.F., 123
 Park, M., 313
 Pelosin, V., 97
 Pickering, Howard W., 233
 Pintchovski, F., 123
 Priester, Louisette, 319
 Rodmacq, B., 97
 Romig, Jr., A.D., 303
 Rottman, Craig, 3, 289
 Rühle, M., 191
 Sandlin, A.C., 295
 Sastry, S.M.L., 207
 Sato, Hideyuki, 245
 Schaefer, R.J., 295
 Schaller, R., 255
 Schuller, Ivan K., 41

Cambridge University Press

978-1-107-40983-5 - Materials Research Society Symposium Proceedings: Volume 229:

Structure/Property Relationships for Metal/Metal Interfaces

Editors: Alton D. Romig, David E. Fowler and Paul D. Bristowe

Index

[More information](#)

356

Schwartz, Daniel S., 207

Shewmon, Paul, 159

Shy, Y.-T., 123

Slaughter, J.M., 103

Soe, We-Hyo, 147

Sowa, Erik C., 129

Sun, J., 3

Tobin, J.G., 9

Toscano, P.J., 123

Vanderstraeten, H., 41

Vitek, V., 65

Wagner, M.K., 9

Wang, G.J., 65

Westmacott, K.H., 167

Wien, W., 191

Wilson, Robert J., 15

Wilson, S.R., 313

Wolf, D., 85, 185

Yamamoto, Ryoichi, 79, 141,

147, 245, 249

Yip, Sidney, 153

Yoshihara, Akira, 79, 249

Zhang, Jiandi, 221

Zhang, X.-G., 129

Cambridge University Press

978-1-107-40983-5 - Materials Research Society Symposium Proceedings: Volume 229:

Structure/Property Relationships for Metal/Metal Interfaces

Editors: Alton D. Romig, David E. Fowler and Paul D. Bristowe

Index

[More information](#)

357

Subject Index

- ac calorimetric method, 147
- Ag(100), 27
- Ag/B, 103
- Ag/Cr metallic superlattices, 141, 245, 249
- AgNi superlattice, 97
- Al-2 wt.%Cu, 303
- Al-Cu, 313
- Al-Cu-Si thin films, 313
- Al-Li, 261
- allotriomorphic, 325
- aluminum, 91, 281
- analytical electron microscopy, 303
- anisotropy, 167
- annealing, 97
- Au, 185
- Au(111), 15
- Au/Cr metallic superlattice, 249
- austenite, 273, 325
- bicrystal
 - model, 153
 - symmetry, 167
- bicrystals, 65, 167
- binary alloys, 261
- boundary geometry, 319
- bright field (BF) micrograph, 233
- Brillouin scattering, 79, 249
- brittle intergranular crack propagation, 213
- c/a ratio, 227
- Ce, 255
- cementite, 325
- Co-Pt interfaces, 115
- coarsening, 333
- computer
 - aided experimental design, 281
 - simulations, 153, 179, 185
- concentration-dependent surface-state shifts, 9
- contamination, 91
- crack growth, 213
- CuAl-Pb, 295
- δ phase (AlLi), 261
- δ' phase (Al₃Li), 261
- δ' -solvus line, 261
- dealloying, 213
- deposition, 313
- diffusion induced grain boundary migration (DIGM), 343
- dislocation
 - climb, 343
 - glide, 197
- dissimilar metal interfaces, 159
- elastic
 - anomaly, 85, 249
 - moduli, 65, 79
 - properties, 91, 97
- electrical resistivity, 97
- electromigration, 303
- electronic transport properties, 245
- embedded atom method, 3, 153, 179, 191
- epitaxial growth, 15, 27
- eutectic and monotectic systems, 295
- evaporated multilayer mirrors, 103
- faceting, 167, 185, 289
- Fe, 27
- Fe-Zn, 233
- eta (η) phase, 233
- ferrite, 273, 325
- FeZn₁₃, 233
- monoclinic zeta phase, 233
- fibrous structures, 295
- first-principles electronic-structure calculations, 129
- free surface, 153
- gold-nickel multilayers, 53
- grain
 - boundary
 - growth, 333
 - planar density, 319
 - sliding, 255
 - superlattices, 85
 - boundaries, 65, 123, 153, 191, 197, 295, 303
 - structures, 281
- ground state, 3
- Hall effect, 245
- hardnesses, 197
- hexagonal metals, 227

Cambridge University Press

978-1-107-40983-5 - Materials Research Society Symposium Proceedings: Volume 229:

Structure/Property Relationships for Metal/Metal Interfaces

Editors: Alton D. Romig, David E. Fowler and Paul D. Bristowe

Index

[More information](#)

358

- high-resolution
 - angle resolved photo-emission, 9
 - electron microscopy (HREM), 167, 185
- hydrogen segregation, 179
- interfacial
 - dislocation structure, 227
 - energy, 159, 295
- intermetallic phase formation, 233
- intermixing, 27
- interphase precipitation, 273
- intragranular Widmanstätten, 325
- ion milling, 233
- iron stress-corrosion, 213
- island arrays, 15
- lattice model, 3
- ledges, 325
- linear striations, 325
- magnetization, 141
- martensite, 273, 325
- mazed bicrystal, 167
- mercury overlayers, 221
- metallic superlattices, 41, 79, 85, 91, 97, 115, 141, 245, 249, 261, 313
- metallizations, 303
- microalloying, 273
- microstructure, 103, 167
- misfit dislocations, 289
- MoNi, 91
- Mo/Si, 103
- model generalized pseudo-potential theory, 191
- molecular
 - beam epitaxy (MBE), 103, 115
 - dynamics, 85, 153
- multiple-scattering theory, 129
- nanocrystalline, 197
- Nb, 191
- Ni-20 wt% Cr alloys, 255
- Ni₃Al/SiC/TiB₂, 239
- nucleation and growth processes, 15
- oxygen, 91
- particle rotation, 159
- Pd/B, 103
- pearlite, 273
- phase separation, 333
- photoelectron forward scattering, 115
- plastic deformation, 197
- pre-melting, 153
- precipitation, 261
- Rayleigh wave velocity, 79, 249
- reconstruction, 3
- resistivity, 141
- rose plot, 167
- $\Sigma 5(210)[001]$ grain boundary, 191
- $\Sigma = 2$ order-changing boundary, 207
- scanning tunneling microscopy, 15
- selected area diffraction patterns (SADPs), 233
- selective copper CVD, 123
- semicoherent interfaces, 289
- silicide, 103
- sinks, 197
- sintering, 333
- slip transmission, 207
- solute segregation, 319
- spray atomization and co-deposition, 239
- stability, 65
- strain rate, 197
- structural
 - disorder, 85
 - refinement, 41
 - property relationships in materials, 129
- substrate interactions, 123
- supermodulus effect, 53, 85
- surfaces, 3
- tearing-modulus, 213
- thermal
 - conductivity, 147
 - desorption, 221
- Ti-49Al-3Nb, 207
 - α phase, 207
 - γ phase, 207
 - γ/α_2 interphase boundary, 207
- tilt-grain boundaries, 129, 167, 179, 185
- transition metal/noble metal multilayer, 245
- transmission electron microscopy (TEM), 233
- trap site binding energy, 179
- twist grain boundaries, 129
- two
 - dimensional phase transition, 221
 - layer interactions, 281
- ultrathin metal films, 15
- vacancy sources, 197

Cambridge University Press

978-1-107-40983-5 - Materials Research Society Symposium Proceedings: Volume 229:

Structure/Property Relationships for Metal/Metal Interfaces

Editors: Alton D. Romig, David E. Fowler and Paul D. Bristowe

Index

[More information](#)

359

Wiedemann-Franz law, 147

X-ray diffraction, 41, 141

XIPS-forward-scattering, 27

Young's modulus, 97