

Author's Index*

A

Ackerman, T., 348, 352
Adams, F.C., 326, 333
Agee, E., 344, 350
Al-Madani, N., 102, 106, 146, 183, 216,
217, 221, 253, 262
Alcamo, J., 320, 328
Alessio, S., 27, 39
Allard, D., 339, 352
Allen, P.D., 388, 422
Allen, R.I., 317, 332
Allen, S.E., 98, 105
Aloysius, K.L., 64, 71
Ames, J., 234, 246
Anderson, G.E., 74, 91
Anderson, S.F., 319, 328
Anfossi, D., 102, 105, 206, 207, 219
Angell, J.K., 37, 38, 39
Anthes, R.A., 74, 91
API. *See* Applied Modeling, Inc.
Appel, B.R., 341, 350
Applied Modeling, Inc., 234, 246
Arkadev, A.G., 324, 328
Arnason, G., 127, 136
Arritt, R.W., 268, 294, 295
Arvin, J., 327, 331
Arya, S.P., 53, 71
Asimakopoulos, D.N., 264, 294
Atkinson, R., 225, 226, 228, 246
Auer, L.H., 349, 351
Ayra, S.P., 125, 136

B

Bacastow, R.B., 343, 350
Bacci, P., 304, 328
Baer, M., 271, 272, 293
Baerentsen, J.H., 193, 206, 207, 208, 219
Baker, M.S., 258, 261
Bankoff, S.G., 312, 313, 328
Barakat, S., 302, 330
Barnes, H.M., 242, 247
Barnes, M.G., 324, 328
Barone, J.B., 307, 328
Barrie, L.A., 251, 262
Bartnicki, J., 320, 328
Bass, A., 165, 180, 267, 294, 339, 350
Baulch, D.L., 225, 226, 246
Behar, J.V., 327, 330, 331
Benarie, M.M., 34, 39
Bencala, K.E., 385, 422
Bender, L.W., 356, 424
Bender, M.A., 64, 72
Benkley, C.W., 165, 180
Benocci, C., 216, 219
Berge, P., 34, 39, 299, 328
Bergstrom, R.W., 338, 339, 351
Berkovicz, R., 193, 206, 207, 208, 219
Berkowitz, C.M., 277, 295
Beryland, B.T., 385, 423
Best, P.R., 148, 180
Bhumralkar, C.M., 32, 40, 320, 332
Bilonick, R.A., 258, 261
Birks, J.W., 348, 350
Bjorklund, J.R., 98, 105, 158, 180, 273,
274, 292
Bodero, J., 302, 332
Bolzern, P., 304, 312, 313, 328, 331
Bonino, G., 102, 105
Book, D.L., 122, 136
Boris, J., 122, 136

* Index includes pages where authors are referred to as "et al." in reference citations.

428 Authors' Index

- Bornstein, R.D., 85, 91, 268, 292, 319, 328, 347, 349, 350, 388, 422
- Boubel, R.W., 45, 46, 72, 217, 221, 276, 296
- Bowers, J.F., 98, 105, 158, 180, 273, 274, 292
- Box, G.E., 304, 328, 332
- Brandt, H., 277, 296
- Braverman, E.M., 324, 328
- Briatore, L., 27, 39
- Briggs, G.A., 95, 96, 97, 98, 100, 102, 104, 105, 150, 152, 167, 168, 180, 181, 207, 210, 217, 219, 272, 276, 278, 279, 292, 293
- Bringfelt, B., 97, 105
- Britter, R.E., 264, 292
- Brock, J.R., 242, 247
- Brost, R.A., 85, 90, 91, 134, 138, 386, 422
- Brown, P.S., 127, 136
- Brummage, K.G., 97, 105
- Brusasca, G., 206, 207, 219, 386, 425
- Budney, L.J., 274, 292
- Buishand, T.A., 306, 328
- Bunker, S.S., 79, 85, 89, 91, 93, 215, 221, 385, 387, 422, 423, 425
- Burt, E.W., 388, 422
- Burton, C.S., 73, 85, 91
- Businger, J.A., 53, 61, 71, 101, 105, 125, 136
- Buttazoni, C., 300, 331
- Byrd, G., 74, 79, 92
- C**
- Cahill, T.A., 307, 318, 328, 331
- Calby, R.H., 270, 294
- Calder, K.L., 117, 136, 164, 180
- Calvert, J.G., 227, 246
- Caniparoli, D., 258, 261
- Carboni, G., 99, 106
- Carhart, R.A., 38, 40, 280, 292
- Carmichael, G.R., 234, 246, 255, 262, 385, 425
- Carpenter, S.B., 97, 105
- Carras, J.N., 101, 105, 135, 136
- Carter, W.P., 231, 246
- Cass, G.R., 284, 295, 341, 350
- Catalano, J.A., 387, 423
- Cats, G.J., 302, 328
- Caughey, S.J., 55, 63, 71
- Cermak, J.E., 210, 220
- Chambers, L.A., 1
- Chan, L.Y., 339, 353, 425
- Chan, M.W., 144, 165, 180, 189, 219, 387, 422
- Chan, S.T., 277, 278, 293, 294, 386, 387, 422
- Chang, J.S., 85, 90, 91, 386, 422
- Chang, Y.S., 255, 262, 385, 425
- Cheney, C., 158, 180, 273, 274, 292
- Chinkin, L.R., 73, 85, 91
- Chock, D.P., 122, 136, 302, 305, 307, 328
- Chow, J.C., 317, 328
- Chujo, Y., 312, 313, 332
- Chung, Y.S., 38, 39
- Church, H.W., 127, 136
- Cicerone, R.J., 345, 350
- Clark, T.L., 90, 91
- Cogan, J.L., 216, 219
- Coke, L., 38, 40
- Colbaugh, W.C., 97, 105
- Colbeck, I., 349, 350
- Cole, H.S., 160, 181, 268, 269, 294
- Collins, H.M., 190, 220, 230, 234, 246, 378, 423
- Cooper, J.A., 317, 328
- Cote, O.R., 55, 72
- Cotton, W., 268, 294
- Cox, R.A., 225, 226, 246
- Croke, E.S., 144, 166, 182
- Crutzen, P.J., 225, 226, 246, 348, 350
- Cullis, C.F., 7, 8, 9, 10, 24

Currei, A.J., 267, 293
 Cvencek, S., 340, 353

D

Dabberdt, W.F., 272, 292
 Dana, M.T., 37, 39
 Danard, M., 74, 91
 Davies, T.D., 258, 261
 Davis, R.E., 185, 219
 Deardorff, J.W., 27, 40, 54, 55, 63, 69,
 71, 126, 134, 135, 136, 139, 193, 210,
 219, 221
 DeMarrais, G.A., 148, 180
 Dempsey, D.P., 74, 92
 Demuth, C., 117, 119, 120, 136
 Desalu, A.A., 313, 328
 DiChristofaro, D.C., 162, 182, 385, 424
 Dickerson, M.H., 74, 78, 91, 386, 422
 Dickinson, R.E., 345, 350
 Dieterle, D.A., 268, 292
 Dietz, T.M., 307, 328
 Dignon, J., 9, 10, 11, 24
 Dobbins, R.A., 49, 71, 142, 180, 346, 350
 Dobosy, R., 268, 292
 Dodge, M.C., 235, 237, 246, 386, 422
 Donaldson, C. duP., 133, 136
 Doplick, T.G., 344, 351
 Doran, J.C., 249, 252, 261
 Douglas, S.G., 73, 80, 85, 91, 385, 422
 Drake, R.L., 30, 31, 39
 Draxler, R.R., 145, 146, 147, 156, 173,
 180, 272, 292
 Drivas, P.J., 189, 219, 281, 282, 283, 293,
 339, 350, 387, 388, 389, 390, 422,
 423
 Drufuca, G., 302, 329
 Dunker, A.M., 122, 136
 Dunn, W.E., 38, 40
 Durbin, P.A., 194, 219
 Durran, D.R., 59, 71, 137

Dutton, J.A., 31, 39, 41, 43, 50, 51, 52,
 53, 55, 57, 58, 63, 64, 67, 72, 152,
 182

Dzubay, T.G., 340, 352
 de Baas, A.F., 193, 205, 211, 219
 de Valk, J.P., 101, 106, 133, 134, 135,
 138

E

Eastwood, J.W., 190, 192, 219
 Edgerton, S.A., 324, 329
 Edwards, L.L., 349, 351
 Egan, B.A., 122, 136, 263, 264, 265, 267,
 292, 293, 294, 387, 423
 Eidsvik, K.J., 275, 276, 292
 Eisenbud, M., 5
 Eldred, R.A., 307, 318, 328, 331
 Eldridge, K., 11, 12, 24
 Electric Power Research Institute, 385, 422
 Elisei, G., 27, 39
 Eltgroth, M.W., 339, 350, 387, 422
 ENSR, 161, 180, 285, 286, 288, 293
 Endlich, R.M., 324, 329, 386, 423
 Enger, L., 134, 136
 Environmental Research and Technology.
See ENSR
 EPA. *See* U.S. Environmental Protection
 Agency
 EPRI. *See* Electric Power Research Institute
 ERT. *See* ENSR
 Ermak, D.L., 277, 278, 293, 294, 386,
 387, 422
 Eschenroeder, A.Q., 356, 423
 Escudier, M., 97, 105
 Eynon, B.P., 324, 329

F

Fabrick, A., 162, 180
 Fang, K.Y., 255, 261
 Farber, R.J., 101, 105, 304, 331
 Fast, J.D., 90, 91

430 Authors' Index

Fay, J.A., 97, 105, 277, 293
Fedorov, V.V., 324, 329
Ferber, G.J., 37, 38, 39
Ferman, M.A., 340, 350
Finlayson-Pitts, B.J., 31, 39, 223, 229,
230, 231, 236, 237, 238, 239, 246,
257, 261
Finzi, G., 300, 304, 329, 333
Flassak, T., 75, 79, 92
Flocchini, R.G., 307, 328
Fox, D.C., 319, 329
Fox, D.L., 45, 46, 72, 217, 221, 276, 296
Fox, T.D., 165, 181
Frantzen, A.J., 306, 328
Freeman, B.E., 74, 92
Fronza, G., 300, 304, 312, 313, 314, 328,
329, 331, 333
Fruehauf, G., 80, 91
Fryer, L.S., 282, 293
Fu, K.S., 324, 329
Fukanaga, K., 329
Fung, I., 344, 350

G

Gaffen, D.J., 216, 219
Gamo, M., 207, 221
Garland, J.A., 251, 253, 261
Garratt, J.R., 53, 71
Gasiorek, L.S., 167, 171, 174, 181
Geai, P., 79, 91, 386, 422
Gebhart, K., 318, 331
Gelbard, F., 242, 246
Georgopoulos, P.G., 300, 329, 356, 423
Gery, M.W., 231, 246
Gifford, F.A., 126, 127, 133, 136, 149,
150, 151, 180, 193, 194, 219
Gilbert, R.O., 299, 329
Gingold, R.A., 214, 219
Gipson, G.L., 237, 246, 387, 423

Giugliano, M., 302, 329
Glatzmaier, G.A., 349, 351
Glendening, J.W., 101, 105
Gnyp, A.W., 336, 352
Godden, D.A., 230, 234, 246
Golay, M.W., 95, 101, 105
Golder, D., 60, 71, 272, 293
Golding, S.H., 234, 246
Gomez, M.L., 326, 329
Gooden, D.A., 190, 220, 378, 423
Goodin, W.R., 42, 71, 78, 91, 123, 124,
126, 137, 231, 234, 247
Goodman, J.K., 38, 39
Gordon, G.E., 317, 329
Gould, L.A., 313, 328
Grebogi, C., 34, 39, 299, 329
Green, A.E., 149, 181
Green, D., 148, 180
Greene, B., 267, 294
Greenly, G.D., 195, 221
Gresho, P.M., 195, 221
Gryning, S.E., 54, 71, 147, 181
Gschwandtner, G., 11, 12, 24
Gschwandtner, K., 11, 12, 24
Guldberg, P.H., 356, 423
Gulfreund, P.D., 385, 423

H

Hage, K.D., 127, 136
Hahn, E., 341, 350
Hales, J.M., 165, 181, 257, 259, 261
Hall, C.D., 193, 219
Hall, F.V., III, 387, 423
Halpern, P., 80, 91
Hamawi, J.N., 159, 181
Hameed, S., 9, 10, 11, 24
Hamming, W.J., 304, 332
Hampton, R.F., Jr., 225, 226, 246
Haney, J.L., 73, 85, 91, 234, 247

- Hanna, S.R., 35, 39, 95, 103, 105, 128, 133, 136, 137, 146, 148, 158, 161, 167, 168, 181, 182, 185, 196, 209, 217, 219, 255, 262, 267, 271, 272, 275, 276, 278, 279, 281, 282, 283, 293, 295, 320, 321, 322, 329, 330, 385, 388, 389, 390, 423, 425
- Hansen, J., 344, 350
- Hanzevack, E.L., 312, 313, 328
- Harrison, H., 18, 24, 258, 261
- Harrison, R.M., 349, 350
- Hartwig, S., 277, 293
- Harvey, R.B., Jr., 159, 181
- Haselman, L.C., Jr., 349, 351
- Hasse, L., 256, 262
- Haszpra, L., 131, 137
- Hatcher, R.V., 267, 294
- Havens, J.A., 277, 293
- Hayes, S.R., 234, 246
- Head, J.H., 179, 182
- Head, S.J., 165, 180
- Heck, W., 64, 72
- Heffter, J.L., 37, 38, 39, 156, 173, 180
- Heidam, N.Z., 322, 330
- Heinold, D.W., 322, 329, 339, 350
- Henderson, D., 268, 295
- Henderson-Sellers, B., 22, 24, 98, 101, 105, 387, 423
- Henn, D.S., 90, 91, 101, 106, 134, 139, 387, 424
- Henriksen, A., 19, 24
- Henry, R.C., 306, 315, 316, 317, 330
- Hicks, B.B., 255, 256, 261, 262
- Hidy, G.M., 5, 24, 306, 330
- Hileman, B., 344, 350
- Hino, M., 313, 330
- Hirschberg, M.A., 189, 220
- Hirschler, M.M., 7, 8, 9, 10, 24
- Hobbs, P.V., 18, 24, 339, 350, 387, 422
- Hockney, R.W., 190, 192, 219
- Hoecker, W.H., 37, 38, 39
- Hogan, A.W., 256, 262
- Hogo, H., 218, 220, 231, 247, 339, 340, 351
- Hogstrom, A.S., 68, 71
- Hogstrom, U., 68, 71
- Hoke, J.E., 74, 91
- Holdren, M.W., 324, 329
- Holland, J.Z., 97, 106
- Holtslag, A.A., 53, 54, 56, 70, 71, 72, 147, 181, 302, 328
- Hopke, P.K., 315, 316, 317, 330
- Horowitz, J., 302, 330
- Horst, T.W., 249, 261
- Hosker, R.P., Jr., 95, 105, 167, 168, 181, 217, 219, 276, 278, 279, 293
- Houghton, D.D., 249, 261
- Hoult, D.P., 97, 105
- Hsu, J., 341, 350
- Huang, C.H., 117, 119, 120, 137, 139, 179, 181
- Huber, A.H., 273, 274, 293
- Hudischewskij, A.B., 242, 247
- Hunt, J.C., 69, 71, 221, 264, 292, 294
- I**
- Idso, S.B., 344, 350
- Ireson, R.G., 339, 351
- Irwin, J.S., 54, 59, 71, 128, 137, 272, 294, 319, 322, 330
- Isaksen, I.S., 85, 90, 91, 386, 422
- Ishihara, H., 312, 313, 332
- J**
- Jacobsen, O., 277, 294
- Jain, A.K., 344, 351
- James, J., 59, 71
- Janicke, L., 206, 219
- Jazwinski, A.H., 311, 330
- Jenkins, G.J., 264, 294
- Jenkins, G.M., 304, 328, 330
- Jensen, N.O., 132, 137

432 Authors' Index

Johnson, C.D., 338, 339, 351
Johnson, R.G., 32, 40, 320, 331

K

Kabel, R.L., 256, 261
Kahn, H.D., 302, 330
Kaimal, J.C., 55, 71
Kaiser, G.D., 282, 293
Kaleel, R.J., 268, 294
Kalman, R.E., 310, 330
Kanowski, M., 148, 180
Keeling, C.D., 343, 350
Keen, C.S., 268, 270, 294, 295
Kelly, N.A., 340, 350
Kempen, G.T., 306, 328
Kennedy, A.S., 144, 166, 182
Kern, C.D., 122, 138
Kerr, F.A., 225, 226, 246
Kerr, J.A., 227, 246
Kerr, R.A., 347, 348, 350
Kessler, R.C., 80, 91, 385, 422
Kidd, G.E., 206, 221
Killus, J.P., 231, 246, 247, 338, 339, 351
King, D.S., 79, 91, 385, 422, 423
Kinsman, J.D., 258, 262
Kitada, T., 234, 246
Klotz, S., 85, 91, 388, 422
Knittel, G., 79, 92
Knudsen, M.E., 275, 296
Koomanoff, F.A., 344, 352
Koopman, R.P., 278, 294
Kothny, E.L., 341, 350
Krogstad, P.A., 277, 294
Kumar, R., 32, 40, 320, 332

L

Lacis, A., 344, 350
Lal, D., 256, 262

Lal, M., 344, 351
Lalas, D.P., 264, 294
Lamb, B., 264, 295
Lamb, R.G., 34, 39, 112, 117, 122, 135, 137, 144, 166, 181, 193, 194, 214, 218, 220
Lange, R., 195, 218, 220, 221, 385, 423
Langstaff, J.E., 320, 327, 330, 332
Larsen, R.I., 302, 330
Larson, T.V., 340, 352
Latimer, D.A., 318, 331, 338, 339, 340, 351
Lavagnini, I., 300, 331
Lavery, T.F., 162, 182, 267, 294, 385, 424
Lawson, L.A., 195, 221
Lawson, R.E., Jr., 194, 220
Lawver, B.S., 195, 221
Layton, A.P., 304, 332
Lazorick, S., 127, 136
Leavitt, J.M., 97, 105
Lebedeff, S., 344, 350
Lee, I.Y., 32, 40, 320, 332
Lee, J.T., 194, 220
Legg, B.J., 200, 206, 220
LeMone, M.A., 55, 72
Lenschow, D.H., 63, 68, 72
Leone, J.A., 229, 246
Lester, P., 80, 91
Lettau, H.H., 130, 137
Levitt, S.B., 305, 307, 328
Levitz, M., 127, 136
Lewellen, W.S., 32, 39, 90, 91, 101, 106, 133, 134, 137, 139, 387, 424
Lewis, C.W., 315, 316, 317, 330, 340, 352
Lewis, R., 99, 106, 339, 347, 352, 353, 425
Ley, A.J., 200, 206, 220
Lin, G.Y., 306, 331
Lins, H.F., 11, 24
Lipfert, F.W., 335, 351
Liss, P.S., 256, 262

- Little, R.J., 299, 330
 Liu, C.S., 385, 423
 Liu, M.-K., 32, 40, 59, 71, 74, 91, 126, 137, 234, 247, 320, 327, 330, 331, 332, 387, 424
 Lloyd, A.C., 225, 226, 228, 246
 Londergan, R.J., 32, 40, 320, 331
 Long, Jr., P.E., 122, 138
 Longhetto, A., 27, 39, 107, 108, 110, 111, 137, 319, 331
 Lorimer, G.S., 214, 215, 220
 Ludwig, F.L., 32, 40, 74, 79, 92, 146, 147, 167, 171, 174, 181, 320, 324, 327, 329, 331, 332, 388, 422
 Lupini, R., 179, 181
 Lurmann, F.W., 190, 220, 230, 234, 246, 378, 423
 Lyons, W.A., 160, 181, 268, 269, 270, 294, 295
- M**
- Machiraju, S., 165, 180
 Machta, L., 37, 38, 39
 MacRae, B.L., 268, 294
 Madronich, S., 85, 90, 91, 386, 422
 Mahoney, J.R., 122, 136
 Mahrer, Y., 69, 72, 85, 88, 92, 268, 295, 386, 423
 Malm, W., 318, 331
 Malone, R.C., 349, 351
 Manabe, S., 343, 344, 351
 Mandelbrot, B.B., 326, 331
 Manins, P.C., 102, 103, 106
 Mann, C., 11, 12, 24
 Marani, A., 300, 331
 Martin, D.O., 144, 164, 181
 Martin, M.C., 326, 329
 Martinez, J.R., 189, 220, 385, 423
 Mason, P.J., 264, 268, 294, 295
 Mass, C.F., 74, 92
 Matamala, L., 99, 106
 Matheron, G., 323, 331
 McBean, G.A., 304, 332
 McElroy, J.L., 151, 181, 327, 330, 331
 McLaughlin, S.B., 335, 351
 McNalley, D.E., 244, 247, 388, 424
 McNaughton, D.J., 32, 37, 39, 40, 277, 295, 320, 332
 McNider, R.T., 85, 88, 92, 268, 295, 386, 423
 McRae, G.J., 42, 71, 78, 91, 123, 124, 126, 137, 231, 234, 236, 247
 Melli, P., 144, 179, 181, 268, 295, 312, 313, 331
 Melsa, I.L., 311, 332
 Mercer, J.H., 343, 351
 Meszaros, E., 131, 137
 Middleton, P., 85, 90, 91, 386, 422
 Millan, M., 38, 39
 Miller, A., 38, 39
 Miller, R., 85, 91, 388, 422
 Miller, T.L., 327, 331
 Mischberg, M.A., 385, 423
 Mitchell, J.F., 349, 351
 Mitsumoto, S., 27, 39
 Mobley, D., 11, 12, 24
 Monaghan, J.J., 214, 219
 Monin, A.S., 54, 64, 72
 Montgomery, T.L., 97, 105
 Moon, D.A., 268, 294, 295
 Moore, G.E., 32, 40, 320, 331, 332
 Moores, W.H., 264, 294
 Moran, M.D., 268, 295
 Morgan, D.L., 277, 293, 386, 387, 422
 Morris, L.K., 277, 293, 386, 387, 422
 Morris, R.E., 32, 40, 320, 332
 Morton, K.W., 121, 138
 Moussafir, J., 386, 425
 Moussiopoulos, N., 75, 79, 92
 Mundkur, P., 59, 71
 Munger, R.B., 388, 422
 Munkelwitz, H.R., 341, 352

434 Authors' Index

Munnich, K.O., 256, 262
Murphy, A.H., 322, 331
Murray, L.C., 304, 331
Mutschlecner, J.P., 79, 91, 385, 422
Myers, T.C., 32, 40, 234, 246, 320, 332
Myrup, L.O., 124, 138

N

NAS. *See* National Academy of Sciences
Nakamori, Y., 327, 331
National Academy of Sciences, 347, 351
Nazaroff, W.M., 284, 295
Newell, R.E., 344, 351
Nichols, D.G., 258, 261
Nicholson, B.R., 385, 423
Nicholson, K.W., 250, 255, 261
Nieuwstadt, F.T., 30, 33, 39, 41, 53, 54,
55, 64, 69, 70, 71, 72, 101, 106, 110,
133, 134, 135, 138, 139, 160, 182,
193, 196, 197, 205, 211, 219, 220,
221, 268, 296
Nilsson, N.J., 324, 331
Nitz, K.C., 32, 40, 320, 332, 386, 423
Noll, K.E., 255, 261, 327, 331
Norco, J.E., 327, 331
Nordsieck, R.A., 189, 220, 385, 423
Novikov, E.A., 185, 220
Nychka, D., 347, 352

O

O'Dell, R.A., 256, 261
O'Riordan, T., 23, 24
Obukhov, A.M., 54, 64, 72
Oh, S., 312, 313, 332
Olivari, D., 216, 219
Oliver, W.R., 234, 247
Orszag, S.A., 122, 138
Osayuki, Y., 207, 221
Ott, E., 299, 329

Ottar, B., 37, 39

P

Pack, D.H., 37, 38, 39
Paine, R.J., 161, 181, 271, 272, 293, 387,
423
Palmer, S.G., 63, 71
Pandolfo, J.O., 61, 72
Panofsky, H.A., 41, 43, 50, 51, 52, 53,
55, 57, 58, 63, 64, 67, 68, 72, 146,
152, 182
Parker, S.F., 90, 91, 101, 106, 134, 139,
387, 424
Pasquill, F., 49, 72, 117, 138, 145, 146,
182, 271, 272, 295
Patnack, P.C., 74, 92
Pechinger, U., 85, 91, 388, 422
Pedadda, A.R., 304, 332
Pellerin, I., 304, 332
Penner, J.E., 349, 351
Pepper, D.W., 122, 138
Perhac, R.M., 37, 39
Peters, L.K., 234, 246
Petersen, E.L., 132, 137
Petersen, J.T., 306, 331
Peterson, E.W., 69, 71
Peterson, W.B., 319, 330, 356, 424
Phillips, G.T., 74, 76, 77, 92, 386, 423
Phillips, M.S., 56, 63, 64, 72
Phillips, P., 146, 182
Pielke, R.A., 31, 39, 41, 69, 72, 73, 74,
80, 83, 84, 85, 88, 90, 92, 268, 294,
295, 318, 331, 386, 423
Pierce, T.E., 356, 387, 423, 424
Pilinis, C., 241, 242, 243, 247, 341, 342,
351, 352
Pitts, J.N., Jr., 31, 39, 223, 229, 230, 231,
236, 237, 238, 239, 246, 257, 261
Plackett, R.L., 310, 331
Pleim, J.E., 161, 181, 256, 261, 271, 272,
293
Policastro, A.J., 38, 40, 103, 104, 106,
280, 292, 295

Pollack, J.B., 348, 352
 Pollack, R.I., 327, 331
 Pomeau, Y., 299, 328
 Pooler, F., 151, 181
 Poostchi, E., 336, 352
 Poreh, M., 210, 220
 Powell, D.C., 165, 181
 Puttock, J.S., 27, 40, 264, 294

R

Ramanathan, V., 345, 352
 Ranzieri, A.J., 124, 138
 Rao, K.S., 55, 72
 Rao, S.T., 319, 330
 Rasmussen, R.A., 345, 352
 Rauffer, R.K., 327, 331
 Raupach, M.R., 206, 220
 Redman, T.C., 304, 333
 Reid, J.D., 193, 220
 Reid, L.E., 218, 220, 234, 246
 Reijnders, H.F., 306, 328
 Reinsel, G., 347, 352
 Reiquam, H., 133, 138
 Reynolds, S.D., 32, 40, 234, 246, 320, 331, 332
 Richards, K.J., 264, 292
 Riches, M.R., 344, 352
 Richiardone, R., 102, 105
 Richtmyer, R.D., 121, 138
 Rinaldi, S., 300, 333
 Rind, D., 344, 350
 Roberts, E.M., 302, 332, 385, 423
 Roberts, J.J., 144, 166, 182
 Roberts, P.T., 73, 85, 91
 Robinson, E., 6, 18, 24
 Robson, R.E., 179, 182
 Rodriguez, D.J., 78, 92, 195, 221
 Romesburg, H.C., 324, 332

Roth, P.M., 126, 137, 234, 247, 356, 387, 423, 424
 Rounds, W., 117, 138
 Roy, R., 304, 332
 Rubin, D.B., 299, 330
 Ruedy, R., 344, 350
 Ruff, R.E., 32, 40, 167, 171, 174, 181, 320, 332
 Runca, E., 116, 122, 138, 144, 164, 179, 181, 182, 268, 292, 295
 Russell, G., 344, 350
 Ryan, D., 23, 24
 Ryan, W., 264, 295

S

SAI. *See* Systems Applications, Inc.
 Sacre, C., 264, 295
 Sagan, C., 348, 352
 Sage, A.P., 311, 332
 Salvador, R., 388, 422
 Samson, P.I., 304, 332, 385, 423
 Samuelsen, G.S., 339, 351
 Sardei, F., 122, 138
 Sawaragi, Y., 312, 313, 327, 331, 332
 Sawdey, E.R., 270, 294
 Sawford, B.L., 193, 194, 206, 221
 Schacher, G.E., 273, 296
 Schatzmann, M., 100, 103, 104, 106, 280, 295
 Scheff, P.A., 317, 332
 Schere, K.L., 122, 138
 Schiermeier, F.A., 263, 292
 Schneider, S.H., 344, 352
 Schuh, J.A., 268, 270, 294, 295
 Schulman, L.L., 158, 161, 181, 182, 271, 272, 275, 293, 295
 Schwartz, S.E., 249, 261
 Schweppe, F.C., 313, 328
 Scire, J.S., 158, 182, 255, 262, 385, 425
 Scott, B.C., 258, 261
 Seaman, N.L., 90, 91

436 Authors' Index

- Segal, M., 85, 88, 92, 268, 295, 386, 423
Sehmel, G., 114, 115, 138, 250, 255, 256, 262
Seigneur, C., 32, 40, 90, 91, 92, 223, 227, 228, 234, 235, 238, 241, 242, 244, 247, 320, 327, 330, 331, 387, 424
Seinfeld, J.H., 28, 29, 31, 40, 42, 71, 78, 84, 91, 92, 117, 123, 124, 125, 126, 137, 138, 179, 182, 187, 221, 225, 226, 227, 229, 231, 234, 236, 238, 241, 242, 243, 246, 247, 257, 258, 259, 262, 300, 302, 327, 329, 332, 342, 351, 356, 385, 422, 423
SethuRaman, S., 268, 269, 270, 296
Severance, P.W., 317, 328
Shadoan, D.J., 307, 328
Shannon, J.D., 32, 40, 320, 332
Shaw, R.W., 340, 352
Sheih, C.M., 32, 40, 167, 182, 320, 332
Sherman, C.A., 74, 78, 92, 386, 424
Shieh, L.J., 76, 92, 115, 138, 386, 388, 422, 424
Shigemitsu, K., 300, 333
Shir, C.C., 76, 92, 115, 124, 138, 386, 424
Simpson, J.E., 69, 71
Simpson, R.W., 302, 304, 332
Singhal, R.P., 149, 181
Sirois, A., 251, 262
Sivertsen, B., 54, 71, 147, 181
Sklarew, R.C., 76, 93, 162, 180, 424
Skupniewicz, C.E., 273, 296
Slawson, P.R., 103, 106
Slingo, A., 349, 351
Slinn, W.G., 256, 262
Sluchak, P.S., 302, 328
Small, M.I., 385, 423
Smith, F.B., 117, 138, 139, 193, 221, 252, 262
Smith, M.E., 150, 159, 182, 322, 330
Smith, T.B., 356, 423
Snyder, W.H., 264, 273, 293, 294, 296
Soeda, T., 312, 313, 332
Sorbjan, Z., 70, 72
Souten, D.R., 73, 85, 91
South Coast Air Quality Management District, 14, 24
Spangler, T.C., 103, 106, 356, 423
Spengler, J.D., 317, 328
Spirito, A., 312, 313, 314, 329, 331
St. Pierre, C.C., 336, 352
Starheim, F.J., 275, 296
Stauffer, D.R., 90, 91
Steenkist, R., 160, 182, 268, 296
Stern, A.C., 1, 2, 4, 5, 12, 16, 18, 23, 24, 45, 46, 72, 95, 102, 106, 122, 133, 139, 142, 182, 217, 221, 276, 285, 296, 335, 345, 352
Stevens, R.K., 340, 352
Stocker, R., 318, 331
Stockwell, W.R., 85, 90, 91, 386, 422
Stoeckenius, T.E., 32, 40, 320, 331
Stone, G.L., 194, 220
Stone, P., 344, 350
Strauss, W., 6, 24
Street, R., 85, 91, 388, 422
Strimaitis, D.G., 162, 182, 385, 424
Strom, G.H., 95, 102
Stuhmiller, J., 101, 106
Stumer, L., 148, 180
Stunder, M., 268, 269, 270, 296
Surman, P.G., 302, 332
Sutherland, V.C., 103, 106
Sutton, S.B., 277, 296
Switzer, P., 312, 319, 333
Sykes, R.I., 32, 39, 90, 91, 101, 106, 134, 137, 139, 264, 294, 295, 387, 424
Systems Applications, Inc., 240, 241, 247, 340, 352, 387, 424
- ## T
- Tagliazucca, M., 117, 120, 139, 386, 424
Taheri, M., 256, 261
Takle, E.S., 90, 91

Tang, I.N., 341, 352
 Tapp, M.C., 90, 92
 Tauber, S., 324, 332
 Taylor, G.I., 125, 139, 206, 215, 221
 Taylor, P.A., 264, 296
 Tebaldi, G., 304, 329
 Telegradas, K., 37, 38, 39
 Tennekes, H., 63, 68, 72
 Terrel, T.R., 305, 307, 328
 Tesche, T.W., 234, 244, 247, 387, 388, 424
 Teske, M.E., 133, 134, 137
 Thomas, F.W., 97, 105
 Thomson, D.J., 196, 206, 208, 210, 220, 221
 Thurtell, G.W., 206, 221
 Tiao, G.C., 304, 332, 347, 352
 Tilley, T., 304, 332
 Tinarelli, G., 206, 207, 219, 386, 425
 Tingle, A.G., 268, 292
 Tirabassi, T., 117, 120, 139, 179, 181, 386, 424
 Tokiwa, Y., 341, 350
 Tombach, I., 13, 24, 144, 180, 336, 339, 340, 352, 353
 Tonielli, A., 314, 329
 Toon, O.B., 348, 349, 351, 352
 Traci, R.M., 74, 76, 77, 92, 386, 423
 Tran, K.T., 76, 93, 190, 191, 221, 388, 424
 Treiman, E., 339, 353, 386, 425
 Trivikrama, S.R., 304, 332
 Troe, J., 225, 226, 246
 Tsukatami, T., 300, 333
 Tung, K.K., 346, 347, 352
 Turco, R., 348, 352
 Turner, D.B., 45, 46, 72, 97, 98, 102, 106, 149, 158, 159, 182, 217, 221, 272, 276, 296, 319, 330, 356, 387, 423, 424

U

U.S. Environmental Protection Agency, 24, 25, 143, 148, 151, 182, 281, 287, 296, 356, 357, 358, 387, 388, 393, 394, 424, 425
 U.S. EPA. *See* U.S. Environmental Protection Agency
 Ueda, H., 27, 39
 Ulbrick, E.A., 133, 139
 Urone, P., 2, 4
 Uthe, E.E., 324, 329

V

Van Borm, W.A., 326, 333
 Varhelyi, G., 131, 137
 Vaudo, C.J., 267, 293
 Veigele, W.J., 179, 182
 Venkateswar, R., 149, 181
 Venkatram, A., 56, 59, 72, 130, 132, 139, 256, 261, 263, 267, 294, 296, 319, 323, 324, 325, 326, 333
 Vidal, C., 299, 328
 Vittori, O., 256, 262
 Voldner, E.C., 251, 262
 van Dop, H., 30, 33, 39, 110, 138, 160, 182, 193, 196, 197, 205, 211, 219, 220, 221, 268, 296
 van den Eshof, A.J., 306, 328
 van der Hoven, I., 275, 296
 van Haren, L., 101, 106, 135, 139
 van Stijn, T.L., 134, 138
 van Ulden, A.P., 56, 72

W

Wadden, R.A., 317, 332
 Waggoner, A.P., 340, 352
 Walcek, C.J., 85, 90, 91, 386, 422
 Walker, H., 195, 221
 Walmsley, J.L., 264, 296
 Wang, M.N., 347, 352
 Warner, T.T., 90, 91

438 Authors' Index

Warren, D.R., 242, 247
Wastag, M., 38, 40
Watson, J.G., 317, 318, 331, 333
Watson, R.P., 225, 226, 246
Watts, D.G., 304, 330
Wayne, L.G., 189, 219, 387, 422
Wecksung, M., 339, 353, 386, 425
Weil, J.C., 103, 106
Weisman, B., 270, 296
Weiss, R.W., 340, 352
Wesely, M.L., 255, 262
Wetherald, R.T., 343, 344, 351
Whitby, E.R., 242, 247
Whitby, K.T., 242, 247
White, B.R., 277, 296
White, P.W., 90, 92
White, W.H., 337, 339, 352
Whitney, D.C., 126, 137, 234, 246
Whitten, G.Z., 231, 247
Whorf, T.P., 343, 350
Wiener, N., 308, 310, 333
Wigley, T.M., 103, 106
Wilczak, J.M., 56, 63, 64, 72
Williams, D.J., 101, 105, 135, 136
Williams, M.D., 339, 353, 386, 425
Williams, P.C., 302, 333
Williamson, H.I., 315, 316, 317, 330
Williamson, S.J., 2, 12, 25, 44, 45, 47, 72, 143, 153, 182
Willis, G.E., 27, 40, 126, 134, 135, 136, 139, 210, 221
Wilson, J.D., 162, 180, 206, 221
Wisniewski, J., 258, 262

Wolff, G.T., 340, 350
Wong, W.T., 341, 352
Wood, M.C., 349, 351
Wyngaard, J.C., 33, 55, 63, 68, 71, 72, 263, 296

Y

Yamada, T., 85, 89, 93, 215, 221, 386, 387, 388, 425
Yamamoto, S., 207, 221
Yamartino, R.J., 154, 183, 255, 256, 261, 262, 385, 425
Yang, H., 346, 347, 352
Yeh, G.T., 117, 119, 139
Yocke, M.A., 59, 71, 74, 91
Yorke, J.A., 299, 329
Yoshimura, T., 312, 313, 332
Young, P., 308, 333
Yu, C.H., 268, 295

Z

Zalesak, S.T., 122, 139
Zannetti, P., 99, 102, 106, 117, 120, 139, 146, 165, 167, 168, 170, 171, 175, 176, 177, 183, 193, 200, 202, 203, 206, 207, 216, 217, 219, 221, 222, 253, 262, 268, 295, 300, 309, 312, 319, 333, 386, 424, 425
Zeman, O., 275, 276, 297
Zemba, S.G., 277, 293
Ziemer, S., 280, 292
Zilitinkevich, S.S., 53, 69, 72
Zinsmeister, A.R., 304, 333

SUBJECT INDEX

- ACID, 385
- adaptive mode, 308
- ADEPT, 385
- ADI method, 90
- ADPIC, 385
- adverse effects, 12, 335
- aerosol, 237, 241
- AeroVironment, Inc., v
- air pollution
 - definition of -, 2
 - history of -, 1
 - meteorology, 41
 - trends, 10
- AIRTOX, 283
- albedo, 344
- APRAC-3, 366, 368
- AQDM, 366, 367
- ARAMS, 88, 385
- ARRPA, 366, 367
- ASCOT, 267
- ATMOS1, 79, 385
- AVACTA II, 99, 169, 366, 369

- Batch simulation, 302
- Bessel function, 120
- BIQUINTIC, 122
- BLP, 158, 358
- bootstrap, 322
- Box-Jenkins method, 304
- box model, see modeling
- buoyancy
 - flux parameter, 96
 - phenomena, 215
 - surface - flux, 168
- Boussinesq approximations, 84, 86
- bridge of circumstantial evidence, 317
- Brownian motion, 250, 257
- Brunt-Vaisala frequency, 264
- building
 - cavity, 274
 - squat -, 274
 - tall -, 274

- CALGRID, 255, 385
- California Air Resources Board, 355
- CALINE 3, 358, 359
- carcinogenic compounds, 13-14, 244
- CDM, 358, 360

- Chandrasekar-type equations, 313
- CHARM, 283
- chemical mass balance, 315
 - see also modeling, receptor -
- chemistry, 223
 - aerosol -, 237
 - decay or first order reactions, 156, 173, 216
 - of nitrate formation, 241
 - of sulfate formation, 238
 - photo -, 224, 225, 226
- clear-air turbulence, 43
- closure
 - second-order - model, see modeling
- cluster analysis, 324
- coastal diffusion, 160, 267
- COBRA, 283
- COMPLEX, 267, 385
- complex terrain, 162, 263
- COMPTER, 366, 369
- Computational Mechanics
 - Institute, v
 - Publications, 355
- continuity equation, 83
- control
 - led trading, 29
 - pollution -, 2
 - strategy, 29
- cooling tower plumes, 103, 278
- coordinate transformation
 - terrain -, 77
- criteria pollutants, 285
- critical downwind distance, 96
- critical height, 264
- CRSTER, 357, 358, 363
- CTDM, 162, 267, 385
- Cunningham correction factor, 257

- decoupling, 320
- DENZ, 283
- deposition
 - dry -, 156, 172, 216, 249
 - wet -, 156, 172, 216, 257
- desulfurization, 103
- diffusivity
 - artificial - or - error, 122
 - horizontal -, 125
 - vertical -, 123
- DIFKIN, 189, 385
- DOE, see U.S. DOE
- Donley Technology, 355
- downwash
 - stack tip -, 98

440 Subject Index

- DWM, 80, 385
- ECC Joint Research Center, Ispra, v
- eddy
 - coefficients, see diffusivity
 - dissipation rate, 168
 - scalar - viscosity, 58
 - transfer coefficient, 87
- EKMA, 235, 386
- ENAMAP-2, 386
- ensemble mean, 110, 116, 186, 195, 319, 323
- entrainment interfacial layer, 55
- Environmental Software
 - Directory, 355
 - journal, 355
 - report, 355
- EPA, see U.S. EPA
- EPRI, 101, 134, 267, 320
- ERTAQ, 366, 370
- ERT visibility model, 366, 371
- Eulerian, see modeling
- EURASAP, 355
- factor analysis, see modeling, receptor -
- FEM3, 277, 386
- fitting mode, 306
- flushing time, 131-132
- flux corrected transport (FCT), 122
- Fokker-Plank equation, 206
- forecasting mode, 306
- formaldehyde
 - in photochemical smog, 226
 - as air toxic, 245
- FORTRAN, 357
- fractals, 326
- fractional bias (FB)
 - normalized -, 322
- free convection layer, 55
- frequency distribution, 300
 - log-normal -, 301
- Froude number, 98, 264
 - initial densimetric -, 280
- fumigation, 158
 - shoreline -, 160
- gas law
 - ideal -, 82
- Gaussian
 - concentration distribution, 121, 141-143
 - derivation of the - equation, 176
 - kernel, 215
 - model, see modeling
 - probability density function, 187, 208
- GD, 277, 386
- geostrophic wind, 83, 86
- Gleissberg cycle, 344
- global
 - emissions, 6
 - issues, 2
- GMLINE, 366, 383
- gray box, 304
- Green's function, 266, 313
- greenhouse effect, 2, 18, 342
- gustiness category, 151
- heavy gases, 275
- HIWAY-2, 366, 371
- HOTMAC, 85, 89, 386
- hydrostatic equation, 83
- hygroscopicity, 341-342
- IBMAQ-2, 76, 386
- IBM Scientific Centers, v
- IMPACT, 366, 372
- indoor air pollution, 2, 281
- inversion layer
 - penetration of the -, 99, 102, 270
- Interleaf Technical Publishing Software, v
- ISC, 158, 273, 358, 361
- jackknife, 322
- Journal of the Air and Waste Management Association, 355
- Kalman filters, 308
- KAPPA-G, 117, 386
- kernel methods, 214
- Koschmieder constant, 339
- Kriging, 323
- K-theory, 51, 112, 144, 187, 195, 234, 313
- Lagrangian
 - modeling, see modeling
 - multiplier, 323
 - time scales, 196
- Langevin equation, 193, 206, 208, 210
- large eddy, see modeling
- Larsen's laws, 302
- leaf area index, 256

- learning period, 308
- legislation
 - air quality -, 19
- lift algorithm, 266
- light extinction, 340
- liquified natural gas (LNG), 275
- London, 1
- long-range phenomena, 1, 249, 252
- LONGZ, 366, 372
- Los Alamos visibility model, 386
- Los Angeles, 1, 235, 243
- lower flammability limit (LFL), 277

- MASCON, 78, 386
- mass consistent, see modeling, diagnostic -
- MATHEW, 78, 386
- MC-LAGPAR, 206, 386
- mean square error
 - normalized - (NMSE), 322
- MESOPUFF II, 366, 374
- meteorology
 - air pollution -, 41
- mixed layer, 54
- mixing height, 56
- MINERVE, 79, 386
- model-modeling
 - aerosol -, 241
 - alternative -, 357
 - analytical -, 73
 - box -, 130
 - calibration, 320
 - climatological -, 162
 - deterministic -, 27
 - diagnostic -, 74
 - emergency -, 393
 - evaluation, 321
 - Eulerian -, 107, 234
 - Gaussian -, 141, 356
 - Lagrangian -, 185, 234
 - Lagrangian box -, 188
 - large eddy simulation -, 134
 - long-range -, 36
 - Monte-Carlo -, 205
 - multi-box -, 133
 - multi-media -, 30
 - non-hydrostatic -, 90
 - numerical -, 73, 356
 - particle -, 190
 - PM -, 192
 - PP -, 192
 - PP-PM -, 192
 - philosophical standpoint of -, 32
 - physical -, 27, 356
 - plume rise -, 95
 - preferred -, 357
 - prognostic -, 90
 - puff -, 166
 - refined -, 357
 - regulatory -, 284
 - receptor -, 313
 - chemical mass balance (CMB) -, 315
 - microscopic -, 315
 - multivariate -, 316
 - extended Q-mode factor analysis for -, 316
 - factor analysis for -, 316
 - multiple linear regression for -, 316
 - target transformation factor analysis (TTFA) for -, 316
 - source-receptor hybrids -, 315
 - screening -, 357
 - second-order closure -, 133
 - segmented-plume -, 165
 - segment-puff -, 168
 - selection of -, 33
 - short-range -, 36
 - slug -, 132
 - statistical -, 27, 299, 356
 - uncertainty of -, 35
 - validity, 320
 - vapor cloud -, 388
 - verification, 321
 - visibility -, 337-342
- Modeling Center News, 355
- moisture
 - ambient - deficit, 280
- molecular diffusion, 107
- momentum flux parameter, 97
- Monin-Obukhov length, 58, 272
- Monte-Carlo, see modeling
- MPRM, 386
- MPTER, 134, 358, 362
- MPSDM, 366, 376
- MTDDIS, 366, 374
- multicollinearity problem, 316
- MULTIMAX, 366, 375

- national ambient air quality standards (NAAQS), 285
- natural-draft cooling tower (NDCT), 280
- Navier-Stokes equations, 102, 134, 206
- NCAR/PSU/SUNY, 85, 90, 386
- NEWEST, 76
- new source review (NSR), 285, 288-291

442 Subject Index

- nitrate, see chemistry
- nitrogen oxides, 6, 11, 224, 241
- NMM, 85, 88, 386
- NOABL, 76, 386
- nuclear winter, 2, 348

- OCD, 161, 271, 272, 358, 365
- offsets, 286
- optimization, 327
- overwater dispersion, 271
- OZIPM-2, 237, 387
- ozone
 - depletion of stratospheric -, 2, 19, 346
 - hole, 346-347
 - in photochemical smog, 224
 - trend panel, 347

- PAL, 366, 379
- PARIS, 234, 387
- particle
 - coarse -, 3
 - fine -, 4
 - inhalable -, 4
 - modeling, see modeling
 - nonviable -, 4
 - respirable -, 4
 - super -, 192
 - viable -, 4
- particulate matter
 - primary -, 4
 - secondary -, 6, 237
 - trends of TSP, 11
- Pasquill classes, 49, 148
- pattern recognition, 324
- performance evaluation, 318
- PGE plumes model, 366, 377
- PHOENIX, 339, 387
- photochemistry, see chemistry
 - mechanisms in -
 - Atkinson-Carter -, 231
 - carbon bond -, 228
 - lumped molecule -, 227
 - surrogate species -, 227
- photolysis, 223
- planetary boundary layer (PBL)
 - best fit of - parameters, 64
 - height of the -, 56
 - parameters of the -, 56
 - stratification of the -, 53
- PLMSTAR, 190, 366, 378
- plume path coefficient (PPC), 267
- plume rise, 95, 215
 - of multiple sources, 102
 - from stacks with scrubber, 103
 - integral -, 100
- plume visibility, 337
- PLUVUE, 339, 366, 379
- Poisson equation, 78, 135
- Pollution Engineering Journal, 355
- potential temperature, 82
- PPSP, 366, 373
- pressure
 - gradient, 44
- prevention of significant deterioration (PSD), 285, 356
- primary pollutants, 3
 - emission of -, 4, 5
- probability
 - density function, 186, 266, 300
- PRISE, 101, 387
- PTPLU, 387
- puff
 - model, see modeling

- Q-mode factor analysis, see modeling, receptor -

- radioactivity, 5
- RADM, 85, 366, 380
- RAM, 358, 361
- RAPTAD, 215, 387
- RDV, 387
- real-time simulation, 304
- receptor
 - model, see modeling
- reflection, 152
- regional haze, 339
- regression analysis, 305
- relative diffusion, 167
- REM 2, 189, 387
- representativeness, 319
- resistance
 - atmospheric -, 255
 - canopy/vegetation -, 255
 - deposition layer -, 255
 - internal foliage -, 256
 - surface -, 251
 - total -, 251
- Reynolds averaging, 82, 83
- Richardson numbers, 61
- risk factors, 14
- RIVAD, 387
- roughness length, 41, 56, 272

- rough terrain, see complex terrain
- RPM II, 366, 381
- RTDM, 161, 267, 387
- RTM II, 366, 382

- Salt River Project (SRP), 339
- scale
 - temperature -, 61
 - time -, 254, 258
- scaling, 54, 64
 - local -, 69
- Schmidt number, 256, 257
- SCIMP, 134, 387
- SCIPUFF, 134, 387
- SCRAM-BBS, 356, 358
- SCREEN, 387
- SCSTER, 366, 376
- secondary pollutants, 3, 6, (see also chemistry)
 - receptor models for -, 318
- sectional approximation, 242
- SEM, 101, 387
- semiempirical equation of atmospheric diffusion, 112
- settling
 - gravitational - of particles, 217, 275
- SHASTA, 122
- SHORTZ, 366, 383
- sigmas
 - Briggs -, 150
 - Brookhaven -, 150
 - Gaussian plume -, 145
 - of a single puff, 167-168
 - overwater -, 272
 - Pasquill-Gifford -, 149
 - split of -, 149
- similarity theory, see surface layer
 - local -, 70
- skill scores, 322
- SLAB, 277, 387
- SMOG, 388
- smoothing, see Kernel methods
- sources
 - area -, 157
 - line -, 157
 - volume -, 157
- spectral analysis, 304
- spills
 - accidental -, 281
- SPILLS, 283
- splitting
 - of elements, 176
- stability
 - atmospheric -
 - neutral conditions, 48, 200
 - stable conditions, 52, 199
 - unstable conditions, 51, 198, 205
 - local ambient -, 280
 - overwater -, 272
 - parameter, 98
 - stable layer, 55
 - State Implementation Plan (SIP), 356
 - Stokes
 - law, 275
 - number, 257
 - stream function, 87
 - subgrid components, 135
 - sulfate, see chemistry
 - sulfur oxides, 6, 10, 238
 - Superfund Amendments and Reauthorization Act (SARA), 393
 - surface
 - heat flux, 59
 - layer, 41, 53, 64
 - stress, 57

 - target transformation factor analysis (TTFA), see modeling, receptor -
 - TCM, 367, 384
 - TEM, 367, 384
 - thermal internal boundary layer (TIBL), 268, 270
 - tilted plume, 159, 275
 - time series analysis, 303
 - toxic substances, 244
 - TRACE, 190, 388
 - trace gases, 344-345
 - transition layer, 41
 - trends
 - of air quality, 10
 - TTAPS study, 348-349
 - Turner classes, 50

 - UAM, 234, 358, 364
 - UNAMAP, 356
 - uncertainty
 - intrinsic -, 111
 - URBMET, 85, 388
 - USAF ESL, 283
 - U.S. DOE, 161, 267, 320
 - U.S. EPA, 98, 134, 151, 161, 162, 234, 263, 267, 273, 285, 339, 356, 358

444 Subject Index

valley

trapping into a -, 159

VALLEY, 267, 388

vapor cloud model, see modeling

variance

- of wind components, 62

velocity

convective -, 61

deposition - (dry or wet), 113, 163, 249, 258

friction -, 57

gravitational settling -, 251, 157

terminal -, 251

virtual

- age, 171

- distance, 171

- emission rate, 175

vertical - distance, 274

- temperature, 82

VISCREEN, 388

visibility impairment, 336

- of a plume, 337

- of regional haze, 339

VISTTA, 339

vorticity

relative - vector, 87

wake

building -, 158, 273

stack -, see downwash

washout

- coefficient, 258

- ratio, 258

wrap component, 264

3AM, 244, 388

3D, 388

3141 model, 366, 375

4141 model, 366, 375