

# Index

## A

Abdallah, M.A., 29  
Adhesion, 198, 199  
    benefits of, 202  
    mechanism of, 195, 196  
        molecular/cellular phase, 196, 197  
        physical phase, 196  
    theories of, 197  
        DLVO theory, 197, 198  
Agronomic by-products, 168, 173, 213  
Ahmed, E., 34  
Ahmed, S., 113  
Ahmed T., 89  
Aino, K., 60, 67  
Aizawa, T., 60, 63, 70  
Ajithkumar, P.V., 108  
Alarcón, B., 271, 276  
Albesa, I., 28  
Alkaliphiles, 11, 15, 64, 67, 95  
Alkaliphilic bacteria, 71, 96, 113  
Allerberger, F., 266, 267  
Alva, V., 89, 95  
Aniline  
    degradation of, 113  
    degradation/ transformation studies of,  
        119, 120  
Annweiler, E., 108  
Anson, J.G., 113  
Antifouling agent, 181  
Anyanwu, C.U., 50, 51  
Anzai, Y., 43  
Aono, R., 70  
Arahal, D.R., 111  
Aranda, C., 117  
Armstrong, G.A., 8  
Aslim, B., 6  
Atkinson, S., 120  
Audurier, A., 273

Aurora, R., 266  
Autio, T., 273  
Aznar, R., 271, 276

## B

Bachofer, R., 113  
Bacillus amyloliquefaciens, 31, 136  
Bacillus halodurans, 72, 73  
Bacillus lehensis, 72, 73, 74  
Bacillus megaterium, 5, 29, 143, 157, 158, 159  
Bacillus subtilis, 20, 50, 134, 140, 184  
Bacterial consortium, 89, 230  
Bae, H., 39, 40  
Bahm, Y.S., 63  
Bailey, M.J., 89  
Bakker, H., 264  
Banciu, H.L., 64  
Barbeau, K., 26, 27  
Barbour, M.G., 90, 91  
Barbuddhe, S.B., 265, 266, 267, 271  
Bar-Ness, E., 34  
Barnett, J.A., 93  
Bar-or, Y., 74  
Basu, A., 48  
Bayley, R.C., 90, 91  
Beena, K.R., 4  
Bellis, P., 10  
Benzoquinone, 93  
Berlanga, M., 6  
Bertsch, D., 264  
Beuchat, L.R., 268  
Beumer, R.R., 270  
Bhagwat, A.A., 271  
Bhilegaonkar, K. N., 266  
Bhosale, P., 8  
Bhosle, S., 16, 18, 19, 31, 33, 40, 42, 43, 44,  
    45, 46, 49, 50, 51, 53, 73  
Bhushan, B., 64, 70

Bille, J., 268, 269  
 Biodegradable, 7, 151, 155, 163, 241  
 Biodegradable polymer, 151  
 Biodegradation, 7, 40, 41  
   of aromatic compounds, 85, 86  
 Bio-fuels, 143  
 Bioremediation, 39, 40, 43, 87, 186  
 Biosurfactant, 45, 50, 51  
 Blackburn, J.W., 86  
 Blanco, K.C., 60, 63  
 Blanco, M. B., 268  
 Blumer, C., 10  
 Boorman, A.L., 1  
 Boorman, L., 30  
 Borgave, S.B., 63  
 Borkar, S., 60, 62, 73  
 Borsodi, A.K., 61  
 Boruah, H.P.D., 29  
 Borucki, M.K., 271, 272  
 Bouwer, E.J., 39, 41, 42, 49, 87  
 Boyer, E.W., 61  
 Boyer, G.L., 29  
 Brackett, R.E., 268  
 Braud, A., 28, 29, 30, 34  
 Braun, M., 8  
 Braun, V., 8  
 Brenner, D.J., 44  
 Brezonik, P.L., 49  
 Britton, G., 8  
 Buchanan, R.L., 268  
 Budzikiewicz, H., 27  
 Buffering capacities, 66, 73  
 Bultreys, A., 28  
 Burks, N.J., 4  
 Butanol, 135, 138, 139, 140, 141  
 Butler, A., 26, 27

## C

Call, D.R., 272  
 Camilli, A., 270  
 Cao, B., 39, 40, 41  
 Cao, J., 70  
 Carter, R.W.G., 30  
 Casida, L.E. Jr., 28  
 Catimel, B., 270  
 Chakraborty, T., 265  
 Chandrasekaran, M., 6  
 Chapman, P.J., 88, 90  
 Chauthaiwale, J., 61  
 Chayabutra, C., 40, 42, 44  
 Chénier, M.R., 42  
 Chen, W., 87  
 Cholesterol transformation, 143, 144  
 Chu, B.C., 26, 32

Churchill, R.L., 270, 271  
 Citrus fruit waste, 171, 172  
 Clark, A.G., 269  
 Clegg, R.A., 26  
 Clement, P.D., 89  
 Cocolin, L., 271  
 Coir fibre, 226, 238  
 Coir pith, 226, 234, 235  
 Collins, M.D., 64  
 Cook, M.G., 73  
 Corcoran, D., 273, 278  
 Cox, C.D., 53  
 Crawford, R.L., 91  
 Crumbliss, A.L., 32  
 Curtis, G.D.W., 267, 268

## D

Daane, L.L., 7  
 Dagley, S., 87  
 Dalton, D.A., 4  
 Danovara R., 6  
 Defago, G., 29  
 De Leenbeer, A.P., 8  
 Delepelaire, P., 25  
 Demain, A.L., 8  
 Denitrification, 39, 42  
   influence of hydrocarbons on, 49  
 Denitrifying bacteria, 39, 41, 42, 43  
 Desai, K. N., 1, 2, 3  
 Desai, K.N., 30  
 Desai, R.S., 12, 96  
 De Sousa, S.N., 39  
 De Sousa, T., 40, 42, 43, 44, 45, 46, 49, 50,  
   51, 53  
 De Souza, M.L., 89  
 Dickel, D., 87  
 Dimitrov, P.L., 61  
 Dimkpa, C.O., 34  
 Dinkla, I.J.T., 33  
 Djordjeric, S.P., 93  
 Domínguez-Cuevas, P., 44, 46  
 Duffy, B.K., 29  
 Duhme, R.C., 29  
 Dunkley, E.A., 66

## E

Ellis, B.M.L., 86  
 El-Sheekh, M.M., 40, 45  
 Enzymes, 26, 67, 136, 211, 270  
 Ercolani, G.L., 10  
 Evans, W.C., 91  
 Exopolymer, 16, 70, 74  
 Exopolysaccharide (EPS), 6, 16, 45  
 Extremophiles, 59, 129

**F**

Fabiano, M., 6  
 Faraldo-Gómez, J.D., 8  
 Feist, C.F., 89  
 Ferguson, D., 53  
 Ferguson, S.A., 64  
 Ferulic acid, 209, 211, 212, 213, 214  
 Feruloyl esterase, 43, 210, 213  
 Finley, K.T., 98  
 Firestone, M.K., 6  
 Flavobacterium, 64, 96, 97, 100, 228  
 Florenzano, G., 61, 64  
 Frankenberger, W.T., Jr., 9  
 Franzetti, A., 46, 50, 51  
 Fuchs, G., 42  
 Fuenmayor, S.L., 89  
 Fujinami, S., 67  
 Fujisawa, M., 66  
 Fujiwara, N., 70  
 Fukumori, F., 89

**G**

Gaonkar, T., 31, 33, 43, 44, 51, 53  
 Garcia, M.L., 95  
 Gardener, B., 10  
 Garg, A.P., 63  
 Gee, J.M., 62, 64, 71, 96  
 Georganta, G., 61, 63, 65  
 Gerner-Smidt, P., 267  
 Gessesse, A., 61, 70  
 Ghauri, M.A., 60  
 Gheysen, D., 28  
 Gibson, D.T., 90, 95  
 Gilbert, F., 44, 49  
 Glick, B.R., 9, 10, 20  
 Godinho, A., 19, 20, 31  
 Godinho, L.A., 16, 18, 19  
 Golden, D.A., 269  
 Golovleva, L.A., 88, 90  
 Goodwin, T.W., 93  
 Gould, S.J., 29  
 Graves, L.M., 264, 272, 273, 279  
 Gray, M.L., 265  
 Grimont, F., 273  
 Grimont, P.A., 273  
 Grossmann, K., 10  
 Guan, L.L., 25  
 Guerinot, M.L., 12

**H**

Haas, D., 10  
 Hafker, W.R., 86  
 Halomonas, 95, 111, 116  
 Halophiles, 11, 111, 113

Hammond, R.K., 8  
 Hamon, M.A., 264  
 Harpel, M.R., 91  
 Harrington, J.M., 32  
 Hay, A.G., 89  
 Hayaishi, O., 87, 91  
 Hazeleger, W.C., 270  
 Hearing, V.J., 93  
 Hegeman, G.D., 89  
 Hegeman, J.H., 93  
 Hemicellulose, 108, 209  
 Her, J., 49  
 Hickford, S.J.H., 26  
 Hider, R.C., 26  
 Holmstrom, S.J.M., 34  
 Homann, V.V., 26  
 Hontzeasa, N.A., 10  
 Horikoshi, K., 70, 95  
 Hossain, H.Z., 30  
 Huang, J., 49  
 Hughes, E.T.L., 88, 89  
 Hunter, W.J., 39  
 Hussain, K.A., 34  
 Hu, X., 29  
 Hydrocarbons, 40, 86  
     effects on growth and cell morphology,  
         45, 48  
     on denitrification  
         influence of, 49  
 Hydroxycinnamates, 209  
 Hydroxymuconic semialdehyde (HMS), 91

**I**

Iizuka, H., 43  
 Ingle, M.B., 61  
 Ingole, B.S., 40, 43  
 Ishimura, Y., 33  
 Ito, Y., 26, 27

**J**

Jacquet, C., 272  
 Jain, V., 10  
 Janek, T., 50  
 Janssen, D.B., 86, 87  
 Jaradat, Z.W., 274  
 Johan, E.T., 87  
 Johri, B.N., 29  
 Joo, J.H., 34  
 Ju, L., 40, 42, 44

**K**

Kaiser, P., 48  
 Kalekar, S., 278  
 Kampert, M., 9

Kanekar, P.P., 95  
 Kataeva, I.A., 88, 90  
 Kazumi, J., 88  
 Kelley, S.K., 92, 99, 100, 101  
 Khan, K., 7  
 Killinger, A.H., 265  
 Kim, E.J., 27, 28  
 Kimura, N., 94  
 King, E.O., 29  
 Kiran, B.S., 87, 88  
 Kisaalita, W.S., 32  
 Kleinsteuber, S., 95  
 Komagata, K., 43  
 Kong, X., 26  
 Kremer, R.J., 10  
 Kunhi, A.A.M., 108  
 Kupper, F.C., 26

**L**

Laine, M.H., 28  
 Lee, M.S., 4  
 Lee, W.H., 267  
 Leveau, J.H.J., 9  
 Light, P.A., 26  
 Lindow, S.E., 9  
 Lingens, F., 113  
*Listeria monocytogenes*, 263, 264, 271  
 Listeriolysin O (LLO), 264, 269  
 Listeriosis, 264, 265  
     symptoms of, 266  
 Li, X.Z., 29  
 Loon, L.C., 9  
 Loper, J.E., 9  
 Loren, J.G., 66  
 Lutkenhaus, J.F., 29

**M**

Makkar, R.S., 50  
 Mangrove, 30, 96, 203  
 Manninen, E., 28  
 Marine siderophores, 26, 27  
 Martín, C., 273  
 Martínez-Hernández, S., 42  
 Martínez, J.S., 26, 27  
 Martin, J.D., 26, 27  
 Mattila-Sandholm, T., 28  
 Mavrodi, D.V., 51  
 Maya, M.V., 43  
 McCoy, M.M., 4  
 McLaughlin, J., 269  
 Mehta, S., 9  
 Messenger, A.J.M., 28  
 Metal ions, 29, 188  
     effect on siderophore production, 33

Meyer, J.M., 29  
 Microbial enzymes, 6  
 Morris, J., 28  
 Moss, M., 51  
 Murray, K., 88

**N**

Namvar, A., 264  
 Nanda, G., 69  
 Naqvi, S.W.A., 42  
 Nautiyal, S.C., 9  
 Neilands, J.B., 8, 12, 28  
 Nelis, H.J., 8  
 Nerurkar, A.S., 50, 51  
 Neumann, G., 46  
 Neves, E., 273  
 Newell, D.G., 264  
 Nile blue A, 153, 157, 172  
 N, N-Dimethyl-1-Naphthylamine (NND), 115  
 Norman, R.S., 50, 51, 52  
 Norton, D.M., 271  
 Notermans, S.H.W., 269, 270  
 Nowak-Thompson, B., 29  
 Nozaki, M., 33

**O**

Ochsner, U.A., 27, 28  
 Ohyama, A., 51  
 Organic solvent tolerant bacteria (OSTB),  
     129, 138

**P**

Pal, K.K., 10  
 Palleroni, N.J., 28  
 Palumbo, J.D., 272  
 Pan, Y., 264  
 Park, M.S., 4  
 Patten, C., 9  
 Peng, F., 50  
 Pérez-Pantoja, D., 40, 41, 42  
 Peterson, C.H., 40  
 Peyton, B., 89, 95  
 Phale, P.S., 48  
 Philipp, B., 40, 41  
 Pierson, E.A., 50, 51, 52, 53  
 Pierson, L.S. III, 50, 51, 52, 53  
 Plant growth promoting rhizobacteria (PGPR),  
     8, 19, 20  
 Polyhydroxyalkanoates (PHAs), 12, 151, 152  
 Polymixin-acriflavin-lithium chloride-  
     ceftazidime-asculin-mannitol  
     (PALCAM), 268, 274  
 Polyphenols, 227, 228  
 Portnoy, D.A., 269

Postgate, J.R., 10  
 Prince, R.C., 7  
*Pseudomonas aeruginosa*, 28, 31, 42, 52, 185, 202  
*Pseudomonas nitroreducens*, 43  
*Pseudomonas stutzeri*, 185, 188  
 Pugsley, A.P., 29  
 Pulse-field gel electrophoresis (PFGE), 272, 273, 279

**R**

Ramanathan, A.L., 30  
 Rao, M., 61  
 Rao, Y.M., 53  
 Ratledge, C., 28  
 Rawte, T., 30  
 Raymond, K.N., 26  
 Ray, R.R., 69  
 Reber, H.H., 48  
 Red compound, 119, 122  
 Rees, H.C., 65  
 Reid, C.P., 34  
 Retting, 227, 228, 230  
 Rhizosphere, 1, 3, 4, 16  
 Roadcap, G.S., 60, 61  
 Roberson, E.B., 6  
 Rocourt, J., 270, 273  
 Ruis, N., 66

**S**

Saeki, K., 69  
 Saikia, S.P., 10  
 Saint, C.P., 89  
 Salva, T.D.G., 70  
 Sand dune, 1, 3, 20, 215  
 Sandy, M., 26, 27  
 Sansom, M.S.P., 8  
 Saraf, M., 34  
 Sardessai, S., 43  
 Sarethy, I.P., 67  
 Schink, B., 40, 41  
 Schlundt, J., 263  
 Schmeling, S., 42  
 Schnaitman, C.A., 29  
 Schroth, M.N., 9  
 Seitzinger, S.P., 39  
 Shaner, D.L., 39  
 Sharma, A., 29  
 Shetye, S.R., 43  
 Shikata, S., 70  
 Shilo, M., 74  
 Shinoda, Y., 42  
 Shirai, T., 69

Siderophores, 8, 13, 26  
 Sikkema, J., 7, 44, 45  
 Singh, S., 70  
 Sivadas, S., 40, 43  
 Sneath, P.H., 72  
 Sodium benzoate, 33, 34, 52, 96, 97, 101  
 Soil aggregation, 16  
 Soil fertility, 252  
 Song, B., 42  
 Song, J., 33  
 Sorokin, D.Y., 62, 63, 65  
 Souissi, T., 10  
 Staijen, I.E., 33  
 Stevens, L.H., 94  
 Strand, A., 8  
 Struelens, M.J., 272  
 Submerged cultivation, 166, 170, 173  
     PHA production using, 169, 170  
 Subramanian, V., 90, 95  
 Sundar, D., 43  
 Sureshkumar, G.K., 53  
 Swaminathan, B., 267, 273, 279  
 Sylvia, D.M., 4

**T**

Takami, H., 61, 65  
 Tanghe, T., 89  
 Tank, N., 34  
 Teitzel, G.M., 29  
 Tender coconut husk, 236, 238  
 Terplan, G., 270  
 Tilak, R.B.V.K., 3  
 Triphenyltin (TPT), 179  
     as source of environmental pollution, 181  
     chemical and physical properties of, 180, 181  
     effects on various ecosystem, 183, 184, 185  
     microbial transformation of, 185, 186  
 Triphenyltin-transforming bacteria, 179, 180  
 Tsuge, T., 94  
 Tyrosine  
     degradation of, 92, 93  
     by *Falvobacterium* strain A-131, 99, 101

**U**

Untawale, A.G., 1, 2, 3  
 Ushiba, Y., 89

**V**

Van der Zaan, B.M., 42  
 Van Hamme, J.D., 40, 41

Van Kessel, J.S., 265  
 Van Netten, P., 268  
 Van veen, J.A., 5  
 Vasil, M.L., 27  
 Vázquez, S., 44  
 Vermicomposting, 242, 243, 252, 254  
 Vermiwash (VW), 254  
 Vignesh, R., 50, 51  
 Villegas, M., 28  
 Visca, P., 27  
 Vlaemynck, G., 268, 270  
 Voisard, C., 10  
 Vraspir, J.M., 27

## W

Wackett, L.P., 89  
 Wagner, M., 266, 267  
 Wandersman, C., 25  
 Wang, C., 49  
 Wang, X.B., 88  
 Wang, Y., 34, 51, 52  
 Ward, B.B., 42, 45  
 Warriner, K., 264  
 Wasielewsk, E., 51, 53  
 Watanabe, K., 87  
 Wentzel, A., 40, 41

White, D.C., 8  
 Whiteley, A.S., 89  
 Wiedmann, M., 265, 272, 273  
 Wielinga, P.R., 263  
 Williams, P.A., 88  
 Wilson, L.P., 39, 41, 42, 49

## X

Xiao, R., 32

## Y

Yabuuchi, E., 51  
 Yumoto, I., 63, 65, 66, 88, 95, 98

## Z

Zchendir, A.J.B., 87  
 Zehr, J., 45  
 Zeyauallah, M., 33  
 Zeyer, J., 89  
 Zhang, H., 44  
 Zhang, H.-M., 64  
 Zhang, Z., 42, 44  
 Zhao, B., 65  
 Zhao, S., 39  
 Zhilina, T.N., 62, 64  
 Zylstra, G.J., 88