

Cambridge University Press

978-1-107-41367-2 - Materials Research Society Symposium Proceedings: Volume 525:

Rapid Thermal and Integrated Processing VII

Editors: Mehmet C. Öztürk, Fred Roozeboom, Paul J. Timans and Sylvia H. Pas

Index

[More information](#)

AUTHOR INDEX

- Abbate, Agostino, 135
 Abedrabbo, S., 95
 Abramson, A.R., 15
 Acharya, N., 21
 Achimov, D.A., 103
 Acker, A.R., 207
 Agarwal, Vikas, 257
 Ahmed, H., 27
 Allen, D.W., 87
 Anthony, Brian, 135
 Antonenko, K.I., 39
 Apte, Pushkar P., 319, 325, 331

 Baert, K., 307
 Ban, I., 283
 Bandara, S.V., 385
 Banerjee, Sanjay, 257
 Basa, C., 199
 Bender, H., 307
 Besser, P., 297
 Binger, M., 219
 Bishop, S.G., 385
 Blosse, Alain P., 371
 Bolze, D., 379
 Borca-Tasciuc, T., 103
 Breedijk, Terence, 319, 331
 Brillson, L.J., 151
 Brosilow, B.J., 365
 Burch, R., 325

 Carroll, M.S., 273
 Chang, C.L., 213, 273
 Chang, Y., 121
 Chang, Y.C., 385
 Chao, C.Y., 121
 Chao, Chih-Ping, 289, 331
 Chen, C.Y., 121
 Chen, G., 103
 Chen, Y., 339
 Choi, Kwon-Young, 391
 Chow, Judy W., 237, 263
 Claasen, T., 3
 Claflin, B., 219
 Collart, E.J.H., 227
 Curtis, A.P., 385

 Das, J., 143
 Davis, J., 325
 DeBoer, S., 339
 de Cock, G., 227
 De Potter, M., 297
 Dewitt, D.P., 87
 Ditchfield, R., 57
 Donaton, R.A., 307
 Downey, Daniel F., 237, 257, 263

 Eichhorn, G., 39
 Elia, Curtis, 71

 Faller, F.R., 63
 Feng, M., 385
 Flory, A.T., 95
 Fischer, G., 379
 Foad, M.A., 227

 Gibson, C.E., 127
 Gilboa, Y.E., 365
 Glück, M., 237
 Gokce, O.H., 95
 Gunapala, S.D., 385
 Gutt, Thomas, 51

 Han, Min-Koo, 391
 Hasper, A., 3
 Hattangady, S., 181
 Hauser, John R., 157, 163, 171, 187
 Heinisch, H.H., 163
 Hensel, J.C., 95
 Henson, W.K., 157
 Heyns, Marc M., 51
 Hong, Q.Z., 331
 Hsieh, K.C., 385
 Hsu, Wei-Yung, 359
 Hu, Yao Zhi, 45
 Hurrie, A., 63
 Hwang, Ming, 359

 Irene, E.A., 199

 Jeon, Yongjoo, 193
 Jin, S., 307

 Kim, S., 385
 Kippenberg, T., 157
 Kissinger, G., 379
 Kittl, Jorge A., 319, 331
 Klimek, Dan, 135
 Knoll, D., 379
 Kondoh, Eiichi, 51, 297
 Kotidis, Petros, 135
 Kreider, K.G., 87
 Kuehn, R.T., 207
 Kuehne, J., 181
 Kuerschner, S., 157
 Kuo, H.C., 385

 Langouche, G., 307
 Lauwers, A., 297
 Lee, Byoung Hun, 193
 Lee, Jack C., 193
 Lee, K.L., 283
 Lee, M.H., 121
 Lee, Min-Cheol, 391
 Lerch, Wilfried, 237, 263
 Levy, S., 365
 Li, V.Z.-Q., 207
 Lin, Boyang, 359

Cambridge University Press

978-1-107-41367-2 - Materials Research Society Symposium Proceedings: Volume 525:

Rapid Thermal and Integrated Processing VII

Editors: Mehmet C. Öztürk, Fred Roozeboom, Paul J. Timans and Sylvia H. Pas

Index

[More information](#)

- Liu, C.W., 121
 Liu, H.C., 385
 Liu, Jinning, 257
 Liu, P., 313
 Lopes, Dave, 181, 359
 Lovas, F.J., 87, 127
 Lu, Jiong-Ping, 359
 Lucovsky, G., 151, 157, 187, 219

 Maex, Karen, 51, 297, 307
 Marcus, Steven D., 237, 263
 Marquardt, H., 237
 Masnari, N.A., 157, 163
 Miaoulis, I.N., 15
 Miner, Gary, 71, 181, 359
 Mirabedini, M.R., 207
 Mozumder, P.K., 325
 Murrell, A.J., 227

 Nényei, Zsolt, 51
 Niess, Juergen, 263
 Nieva, P., 15
 Niimi, H., 151

 OConnor, Kathy, 359
 Osburn, C.M., 157, 163
 Öztürk, M.C., 207, 283

 Pan, G.Z., 313
 Parihar, V., 339
 Park, Kee-Chan, 391
 Parker, C., 163
 Parker, C.G., 157
 Parker, C.R., 187
 Pas, Mike F., 331, 359
 Peuse, Bruce, 71
 Pezoldt, J., 39
 Piccirillo, Joe, 181, 359
 Pollack, Gordon, 319
 Poole, K.F., 339
 Prinslow, Douglas A., 319
 Proost, J., 297

 Qi, Wen-Jie, 193

 Radelaar, S., 3
 Rainova, Yu.P., 39
 Rao, Suraj, 319, 325
 Ravindra, N.M., 95
 Ren, L.P., 313
 Renken, Wayne, 109, 115
 Ritter, G., 379
 Rodder, M., 331
 Rogne, H., 27
 Roozeboom, Fred, 351

 Saraswat, K.C., 143
 Saxena, Sharad, 319, 325
 Schäfer, J., 151
 Schäfer, M., 237
 Schenk, A., 39

 Schillinger, N., 63
 Schley, P., 379
 Seebauer, E.G., 57
 Sengupta, D.K., 385
 Sharangpani, R., 143, 339
 Shiau, W.T., 331
 Singh, R., 339
 Sopori, B., 95
 Srinivasa, Raghu, 257
 Srivastava, A., 163
 Steegen, A., 297
 Stillman, G.E., 385
 Stolwijk, N.A., 237
 Sturm, J.C., 213, 273

 Tada, H., 15
 Tauber, R., 181
 Tay, Sing Pin, 45, 143
 Thakur, R.P.S., 143, 339
 Tillack, B., 379
 Timans, P.J., 21
 Tinani, M., 199
 Tong, F.M., 95
 Tsai, B.K., 87, 127

 Unnikrishnan, Sreenath, 289

 Van De Leest, René E., 351
 Vandenabeele, Peter, 109, 115
 Van Driel, R., 3
 Vantomme, A., 307
 Vasanth, Karthik, 319, 325
 Vasudev, P.K., 339
 Venables, D., 207
 Vereecke, Guy, 51
 Violette, Katherine E., 289
 Vogel, E., 163

 Walk, H., 237
 Wise, Rick, 289
 Wolansky, D., 379
 Wong, P.Y., 15
 Woo, C.S., 313
 Wortman, J.J., 157, 163, 207
 Wu, Y., 187

 Xing, Gary C., 181, 359

 Yam, Mark, 71
 Yang, C.C., 121
 Yang, H., 331
 Yang, M., 273
 Yang, T.C., 143
 Yee, K.F., 157
 Yoon, Chan-Eui, 391
 Young, A.P., 151
 Yu, N., 331

 Zagrebnov, M., 307
 Zavracky, P., 15
 Zawadzki, Keith, 193

Cambridge University Press

978-1-107-41367-2 - Materials Research Society Symposium Proceedings: Volume 525:

Rapid Thermal and Integrated Processing VII

Editors: Mehmet C. Öztürk, Fred Roozeboom, Paul J. Timans and Sylvia H. Pas

Index

[More information](#)

SUBJECT INDEX

- absorption
 - band-gap, 15
 - free-carrier, 15
 - lattice, 15
- AES, 219
- amorphous silicon, 391
- APIMS, 51
- arsenic
 - diffusion, 257
 - implantation, 263
- atmospheric ionization mass spectrometry, 51
- atomic force microscopy, 199
- Auger electron spectroscopy, 219
- blackbody, 127
- boron
 - diffusion, 237, 273
 - effective barrier to, 181
 - implantation, 227, 263
 - penetration through thin oxide, 181, 213
- BST, 193
- BST/TiO₂, 193
- carbon, 273
- cathodoluminescence spectroscopy, 151
- chemical
 - stability, 219
 - vapor deposition
 - equipment for thin-film solar cells, 63
 - low-pressure, 379
 - rapid
 - photothermal, 339
 - thermal, 39, 207, 213, 273, 283, 365, 379
 - remote plasma enhanced, 187
 - ultrahigh vacuum rapid thermal, 283
- chlorine, 283
- cleaning, in situ, 365
- CMOS, 313, 325, 331
- cobalt silicide, 297, 325, 331
- contact resistance, 319
- cost per wafer, 3
- crystallinity, 351
- cycle time, 3
- D-t, 57
- deep level, 151
- defect reduction, 339
- detector, 385
- diborane, 207, 283
- dielectrics, 157
- diffusion
 - As and As₂, oxygen effect, 257
 - boron, oxygen effect, 237
 - dopant, 57
- disilane, 207, 283
- dopant diffusion, 57
- drain extension, 227
- drive current, 319
- edge effects, 39
- effective bond-orbital method, 385
- electrical activation, 227
- ellipsometry, 199
- emissivity, 27, 95
- measurement, 71
- equipment
 - batch, 3
 - cost per wafer, 3
 - cycle time, 3
 - fast ramp, 3
 - single wafer, 3
 - temperature response, 21
 - throughput, 3
- figure of merit, 319
- flow
 - conditions, mixed and forced, 39
 - dynamics, 39
- FOM, 319
- gaseous impurities, 51
- gate
 - dielectric
 - high dielectric constant, 171, 193
 - nitride, 27, 171, 187
 - oxide, 27, 143, 151, 157, 163, 171, 193, 199, 219
 - oxynitride, 181
 - stacked, 187
 - sheet resistance, 319
- glassy films, 351
- grating temperature measurements, 121
- HBT, 379
- heat transfer model, 21
- hemispherical grained polysilicon, 365
- heterojunction bipolar transistor, 379
- high dielectric constant, 171, 193
- holographic interferometry, 39
- HSG, 365
- infrared, 27
 - detection, 307
- InGaAs/InP, 385
- in situ
 - boron doped
 - poly-SiGe gate, 207
 - polysilicon gate, 207
 - cleaning, 365
 - doping, 283
 - monitoring, 51
- interference, 121
- intermixing, 385
- internal stress reduction, 371

Cambridge University Press

978-1-107-41367-2 - Materials Research Society Symposium Proceedings: Volume 525:

Rapid Thermal and Integrated Processing VII

Editors: Mehmet C. Öztürk, Fred Roozeboom, Paul J. Timans and Sylvia H. Pas

Index

[More information](#)

- iron silicate, 351
- isothermal, 115
- kinetic optimization, 57
- laser
 - ablation, 121
 - ultrasonic, 135
- low pressure chemical vapor deposition, 379
- LPCVD, 379
- manufacturability, 319, 339
- metastable glass, 351
- model based control, 109
- molybdenum, 331
- MOS
 - devices, 171, 207
 - gate(-)
 - dielectric
 - high K, 193
 - materials, 171
 - stack, 157, 171, 193, 213
- MOSFET
 - dual gate, 273
 - gate electrode, 213
 - nanoscale, 273
 - scaling, 171
 - source and drain structures, 171, 325
 - vertical, 273
- multi-point temperature measurement, 71
- multi-zone lamp heating, 71
- NIST, 115
- nitric oxide, 181
- NO, 181
- nucleation, 199
- OED, 257, 263
- opaque, 15
- oxidation
 - enhanced diffusion, 257, 263
 - model, 143
 - pyrogenic steam, 143
 - remote plasma assisted, 187
 - wet, 143
 - WSi_x, 371
- oxide, 143, 151, 157, 163, 171, 193, 199
- oxygen analyzer, 45
- oxynitride, 181
- perfectly stirred tank, 45
- performance, 319
- physical mechanism, 319
- PID, 109
- plasma
 - deposition, 151
 - enhanced deposition, 187
- platinum silicide, 307
- polycondensation, 351
- polycrystalline
 - SiGeC, 213, 273
- silicon, 391
- poly-SiGe, 207
- poly-SiGeC, 213
- polysilicon, 365, 391
 - hemispherical grained, 365
- preamorphization, 331
- process integration, 319, 339
- PST, 45
- pyrometer, 95
- quantum photoeffects, 339
- radiation thermometer, 127
- radiometric
 - calibration, 127
 - temperature, 127
- ramp-up rate, 227
- rapid
 - photothermal chemical vapor deposition, 339
- thermal
 - annealing, 151, 219, 237, 371, 385, 391
 - chemical vapor deposition, 39, 207, 213, 273, 283, 365, 379
- reliability, 339
- remote plasma
 - assisted oxidation, 187
 - enhanced chemical vapor deposition, 187
- residual gases, 45
- reverse short channel effect, 325
- roughness, effect on emissivity, 95
- RTA, 151, 219, 237, 371, 385, 391
- RTCVD, 39, 207, 213, 273, 283, 365
- salicide, 237, 297, 313, 325, 331
- self-aligned, silicidation, 237, 297, 313, 325, 331
- self-interstitial supersaturation, 237
- SiGe, 379
 - heteroepitaxy, 379
- SiGeC, 213, 273
- silicide(-)
 - ambient effect, 297
 - cobalt, 297, 325, 331
 - platinum, 307
 - self-aligned, 237, 297, 313, 325, 331
 - titanium, 297, 313, 319, 325, 331
 - to-diffusion contact resistance, 319
- silicon
 - amorphous, 391
 - conversion yield, 63
 - dioxide, 27, 143, 151, 157, 163, 171, 193, 199, 219
 - epitaxy, 283, 289
 - nitride, 27, 171, 187
 - polycrystalline, 391
- simulation, 21
- single wafer equipment, 3
- solar cell, 63
- sol-gel, 351
- source and drain structures, 283, 319, 325
- spike anneal, 227

sputtering, 307	thermocouple, 87, 109, 115
stability	thin(-)film, 63, 87
chemical, 219	transistor, 391
thermal, 371	throughput, 3
stress, internal, 371	TiN _x , 219
temperature	TiO ₂ , 193
calibration, 71	titanium silicide, 297, 313, 319, 325, 331
wafer, 87, 115	transistor drive current, 319
control, 71	transparency, 15
measurement, 71, 115, 135	ultrahigh vacuum rapid thermal chemical
grating, 121	vapor deposition (UHV-RTCVD), 283
radiometric, 127	uncertainty, 127
TFT, 391	
thermal	WN _x , 219
budget, 57	WSi _x , 317
stability, CVD WSi _x , 371	