

Cambridge University Press

978-1-107-41044-2 - Materials Research Society Symposium Proceedings: Volume 147:

Ion Beam Processing of Advanced Electronic Materials

Editors: N. W. Cheung, A. D. Marwick and J. B. Roberto

Index

[More information](#)

397

Author Index

- Abernathy, C. R., 261
 Adams, P. M., 303
 Ashok, S., 247
 Atwater, Harry A., 107

 Barger, M. J., 175
 Beck, S. E., 73
 Berger, S. D., 223
 Blauner, Patricia G., 127
 Boehme, R. F., 53
 Bowman, R. C., Jr., 303
 Braunstein, G., 191, 279
 Brown, I. G., 91, 229, 391
 Brown, Walter L., 107
 Buchanan, B., 235
 Bulle-Lieuwma, C. W. T., 179
 Burton, L. C., 309
 Bussmann, Udo, 217

 Cantoni, P., 75
 Cardone, F., 315
 Cargill, III, G. S., 53
 Carl, D., 91
 Cerofolini, G. F., 75
 Chang, J. C. P., 53
 Chen, J. C., 175
 Chen, L. J., 33
 Chen, Samuel, 191, 279
 Cheng, Guoan, 357
 Cheng, J. Y., 33
 Cheung, N. W., 91, 97, 391
 Choyke, W. J., 113
 Chu, P. K., 97
 Clark, C., 73
 Cortesi, E., 235, 241
 Current, M. I., 365

 Dafesh, P. A., 303
 Descouts, B., 273, 345
 de Souza, J. P., 315
 Devaty, R. P., 113
 De Veirman, Ann, 217
 Dietrich, H., 285
 Dobisz, E. A., 285
 Dubner, A. D., 155
 Dugger, D. L., 385

 Duhamel, N., 345

 El-Ghor, M. K., 19, 169

 Fahey, Paul, 61
 Fan, D., 79
 Fan, W. D., 321, 327
 Fellingner, P., 279
 Frabboni, S., 75
 Frank, B. S., 297

 Ganin, E., 13
 Gao, Y., 345
 Giedd, R. E., 377
 Grob, A., 197
 Grob, J. J., 197
 Grobler, Michael F., 119
 Gwilliam, Russell, 217

 Harbison, J. P., 285
 Häussler, Wulf, 333
 Herman, M. H., 303
 Hobson, W. S., 261
 Holland, O. W., 169
 Honeycutt, J. W., 3
 Hong, S-N, 27
 Hren, J. J., 27
 Hsu, Y. J., 351
 Huggins, H. A., 223
 Hwang, H. L., 351

 Jaccodine, R. J., 73, 79
 Jackson, K. A., 39
 Jeynes, Chris, 217
 Jones, K. S., 339

 Kahen, K. B., 291
 Kanber, H., 175
 Katz, B., 229
 Kavanagh, K. L., 53
 Kawamoto, Y., 143
 Kisker, D., 339
 Knudsen, J. F., 303
 Kolbas, R. M., 297

Cambridge University Press

978-1-107-41044-2 - Materials Research Society Symposium Proceedings: Volume 147:

Ion Beam Processing of Advanced Electronic Materials

Editors: N. W. Cheung, A. D. Marwick and J. B. Roberto

Index

[More information](#)

398

Lacquet, Bea M., 119, 253

Landuyt, J., 217

Larson, L. A., 365

Lee, S.-Tong, 191, 279

Lieberman, M. A., 91

Lin, C.-M., 161

Lindner, J. K. N., 217

Liu, J., 97

Loretto, D., 223

Lowen, P. D., 339

Lu, T.-M., 207

Lur, W., 33

Marwick, A., 13

McCormick, A. W., 285, 297

Melngailis, John, 127

Moss, S. C., 303

Müller, J., 333

Murphy, M., 377

Mutikainen, R., 391

Myers, E., 27

Namavar, F., 235, 241

Nava, F., 75

Norcott, M. H., 315

Ott, M. L., 291

Ottaviani, G., 75

Patrizio, D. B., 161, 297

Pearson, S. J., 261

Peng, Yingguo, 357

Pennycook, S. J., 19, 45

Perio, A., 197

Peterson, D. L., 291

Polman, A., 179

Praseuth, J. P., 345

Pronko, P. P., 161, 297

Qian, X. Y., 91

Rai, A. K., 161, 297

Rajeswaran, G., 191, 279, 291

Rao, E. V. K., 345

Reeson, Karen J., 217

Rozgonyi, G. A., 3

Ruan, J., 113

Rubico, T. M., 385

Rubin, M. D., 391

Ruggles, G. A., 27

Rutz, R. F., 315

Sadana, D. K., 315

Sealy, Brian J., 217

Shipman, J., 377

Short, K. T., 223

Shukuri, S., 143

Siffert, P., 197

Sinke, W. C., 179

Sioshansi, P., 235, 241

Smith, D. D., 303

Soref, R. A., 241

Spitznagel, J. A., 113

Srikanth, K., 247

Steckl, A. J., 161

Stern, M. B., 385

Stolk, P. A., 179

Swart, Pieter L., 119, 253

Tamura, M., 143

Tasselli, J., 273

te Kaat, E. H., 217

Thevenin, P., 197

Tonini, R., 75

Ueng, H. Y., 351

Vandenhoudt, D. E. W., 179

Vaseashta, A., 309

Wagner, A., 155

Walter, J. W., 333

Wang, W. Y., 321, 327

Ward, I. D., 303

White, Alice E., 223

White, C. W., 169

Wong, H., 91, 97

Wood, Susan, 113

Wu, I. C., 229

Yu, J., 339

Yu, K. M., 91, 97, 229, 391

Zheng, L. R., 291

Zhou, B. L., 327

Zuhr, R. A., 19

Cambridge University Press

978-1-107-41044-2 - Materials Research Society Symposium Proceedings: Volume 147:

Ion Beam Processing of Advanced Electronic Materials

Editors: N. W. Cheung, A. D. Marwick and J. B. Roberto

Index

[More information](#)

399

Subject Index

- activation
 - electrical, 73
- adsorption, 155
- Al, 127
- AlGaAs, 285
- amorphization, 85, 119, 261
- annealing, 73, 113, 169, 191, 247, 315, 321, 327, 351
 - laser, 53
- As, 19, 143, 385
- Au, 127, 155
- BF₂, 143
- bond
 - dangling, 39
- boron, 113, 273
- cascade
 - collision, 297
- CdTe, 351
- channeling, 197
- characteristics
 - I-V, 247
- circuits
 - integrated, 127
- compounds
 - III-V, 333
- contamination, 365
- CoSi₂, 217, 223
- Cr, 127
- crystal
 - single, 197
- crystallization, 179
- CuInS₂, 351
- damage, 119, 161, 169, 261, 297
 - implantation-induced, 61, 207
 - residual, 13, 85
- defects, 191, 197, 303
 - electrically active, 73
 - lattice, 143
 - point, 97, 107
 - recovery, 85
- deposition, 155, 207
- devices
 - channel, 235
- diffraction
 - x-ray, 53
- diffusion, 45, 73
 - enhanced, 79
- dislocation, 13, 19
- dopants
 - effects in SiC, 113
- doping, 315, 339
 - oxygen, 247
- EBER, 303
- efficiency
 - activation, 321, 327
- EXAFS, 53
- films
 - polymer, 377
- forces
 - image, 19
- GaAs, 185, 261, 303, 309, 315, 321, 327
- GaAs/AlGaAs, 291, 297
- GaAs/GaAlAs, 273
- gas
 - adsorbed, 127
- germanium, 61
- gettering, 91, 97
- grain boundaries, 107
- growth
 - crystal, 179
- heterointerface, 247
- heterostructures, 273, 333, 345
- HREM, 207
- implantation, 97, 113, 241, 285, 339, 351, 357, 365
 - boron, 79, 85, 143
 - Ge, 61, 235
 - ⁴He⁺, 303
 - high dose, 223, 229
 - ion, 53, 73, 91, 119, 217, 229, 247, 261, 273, 279, 291, 303, 321, 327, 333
 - recoil, 315
 - S₂⁺, 321
 - SiF_n⁺, 321

Cambridge University Press

978-1-107-41044-2 - Materials Research Society Symposium Proceedings: Volume 147:

Ion Beam Processing of Advanced Electronic Materials

Editors: N. W. Cheung, A. D. Marwick and J. B. Roberto

Index

[More information](#)

400

- implants
 - dual ion, 327
 - MeV, 169, 179, 185, 191, 197
 - oxide, 73
 - S, 185
- In, 13
- InAlAs, 345
- infrared, 377
- InGaAs, 345
- inhibition, 279
- InP/InGaAs, 333
- interdiffusion, 291
- interface
 - Si/SiO₂, 235
- ion beam
 - focused, 127, 161
 - mixing, 297
 - modification, 391
 - synthesis, 217
- ion-induced
 - crystallization, 39
 - deposition, 127
 - motion, 39
- ions
 - Column III, 161
 - MeV, 169, 185, 191, 197
 - self, 207
- irradiation, 107
 - ion, 169
- IrSi₃, 229
- isolation
 - high-voltage, 241
- junctions
 - electrical, 365
 - shallow, 13, 19, 73, 161
- kinetics, 13, 113
- layers
 - buried, 13, 217, 223, 229
 - intermixing, 279
- leakage
 - back channel, 235
- loops, 13
- LPE, 53
- masks
 - submicron, 143
 - x-ray lithography, 127
- measurement, 155
- mechanism
 - declustering, 73
- mesotaxy, 223
- MEVVA, 391
- Mg⁺, 385
- microhardness, 113
- mobility, 321, 333
- MOVPE, 333
- multilayers
 - Nd/Fe, 357
- nanostructures, 223
- Nd/Fe, 357
- neon, 113
- nucleation/growth, 169
 - heterogeneous, 107
- optical
 - interconnects, 241
 - waveguide, 241
- ordering
 - enhanced surface, 207
- oxygen
 - implants in GaAs, 273
 - recoiled, 79
- partially ionized beams, 207
- particulate, 365
- phosphorous, 61, 113, 143, 351
- photoconductivity, 309
- photoluminescence, 345
- photoquenching, 309
- photoreflectance, 303
- photoresist, 385
- plasma, 91
- polyimide, 385
- PRAL, 385
- profiling, 327
 - capacitance-voltage, 185
 - impurity, 143
- range data, 385
- RBS/channeling, 113, 191
- recrystallization, 45
- reflectance
 - in-situ, 119
- reflectivity, 179
- reflectometer
 - automated, 119
- regrowth, 113, 261
- repair, 127

resistance	W, 127
spreading, 217	wires
resistor, 377	narrow, 223
RTA, 19, 53, 73, 185, 291, 333	wurtzite, 339
scattering	
Raman, 303	XTEM, 19, 217
segregation, 45	Y-Ba-Cu-O, 391
semiconducting, 377	yield
shielding, 241	sputtering, 155
Si, 161, 169, 285, 315	
amorphous, 39, 107, 179	Z-contrast, 45
polycrystalline, 107	ZnSe, 339
self-interstitials, 61	
SiC, 113	
Si:Ga, 53	
silicide	
buried iridium, 229	
silicon	
implanted, 81	
SIMOX, 241	
simulation, 143	
Monte-Carlo, 13, 291	
SIMS, 185, 333, 385	
SiO ₂ , 241	
SOI, 235, 253	
source	
ion, 391	
SPE, 45	
spectra	
PL, 321, 327	
spectroscopy, 253	
stability	
crystal, 107	
STEM, 45	
stopping power, 385	
stress, 253	
superlattices, 279, 285, 297	
surface cleaning, 207	
Ta, 127	
tail	
arsenic, 73	
TEM, 143, 191, 197, 279, 339	
titanium, 113	
transistors, 273	
ULSI, 3, 365	