

Index

- A**biotic degradation, sulfonamides, **187:80**
- Acceptor/donor spectral overlap (illus), **182:8**
- Acephate, water-sediment degradation profile, **187:168**
- Acetamiprid, aerobic aquatic metabolism (diag.), **187:207**
- Acetamiprid, water-sediment degradation profile, **187:201**
- Acetochlor, water-sediment degradation profile, **187:179**
- Acibenzolar-S-methyl, water-sediment degradation profile, **187:199**
- Acrolein, water-sediment degradation profile, **187:199**
- Activated carbon, metal remediation, water, **188:73**
- Activated charcoal, adsorbable organic halides measurement, **185:74**
- Activated sludge, PFOS effects, **186:143**
- Activated sludge treatment, paper production effluent, **185:84**
- Acute hemorrhagic conjunctivitis, enterovirus related, **186:22**
- Acute lead exposure, effects, **185:94**
- Acute toxicity, arsenic, **184:112**
- Acute toxicity, glyphosate, **190:72, 100**
- Acute toxicity, PBDE congeners, **183:73**
- Adenovirus, diarrhea cause, **186:4**
- Adenovirus, incidence by age, **186:26**
- Adenovirus infection, drinking water-related, **186:9**
- Adenovirus, waterborne enteric disease, children, **186:36**
- Adenoviruses, enteric, described, **186:8**
- Adsorbable organic halides (AOX), paper production, **185:74**
- Adsorption capacities, sorbents metal remediation, water, **188:71**
- Adsorption, ionizable pesticides in soils, **188:149 ff.**
- Adsorption mechanisms, soil, **188:166, 168**
- Adults blood lead levels, Brazil, **184:85, 87**
- AEATF task force, **186:110**
- Aerial application, glyphosate illicit crops, Colombia, **190:43 ff.**
- Aerial transport of pesticides, **181:1 ff.**
- Africa, mercury contamination, **181:156**
- Age differences, children's blood lead, **185:105**
- Age effect, human nail element content, **185:147**
- Agitation leaching (gold), using cyanide, **183:25**
- Agricultural Handlers Exposure Assessment Database (AHED), **186:113**
- Agricultural pesticide drift, **181:1 ff.**
- Agricultural Reentry Exposure Task Force (ARTF), **186:112, 116**
- Agrowaste remediation, heavy metals in water, **188:59 ff.**
- Agrowastes, metal remediation, water, **188:67**
- AHED (Agricultural Handlers Exposure Assessment Database), **186:113**
- AHETF task force, **186:110, 113**
- Air, effect on element content human nails, **185:153**
- Air levels, pollutants in S. America, **185:8**
- Alachlor/metolachlor photodegradation pathways (diagram), **182:64**

- Alachlor, microcosm degradation profile, **187:218**
- Alachlor, water-sediment degradation profile, **187:178**
- Alaska, gold mining mercury beach sediments, **181:166**
- Alcohol consumption, effects nail/element studies, **185:150**
- Aldicarb, water-sediment degradation profile, **187:187**
- Aldrin in foods, S. America, **185:22**
- Aldrin, marine mammals, **184:4**
- Aldrin, use in S. America, **185:2**
- Algae bioassays, Reconquista River, **185:54**
- Algae, mercury contamination, Chile, **183:6, 8**
- Algicide, simazine, **189:1**
- Alkaline chlorination, wastewater cyanide removal, **183:26**
- Allolobophora icterica*, earthworm biomarkers, **188:100**
- Allolobophora* spp. (earthworms), heavy metal bioassays, **186:82**
- Alpha*-cypermethrin, water-sediment degradation profile, **187:172**
- Ateromonas luteoviolaceus*, Q1 source, **188:18**
- Aluminum, in human nails, **185:162**
- Aluminum influence on sorption, ionisable pesticides, **188:197**
- Amalgamation (mercury), ecotoxicological aspects, **181:143**
- Amalgamation, gold with mercury, **181:143**
- Amazon River, mercury contamination, **181:143**
- Amide chemical structures, **182:139**
- Amide herbicide photodegradation, on glass, **182:43**
- Amide herbicide photodegradation, on plants, **182:75**
- Amide herbicide photodegradation, on soils, **182:63**
- Amides, fate in water-sediment systems, **187:177**
- Amitraz, water-sediment degradation profile, **187:202**
- Amitrole, water-sediment degradation profile, **187:196**
- Amphibian gonadal abnormalities, before 1945 (table), **187:119**
- Amphibians gonadal anomalies, chemical exposure, **187:103 ff.**
- Amphibians, pesticide effects, **187:7**
- Analytical instruments used in nail/element studies, **185:148**
- Analytical methods, arsenic, **184:122**
- Analytical methods, free cyanide, **183:39**
- Analytical procedures, human nail elements, **185:146**
- Andean Biodiversity Region, Colombia (map), **190:54**
- Androgenic substances, paper production contaminants, **185:76**
- Androgens from progesterone, paper production, **185:77**
- Androgens produced from progesterone (illus.), **185:77**
- Anilazine, water-sediment degradation profile, **187:197**
- Anilide chemical structures, **182:139**
- Anilide herbicide photodegradation, on glass, **182:43**
- Anilide herbicide photodegradation, on soils, **182:63**
- Anilides, fate in water-sediment systems, **187:177**
- Animal bioassays, Reconquista River, **185:54**
- Animal manure, metal remediation, water, **188:68**
- Animals, geophagous (table), **183:118**
- Anti-ChE pesticides, earthworm effects, **188:96**
- Antimony, aquatic environment hazard, **188:61**
- Antimony, in human nails, **185:161**
- Antimony, potential health effects, **188:63**
- Aporrectodea caliginosa*, earthworm biomarkers, **188:89**
- Aporrectodea nocturna*, earthworm biomarkers, **188:100**
- Aporrectodea tuberculata*, earthworm biomarkers, **188:91**

- Applied risk analysis, exposure monitoring, **186:107** ff.
- Apporectodea* spp. (earthworms), heavy metal bioassays, **186:82**
- Aquatic ecosystems, pesticide effects, **187:6**
- Aquatic invertebrates, pesticide effects, **187:9**
- Aquatic invertebrates, PFOS toxicity (table), **186:147**
- Aquatic macrophytes, PFOS effects, **186:145**
- Aquatic microbes, pesticide effects, **187:18**
- Aquatic plants, pesticide effects, **187:17**
- Aquatic toxicology, paper production, **185:75**
- AQUATOX, pesticide impact aquatic organisms model, **187:160**
- AQUIRE, EPA amphibian lethality database, **187:7**
- Argentina, Reconquista River pollution, **185:35** ff.
- Argentina rivers pollution, **185:36**
- Argentina, urban population percentage, **185:35**
- Arsanilic acid, toxicity, **184:110**
- Arsenic acid (As^V), structure
- Arsenic acid, herbicide, **184:104**
- Arsenic, acute toxicity, **184:112**
- Arsenic, agricultural chemicals sources, **184:103**
- Arsenic, agricultural sustainability Bangladesh, **189:78**
- Arsenic, air content, **184:102**
- Arsenic, analytical methods food, **184:121**
- Arsenic, analytical methods Mexican foods, **181:75**
- Arsenic, aquatic environment hazard, **188:60, 63**
- Arsenic, atmospheric levels, **184:102**
- Arsenic, ATP formation inhibition, **184:111**
- Arsenic, Bangladesh agriculture, **189:65**
- Arsenic, Bangladesh foods, **189:71, 73**
- Arsenic, Bangladesh soil & crops, **189:67**
- Arsenic behavior, soil, **189:44**
- Arsenic, bioavailability, **184:120, 125**
- Arsenic, bioavailability, plant species, **184:132**
- Arsenic, bioavailability, rhizosphere interactions, **184:132**
- Arsenic, bioavailability, soil adsorption, **184:132**
- Arsenic, bioavailability, soil factors, **184:131**
- Arsenic, capillary electrophoresis speciation, **184:124**
- Arsenic chemistry, **184:104**
- Arsenic chemistry, in crops, **189:48**
- Arsenic chemistry, in foods, **189:60**
- Arsenic chemistry, in soil, **189:44**
- Arsenic chemistry, iron plaque anaerobic soil, **189:48**
- Arsenic chemistry, marine plants, **189:64**
- Arsenic chemistry, seafoods, **189:64**
- Arsenic chemistry, soil rhizosphere, **189:48**
- Arsenic, Chinese coal contamination, **189:92**
- Arsenic, Chinese coal distribution (map), **189:93**
- Arsenic, Chinese coal hazard, **189:92**
- Arsenic, chronic toxicity, **184:112**
- Arsenic, citric acid cycle effects, **184:110**
- Arsenic compounds, chemical structures, **184:105**
- Arsenic, derivitization methods (table), **184:126**
- Arsenic, drinking water guidelines, **184:114**
- Arsenic, energy metabolism inhibition, **184:110**
- Arsenic, environmental transfer pathways, **184:108**
- Arsenic, enzyme systems inactivation, **184:110**
- Arsenic, EPA Maximum Permissible Conc drinking water, **184:101**
- Arsenic, epidemic in China, **189:94**
- Arsenic, food recommended guidelines, **184:114**
- Arsenic, food safety guidelines Bangladesh, **189:79**

- Arsenic, gas chromatography speciation, **184:124**
- Arsenic, grain yield effects, **189:57**
- Arsenic, groundwater chemistry, **184:105**
- Arsenic, groundwater contamination, India, **184:97**
- Arsenic, groundwater levels, global, **184:102**
- Arsenic, groundwater major health concern, **189:43 ff.**
- Arsenic, health effects indoor Chinese coal burning, **189:89 ff.**
- Arsenic, human exposure Bangladesh, **189:75**
- Arsenic, human exposure guidelines, **189:76**
- Arsenic, human exposure management, **189:77**
- Arsenic, human exposure pathway, **184:115, 117**
- Arsenic, human food intake (table), **184:119**
- Arsenic, hydride generation detection, **184:123**
- Arsenic, hydroponics effects plants, **189:55**
- Arsenic III (AsIII), plant uptake, **189:50**
- Arsenic III (AsIII), soil, **189:45**
- Arsenic, in food chains, **184:116**
- Arsenic, in human nails, **185:162**
- Arsenic, industrial sources, **184:103**
- Arsenic, irrigation water, **189:65**
- Arsenic, irrigation water plant effects, **189:58**
- Arsenic LD₅₀s, lab animals, **184:112**
- Arsenic, liquid chromatography speciation, **184:123**
- Arsenic, major compounds in human exposure, **184:116**
- Arsenic, mechanisms of toxicity, **184:110**
- Arsenic, methylated species in plants, **189:52**
- Arsenic, modes of toxic action, **184:110, 113**
- Arsenic movement, groundwater & soil to crops, **189:43 ff.**
- Arsenic, oxidation states, **184:104**
- Arsenic oxyanions, **184:104**
- Arsenic, phytotoxicity levels, **184:114**
- Arsenic, plant accumulation, **189:51**
- Arsenic, plant metabolism, **189:51**
- Arsenic, plant tolerance, **189:54**
- Arsenic, plant toxicity, **184:113**
- Arsenic, plant translocation, **189:51**
- Arsenic, pyruvate oxidation inhibition, **184:110**
- Arsenic, redox conditions, **189:45**
- Arsenic, Redox potential, groundwater (diagram), **184:106**
- Arsenic, removal from foods, methods, **184:121**
- Arsenic, role of soil iron hydroxides, **189:44**
- Arsenic, seafood main dietary source, **184:115**
- Arsenic, seawater content, **184:101**
- Arsenic, smelting & mining sources, **184:103**
- Arsenic, soil chemistry, **184:107**
- Arsenic, soil content, global, **184:101**
- Arsenic, soil cycles, **184:108**
- Arsenic, soil microorganisms effect, **189:47**
- Arsenic, soil organic matter effect, **189:47**
- Arsenic, soil *pH* effect, **189:47**
- Arsenic, soil speciation, **184:120**
- Arsenic, soil transformations (diagram), **184:108**
- Arsenic sources, anthropogenic, **184:103**
- Arsenic sources, environmental, **184:99**
- Arsenic sources, geogenic, **184:99**
- Arsenic sources, igneous rocks, **184:100**
- Arsenic sources, sedimentary rocks, **184:100**
- Arsenic sources, soils & sediments, **184:100**
- Arsenic speciation, defined, **184:119**
- Arsenic speciation, foods, **189:60**
- Arsenic speciation in biological systems, **184:97 ff.**
- Arsenic, speciation methods, **184:122, 126**
- Arsenic speciation, rice, **189:61, 72**

- Arsenic speciation, soil, **189:45**
 Arsenic speciation toxicity, **184:97 ff.**
 Arsenic species, relative toxicity plants, **189:53**
 Arsenic, spiked soil tests AsIII/AsV, **189:57**
 Arsenic tolerance, plants & iron plaque, **189:49**
 Arsenic, total intake from foods (table), **184:119**
 Arsenic, toxic effects humans & animals, **184:111**
 Arsenic, toxic effects plants, **184:113**
 Arsenic, toxic effects plants, **189:52**
 Arsenic, toxic effects soil microorganisms, **189:59**
 Arsenic toxicity, **184:97 ff.**
 Arsenic toxicity, chemical forms, **184:109**
 Arsenic toxicity, species dependent, **184:120**
 Arsenic trioxide, major form industry-produced, **184:103**
 Arsenic, uptake in plants, **189:50**
 Arsenic V (AsV), phosphate analogue, **189:47**
 Arsenic V (AsV), plant uptake, **189:50**
 Arsenic V (AsV), soil, **189:45**
 Arsenic, vegetable concentrations (table), **184:118**
 Arsenic, volatile forms, **184:108**
 Arsenic, volatilization from soil, **189:48**
 Arsenic, water cycles, **184:108**
 Arsenic, water speciation, **184:120**
 Arsenic, WHO recommended value, drinking water, **184:101**
 Arsenic, wood preservative sources, **184:104**
 Arsenical herbicides, **184:104**
 Arsenical insecticides, **184:104**
 Arsenical pesticides, **184:104**
 Arsenicosis, pandemic Bangladesh, **184:97**
 Arsenious acid (As^{III}), structure, **184:105**
 Arsenobetaine (AsB), in foods, **189:60**
 Arsenobetaine (AsB), relative toxicity, **184:98, 105**
 Arsenocholine (AsC), relative toxicity, **184:98, 105**
 Arsenopyrite, arsenic-bearing mineral, **184:99**
 ARTF (Agricultural Reentry Exposure Task Force), **186:110, 112, 116**
Arthrobacter aurescens, simazine degrader, **189:15**
 Aryloxyalkanoate herbicide chemical structures, **182:136**
 As^{III}, arsine, **184:104**
 AsB (arsenobetaine), relative toxicity, **184:98, 105**
 AsC (arsenocholine), relative toxicity, **184:98, 105**
 Aseptic meningitis, entovirus-related, **186:21**
 As^{III} (arsenious acid), relative toxicity, **184:98, 104, 107**
 As⁰, elemental arsenic, **184:104**
 Assessment endpoints, enteric viral diseases, children, **186:37**
 Astigmat bioassays, DDT-contaminated soils, **186:89**
 Astrovirus, diarrhea cause, **186:4**
 Astroviruses, described, **186:10**
 Asulam, water-sediment degradation profile, **187:188**
 As^V (arsenic acid), relative toxicity, **184:98, 104, 107**
 Atmospheric pesticide studies, regulatory considerations, **181:24**
 Atmospheric arsenic, **184:102**
 Atmospheric inversion layer, lead pollution, **185:100**
 Atmospheric lead, Brazil, **184:69**
 Atmospheric lead pollution, gasoline, **185:99**
 Atmospheric lead, seasonal variation, **185:104**
 Atmospheric lead, working environment limits, Brazil, **184:90**
 Atmospheric mercury, **181:145**
 Atmospheric oxygen species, **182:29**
 ATP formation inhibition, arsenic, **184:111**
 Atrazine, adsorption coefficient, **188:190**

- Atrazine effects, gonads fish/frogs, **187:114**
- Atrazine, ionisable herbicide, **188:150, 156**
- Atrazine, water-sediment degradation profile, **187:197**
- Avermectin, chemical structures, **182:156**
- Avoidance behavior, earthworm test (diag.), **188:101**
- Avoidance behavior, earthworms, chemicals (table), **188:98**
- Azadirachtin, chemical structure, **182:156**
- Azocyclotin, microcosm degradation profile, **187:220**
- Azole chemical structures, **182:151**
- Azole herbicide photodegradation, in solvents, **182:55**
- Azole herbicide photodegradation, on glass, **182:45**
- Azole herbicide photodegradation, on soils, **182:67**
- Azole herbicide photodegradation, on plants, **182:75**
- Azole herbicides, fate in water-sediment systems, **187:195**
- Azoxystrobin, water-sediment degradation profile, **187:175**
- B**-lymphocyte function, children deficient, **186:2**
- BAFs, see Bioaccumulation factors, **186:143**
- Bagasse, metal remediation, water, **188:68, 72**
- Baikal seals, epizootics, **184:2**
- Baleen whales, organohalogen contaminants, **184:2**
- Bangladesh, arsenic situation agriculture, **189:65**
- Bangladesh, food & water consumption, **189:74**
- Bark (wood), metal remediation, water, **188:73**
- Bat kills, cyanide, **183:35**
- BCFs, see Bioconcentration factors, **186:140**
- BDE-153, dominant PBDE tissue congener, **183:60**
- BDE-47, dominant PBDE tissue congener, **183:60**
- BDE-47, high levels in fish eaters, **183:64**
- BDE-47, PBDE congener breast cancer patients, **183:60**
- Beluga whale blubber PHCs (table), **184:24**
- Beluga whales, **184:7**
- Benalaxyl, water-sediment degradation profile, **187:180**
- Benchmarks, PFOS aquatic organisms, **186:160**
- Benfuracarb photodegradation (diagram), **182:42**
- Benomyl, earthworm avoidance, **188:98**
- Bentazone, adsorption coefficient, **188:189**
- Bentazone, water-sediment degradation profile, **187:203**
- Bentonite, metal remediation, water, **188:73**
- Benzo(*a*)pyrene, earthworm response, **188:90**
- Benzoylurea chemical structures, **182:140**
- Benzoylurea herbicides, fate in water-sediment systems, **187:189**
- Bermellon, mercury ore type, **183:1**
- Beryllium, in human nails, **185:161**
- Beta*-cyfluthrin, water-sediment degradation profile, **187:172**
- Beta*-sitosterol, reduced fish steroids, **185:76, 82**
- BFRs (brominated flame retardants), **188:25**
- Biethylene (butadiene), **189:132**
- Bifenox, water-sediment degradation profile, **187:200**
- Bioaccumulation factors (BAFs), **186:140**
- Bioaccumulation, lead Brazil, **184:61**
- Bioaccumulation, methylmercury fish, **189:108**
- Bioassays, in ecological risk assessment, **186:75**

- Bioavailability, arsenic species, **184:125**
- Bioavailability of soil contaminants, parameters considered, **186:92**
- Biobio, Chilean industrial region (map), **183:7**
- Bioconcentration factors, PFOS, **186:138, 140**
- Biodegradation, PFOS, **186:136**
- Biofilm, sediment cover, **187:140**
- Biological oxygen demand (BOD), paper production, **185:73**
- Biological oxygen demand (BOD), Reconquista River, **185:44, 52**
- Biomagnification, methylmercury fish, **189:108**
- Biomarker responses, earthworms, pollutants (table), **188:90**
- Biomarker, trace element exposure, human nails, **185:141 ff.**
- Biomarkers, butadiene exposure, **189:142**
- Biomarkers, chloroprene exposure, **189:155**
- Biomarkers, human exposure to pollutants, **189:109**
- Biomarkers, isoprene exposure, **189:162**
- Biomarkers, standardized toxicity tests, earthworms, **188:104**
- Biomass (living), metal remediation, water, **188:65**
- Biomass (nonliving), metal remediation, water, **188:66, 72**
- Biomass, alcohol production, **189:25 ff.**
- Biomass ion-exchange, heavy metals, **188:67, 72**
- Biotransformation, sulfonamides in mammals, **187:79**
- Bioturbation, pesticide water-sediment studies, **187:214**
- Bird kills, cyanide, **183:32**
- Bird mortality, sodium cyanide (table), **183:34**
- Birds, geophagous (table), **183:121**
- Birds, PFOS toxicity, **186:154, 158, 166**
- Birds, pollutant levels in S. America, **185:20**
- Birds, wetland, pesticide effects, **187:21**
- Bismuth, in human nails, **185:161**
- Bisphenol A effects, gonads fish/frogs, **187:114**
- Bitertanol, water-sediment degradation profile, **187:196**
- Bivinyll (butadiene), **189:132**
- Black bindweed (*Fallopia convolvulus*), copper bioassays, **186:87**
- Black liquor, paper production, **185:73**
- Bleaching, organic stream contaminant source, **185:72**
- Blood lead, adults, **185:110**
- Blood lead, affected children, **185:110**
- Blood lead, animals, **185:110**
- Blood lead, changes with age, **185:121**
- Blood lead, children, **185:102**
- Blood lead, correlation with head hair lead, **185:123, 125**
- Blood lead levels, adults, Brazil, **184:85, 87**
- Blood lead levels, age distribution, **185:118**
- Blood lead levels, chickens, Brazil, **184:79**
- Blood lead levels, children, Brazil, **184:83**
- Blood lead levels, control populations, Brazil, **184:88**
- Blood lead levels, Mexico, **181:67, 69, 71, 77, 81, 92, 98**
- Blood lead levels vs age, **185:112**
- Blood lead levels vs. industrial sites, Brazil, **184:86**
- Blood lead levels vs. lead recycling plant, Brazil, **184:89**
- Blood lead levels vs. mining areas, Brazil, **184:87**
- Blood lead reference values, Brazil, **184:88**
- Blood lead, seasonal changes, **185:122**
- Blood lead, symptoms vs age, **185:111**
- Blood pesticide levels, Uruguay, **181:125, 127, 129, 130**
- BOD (biological oxygen demand), paper production, **185:73**
- BOD (biological oxygen demand), Reconquista River, **185:44, 52**
- Body burdens, lead, Brazil, **184:81**

- Body surface area, pesticide exposure, **186:121**
- Body weight average, pesticide exposure, **186:121**
- Bornholm disease, entovirus related, **186:23**
- Boron, in human nails, **185:161**
- Boscalid, water-sediment degradation profile, **187:181**
- Bottlenose dolphins, epizootics, **184:2**
- Brazil, air lead contamination regulations, **184:67**
- Brazil environmental lead contamination, **184:59 ff.**
- Brazil, lead ore reserve estimates, **184:60**
- Brazil lead problems, **184:59 ff.**
- Brazil, lead production, imports, exports, **184:60**
- Brazil, mercury contamination table, **181:147**
- Brazilian legislation, maximum lead permitted in foods, **184:77**
- Breast cancer patients, BDE-47 (PBDE congener), **183:60**
- Breast feeding, reduces infant diarrhea, **186:5**
- Brittle nails, effect on element content, **185:151**
- Brominated anizoles, **188:34**
- Brominated flame retardants (BFRs), **188:25**
- Brominated HNPs, most abundant, **188:4**
- Brominated phenols, **188:34**
- Brominated phenoxyanisoles (MeO-BDEs), **188:23**
- Brominated phenoxyanisoles, analytical aspects, **188:28**
- Brominated phenoxyanisoles, environmental distribution, **188:29**
- Brominated phenoxyanisoles, related compounds, **188:31**
- Bromodibenzo-dioxins, chemical structures, **188:32**
- Bromoindoles, **188:42**
- Bromoindoles, chemical structures, **188:42**
- Bromophenols, analytical aspects, **188:36**
- Bromophenols, chemical structures, **188:35**
- Bromophenols, environmental distribution, **188:37**
- Bromoquinones, chemical structures, **188:34**
- Bromoxynil, microcosm degradation profile, **187:217**
- Bromoxynil, water-sediment degradation profile, **187:164**
- Brown algae, metal remediation, water, **188:65**
- Brownstock, paper production, **185:71, 73**
- Bufo arenarum* (toad), bioassay organism, **185:55**
- Bufo bufo*, gonadal abnormalities, **187:104**
- Butachlor, earthworm response, **188:91**
- Butadiene,1-3-, toxicology, **189:131 ff.**
- Butadiene, carcinogenicity, **189:136**
- Butadiene, chronic inhalation studies, **189:136**
- Butadiene, cytochrome P450 oxidation, **189:137**
- Butadiene, detoxification mechanisms, **189:140**
- Butadiene diepoxide, potent genotoxicity, **189:139**
- Butadiene epoxide metabolites, genotoxicity, **189:139**
- Butadiene, exposure biomarkers, **189:142**
- Butadiene, genotoxicity, **189:145**
- Butadiene, hematopoietic toxicity, **189:135**
- Butadiene, human epidemiology, **189:148**
- Butadiene, industrial uses, **189:133**
- Butadiene, kinetics, **189:137**
- Butadiene, *Known to be a Human Carcinogen*, **189:149**
- Butadiene, metabolic scheme (chart), **189:138**
- Butadiene, metabolism, **189:137**
- Butadiene, motor vehicle production, **189:134**

- Butadiene, multisite carcinogen in mice, **189:136**
- Butadiene, mutagenicity, **189:145**
- Butadiene, number workers exposed, **189:133**
- Butadiene, occupational exposure, **189:133**
- Butadiene, other chemical names, **189:132**
- Butadiene, photodegradation rates, **189:134**
- Butadiene, physicochemical properties, **189:132**
- Butadiene, *Probably Carcinogenic to Humans*, **189:149**
- Butadiene, risk assessment, **189:150**
- Butadiene, toxicity, **189:134**
- Butadiene toxicology, **189:131 ff.**
- Butadiene, worker exposure leukemia, **189:149**
- Butadiene, world production, **189:133**
- Butadiene-1,3 (butadiene), **189:132**
- Butafenacil, water-sediment degradation profile, **187:185**
- Butamifos, water-sediment degradation profile, **187:168**
- By-catch delphinoid PHC studies, **184:35**
- Cacodylic acid, structure, **184:105**
- Cadmium, analytical methods Mexican foods, **181:75**
- Cadmium, aquatic environment hazard, **188:61, 63**
- Cadmium content, Reconquista River, **185:46**
- Cadmium, earthworm biomarkers, **188:87**
- Cadmium, in human nails, **185:161**
- Calcium arsenate, insecticide, **184:104**
- Calcium, dietary need, geophagy, **183:117**
- Calcium, in human nails, **185:161**
- Calcivirus, diarrhea cause, **186:4**
- Calcivirus, genera/strains, table, **186:12**
- Calciviruses, described, **186:11**
- Calciviruses, incidence by age, **186:26**
- Calciviruses, waterborne enteric disease, children, **186:36**
- California Pesticide Illness Surveillance Program, **186:57 ff.**
- California, pyrethroid illnesses, **186:57 ff.**
- California Roller, uniform pesticide applicator, **186:117**
- California sea lions, reproductive impairment PHCs, **184:9**
- Canada, mercury contamination, **181:158**
- Cancer studies, glyphosate, **190:77**
- Capillary electrophoresis, arsenic speciation, **184:124**
- Captan, water-sediment degradation profile, **187:184**
- Carbamate chemical structures, **182:141**
- Carbamate photodegradation, in solvents, **182:52**
- Carbamate photodegradation, on glass, **182:42**
- Carbamate photodegradation, on plants, **182:73**
- Carbamate photodegradation, on soils, **182:62**
- Carbamates, fate in water-sediment systems, **187:186**
- Carbaryl, earthworm response, **188:90**
- Carbaryl, microcosm degradation profile, **187:219**
- Carbaryl, water-sediment degradation profile, **187:187**
- Carbendazim, adsorption coefficient, **188:187, 190**
- Carbendazim, earthworm avoidance, **188:98**
- Carbofuran, earthworm response, **188:91**
- Carbofuran, microcosm degradation profile, **187:219**
- Carbon cycle, organic matter role, **188:128**
- Carbon dioxide (CO₂) emissions, S. America, **185:6**
- Carbon in pulp, gold precipitation, **183:22**
- Carbosulfan, microcosm degradation profile, **187:219**
- Carboxylic acids, fate in water-sediment systems, **187:170**

- Carboxylic esters, fate in water-sediment systems, **187:170**
- Carbutamide, physicochemical properties, **187:77**
- Carcinogenicity, PBDEs, **183:78**
- Carfentrazone-ethyl, microcosm degradation profile, **187:220**
- Carfentrazone-ethyl, water-sediment degradation profile, **187:200**
- Carpropamid, water-sediment degradation profile, **187:178**
- Carson River watershed (Nevada), mercury contamination, **181:142, 160**
- CAS numbers, pesticides, **181:28, 134**
- CAS numbers, pesticides, **188:205**
- Caspian seals, epizootics, **184:2**
- Cellulose, wood composition amount, **185:70**
- Central tendency statistic, pesticide exposure, **186:121**
- Ceramics, lead content, Mexico, **181:67**
- Ceramics, lead oxide glazing, **181:68**
- Ceramics, lead-glazed, major health hazard, **181:38**
- Cetaceans, HDBPs body burdens, **188:15**
- Cetaceans, organohalogen contaminants, **184:1 ff.**
- ChE inhibitors, restricted entry interval determining, **186:115**
- Chemic/physical properties, PFOS, **186:135**
- Chemical exposure, gonadal anomaly, **187:103 ff.**
- Chemical names, pesticides, **188:205**
- Chemical oxygen demand (COD), paper production, **185:73**
- Chemical oxygen demand (COD), Reconquista River, **185:44, 52**
- Chemical/physical properties, endosulfan, **183:102**
- Chemical/physical properties, soil health indicators, **188:135**
- Chemical/physical properties, sulfonamides (table), **187:71**
- Chemical structures, amides, **182:139**
- Chemical structures, anilides, **182:139**
- Chemical structures, arsenic species, **184:105**
- Chemical structures, azoles, **182:151**
- Chemical structures, benzoylureas, **182:140**
- Chemical structures, bromodibenzo-dioxins, **188:32**
- Chemical structures, bromoindoles, **188:42**
- Chemical structures, bromophenols, **188:35**
- Chemical structures, bromoquinones, **188:34**
- Chemical structures, carbamates, **182:141**
- Chemical structures, HDBPs (figure), **188:10**
- Chemical structures, MeO-BDEs (figure), **188:24**
- Chemical structures, miscellaneous fungicides, **182:152**
- Chemical structures, miscellaneous herbicides, **182:152**
- Chemical structures, miscellaneous insecticides, **182:152**
- Chemical structures, miscellaneous rodenticides, **182:152**
- Chemical structures, organochlorine pesticides, **182:146**
- Chemical structures, organophosphorus pesticides, **182:148**
- Chemical structures, pesticide, directory, **182:130**
- Chemical structures, phenoxy herbicides, **182:136**
- Chemical structures, pyrethroids, **182:137**
- Chemical structures, Q1 (figure), **188:17**
- Chemical structures, sulfonylureas, **182:144**
- Chemical structures, triazines, **182:151**
- Chemical structures, ureas, **182:140**
- Chemiluminescence, described, **182:25**
- Children, diarrheal disease numbers, **186:4**
- Children, enteric viral infection risks, **186:1 ff.**

- Children enteric viruses, hospital admissions, **186:7**
- Children, environmental risks, **186:2**
- Children, immunocompromised diseases, enterovirus-related, **186:24**
- Children lead exposure, **185:101**
- Children, spleen immature marginal zone compartment, **186:2**
- Children's blood lead, age differences, **185:105**
- Children's blood lead, chelation treated, **185:112**
- Children's blood lead levels, Brazil, **184:83**
- Children's blood lead, seasonal variation, **185:104**
- Children's Exposure Factors Handbook (EPA), pesticide, **186:124**
- Chile, map of, **183:3**
- Chile, mercury contamination, **183:1 ff.**
- Chile, regional map of, **183:5**
- Chilean government, mercury contamination limits, **183:14**
- China, largest global coal producer/consumer, **189:90**
- China, mercury contamination, **181:156**
- Chinese coal, arsenic hazard, **189:92**
- Chinese coal, indoor burning health effects, **189:89 ff.**
- Chitosan, metal remediation, water, **188:73**
- Chlordane, use in S. America, **185:4**
- Chlordanes in foods, S. America, **185:22**
- Chlordanes, marine mammals, **184:4**
- Chlorimuron-ethyl, photoinduced rearrangement (diagram), **182:57**
- Chlorinated insecticides, sediment levels in S. America, **185:16**
- Chlorinated insecticides, soil levels in S. America, **185:10**
- Chlorinated insecticides, use in S. America, **185:2**
- Chlorinated insecticides, water levels in S. America, **185:13**
- Chlorine derivatives, pulp bleaching, **185:72**
- Chlorine, in human nails, **185:161**
- Chlornitrofen (CNP), water-sediment degradation profile, **187:200**
- Chloroprene, exposure biomarkers, **189:155**
- Chloroprene, genotoxicity, **189:155**
- Chloroprene, human epidemiology, **189:156**
- Chloroprene, industrial uses, **189:150**
- Chloroprene, kinetics, **189:152**
- Chloroprene, metabolic scheme (chart), **189:154**
- Chloroprene, metabolism, **189:152, 154**
- Chloroprene, physical properties, **189:133**
- Chloroprene, physicochemical properties, **189:150**
- Chloroprene, risk assessment, **189:157**
- Chloroprene, toxicity, **189:151**
- Chloroprene toxicology, **189:131 ff.**
- Chloroprene, worker exposure, **189:151**
- Chloroprene, world production, **189:150**
- Chlorpropham, water-sediment degradation profile, **187:187**
- Chlorpropham, water-sediment degradation profile, **187:187**
- Chlorpyrifos, earthworm response, **188:91**
- Chlorpyrifos, microcosm degradation profile, **187:216**
- Chlorpyrifos-methyl, microcosm degradation profile, **187:216**
- Chlorsulfuron, adsorption coefficient, **188:185, 189**
- Chlorsulfuron, anaerobic aquatic metabolism (diag.), **187:194**
- Chlorsulfuron, water-sediment degradation profile, **187:191**
- Chromium, aquatic environment hazard, **188:62, 63**
- Chromium content, Reconquista River, **185:46**
- Chromium, removal from water, lignocellulose, **188:70**
- Chronic lead exposure, children effects, **185:94**
- Chronic toxicity, arsenic, **184:112**

- CICAD (Inter-American Drug Abuse Control Commission), **190:113**
- Cigarette smoke, effects on nail/element studies, **185:150**
- CIMMYT-Bangladesh, arsenic research, **189:70**
- Cinidon-ethyl, water-sediment degradation profile, **187:184**
- cis/trans* isomerization, photoinduced pyrethroids, **182:40**
- Citric acid cycle effects, arsenic, **184:110**
- Clams, mercury contamination, Chile, **183:7**
- Classic chlorinated contaminants, **188:2**
- Clay influence on sorption, ionisable pesticides, **188:196**
- Clays, metal remediation, water, **188:73**
- Clays, photophysical/photochemical processes, **182:27**
- Climatic properties, ionisable compounds adsorption, **188:163**
- Clofentezine, water-sediment degradation profile, **187:204**
- Cloransulam-methyl, anaerobic aquatic metabolism (diag.), **187:183**
- Cloransulam-methyl, water-sediment degradation profile, **187:181**
- Clothianidin, water-sediment degradation profile, **187:202**
- Clusters of lead exposure, **185:108**
- CNP (chlornitrofen), water-sediment degradation profile, **187:200**
- CO₂ (carbon dioxide) emissions, S. America, **185:6**
- Coal burning, indoors without chimneys, **189:91**
- Coal burning, trace element dispersal, **189:90**
- Cobalt, in human nails, **185:162**
- Cobaltite, arsenic-bearing mineral, **184:99**
- Coca eradication, Colombia, **190:43 ff.**
- Coca eradication, glyphosate, **190:43 ff.**
- Coca production, environmental impacts (Colombia), **190:104**
- Coca production, human health impacts (Colombia), **190:103**
- Cocaine, from *Erythroxylum coca* (coca), **190:44**
- Cocaine, global production, **190:44**
- Cocaine usage, global numbers, **190:44**
- Coco production, control recommendations (Colombia), **190:108**
- Coconut husks, metal remediation, water, **188:72**
- COD (chemical oxygen demand), paper production, **185:73**
- COD (chemical oxygen demand), Reconquista River, **185:44, 52**
- Collembola, copper bioassays, **186:87**
- Collembola, heavy metal bioassays, **186:83**
- Combined upper-bound exposure factors, pesticide, **186:123**
- Combustion chamber conditions, dioxin formation, **190:5 ff.**
- Conjugation, pesticides/water-sediment, **187:147, 154**
- Contaminated sites, pollutants in S. America, **185:7**
- Contaminated soil, ecological risk assessment, **186:73 ff.**
- Contaminated soils, earthworm avoidance, **188:97**
- Contaminated soils, realistic assessment, **188:108**
- Continuous-flow water-sediment apparatus (diag.), **187:155**
- Copper chloride, earthworm response, **188:91**
- Copper, earthworm biomarkers, **188:87**
- Copper, in human nails, **185:161**
- Copper, potential health effects, **188:63**
- Copper-contaminated soils, risk assessment, **186:85**
- Copper-contaminated soils, screening levels, **186:85**
- Corn ethanol, input costs, **189:28**
- Corn fermentation/distillation, energy inputs, **189:28**
- Corn production, energy inputs, **189:26**
- Corn use in ethanol production, **189:26**
- Cosmo-Flux®, glyphosate adjuvant, **190:51, 91**

- Costs of enteric viral infections in children, **186:29**
- Crassostrea corteziensis* (oyster), lead levels, **181:58**
- Crassostrea virginica* (oyster), lead levels, **181:57**
- Cricket bioassays, DDT-contaminated soils, **186:89**
- CropLife America (formerly NACA), **186:113**
- Cuticular fruit/leaf waxes, composition (table), **182:89**
- Cyanatryn, microcosm degradation profile, **187:219**
- Cyanidation process, gold extraction, **183:22**
- Cyanide annual use, North America, **183:22**
- Cyanide, bird kills, **183:32**
- Cyanide contamination, water management issues, **183:40**
- Cyanide, drinking water contamination, **183:35**
- Cyanide effects, aquatic plants, **183:30**
- Cyanide effects, fish, **183:29**
- Cyanide effects, terrestrial flora, **183:36**
- Cyanide, fish kills, **183:28**
- Cyanide hazards, aquatic ecosystems, **183:28**
- Cyanide hazards, gold mining, **183:21 ff.**
- Cyanide leaching (gold mining), wildlife mortality, **183:25**
- Cyanide leaching, gold mining, **181:142**
- Cyanide levels in water/sediments, downstream mining, **183:24**
- Cyanide, livestock kills, **183:36**
- Cyanide losses from soils, routes, **183:27**
- Cyanide losses from water, routes, **183:31**
- Cyanide mitigation techniques, **183:37**
- Cyanide persistence, alkaline conditions, **183:25**
- Cyanide, plant germination inhibition, **183:37**
- Cyanide releases, gold mining, accidents, **183:24**
- Cyanide, respiration inhibition higher plants, **183:37**
- Cyanide water remediation, impoundments, **183:26**
- Cyanide water remediation, microbial oxidation, **183:26**
- Cyanide, wildlife protection, **183:32**
- Cyanide-laced sludge releases, accidents, **183:23**
- Cyanide-resistant yeasts, **183:27**
- Cyanide-tolerant fish, **183:30**
- Cyanofos, water-sediment degradation profile, **187:166**
- Cyazofamid, water-sediment degradation profile, **187:181**
- Cyclanilide, water-sediment degradation profile, **187:180**
- Cyclodiene insecticides, use in S. America, **185:2**
- Cyfluthrin, dislodgeable foliar residue illnesses, **186:65**
- Cyfluthrin, illnesses described, **186:64**
- Cyfluthrin- β , water-sediment degradation profile, **187:172**
- Cyhalofop-butyl, water-sediment degradation profile, **187:171**
- Cyhalothrin- λ , illnesses described, **186:66**
- Cyhalothrin- λ , microcosm degradation profile, **187:218**
- Cyhalothrin- λ , water-sediment degradation profile, **187:173**
- CYP isoenzymes, induction, marine mammals, **184:7**
- Cypermethrin photodegradation (diagram), **182:53**
- Cypermethrin- α , water-sediment degradation profile, **187:172**
- Cyromazine, water-sediment degradation profile, **187:197**
- Cytochrome P-450 oxidation, simazine, **189:17**
- Cytochrome P450 induction, marine mammals, **184:7**
- 2,4-D, adsorption coefficient, **188:184, 193**
- 2,4-D, ionizable herbicide, **188:150, 154**
- 2,4-D, soil half-life, **188:201**

- 2,4-D water-sediment degradation profile, **187:171**
- 2,4,6-DB, water-sediment degradation profile, **187:171**
- Daphnia magna*, aquatic pesticide monitoring, **187:12**
- DBDE (decabromodiphenyl ether), dermal toxicity, **183:74**
- DBDE (decabromodiphenyl ether), oral toxicity, **183:73, 75**
- DDE *o,p*-, water-sediment degradation profile, **187:171**
- DDT biomagnification, cat kills, **187:5**
- DDT in foods, S. America, **185:22**
- DDT, marine mammals, **184:3**
- DDT, microcosm degradation profile, **187:217**
- DDT *o,p*-, water-sediment degradation profile, **187:114**
- DDT side effects, mosquito control, **187:5**
- DDT, use in S. America, **185:4**
- DDT, water-sediment degradation profile, **187:163**
- DDT-contaminated soils, bioassays, **186:89**
- DDT-contaminated soils, risk assessment, **186:88**
- Decabromodiphenyl ether (DBDE), toxicity, **183:73**
- Decline curves, pesticide photodegradation, soil, **182:35**
- Degradation pathways, simazine, **189:8**
- Delphinapterus leucas* (beluga whale), **184:7**
- Delphinoid blubber PBDEs (table), **184:28**
- Delphinoid blubber PCBs, hemispheres compared (fig.), **184:33**
- Delphinoid blubber PHCs, free-ranging (table), **184:37**
- Delphinoid blubber PHCs, *in vitro* assays, **184:39**
- Delphinoid liver, perfluorinated compounds (table), **184:26**
- Delphinoid populations, free-ranging, **184:35**
- Delphinoid studies, dead animal sampling, **184:35**
- delta*-aminolevulinic acid, urine lead indicator, **185:101**
- Deltamethrin, microcosm degradation profile, **187:217**
- Deltamethrin, water-sediment degradation profile, **187:172**
- Demethylation, methylmercury in organisms, **189:108**
- Dendrobaena octaedra*, earthworm biomarkers, **188:99**
- Dental fluorosis, case photos China, **189:97**
- Derivatization methods, arsenic (table), **184:126**
- Dermal absorption, pesticide exposure, **186:122**
- Dermal dosimetry, pesticides, **186:113**
- Desmedipham, water-sediment degradation profile, **187:187**
- Diallate, soil half-life, **188:201**
- Diarrhea-associated hospitalizations, ethnicity, **186:5**
- Diarrheal diseases, children numbers, **186:4**
- Diarrheal diseases, leading cause childhood morbidity, **186:4**
- Diazinon, earthworm response, **188:93**
- Diazinon, water-sediment degradation profile, **187:167**
- Dicamba, water-sediment degradation profile, **187:163**
- Dicarboximide herbicide photodegradation, in solvents, **182:54**
- Dicarboximide herbicide photodegradation, on glass, **182:43**
- Dicarboximide herbicide photodegradation, on soils, **182:63**
- Dicarboximides, fate in water-sediment systems, **187:177, 183**
- Dichlobenil, water-sediment degradation profile, **187:164**
- Dichlorprop, ionisable herbicide, **188:150**
- Dieldrin in foods, S. America, **185:22**
- Dieldrin, marine mammals, **184:4**
- Dieldrin residues, beef, Uruguay, **181:120**

- Dieldrin residues, butter, Uruguay, **181:125**
- Dieldrin, use in S. America, **185:2**
- Dietary supplements, effect human nail element content, **185:159**
- Diethofencarb, water-sediment degradation profile, **187:187**
- Diffusion coefficients, pesticides in soils (table), **182:92**
- Diffusion, pesticide soil adsorption, described, **187:144**
- Diflubenzuron, water-sediment degradation profile, **187:190**
- Dimethenamid, water-sediment degradation profile, **187:179**
- Dimethenamid-P, water-sediment degradation profile, **187:179**
- Dimethoate, earthworm avoidance, **188:98**
- Dimethylarsenic acid (DMA), in soil, **189:45**
- Dimethylarsinic acid (DMA), relative toxicity, **184:98, 105, 107**
- Diniconazole, photoinduced isomerization, **182:45**
- Dinotefuran, water-sediment degradation profile, **187:202**
- Dioxin analysis, incinerator exhaust, **190:13**
- Dioxin collection, incinerator exhaust, **190:12**
- Dioxin congeners in incinerator exhaust (table), **190:17**
- Dioxin formation, combustion temperature effect, **190:2**
- Dioxin formation, impregnated wood incineration, **190:10, 26**
- Dioxin formation mechanisms, incineration, **190:31**
- Dioxin formation, newspaper incineration, **190:5, 15, 18**
- Dioxin formation, plastics incineration, **190:7, 21**
- Dioxin formation, PVC incineration, **190:8, 22**
- Dioxin formation, waste incineration, **190:1 ff.**
- Dioxin formation, wood/leaves incineration, **190:9, 24**
- Dioxin recovery efficiencies, incinerator exhaust, **190:14**
- Dioxins (PCDDs), S. America pollutants, **185:5**
- Dioxins, air levels in S. America, **185:9**
- Dioxins, defined, **190:1**
- Dioxins, marine mammals, **184:4**
- Dioxins, paper production contaminants, **185:75**
- Dioxins, soil levels in S. America, **185:11**
- Dioxins, waste incineration, **190:1 ff.**
- Dioxins, water levels in S. America, **185:11**
- DIRAN-CNP, Colombian antinarcotics program, **190:46**
- Dirty Dozen persistent pollutants, **188:2**
- Dislodgeable foliar residue, **186:112**
- Dislodgeable residue studies, pyrethroids, **186:65**
- Disodium methanearsonate (DSMA), herbicide, **184:104**
- Dissolved organic carbon (DOC), composition in freshwater, **187:137**
- Dissolved organic matter (DOM), sulfonamide sorption, **187:88**
- Dissolved oxygen (DO), Reconquista River, **185:44**
- Diterpenoid carboxylic acids (resin acids), paper production, **185:85**
- Divinyl (butadiene), **189:132**
- DMA (cacodylic acid), **184:105**
- DMA (dimethylarsenic acid), in soil, **189:45**
- DMA (dimethylarsinic acid), relative toxicity, **184:98, 107**
- DO (dissolved oxygen), Reconquista River, **185:44**
- DOC (dissolved organic carbon), composition in freshwater, **187:137**
- Dollar costs of enteric viral infections, children, **186:29**
- Dolphin blubber PHCs (table), **184:12**
- Dolphin liver, perfluorinated compounds (table), **184:27**
- Dolphins, epizootics, **184:2**
- Dolphins, pollutant levels in S. America, **185:19**

- Dolphins, scientific names (table), **184:12**
- DOM (dissolved organic matter), sulfonamide sorption, **187:88**
- Dose-response models, enteric viral infection, **186:33**
- Drawida willsi*, earthworm biomarkers, **188:91**
- Drift, pesticides atmospheric, **181:1** ff.
- Drinking water, arsenic recommended guidelines, **184:114**
- Drinking water, cyanide contamination, **183:35**
- Drinking water, element content human nails effect, **185:153**
- Drinking water, enteric viral infections, children, **186:31**
- Drinking water intake by age, **186:32**
- Drinking water, maximum lead permitted, Brazil, **184:79**
- Earthworm avoidance, contaminated soils, **188:97**
- Earthworm avoidance, two-chamber test (diag.), **188:97, 101**
- Earthworm behavior, pollutants (diag.), **188:116**
- Earthworm biological responses, pollutants (diag.), **188:116**
- Earthworm biomarker responses, pollutants (table), **188:90**
- Earthworm biomarkers, ecological risk assessment, **188:85** ff.
- Earthworm biomarkers, ecological survey, **188:106**
- Earthworm biomarkers, field studies, **188:101, 105**
- Earthworm biomarkers, lab soil tests, **188:102, 105**
- Earthworm biomarkers, simulated field studies, **188:103, 106**
- Earthworm biomarkers, standardized toxicity tests, **188:104**
- Earthworm biomarkers, test exposure conditions, **188:111**
- Earthworm skin, contaminant uptake indicator, **188:85**
- Earthworm standard, described, **188:109**
- Earthworm tests, lysosomal membrane stability, **188:88**
- Earthworm tests, neutral red retention assay (NRR), **188:88**
- Earthworms (*Eisenia andrei*), zinc bioassays, **186:80**
- Earthworms (*Eisenia fetida*), heavy metal bioassays, **186:82**
- Earthworms, anti-ChE pesticide effects, **188:96**
- Earthworms, avoidance behavior, chemicals (table), **188:98**
- Earthworms, bioindicators soil pollution, **188:85** ff.
- Earthworms, biomonitors of remediation , **188:112**
- Earthworms, ecotoxicological test organisms, **188:87**
- Earthworms, PFOS uptake/toxicity, **186:142**
- Earthworms, simazine toxicity, **189:2**
- Earthworms, soil ecosystem contribution, **188:95**
- Ecological risk assessment (ERA), earthworm biomarkers, **188:85** ff.
- Ecological risk assessment, contaminated soil, **186:73** ff.
- Ecological risk assessment, defined, **186:74**
- Ecologically Acceptable Concentration, pesticide, **187:3**
- Economic impact, enteric viral infections, **186:28**
- Ecosystem long-term effects, pesticide exposure, **187:28**
- Ecotoxicological impacts of soil pollutants, microflora monitors, **188:127** ff.
- Ecotoxicology, PFOS, **186:143** ff.
- Effluent water, maximum lead permitted, Brazil, **184:79**
- Eisenia andrei* (earthworms), zinc bioassays, **186:80**
- Eisenia andrei*, earthworm biomarkers, **188:86**
- Eisenia fetida* (earthworms), heavy metal bioassays, **186:82**
- Eisenia fetida*, earthworm biomarkers, **188:86**

- Emission profiles, photosensitizers (table), **182:86**
- Emission regulation, air lead, Brazil, **184:67**
- Enargite, arsenic-bearing mineral, **184:99**
- Enchytraeus crypticus* (pot worm), zinc bioassays, **186:80**
- Endocrine disruption, paper production contaminants, **185:81**
- Endocrine disruption, PHCs, marine mammals, **184:9**
- Endocrine disruptors, described, **185:81**
- Endocrine effects, PBDEs, **183:82**
- Endocrine-active chemicals, gonadal effects, **187:109**
- Endocrine-active compounds effects, gonads fish/frogs, **187:111**
- Endocrine-disrupting chemicals, defined, **187:109**
- Endosulfan, α -enriched insect toxicity, **183:107**
- Endosulfan, α -isomer residue problems, **183:111**
- Endosulfan, β -enriched desirability, **183:110**
- Endosulfan, β -enriched insect toxicity, **183:107, 108**
- Endosulfan, chemical/physical properties, **183:102**
- Endosulfan, commercial synthesis, **183:109**
- Endosulfan diol, structure, **183:100**
- Endosulfan:endsulfate residues, ratios, **183:109**
- Endosulfan, environmental fate, **183:104**
- Endosulfan environmentally derived products, structures, **183:100**
- Endosulfan, GABA-gated chloride channel binding, **183:101**
- Endosulfan in foods, S. America, **185:22**
- Endosulfan, insecticidal properties, field, **183:106**
- Endosulfan isomers, different vapor pressures, **183:102**
- Endosulfan isomers, half-lives, **183:104**
- Endosulfan isomers, residues, **183:99 ff.**
- Endosulfan isomers, structures, **183:100**
- Endosulfan isomers, toxicity, **183:99 ff.**
- Endosulfan, mode of action, **183:101**
- Endosulfan synthesis, α -/ β -isomer ratios, **183:109**
- Endosulfan technical, insect toxicity, **183:107**
- Endosulfan, toxicity, **183:101**
- Endosulfan, toxicity aquatic invertebrates, **183:102**
- Endosulfan, toxicity fish, **183:102**
- Endosulfan, water-sediment degradation profile, **187:163**
- Endosulfan- α , structure, **183:100**
- Endosulfan- β , structure, **183:100**
- Endosulfate:endsulfan residues, ratios, **183:109**
- Endosulfate, endsulfan residue animal fat, **183:110**
- Endosulfate isomers, structures, **183:100**
- Endrin in foods, S. America, **185:22**
- Endrin, marine mammals, **184:4**
- Endrin, use in S. America, **185:2**
- Energy inputs, corn production, **189:26**
- Energy inputs, fermentation/distillation, **189:28**
- Enteric adenoviruses 40 & 41, described, **186:9**
- Enteric viral diseases, children, waterborne, **186:35**
- Enteric viral infection, children, social factors, **186:32**
- Enteric viral infection, dose-response models, **186:33**
- Enteric viral infections, children, **186:1 ff.**
- Enteric viral infections, economic impact, **186:28**
- Enteric viral infectious dose, children, **186:33**
- Enteric virus infections, incidence by age, **186:25**
- Enterovirus illness, described **18**
- Enterovirus illnesses in children, table, **186:25**
- Enterovirus, incidence by age, **186:27**

- Enterovirus infestations, symptoms in children, **186:19**
- Enterovirus related rheumatoid arthritis, **186:25**
- Enteroviruses, described, **186:16**
- Enteroviruses, incubation periods, **186:16**
- Enteroviruses, perinatal/neonatal infections, **186:19**
- Enteroviruses, waterborne enteric disease, children, **186:38**
- Environmental concentrations, sulfonamides (table), **187:91**
- Environmental lead contamination, Brazil, **184:59 ff.**
- Environmental lead, Mexico, lack of data, **181:38**
- Environmental lead, Mexico problems, **181:37 ff.**
- Environmental lead samples, homes, **185:109**
- EPA controls, paper production effluent guidelines, **185:83**
- Epidemiology, PBDEs, **183:83**
- Epoxiconazole, microcosm degradation profile, **187:220**
- ERA (Ecological risk assessment), earthworm biomarkers, **188:85 ff.**
- Erythrene (butadiene), **189:132**
- Erythroxylum coca* (coca), cocaine source, **190:44**
- Esfenvalerate, water-sediment degradation profile, **187:173**
- Estradiol 17 β -, effects, gonads fish/frogs, **187:111**
- Eteroviruses (human), serotypes (table), **186:17**
- Ethanol, annual production, **189:30**
- Ethanol as gasoline additive, **189:25 ff.**
- Ethanol production, by-products, **189:30**
- Ethanol production, cornland use, **189:30**
- Ethanol production, cropland use, **189:31**
- Ethanol production, economic costs, **189:29**
- Ethanol production, energy costs, **189:25 ff.**
- Ethanol production, energy return, **189:33**
- Ethanol production, environmental impacts, **189:32**
- Ethanol production, federal subsidies, **189:29**
- Ethanol production, food security, **189:34**
- Ethanol production, food vs fuel issue, **189:35**
- Ethanol production, for vehicle fuel, **189:25 ff.**
- Ethanol production, net energy yield, **189:29**
- Ethanol production, sugarcane, **189:31**
- Ethinyl estradiol 17 α -, effects, gonads fish/frogs, **187:112**
- Ethofumesate, water-sediment degradation profile, **187:204**
- Ethoxysulfuron, water-sediment degradation profile, **187:193**
- Etofenprox photodegradation (diagram), **182:41**
- European Union pesticide risk assessment, **187:1 ff.**
- Evaluation of nervous system effects, lead exposure, **185:123, 126**
- EXAMS, pesticide physicochemical/ degradative profiles model, **187:161**
- Exanthems (skin eruptions), entovirus related, **186:21**
- Exhaust gas temperatures, incineration, **190:4**
- Exposure databases (pesticide), applied risk analysis, **186:107 ff.**
- Exposure, enteric viral infections, children, **186:31 ff.**
- Exposure estimates, PBDEs, **183:86**
- Exposure Factors Handbook (EPA), pesticide, **186:124**
- Exposure monitoring databases, **186:107 ff.**
- Exposure monitoring in risk analysis, **186:107 ff.**
- Extractable organic halides (EOX), paper production, **185:74**
- Extreme case, pesticide exposure, **186:120**

- Famoxadone**, water-sediment degradation profile, **187:184**
- Febrile illness, nonspecific, entovirus related, **186:21**
- Fecal pollution, Reconquista River, **185:51, 53**
- Fecal-oral agent exposure, children, **186:4**
- Federal subsidies, ethanol production, **189:29**
- Fenamidone, water-sediment degradation profile, **187:203**
- Fenbuconazole, water-sediment degradation profile, **187:196**
- Fenhexamid, water-sediment degradation profile, **187:180**
- Fenitrooxon, water-sediment degradation profile, **187:167**
- Fenitrothion, microcosm degradation profile, **187:216**
- Fenitrothion, water-sediment degradation profile, **187:166**
- Fenpropathrin, water-sediment degradation profile, **187:172**
- Fenthion, microcosm degradation profile, **187:216**
- Fenthion, water-sediment degradation profile, **187:166**
- Fentrazamide, water-sediment degradation profile, **187:178**
- Fenvalerate, water-sediment degradation profile, **187:173**
- Fermentation/distillation, energy inputs, **189:28**
- Ferric hydroxide, role in soil arsenic level, **184:107**
- Field metabolic rate (FMR), defined, **183:125**
- Fingernails, biomarker of trace element exposure, **185:141 ff.**
- Fingernails vs toenails, trace element content, **185:163**
- Fipronil, microcosm degradation profile, **187:219**
- Fipronil, photodegradation pathways, **182:48**
- Fipronil, water-sediment degradation profile, **187:204**
- Fish bioassays, paper mill effluent, **185:69**
- Fish consumption, nail/element content effect, **185:150**
- Fish consumption rate, versus hair mercury content, **189:107 ff.**
- Fish, endosulfan toxicity, **183:102**
- Fish, females masculinized, paper production effluent, **185:75**
- Fish gonadal anomalies, chemical exposure, **187:103 ff.**
- Fish kills, cyanide, **183:28**
- Fish, mercury contamination, Chile, **183:10**
- Fish, methylmercury biomagnification, **189:108**
- Fish, morphological effects, paper production effluent, **185:75**
- Fish, pesticide effects, **187:8**
- Fish, PFOS toxicity (table), **186:150, 163**
- Fish, pollutant levels in S. America, **185:19**
- Flame retardants, PBDEs, **183:56**
- Flofencet, adsorption coefficient, **188:184**
- Florasulam, water-sediment degradation profile, **187:181**
- Fluazifop, adsorption coefficient, **188:184**
- Fluazinam, water-sediment degradation profile, **187:200**
- Fludioxinil, water-sediment degradation profile, **187:203**
- Flufenacet, aerobic aquatic metabolism (diag.), **187:182**
- Flufenacet, water-sediment degradation profile, **187:180**
- Flumetsulam, adsorption coefficient, **188:185, 189, 193**
- Flumetsulam, ionisable herbicide, **188:156**
- Flumioxazin, water-sediment degradation profile, **187:184**
- Fluorescence wavelengths of pesticides (table), **182:80**
- Fluorine, Chinese coal hazard, **189:96**
- Fluorine, dental fluorosis in China, **189:97**

- Fluorine, epidemic in China, **189:96**
- Fluorine health effects, indoor Chinese coal burning, **189:89 ff.**
- Fluorine, in human nails, **185:162**
- Fluoxastrobin, degradation pathways (illus), **187:177**
- Fluoxastrobin, water-sediment degradation profile, **187:176**
- Flupyr-sulfuron-methyl, aerobic aquatic metabolism (diag.) 195
- Flupyr-sulfuron-methyl, water-sediment degradation profile, **187:192**
- Flupyr-sulfuron-methyl, ionisable herbicide, **188:154**
- Fluridone, adsorption coefficient, **188:187, 190**
- Fluridone, ionisable herbicide, **188:158**
- Fluridone, microcosm degradation profile, **187:220**
- Fluridone, water-sediment degradation profile, **187:205**
- Fluroxypyr, water-sediment degradation profile, **187:171**
- Flurtamone, water-sediment degradation profile, **187:202**
- FMR (field metabolic rate), defined, **183:125**
- Folsomia candida* (springtails), zinc bioassay, **186:79**
- Food, maximum permitted lead levels, Brazil, **184:77**
- Food, arsenic recommended guidelines, **184:114**
- Food, element content human nails effect, **185:153**
- Foods, pollutant levels in S. America, **185:20, 22**
- Foramsulfuron, water-sediment degradation profile, **187:192**
- Free cyanide, analytical methods, **183:39**
- Freundlich isotherm model, metal remediation, water, **188:74**
- Frog limb malformations, pesticide effect, **187:7**
- Fruit fly bioassays, DDT-contaminated soils, **186:89**
- Fruit/leaf waxes, composition (table), **182:89**
- Fungicide chemical structures, miscellaneous, **182:152**
- Fungicide imports, amounts, Uruguay, **181:118**
- Furans (PCDFs), S. America pollutants, **185:5**
- Furans, air levels in S. America, **185:9**
- Furans, marine mammals, **184:4**
- Furans, paper production contaminants, **185:75**
- Furans, soil levels in S. America, **185:11**
- Furans, water levels in S. America, **185:11**
- GABA-gated chloride channel binding, endosulfan, **183:101**
- Gamasite bioassays, DDT-contaminated soils, **186:89**
- Gambusia holbrooki*, masculinized females, paper production contaminants, **185:75**
- Gas chromatography, arsenic speciation, **184:124**
- Gas chromatography electron ionization mass spectrometry (GC/EI-MS), **188:6**
- Gas chromatography electron-capture negative ion mass spectrometry (GC/ECNI-MS), **188:4**
- Gasohol use, Brazil, **184:71**
- Gasohol production, global, **189:25 ff.**
- Gasoline ethanol content, Brazil, **184:71**
- Gasoline lead, air contamination, Brazil, **184:67**
- Gasoline lead content, Brazil, **184:71**
- Gasoline, lead use, Mexico, **181:42**
- Gasoline, leaded, atmospheric pollution, **185:99**
- Gastrointestinal infection risk, children, **186:2**
- GC/ECNI-MS (gas chromatog. electron-capture neg. ion mass spect), **188:4**
- GC/ECNI-MS, organobromine detection, **188:4**
- GC/EI-MS (gas chromatog. electron ionization mass spect), **188:6**

- GC/EI-MS, organobromine detection, **188:5**
- Generic exposure databases (pesticide), development, **186:113**
- Generic pesticide exposure data bases, **186:107 ff.**
- Genotoxicity, butadiene, **189:145**
- Genotoxicity, chloroprene, **189:155**
- Genotoxicity, isoprene, **189:162**
- Geogenic (natural) arsenic sources, **184:99**
- Geophagous animals (table), **183:118**
- Geophagous terrestrial birds (table), **183:121**
- Geophagous terrestrial mammals (table), **183:118**
- Geophagous terrestrial reptiles (table), **183:120**
- Geophagy, absorption of contaminants, **183:126**
- Geophagy, calcium dietary need, **183:117**
- Geophagy, contaminants terrestrial vertebrates, **183:115 ff.**
- Geophagy, defined, **183:115**
- Geophagy, estimating daily soil ingestion, **183:124**
- Geophagy, incidental/accidental, **183:123**
- Geophagy, intentional, **183:116**
- Geophagy, pharmacology, **183:122**
- Geophagy, reasons for, **183:115**
- Geophagy, sodium dietary need, **183:116**
- Geophagy, soil ingestion by animals, **183:115 ff.**
- Germanium, in human nails, **185:161**
- Glass, pesticide photodegradation studies, **182:36**
- Global distillation, PHCs, **184:3**
- Global transport, PHCs, **184:3**
- Globicephala macrorhyncus* (short-finned pilot whale), **184:7**
- Globicephala melas* (long-finned pilot whale), **184:7**
- GLP (Good Laboratory Practices), **186:109**
- Glyphosate, acute toxicity laboratory animals, **190:100**
- Glyphosate, acute toxicity selected mammals, **190:72**
- Glyphosate, adsorption coefficient, **188:188, 192**
- Glyphosate, aerial application air levels, **190:65**
- Glyphosate, aerial application, environmental effects, **190:43 ff.**
- Glyphosate, aerial application, health effects, **190:43 ff.**
- Glyphosate, aerial application methods, **190:53**
- Glyphosate, aerial application risk hypotheses, **190:59**
- Glyphosate, aerial applicator exposure, **190:60**
- Glyphosate, aerial off-target deposition, **190:57**
- Glyphosate, application method to coca & poppy, **190:53**
- Glyphosate, application rates for coca & poppy, **190:56**
- Glyphosate, bystander exposure aerial application, **190:62**
- Glyphosate, cancer studies, **190:77**
- Glyphosate, coca & poppy control programs, **190:52**
- Glyphosate, coca eradication, **190:43 ff.**
- Glyphosate, conceptual model, illicit crop control, **190:59**
- Glyphosate/Cosmo-Flux®, toxicity fish, **190:93**
- Glyphosate, effects aquatic animals, **190:86**
- Glyphosate, effects beneficial insects, **190:85**
- Glyphosate, effects nontarget animals, **190:81**
- Glyphosate, effects on mammals, **190:72**
- Glyphosate, effects soil invertebrates, **190:81**
- Glyphosate, effects soil microorganisms, **190:82**
- Glyphosate, effects terrestrial invertebrates, **190:83**
- Glyphosate, effects terrestrial plants, **190:90**

- Glyphosate, effects terrestrial vertebrates, **190:84**
- Glyphosate, environmental exposure, **190:105**
- Glyphosate, environmental fate, tropics, **190:49**
- Glyphosate, epidemiology studies, **190:77**
- Glyphosate, exposure pathways, soil, air, water, **190:57**
- Glyphosate, formulants and adjuvants, **190:51**
- Glyphosate, global/Colombian registration & use, **190:49**
- Glyphosate, human exposure, **190:105**
- Glyphosate, human exposure, **190:60, 63, 65**
- Glyphosate, human exposure coca/poppy control, **190:99**
- Glyphosate, human exposure protective measures, **190:61**
- Glyphosate, human health assessment, **190:43 ff.**
- Glyphosate, human health effects, **190:79, 106**
- Glyphosate, human poisoning, **190:75**
- Glyphosate, illicit crop eradication, Colombia, **190:43 ff.**
- Glyphosate, in soil after application, **190:70**
- Glyphosate, in surface water after application, **190:66, 69**
- Glyphosate, inhalation exposure, **190:64**
- Glyphosate, ionisable herbicide, **188:160**
- Glyphosate, mechanism of action, **190:48**
- Glyphosate, microcosm degradation profile, **187:217**
- Glyphosate, neurological effects, **190:78**
- Glyphosate, physico/chemical properties, **190:48**
- Glyphosate, plant recovery from effects, **190:95**
- Glyphosate, poppy eradication, **190:43 ff.**
- Glyphosate, reentry exposure, treated fields, **190:63**
- Glyphosate, reproductive effects, **190:78**
- Glyphosate, risk assessment, **190:98**
- Glyphosate, spray-droplet characteristics, **190:54**
- Glyphosate, surfactants in formulations, **190:51**
- Glyphosate, time to pregnancy studies, Colombia, **190:79**
- Glyphosate, use in Colombian eradication spraying, **190:49**
- Glyphosate, use in forest clearance, **190:94**
- GnRH (gonadotropic-releasing hormone), PME fish effects, **185:69**
- Gold contamination, by mercury, Chile, **183:14**
- Gold heap leaching, using cyanide, **183:21**
- Gold mining, current procedures, **181:141**
- Gold mining, cyanide extraction procedure, **183:22**
- Gold mining, cyanide hazards, **183:21 ff.**
- Gold mining, cyanide leaching process, **181:142**
- Gold mining history, mercury role, **181:140**
- Gold mining mercury, Alaskan beach sediments, **181:166**
- Gold mining mercury, human hazard, **181:139 ff.**
- Gold mining methods, Brazil, **181:145**
- Gold mining sites, U.S., **183:23**
- Gold mining, using mercury, **183:2, 13**
- Gold vat leaching, using cyanide, **183:23**
- Gold yields, heap vs vat leaching, **183:23**
- Gonadal abnormalities (fish/frogs), suggested terminology, **187:117**
- Gonadal abnormalities, amphibians, before 1945 (table), **187:119**
- Gonadal abnormalities, terminology, **187:103 ff.**

- Gonadal anomalies based on gross morphology, **187:106**
- Gonadal anomalies based on histology, **187:107**
- Gonadal anomalies, frogs, photos, **187:108**
- Gonadal anomalies in fish, terminology, **187:103 ff.**
- Gonadal anomaly terminology, **187:103 ff.**
- Gonadal deformities, terminology (table), **187:106**
- Gonadal dysgenesis, abnormalities, defined, **187:124**
- Gonadosomatic index (GSI), PME fish effects, **185:69**
- Gonadotrophs (GtH), PME fish effects, **185:69**
- Gonadotropic-releasing hormone (GnRH), PME fish effects, **185:69**
- Good Agricultural Practice, pesticide application, **187:4**
- Good Laboratory Practices (GLP), **186:109, 114**
- Grasshopper effect, PHCs, **184:3**
- Grey seals, epizootics, **184:2**
- Groundwater, arsenic content, global, **184:102**
- Groundwater contamination, simazine, **189:5, 12**
- Groundwater drawdown, sink hole formation, **183:41**
- Group A rotavirus, endemic worldwide, **186:6**
- Group B rotavirus, adult diarrhea source, **186:6**
- GSI (gonadosomatic index), PME fish effects, **185:69**
- GtH (gonadotrophs), PME fish effects, **185:69**
- Hafnium**, in human nails, **185:161**
- Hair, bioindicator of mercury exposure, **189:107 ff.**
- Hair, biomarker of mercury exposure, **189:109**
- Hair, growth rate, **189:109**
- Hair lead, blood lead correlation, **185:123, 125**
- Hair mercury content, versus fish consumption rate, **189:107 ff.**
- Hair mercury, correlated with blood mercury, **189:108**
- Hair-mercury, different populations, **189:114**
- Halichoerus grypus*, epizootics, **184:2**
- Halogen isotope abundances (table), **188:7**
- Halogenated dimethyl bipyrolles, global detection, **184:3**
- Halogenated dimethyl bipyrrroles (HDBPs), **188:9**
- Halogenated monoterpenes, analytical aspects, **188:41**
- Halogenated monoterpenes, environmental distribution, **188:41**
- Halogenated monoterpenes, mixed (MHC-1), **188:40**
- Halogenated natural products (HNPs), **188:2**
- Halogenated pollutants, **188:2**
- Halogenated products, natural marine, **188:1 ff.**
- Haloxifop, adsorption coefficient, **188:184**
- Harbour porpoises, **184:10**
- Harbour seals, epizootics, **184:2**
- Harp seals, **184:9**
- Hazard, assessment, PFOS, **186:157**
- Hazard characterization, PBDEs, **183:85**
- HCb (hexachlorobenzene), marine mammals, **184:3**
- HCb (hexachlorobenzene), use in S. America, **185:4**
- HCb in foods, S. America, **185:22**
- HCH (hexachlorocyclohexane), **184:4**
- HCH in foods, S. America, **185:22**
- HCH isomers, Arctic seawater concentrations, **184:4**
- HCHs (hexachlorocyclohexanes), water levels in S. America, **185:13**
- HDBPs (halogenated dimethyl bipyrrroles), **188:9**
- HDBPs, analytical aspects, **188:13**
- HDBPs, body burdens, cetaceans/marine birds, **188:15**

- HDBPs, chemical structures (figure), **188:10**
- HDBPs, concentrations marine environment (table), **188:16**
- HDBPs, environmental distribution, **188:15**
- Head hair lead, blood lead correlation, **185:123, 125**
- Health risk assessment, PBDEs, **183:85**
- Health risks in children, enteric viral infections, **186:1 ff.**
- Heap leaching (gold), using cyanide, **183:21**
- Heap leaching, affected resources, **183:41**
- Heavy metal exposure, human nail biomarkers, **185:141 ff.**
- Heavy metals, aquatic environment hazard, **188:60**
- Heavy metals content, Reconquista River, **185:45**
- Heavy metals, remediation, water, **188:59 ff.**
- Heavy metals, removal from water, plants, **188:59 ff.**
- Heavy metals, water quality criteria (table), **188:64**
- Hepatic dysfunction, paper production contaminants, **185:78**
- Hepatitis A incidence, by age, table, **186:13**
- Hepatitis A, incubation period, **186:13**
- Hepatitis A sources, table, **186:13**
- Hepatitis A virus, described, **186:12**
- Hepatitis A virus, incidence by age, **186:26**
- Hepatitis A virus, waterborne enteric disease, children, **186:37**
- Hepatitis A, water-transmitted, **186:14**
- Hepatitis E, incubation period, **186:15**
- Hepatitis E, leading illness agent, developing countries, **186:15**
- Hepatitis E virus, described, **186:15**
- Hepatitis E virus, incidence by age, **186:27**
- Hepatitis E virus, waterborne enteric disease, children, **186:37**
- Hepatitis E, young & middle-aged adults, **186:15**
- Hepatitis viruses, **186:12 ff.**
- Heptachlor, marine mammals, **184:4**
- Heptachlor, use in S. America, **185:4**
- Heptachloromethyl bipyrrrole (Q1), **188:17**
- Heptachlors in foods, S. America, **185:22**
- Herbicide abiotic degradation, simazine, **189:14**
- Herbicide biodegradation, simazine, **189:15**
- Herbicide chemical structures, miscellaneous, **182:152**
- Herbicide imports, amounts, Uruguay, **181:117**
- Herbicide management practices, simazine, **189:10**
- Herbicide soil half-lives, simazine, **189:3**
- Herbicides, groundwater contamination, **189:5**
- Herbicides, metabolized to sulfonamides, **187:68**
- Hermaphroditism, defined, **187:106, 115**
- Heroin, from *Papaver somniferum* (poppy), **190:44**
- Heroine usage, global numbers, **190:44**
- Herpangina, entovirus related, **186:20**
- Herpetofauna, wetland, pesticide effects, **187:24**
- Hexachlorobenzene (HCB), use in S. America, **185:4**
- Hexachlorocyclohexane (HCH), **184:4**
- Hexachlorocyclohexanes (HCHs), water levels S. America, **185:13**
- High-resolution mass spectrometry (HRMS), **188:8**
- HNPs (halogenated natural products), **188:2**
- HNPs, annual cycle, **188:45**
- HNPs, biosynthesis, **188:44**
- HNPs, mass spectrometric investigations, **188:4**
- HNPs, novel discoveries, **188:2**
- HNPs of environmental concern, **188:9**
- HNPs, physicochemical parameters, **188:14**

- HNPs, resembling chlorinated POPs, **188:43**
- HNPs, unknown, **188:44**
- Hormone disruption, paper production effluents, **185:81**
- Hospital admissions, children enteric viruses, **186:7**
- Household paints, lead content, **185:98**
- HRMS (high-resolution mass spectrometry), **188:8**
- Human adipose, PBDE monitoring, **183:59, 61**
- Human blood, PBDE monitoring, **183:60, 63**
- Human brain damage, methylmercury, **189:108**
- Human enteroviruses, serotypes, table, **186:17**
- Human epidemiology, butadiene, **189:148**
- Human epidemiology, chloroprene, **189:156**
- Human epidemiology, isoprene, **189:164**
- Human exposure databases (pesticide), risk analysis, **186:107 ff.**
- Human exposure pathway, arsenic, **184:115, 117**
- Human fat, pesticide residues, Uruguay, **181:130, 131**
- Human foods, pollutant levels S. America, **185:20, 22**
- Human lead exposure, Brazil, **184:59 ff.**
- Human lead exposure, Brazil, **184:77**
- Human lead exposure, Chile, **185:93 ff.**
- Human mercury contamination, Chile, **183:11**
- Human milk, PBDE monitoring, **183:64**
- Human nail biomarkers of element exposure, **185:141 ff.**
- Human nails, age effect on element content, **185:147**
- Human nails, analytical instruments used in element studies, **185:148**
- Human nails, contamination effect on element content, **185:152**
- Human nails, desiccation after washing, **185:146**
- Human nails, dietary supplement effects element content, **185:159**
- Human nails, digestion for analysis, **185:146**
- Human nails, drinking water effect on element content, **185:153**
- Human nails, element correlation other samples, **185:160**
- Human nails, element interaction element content, **185:158**
- Human nails, element levels health risk, **185:155**
- Human nails, element levels vs exposure period, **185:155**
- Human nails, element levels vs health status, **185:155**
- Human nails, element speciation uptake effect, **185:159**
- Human nails, elemental analysis quality control, **185:147**
- Human nails, elemental analytical methods, **185:146**
- Human nails, environmental exposure, **185:152**
- Human nails, essential element accumulation, **185:165**
- Human nails, exposure and sampling times, **185:144**
- Human nails, fingernails vs toenails element content, **185:163**
- Human nails, food effect element content, **185:153**
- Human nails, genetic variation effect element content, **185:151**
- Human nails, multielement effects, **185:157**
- Human nails, nail character effect element content, **185:151**
- Human nails, normal vs brittle nail effect element content, **185:151**
- Human nails, nutritional element determination, **185:155**
- Human nails, occupational effect element content, **185:154**
- Human nails, regional effect element content, **185:151**
- Human nails, sampling procedures, **185:144**

- Human nails, sex effect element content, **185:147**
- Human nails, time/season effect element content, **185:151**
- Human nails, toxic element accumulation, **185:165**
- Human nails, toxic element determination, **185:157**
- Human nails, trace element analysis, **185:143**
- Human nails, trace elements studied, **185:147**
- Human nails, urban/rural gradients element content, **185:154**
- Human nails vs blood, trace element content, **185:164**
- Human nails vs hair, trace element content, **185:163**
- Human nails vs multiple tissues, element content, **185:164**
- Human nails vs urine, trace element content, **185:164**
- Human nails, washing/cleaning methods, **185:145**
- Human pesticide exposure risk analysis, **186:107 ff.**
- Human poisoning, glyphosate, **190:75**
- Human tissue insecticide residues, S. America, **185:21, 25**
- Humans, chlorinated insecticide residues, S. America, **185:21, 25**
- Humans, PCB residues, S. America, **185:25**
- Humic substances effects, pesticide photolysis, soil, **182:18, 23**
- Humic substances, photophysical/ photochemical processes (diagram), **182:24**
- Hunted delphinoid PHC studies, **184:35**
- Hydride generation, arsenic speciation, **184:123**
- Hydrogen peroxide, cyanide tailings mitigation, **183:38**
- Hydrolysis, pesticides/water-sediment, **187:147, 153**
- Hydrolysis, PFOS, **186:136**
- Hydrolysis products, sulfonamides, **187:83**
- Hydrophobic sorption, ionisable compounds, **188:167, 176**
- Hydroponics, arsenic effects plants, **189:55**
- Hydroxides, photophysical/ photochemical processes, **182:28**
- Hydroxyl radical, reactions with pesticides (table), **182:88**
- Hydroxyl radicals, importance in photooxidation, **181:15**
- Hyla versicolor* tadpole mortality, carbaryl/predator, **187:7**
- Illicit crop eradication, Colombia, **190:43 ff.**
- Imazapyr, adsorption coefficient, **188:187, 191**
- Imazapyr, ionisable herbicide, **188:158**
- Imazaquin, adsorption coefficient, **188:187, 191**
- Imazaquin, ionisable herbicide, **188:158**
- Imazethapyr, adsorption coefficient, **188:188, 191**
- Imazethapyr, ionisable herbicide, **188:160**
- Imazomox, water-sediment degradation profile, **187:203**
- Imidacloprid, earthworm avoidance, **188:100**
- Imidacloprid, water-sediment degradation profile, **187:201**
- Imidazolinone herbicides, ionisable, **188:150**
- Imidazolinones, adsorption coefficient, **188:191**
- Imide herbicide photodegradation, on plants, **182:75**
- Immunochemical assays, marine mammals, **184:7**
- Immunocompromised children diseases, enterovirus related, **186:24**
- Immunoglobulin A, combating viral interic infection, **186:2**
- Immunotoxicity, PBDEs, **183:80**
- Impregnated wood incineration, dioxin formation, **190:10, 26**
- In vitro* assays, PHCs, delphinoids, **184:39**

- Incineration, dioxin formation, **190:1** ff.
- Incineration, dioxin formation mechanisms, **190:31**
- Incineration dioxin gas toxicity, **190:29**
- Incinerator conditions, dioxin formation, **190:5** ff.
- Incinerator diagram, experimental, **190:3**
- Incinerator exhaust, dioxin analysis, **190:13**
- Incinerator exhaust, dioxin collection, **190:12**
- Incinerator exhaust gas toxicity, **190:29**
- Incinerator gas toxicity, **190:29**
- Incinerator temperature measurements, **190:4**
- Indicators, soil health/quality (table), **188:131**
- Indoor coal burning, health effects China, **189:89** ff.
- Industrial lead sites vs. blood levels, Brazil, **184:86**
- Industrial waste incineration, dioxin formation, **190:1** ff.
- Infants, dehydration risk, **186:3**
- Inhalation exposure, pesticides, **186:113**
- Insecticide chemical structures, miscellaneous, **182:152**
- Insecticide illnesses (pyrethroid), California, **186:57** ff.
- Insecticide imports, amounts, Uruguay, **181:118**
- Insecticide levels, Reconquista River, **185:47**
- Instrumental analysis used in nail/element studies, **185:148**
- Inter-American Drug Abuse Control Commission (CICAD), **190:113**
- Interferon- α , deficient in infant lungs, **186:2**
- Interic virus infections, incidence U.S., **186:28**
- Intersex, gonadal abnormalities, defined, **187:123**
- Intersex gonads, defined, **187:107, 109**
- Intussusception, adenovirus associated, **186:9**
- Inversion layer, atmospheric lead pollution, **185:100**
- Invertebrates, PFOS effects, **186:146**
- Iodine, in human nails, **185:162**
- Iodosulfuron, water-sediment degradation profile, **187:191**
- Ion-exchange, biomass, heavy metals, **188:67, 70**
- Ionic strength, ionisable compounds adsorption, **188:164**
- Ionisable compounds degradation, soil pH, **188:198**
- Ionisable herbicides, chemical properties, **188:155, 157, 159**
- Ionisable herbicides, chemical structures, **188:154**
- Ionisable herbicides, listed, **188:150**
- Ionisable herbicides, phenols, **188:183**
- Ionisable herbicides, sulfonylureas, **188:183**
- Ionisable herbicides, surface water contaminants, **188:150**
- Ionisable pesticides, adsorption coefficients (table), **188:184**
- Ionisable pesticides, chemical characteristics, **188:150**
- Ionisable pesticides, soil adsorption, **188:149** ff.
- Ionisable pesticides, use patterns, **188:150**
- Ionisation, pesticides, described, **188:151**
- Ioxynil, water-sediment degradation profile, **187:164**
- Iprodione, photoinduced rearrangement, **182:66**
- Iprodione, water-sediment degradation profile, **187:185**
- Iprovalicarb, water-sediment degradation profile, **187:188**
- IQ levels, lead-exposed children, Mexico, **181:93**
- Iron hydroxides, role in soil arsenic, **189:45**
- Iron, in human nails, **185:162**
- Iron oxides influence on sorption, ionisable pesticides, **188:197**
- Iron plaque, role in plant arsenic tolerance, **189:49**
- Iron plaque, roots wetland plants, **189:49**

- Irradiance spectra, photolysis light sources (diagram), **182:31**
- Isoenzymes (CYP), induction, marine mammals, **184:7**
- Isoprene, exposure biomarkers, **189:162**
- Isoprene, genotoxicity, **189:162**
- Isoprene, human epidemiology, **189:164**
- Isoprene, industrial uses, **189:158**
- Isoprene, kinetics, **189:160**
- Isoprene, metabolic scheme (chart), **189:160**
- Isoprene, metabolism, **189:160**
- Isoprene, physical properties, **189:133**
- Isoprene, physicochemical properties, **189:158**
- Isoprene, toxicity, **189:159**
- Isoprene toxicology, **189:131 ff.**
- Isoprene, world production, **189:158**
- Isoproturon, water-sediment degradation profile, **187:190**
- Isoxaben, photoinduced rearrangement (diagram), **182:44**
- Isoxaflutole, water-sediment degradation profile, **187:202**
- Jazzercise study, children's pesticide exposure, **186:117**
- Killer whale blubber PHCs (table), **184:18**
- Killer whales, **184:11**
- Kinetic analysis, pesticide photodegradation, **182:31, 34**
- Kinetic analysis, pesticide water-sediment designs, **187:159**
- K_{oc} (soil adsorption coefficients), pesticides (chart), **187:142**
- Kraft pulping, paper production, **185:71**
- Kresoxim-methyl, water-sediment degradation profile, **187:175**
- Laboratory equipment, pesticide photolysis, **181:21**
- Laboratory pesticide water-sediment systems, **187:162, 165**
- Lahontan Reservoir (Nevada), mercury contamination, **181:142, 160**
- lambda*-cyhalothrin, illnesses described, **186:66**
- lambda*-cyhalothrin, microcosm degradation profile, **187:218**
- lambda*-cyhalothrin, water-sediment degradation profile, **187:173**
- Langmuir isotherm model, metal remediation, water, **188:74**
- LD₅₀s, arsenic lab animals, **184:112**
- Lead acetate, earthworm response, **188:93**
- Lead aerosols, Mexico City, **181:44**
- Lead aerosols, San Luis Potosi, Mexico, **181:46**
- Lead air contamination, Brazil, **184:66**
- Lead, air contamination Mexico, **181:43**
- Lead, analytical methods Mexican foods, **181:75**
- Lead, aquatic organisms, Mexico, **181:57**
- Lead bioaccumulation, aquatic animals, Brazil, **184:62**
- Lead bioaccumulation, plants, Brazil, **184:62**
- Lead, bivalves coasts of Mexican Pacific, **181:58**
- Lead, blood levels adults, Mexico, **181:79**
- Lead, blood levels children, Mexico, **181:81, 84, 92, 93, 95, 98**
- Lead, blood levels children, Mexico City, **181:73, 81, 82**
- Lead, blood levels lead-glazing potters, **181:69**
- Lead, blood levels, Mexico City, **181:71**
- Lead, blood levels, rural Mexican women, **181:67**
- Lead, body burdens, Brazil, **184:81, 84**
- Lead, ceramics, Mexico, **181:67**
- Lead, children's body burdens, Brazil, **184:82, 84**
- Lead, coastal areas, Gulf of California, **181:56**
- Lead, coastal areas Mazatlán, Sinaloa, Mexico, **181:55**

- Lead, coastal areas Mexican Pacific, **181:56**
- Lead, coastal lagoons Gulf of Mexico, **181:55**,
- Lead, Coatzacoalcos River Mexico, **181:53**
- Lead, coloring pencil levels, source comparison, **181:65**
- Lead contamination, aquatic organisms, Brazil, **184:65**
- Lead contamination, fish, Brazil, **184:64**
- Lead contamination, food containers, Brazil, **184:81**
- Lead contamination, homes, **185:109**
- Lead contamination, maximum permitted in food, Brazil, **184:77**
- Lead contamination, school articles, Brazil, **184:81**
- Lead contamination, sediments, Brazil, **184:74, 76**
- Lead contamination, soil, Brazil, **184:70**
- Lead contamination sources, Brazil, **184:66**
- Lead contamination, surface waters, Brazil, **184:74**
- Lead contamination, underground water, Brazil, **184:70**
- Lead, dog tissues, Mexico City, **181:60**
- Lead, drinking water, Mexico, **181:65**
- Lead, dust & soil, Mexico, **181:46**
- Lead, dust samples, Ciudad Juárez, Mexico, **181:47**
- Lead, earthworm biomarkers, **188:87**
- Lead, earthworm response, **188:90**
- Lead encephalopathy, lead exposure, **185:94**
- Lead, environmental problems Mexico, **181:37 ff.**
- Lead exports, Brazil, **184:62**
- Lead exposure, acute effects, **185:94**
- Lead exposure, children's toys, **185:127**
- Lead exposure, chronic effects, **185:94**
- Lead exposure clusters, **185:108**
- Lead exposure, effects during pregnancy, **185:95**
- Lead exposure, evaluating nervous system effects, **185:123**
- Lead exposure, food contamination, **185:127**
- Lead exposure, general population, Mexico, **181:70**
- Lead exposure, human, Brazil, **184:59, 77**
- Lead exposure, humans Chile, **185:93 ff.**
- Lead exposure, lead in soil, **185:129**
- Lead exposure, lead ore storage, **185:120**
- Lead exposure, neurological effects, age differences, **185:115**
- Lead exposure, prevention recommendations, **185:130**
- Lead exposure, primary lead sources, **185:96**
- Lead exposure, toxic wastes, **185:120**
- Lead, fish canned & fresh, Mexico, **181:76**
- Lead, food contamination, examples, **185:96**
- Lead, foods in Mexico, **181:74**
- Lead, general population exposure, Mexico, **181:70**
- Lead, horse tissues, Mexico City, **181:60**
- Lead house dust contamination, Brazil, **184:66**
- Lead, house dusts, Mexico City, **181:64**
- Lead, household paints content, **185:97**
- Lead, human bones, Mexico, **181:87**
- Lead, human hair, Mexico, **181:86**
- Lead, human levels, Mexico, **181:77**
- Lead, human lungs, Mexico, **181:89**
- Lead, human milk, Mexico, **181:85, 88**
- Lead in hair, correlation with blood lead, **185:123,125**
- Lead, in human nails, **185:161**
- Lead in urine, tetraethyl lead exposure indicator, **184:90**
- Lead, in wheat flour, **185:108, 110**
- Lead, industrial uses, Mexico, **181:41**
- Lead, IQ levels of exposed children, Mexico, **181:93**
- Lead, Lerma River, Mexico, **181:53**
- Lead, marine environment, Mexico, **181:54**
- Lead, marine organisms, Mexican Pacific, **181:58**

- Lead, maximum permitted levels
drinking water, Brazil, **184:79**, 80
- Lead, maximum permitted levels
foods, Brazil, **184:77**
- Lead, Mexican tobacco, **181:66**
- Lead, Mexico pollution by Met Mex
Peñoles, **181:90**
- Lead, migratory birds from Lerma
Valley, Mex., **181:61**
- Lead, milk, Mexico, **181:76**
- Lead, moss from trees, Mexico City,
181:63
- Lead, mother blood vs umbilical cord,
181:80
- Lead, neurological damage to children,
Mexico, **181:91**
- Lead, occupational exposure, Mexico,
181:68
- Lead ore concentrates, urban
contamination, **185:113**
- Lead oxide, pottery glazing process,
181:68
- Lead, oysters, Gulf of Mexico, **181:57**
- Lead, pigeon tissues, Mexico City,
181:60,
- Lead poisoning, children Mexico,
181:72
- Lead, pollution by Met Mex Peñoles,
Mexico, **181:90**
- Lead, potential health effects, **188:63**
- Lead problems, Brazil, **184:59 ff.**
- Lead production, Brazil, **184:60**
- Lead production, export/import,
Mexico, **181:41**
- Lead production, Mexico, **181:39**
- Lead, rural exposure, Mexico, **181:66**
- Lead, San Juan River, Mexico, **181:51**
- Lead smelting, dust contamination,
Mexico, **181:48**
- Lead, soil irrigated w/ Mexico City
waste water, **181:51**
- Lead, soil of Torreón, Coahuila,
Mexico, **181:49**
- Lead, soil playgrounds, Torreón,
Coahuila, Mexico, **181:49**
- Lead sources, human exposure, **185:96**
- Lead, street dust, Mexico City, **181:50**
- Lead sulfide, lead ore, urban
contamination, **185:113**
- Lead, suspended particles, Torreón,
Coahuila, Mex., **181:46**
- Lead, tree leaves, Mexico City, **181:**
62
- Lead, turtle eggs, Mexico, **181:62**
- Lead, umbilical cord blood, Mexico,
181:80
- Lead, urban exposure Mexico, **181:63**
- Lead use, historical, **185:94**
- Lead uses, Mexico, **181:41**
- Lead, water & sediment levels, Mexico,
181:51
- Lead, working environment limits,
Brazil, **184:90**
- Lead-glazed ceramics, leaching levels,
181:64
- Lead-glazed ceramics, major health
hazard, **181:38**
- Lead-producing cities, Mexico, **181:40**
- Leaded gasoline, air regulations,
Brazil, **184:67**
- Leaded gasoline, historical annual
usage, **185:107**
- Leaded gasoline, human lead exposure,
185:96
- Leaded gasoline, lead content history,
185:107
- Legacy pesticides, described, **187:2**
- Leukemia, butadiene worker exposure,
189:149
- LGC-42153, water-sediment
degradation profile, **187:192**
- Light source types, photodegradation
studies, **182:31**
- Lignin, metal remediation, water,
188:68, 72
- Lignin, wood composition amount,
185:70
- Lignocellulosic waste, metal
remediation, water, **188:67**, 72
- Lindane, water-sediment degradation
profile, **187:163**
- Linuron, water-sediment degradation
profile, **187:190**
- Liquid chromatography, arsenic
speciation, **184:123**
- Liver somatic index (LSI), PME fish
effects, **185:69**
- Livestock kills, cyanide, **183:36**

- Living biomass, metal remediation, water, **188:65**
- Lixiviants, ore leaching solutions, **183:39**
- Llimpi, mercury ore type, **183:1**
- LOAELs, PBDEs rodents, **183:79**
- Low birth weight, risk factor infant gastroenteritis, **186:6**
- LSI (liver somatic index), PME fish effects, **185:69**
- Lumbricus rubellus*, earthworm biomarkers, **188:89**
- Lumbricus* spp. (earthworms), heavy metal bioassays, **186:82**
- Lumbricus terrestris*, earthworm biomarkers, **188:94**
- Lux* bacteria-based bioassay, described, **186:76**
- Lymnea stagnalis* (snail), simazine toxicity, **189:2**
- Lysosomal membrane stability, earthworm tests, **188:88**
- Magnesium arsenate**, insecticide, **184:104**
- Magnesium, in human nails, **185:162**
- Malathion, earthworm response, **188:91**
- Malathion, water-sediment degradation profile, **187:167**
- Malnourished world population percentage, **189:35**
- Mammal kills, cyanide, **183:35**
- Mammals, geophagous (table), **183:118**
- Mammals, wetland, pesticide effects, **187:18**
- Manure, metal remediation, water, **188:68**
- Marine brown algae, metal remediation, water, **188:65**
- Marine halogenated products, **188:1 ff.**
- Marine mammal blubber PCBs, (figure), **184:29**
- Marine mammal tissue contaminants, **184:1 ff.**
- Marine mammals, halogenated contaminates, methods, **184:11**
- Marine mammals, pollutant accumulation pattern, **184:6**
- Marine mammals, pollutant biotransformation, **184:6**
- Marine mammals, reproductive impairment PHCs, **184:9**
- Masculinized female fish, paper production effluent, **185:75**
- Maximally exposed individual, pesticide exposure, **186:120**
- Maximum absorption wavelengths of pesticides (table), **182:85**
- Maximum Permissible Concentration (EPA), arsenic drinking water, **184:101**
- Maximum permitted drinking water levels, Brazil, **184:79**
- Maximum permitted food levels, lead, Brazil, **184:77**
- Maximum rate/maximum number, pesticide applications, **186:123**
- Maximum reflectance wavelength spectra of pesticides (table), **182:85**
- MCPA, ionisable herbicide, **188:150, 154**
- Mecoprop, ionisable herbicide, **188:150, 154**
- Mecoprop-P, water sediment degradation profile, **187:171**
- MeO-BDEs (brominated phenoxyanisoles), **188:23**
- MeO-BDEs, analytical aspects, **188:28**
- MeO-BDEs, chemical structures (figure), **188:24**
- MeO-BDEs, environmental distribution, **188:29**
- MeO-BDEs, natural sources, **188:25**
- Mercury, air contamination, gold melting, **183:14**
- Mercury, Amazon River contamination, Brazil, **181:143**
- Mercury, aquatic life protection criteria, **181:179**
- Mercury biomagnification, mammals, **181:176**
- Mercury, bird protection criteria, **181:180**
- Mercury, blood levels, **181:147**
- Mercury, Brazilian river contamination, **181:147**

- Mercury, Chilean environmental contamination, **183:6**
- Mercury, Chilean sources, **183:2**
- Mercury concentrations, abiotic & biota materials, **181:146**
- Mercury contamination, Africa, **181:156**
- Mercury contamination, Brazil (table), **181:147**
- Mercury contamination, Canada, **181:158**
- Mercury contamination, Chile, **183:1** ff.
- Mercury contamination, Chilean government limits, **183:14**
- Mercury contamination, China, **181:156**
- Mercury contamination, floodplain sediments, wildlife hazard, **181:166**
- Mercury contamination, mitigation, Brazil, **181:154**
- Mercury contamination, near Brazilian gold mines, **181:147**
- Mercury contamination, near historic gold mining, U.S., **181:161**
- Mercury contamination, Philippines, **181:156**
- Mercury contamination, Siberia, **181:158**
- Mercury contamination, small mining sources, Chile, **183:15**
- Mercury contamination, South America, **181:154**
- Mercury contamination, U.S., **181:159**, 161 ff.
- Mercury, criteria to protect selected natural resources, **181:179**
- Mercury, crop protection criteria, **181:179**
- Mercury, daily human exposure estimates, **189:112**
- Mercury effects, aquatic organisms, **181:168**
- Mercury effects, birds, **181:165**, 168, 172
- Mercury effects, earthworms, **181:177**
- Mercury effects, fish, water temperature, **181:171**
- Mercury effects, freshwater fish, **181:168**
- Mercury effects, mammals, **181:168**, 175
- Mercury effects, proposed safety criteria, **181:178**
- Mercury effects, reproduction aquatics, **181:170**
- Mercury, estuarine contamination, Chile, **183:6**
- Mercury exposure, hair as bioindicator, **189:107** ff.
- Mercury exposure, humans, Chile, **183:11**
- Mercury fungicides, poisonings in Iraq, **189:121**
- Mercury, gold mining history, **181:140**
- Mercury, hair content versus fish consumption, **189:107** ff.
- Mercury, hair levels Alaska, **189:118**
- Mercury, hair levels Amazonia, **189:116**
- Mercury, hair levels Arabia, **189:119**
- Mercury, hair levels Asian populations, **189:115**
- Mercury, hair levels Cambodia, **189:120**
- Mercury, hair levels correlate with blood levels, **189:108**
- Mercury, hair levels from different populations, **189:114**
- Mercury, hair levels Spain, **189:119**
- Mercury, hair levels Sweden, **189:117**
- Mercury, hair levels Tanzania, **189:120**
- Mercury, hazards to environment, **181:139** ff.
- Mercury, hazards to humans, **181:139** ff.
- Mercury, human blood levels, Chile, **183:12**
- Mercury, human contamination, Chile, **183:11**
- Mercury, human exposure case studies, **189:113**
- Mercury, human exposure estimates, **189:112**
- Mercury, human exposure workplaces, **189:110**
- Mercury, human health protection criteria, **181:180**
- Mercury, human tissue residues, **181:147**

- Mercury, in gold concentrates, Chile, **183:14**
- Mercury, in human nails, **185:161**
- Mercury, in sea water, Chile, **183:8**
- Mercury, inorganic history, **189:110**
- Mercury, lethal effects, **181:167**
- Mercury, mammal protection criteria, **181:180**
- Mercury methylation, in river sediments, **181:145**
- Mercury, mutagen, teratogen, carcinogen, **181:143**
- Mercury, no beneficial biological function, **181:139**
- Mercury phytoremediation, floating plants, **181:152**
- Mercury, poisonings in Iraq, **189:121**
- Mercury, potential health effects, **188:63**
- Mercury residues, air (U.S.), **181:163**
- Mercury residues, birds (U.S.), **181:161**
- Mercury residues, rivers (U.S.), **181:160**
- Mercury residues, wildlife (U.S.), **181:161**
- Mercury, sediments protection criteria, **181:179**
- Mercury, sewage contamination, Chile, **183:14**
- Mercury, soil contamination, Chile, **183:14**
- Mercury, sources & release rates, **181:144**
- Mercury, sublethal effects, **181:167**
- Mercury vapor, binding to hair, **189:109**
- Mercury vapor, long range transport, **189:110**
- Mercury, wildlife & fish cycles, **181:143**
- Mesocosm studies, pesticides, **187:2**
- Mesocosm vs microcosm pesticide fate comparisons, **187:210**
- Mesocosms, pesticide fate systems, **187:208**
- Mesotrione, adsorption coefficient, **188:186, 189**
- Mesotrione, ionisable herbicide, **188:156**
- Mesotrione, water-sediment degradation profile, **187:202**
- Met Mex Peñoles, lead pollution, Mexico, **181:90**
- Metal oxides, photophysical/photochemical processes, **182:28**
- Metal removal from water, plants, **188:59 ff.**
- Metalaxyl, water-sediment degradation profile, **187:179**
- Metalaxyl-M, water-sediment degradation profile, **187:180**
- Methamidophos, water-sediment degradation profile, **187:168**
- Methoxychlor, microcosm degradation profile, **187:217**
- Methoxychlor, water-sediment degradation profile, **187:164**
- Methoxyfenozide, water-sediment degradation profile, **187:201**
- Methyl isothiocyanate, photolysis pathway, **181:14**
- Methyl mercury, environmental contamination, **183:8**
- Methyl parathion, microcosm degradation profile, **187:216**
- Methyl parathion, water-sediment degradation profile, **187:166**
- Methylmercury, bioaccumulation fish, **189:108**
- Methylmercury, biomagnification fish, **189:108**
- Methylmercury, blood vs hair levels, **189:113**
- Methylmercury, demethylation in organisms, **189:108**
- Methylmercury effects, fruitfly, **181:177**
- Methylmercury, hair follicle incorporated, **189:109**
- Methylmercury, hair samples, **189:109**
- Methylmercury, history, **189:110**
- Methylmercury, human brain damage, **189:108**
- Methylmercury, Minamata Disease Japan, **189:113**
- Methylmercury, most toxic form of mercury, **181:143**
- Methylmercury, naturally occurring compound, **189:107**
- Metolachlor/alachlor photodegradation pathways, **182:64**

- Metolachlor, microcosm degradation profile, **187:218**
- Metolachlor, water-sediment degradation profile, **187:179**
- Metribuzin, adsorption coefficient, **188:186, 190**
- Metribuzin, microcosm degradation profile, **187:220**
- Metsulfuron-methyl, adsorption coefficient, **188:185, 189**
- Metsulfuron-methyl, ionisable herbicide, **188:154**
- Metsulfuron-methyl, water-sediment degradation profile, **187:191**
- Mexico, lead environmental problems, **181:37 ff.**
- Mexico, lead production, **181:39, 40**
- MFO (mixed-function oxidase), PME fish effects, **185:69**
- MFO, effects of paper production effluent, **185:79**
- MHC-1 (mixed halogenated monoterpenes), **188:40**
- Microbes, zinc bioassays, **186:81**
- Microbial indicators, categories soil health, **188:138**
- Microbial indicators, soil health, **188:136**
- Microbial oxidation, cyanide water remediation, **183:26**
- Microcosm vs mesocosm pesticide fate comparisons, **187:210**
- Microcosms, pesticide fate systems, **187:208**
- Microorganisms, metabolize industrial pollutants, **185:84**
- Microtox bioassay, described, **186:76**
- Migratory bird mortality, cyanide water contamination, **183:34**
- Migratory Bird Treaty Act, cyanide pond protection, **183:34**
- Minamata Disease in Japan, methylmercury poisoning, **189:113**
- Mining lead sites vs. blood levels, Brazil, **184:87**
- Mirex in foods, S. America, **185:22**
- Mirex, marine mammals, **184:4**
- Mirex, use in S. America, **185:4**
- MITC, photolysis pathway, **181:14**
- Mite (predatory) bioassays, DDT-contaminated soils, **186:89**
- Mixed gonadal tissue, gonadal abnormalities, defined, **187:123**
- Mixed sex, gonadal abnormalities, defined, **187:123**
- Mixed-function oxidase (MFO), PME fish effects, **185:69**
- Mixed-function oxidases (MFOs), paper production effects, **185:79**
- MMA (monomethylarsenic acid), in soil, **189:45**
- MMA (monomethylarsonic acid), relative toxicity, **184:98, 107**
- MMAA (monomethylarsonic acid), soil mobility, **184:107**
- Mode of action, arsenic, **184:110**
- Mode of action, endosulfan, **183:101**
- Mode of action, pyrethroids, **186:58**
- Mode of action, simazine, **189:4**
- Model systems, pesticide phodegradation, soil surfaces, **182:35**
- Model systems, pesticide photodegradation, on plants, **182:35, 47**
- Modified California Roller, pesticide applicator, **186:118**
- Molybdenum, in human nails, **185:161**
- Monodontid blubber PHCs (table), **184:24**
- Monomethylarsenic acid (MMA), in soil, **189:45**
- Monomethylarsine oxide, toxicity, **184:110**
- Monomethylarsonic acid (MMA), relative toxicity, **184:98, 107**
- Monosodium methanearsonate (MSMA), herbicide, **184:104**
- Morphine, from *Papaver somniferum* (poppy), **190:44**
- Morphological effects (fish), paper production effluent, **185:75**
- Mosquito control, DDT side effects, **187:5**
- Mussel lead contamination, Brazil, **184:64**
- Mussel, mercury contamination, Chile, **183:6**

- Mussel Watch pollutant data, S. America, **185:18**
- Mutagenicity, butadiene, **189:145**
- Mutagenicity, PBDEs, **183:80**
- Myocarditis, enterovirus related, **186:23**
- Mysticeti, baleen whales, **184:2**
- NACA (National Agricultural Chemicals Association), **186:113**
- Nail biomarkers, advantages of use, **185:142**
- Naled, water-sediment degradation profile, **187:167**
- Naproanilide, microcosm degradation profile, **187:218**
- Naproanilide, water-sediment degradation profile, **187:180**
- Narwhal blubber, PHCs (table), **184:25**
- National Agricultural Chemical Association (NACA), **186:113**
- National University of Luján, river pollution studies, **185:40**
- Natural halogenated products (HNPs), **188:1 ff.**
- Naturally occurring halogenated products, **188:1 ff.**
- Nematodes, zinc bioassays for soil, **186:81**
- Nervous system effects evaluation, lead exposure, **185:123**
- Net panels, cyanide pond wildlife protection, **183:38**
- Neurological effects, lead exposure vs age, **185:113, 116**
- Neurotoxicity, PBDEs, **183:80**
- Neutral red retention assay (NRR), earthworms, **188:88**
- Newspaper incineration, dioxin formation, **190:5, 15, 18**
- NH₄ pollution, Reconquista River, **185:52**
- NICA-Donnan model, metal remediation, water, **188:74**
- Nicolite, arsenic-bearing mineral, **184:99**
- Nickel, aquatic environment hazard, **188:61**
- Nickel, in human nails, **185:161**
- Niclosamide, water-sediment degradation profile, **187:180**
- Nicosulfuron, adsorption coefficient, **188:185, 189**
- Nitric acid, gold/mercury amalgam separation, **183:14**
- Nitrogen cycle, organic matter role, **188:128**
- Nonspecific febrile illness, enterovirus related, **186:21**
- Nontarget invertebrates, pesticide effects, **187:25**
- Nontarget plants, pesticide effects, **187:26**
- Nonylphenol 4-*tert*-, effects, gonads fish/frogs, **187:113**
- Norwalk virus, diarrhea cause, **186:4**
- Novel HNPs, annual discovery numbers, **188:2**
- Nut husks (ground), metal remediation, water, **188:68**
- Nutritional element determination, human nails, **185:155**
- OBDE (octabromodiphenyl ether), dermal toxicity, **183:74**
- OBDE (octabromodiphenyl ether), oral toxicity, **183:73, 76**
- Occupational exposure, element content human nails effect, **185:154**
- Occupational exposure, lead, Mexico, **181:68**
- Occupational exposure, mercury, Chile, **183:11**
- Occupational exposure, PBDEs, **183:67, 69**
- Occupational exposure, pesticides, Uruguay, **181:128**
- Octabromodiphenyl ether (OBDE), toxicity, **183:73**
- Octanol/water partitioning, PFOS, **186:137**
- Octylphenol 4-*tert*-, effects, gonads fish/frogs, **187:113**
- Odontoceti whales, **184:2**
- Open pit mining, land disturbance, **183:40**
- Opiate usage, global numbers, **190:44**

- Opium, from *Papaver somniferum* (poppy), **190:44**
- Opium, global production, **190:44**
- ORETF task force, **186:110**
- Organic halides, paper production effluent, **185:73**
- Organic pollutants in South America, **185:2 ff.**
- Organic solvents, pesticide photodegradation media, **182:47**
- Organobromines, GC/ECNI-MS detection , **188:4**
- Organochlorine contaminants in whales, **184:1 ff.**
- Organochlorine pesticides, chemical structures, **182:146**
- Organochlorine photodegradation, in solvents, **182:49**
- Organochlorine photodegradation, on glass, **182:37**
- Organochlorine photodegradation, on plants, **182:69**
- Organochlorine photodegradation, on soils, **182:58**
- Organochlorines, fate in water-sediment systems, **187:162**
- Organohalogen contaminants in cetaceans, **184:1 ff.**
- Organomercurial fungicides, poisonings in Iraq, **189:121**
- Organometal compounds, aquatic environment hazard, **188:61**
- Organophosphates, fate in water-sediment systems, **187:165**
- Organophosphates, oxon formation, **181:13**
- Organophosphorus ester photodegradation, in solvents, **182:49**
- Organophosphorus ester photodegradation, on glass, **182:37**
- Organophosphorus ester photodegradation, on plants, **182:70**
- Organophosphorus ester photodegradation, on soils, **182:58**
- Organophosphorus pesticides, chemical structures, **182:148**
- Orpiment, arsenic-bearing mineral, **184:99**
- ortho, para*-DDE, effects, gonads fish/frogs, **187:114**
- ortho, para*-DDT, effects, gonads fish/frogs, **187:114**
- Outdoor Residential Exposure Task Force (pesticide), **186:118**
- Ovotestis, defined, **187:107, 109, 121**
- Oxadiargyl, water-sediment degradation profile, **187:200**
- Oxasulfuron, water-sediment degradation profile, **187:193**
- Oxidation, pesticides/water-sediment, **187:146, 152**
- Oxon formation, organophosphate photooxidation, **181:13**
- Oxyanions, arsenic, **184:104**
- Oxydemeton-methyl, water-sediment degradation profile, **187:167**
- Oxygen delignification, paper production effluent, **185:84**
- Oxygen species, atmospheric, **182:29**
- Oysters, lead content, Gulf of Mexico, **181:57**
- Ozone, reactions with pesticides (table), **182:88**
- Paints, human lead exposure, 185:96**
- Palm pressed fibers, metal remediation, water, **188:72**
- Pantanal wetlands, mercury contamination, **181:152**
- Papaver somniferum* (poppy), heroin source, **190:44**
- Paper making, history, **185:67**
- Paper manufacture impact on aquatic environment, **185:67 ff.**
- Paper mill effluent (PME), fish effects, **185:69**
- Paper mill effluent (PME), stream release, **185:68**
- Paper production, aquatic toxicology, **185:75**
- Paper production, chemical outputs, **185:72**
- Paper production contaminants, morphological effects, **185:75**

- Paper production contaminants,
organic halides, **185:73**
- Paper production contaminants, resin
acids, **185:85**
- Paper production effluent, EPA
guidelines, **185:83**
- Paper production effluent, extended
cooking , **185:84**
- Paper production, environmental
impacts, **185:72**
- Paper production process, **185:70 ff.**
- Paper production, reproductive effects
aquatics, **185:80**
- Paper production, steroid effects
aquatics, **185:80**
- Paper pulp effluent, effect aquatic
environment, **185:68**
- Paralysis, enterovirus related, **186:18**
- Parathion, photooxidation, **181:13**
- Parathion, successive photoreduction,
dimerization (diagram), **182:50**
- Parathion, water-sediment degradation
profile, **187:166**
- Paris green, insecticide, **184:104**
- PBBs (polybrominated biphenyls),
188:2
- PBDEs (polybrominated diphenyl
ethers), **183:55 ff.**
- PBDEs (polybrominated diphenyl
ethers), **188:2**
- PBDEs, adipose tissue retention,
183:72
- PBDEs, annual production, **183:56**
- PBDEs, BDE-153 dominant tissue
congener , **183:60**
- PBDEs, BDE-47 dominant tissue
congener, **183:60**
- PBDEs, biological effects humans,
183:71
- PBDEs, blood/serum levels
occupationally exposed, **183:69**
- PBDEs, body burden outliers, **183:66,**
68
- PBDEs, carcinogenicity studies, **183:78**
- PBDEs, chronic toxicity, **183:78**
- PBDEs, commercial uses, **183:56**
- PBDEs, congener acute toxicity, **183:**
73
- PBDEs, congeners, **183:56**
- PBDEs, delphinoid blubber (table),
184:28
- PBDEs, eight congeners in blood,
183:62
- PBDEs, endocrine effects, **183:82**
- PBDEs, environmental release, **183:57**
- PBDEs, epidemiology, **183:83**
- PBDEs, exposure estimates, **183:86**
- PBDEs, exposure margin of safety,
183:86
- PBDEs, flame retardant additives,
183:55
- PBDEs, hazard characterization,
183:85
- PBDEs, health risk assessment, **183:85**
- PBDEs, hexa- & hepta-BDE adipose
levels, **183:59**
- PBDEs, human absorption/metabolism,
183:71
- PBDEs, human adipose tissue levels,
183:59
- PBDEs, human blood levels, **183:60,** **63**
- PBDEs, human plasma/serum levels,
183:63
- PBDEs, human tissue levels, **183:58**
- PBDEs, immunotoxicity, **183:80**
- PBDEs, inhalation particulate phase,
183:71
- PBDEs, inhalation toxicity, **183:74**
- PBDEs, isomers, **183:56**
- PBDEs, levels human adipose tissue
(table), **183:61**
- PBDEs, levels human milk, **183:64**
- PBDEs, levels in cancer patients,
183:59
- PBDEs, LOAEL rodents, **183:79**
- PBDEs, mammalian toxicity, **183:71**
- PBDEs, milk levels/adipose levels,
183:64
- PBDEs, mutagenicity, **183:80**
- PBDEs, neurotoxicity, **183:80**
- PBDEs, occupational exposure types,
183:67, **69**
- PBDEs, polybrominated diphenyl
ethers, marine mammals, **184:3**
- PBDEs, prenatal/postnatal exposure,
183:66
- PBDEs, public exposure, routes, **183:58**
- PBDEs, regulatory control, **183:84**

- PBDEs, repeated-dose studies, **183:75**
 PBDEs, reproductivity toxicity, **183:81**
 PBDEs, risk assessment, **183:87**
 PBDEs, *See* polybrominated diphenyl ethers, **183:55 ff.**
 PBDEs, skin sensitization, **183:75**
 PBDEs, structure similarity to PCBs, **183:56**
 PBDEs, teratogenicity, **183:81**
 PBDEs, U.S. manufacturers, **183:57**
 PBDEs, use in plastic/textile products, **183:58**
 PBDEs, workplace monitoring, **183:67, 69**
 PBPK (physiologically based pharmacokinetic) models, **189:141**
 PBTs (persistent bioaccumulative & toxic chemicals), **188:2**
 PCBs (polychlorinated biphenyls), **190:1**
 PCBs (polychlorinated biphenyls), use in S. America, **185:5**
 PCBs, air levels S. America, **185:8**
 PCBs, delphinoid blubber hemispheres compared (fig.), **184:33**
 PCBs, dolphins, **184:2**
 PCBs effects, gonads fish/frogs, **187:114**
 PCBs, gull eggs S. America, **185:20**
 PCBs marine mammal blubber (figure), **184:29**
 PCBs, marine mammals, **184:3**
 PCBs, sediment levels S. America, **185:17**
 PCBs, soil levels S. America, **185:11**
 PCBs, water levels S. America, **185:15**
 PCDD (dioxins), paper production effluent, **185:75**
 PCDD (dioxins), S. America pollutants, **185:5**
 PCDDs (polychlorinated dibenzo-*p*-dioxins), **190:1**
 PCDF (furans), paper production effluent, **185:75**
 PCDF (furans), S. America pollutants, **185:5**
 PCDFs (polychlorinated dibenzofurans), **190:1**
 PCNB, microcosm degradation profile, **187:217**
 PCNs (polychloronaphthalenes), **188:2**
 Peanut hulls, metal remediation, water, **188:68**
 Peat moss, metal remediation, water, **188:73**
 PeBDE (pentabromodiphenyl ether), dermal toxicity, **183:74**
 PeBDE (pentabromodiphenyl ether), oral toxicity, **183:73, 76**
 Pendimethalin, water-sediment degradation profile, **187:201**
Penicillium steckii, simazine degrading, **189:16**
 Pentabromodiphenyl ether (PeBDE), toxicity, **183:73**
 Pentachlorophenol, water-sediment degradation profile, **187:163**
 Pentylphenol 4-*tert*-, effects, gonads fish/frogs, **187:114**
 Peñoles (Mex Met), lead pollution, Mexico, **181:90**
 Perfluorinated alkyl acids (PFAAs), **186:133**
 Perfluorinated compounds, delphinoid liver (table), **184:26**
 Perfluorooctanesulfonate (PFOS), ecotoxicological evaluation, **186:133 ff**
 Perfluorooctanesulfonate, *see* PFOS, **186:133 ff.**
 Perinatal lead exposure, effects, **185:95**
 Permethrin, water-sediment degradation profile, **187:172**
 Persistent bioaccumulative & toxic chemicals (PBTs), **188:2**
 Persistent organic pollutants (POPs), **188:2**
 Persistent organic pollutants (POPs) in South America, **185:1 ff.**
 Persistent organohalogen contaminants (PHCs), physicochemical properties, **184:2**
 Personal protective equipment (PPE), pesticide workers, **186:110**
 Pesticide application, Good Agricultural Practice, **187:4**
 Pesticide behavior, adsorption-desorption soil, **187:141**

- Pesticide behavior, air-water interfaces, **187:139**
- Pesticide behavior in water-sediment systems, **187:133 ff.**
- Pesticide chemical structures, directory, **182:130**
- Pesticide container disposal policy, Uruguay, **181:130**
- Pesticide degradation, abiotic processes, **187:145**
- Pesticide degradation, biotic processes, **187:151**
- Pesticide degradation profiles, microcosm systems, **187:215**
- Pesticide dermal dosimetry, **186:113**
- Pesticide distribution, water-sediment controlling factors, **187:136**
- Pesticide drift, **181:1 ff.**
- Pesticide effects, amphibians, **187:7**
- Pesticide effects, aquatic invertebrates, **187:9**
- Pesticide effects, aquatic microbes, **187:18**
- Pesticide effects, aquatic plants, **187:17**
- Pesticide effects, community/species assemblage, **187:33**
- Pesticide effects, fish, **187:8**
- Pesticide effects, habitat/resource modification, **187:28**
- Pesticide effects, local extinction & reduced biodiversity, **187:29**
- Pesticide effects, nontarget invertebrates, **187:25**
- Pesticide effects, nontarget plants, **187:26**
- Pesticide effects, populations, **187:32**
- Pesticide effects, quantitative tools, population analysis, **187:39**
- Pesticide effects, recovery/recolonization, **187:30**
- Pesticide effects, wetland birds, **187:21**
- Pesticide effects, wetland herpetofauna, **187:24**
- Pesticide effects, wetland mammals, **187:18**
- Pesticide exposure, body surface area, **186:121**
- Pesticide exposure, body weight, **186:121**
- Pesticide exposure databases, applied risk analysis, **186:107 ff.**
- Pesticide exposure, dermal absorption, **186:122**
- Pesticide exposure, ecosystem long-term implications, **187:28**
- Pesticide exposure estimates from generic data, **186:119**
- Pesticide exposure, respiration rate, **186:122**
- Pesticide exposure risk analysis, **186:107 ff.**
- Pesticide exposure, transferable residue, **186:122**
- Pesticide exposures derived from generic databases (table), **186:124**
- Pesticide fate, atmospheric, **181:1 ff.**
- Pesticide fate in air, assessment flowchart, **181:26**
- Pesticide fate, water-sediment lab systems, **187:162, 165**
- Pesticide generic exposure databases, development, **186:113**
- Pesticide Handlers Exposure Database (PHED), **186:110**
- Pesticide imports, class distribution, Uruguay, **181:117**
- Pesticide imports, value, Uruguay, **181:115**
- Pesticide inhalation exposure, **186:113**
- Pesticide ionisation, described, **188:151**
- Pesticide long-term effects, risk, **187:1 ff.**
- Pesticide management practices, simazine, **189:10**
- Pesticide occupational exposure, Uruguay, **181:128**
- Pesticide photodegradation, atmospheric oxygen species, **182:29**
- Pesticide photodegradation, in foliar/topical application (table), **182:120**
- Pesticide photodegradation, in solvents (table), **182:101**
- Pesticide photodegradation, kinetic analysis, **182:31, 34**
- Pesticide photodegradation, light sources (exptl), **182:31**

- Pesticide photodegradation, model systems, plants, **182:36**
- Pesticide photodegradation, model systems, soil, **182:35**
- Pesticide photodegradation, on clay thin-layers (table), **182:105**
- Pesticide photodegradation, on glass, **182:36**
- Pesticide photodegradation, on glass/silica gel (table), **182:94**
- Pesticide photodegradation, on plants, **182:69**
- Pesticide photodegradation, on soil & clays, **182:56**
- Pesticide photodegradation, photochemical processes, **182:5**
- Pesticide photodegradation, photophysical processes, **182:3**
- Pesticide photodegradation, typical decline curves (diagram), **182:35**
- Pesticide photolysis, atmospheric, **181:10**
- Pesticide photolysis, gas-phase sampling, **181:23**
- Pesticide photolysis, gas-phase spectra, **181:24**
- Pesticide photolysis, lab equipment designs, **181:21**
- Pesticide photolysis, light sources, **181:23**
- Pesticide photolysis on plants, controlling factors, **182:10**
- Pesticide photolysis on plants, environmental factors, **182:10**
- Pesticide photolysis on plants, formulation effect, **182:12**
- Pesticide photolysis on soil, controlling factors, **182:17**
- Pesticide photolysis on soil, environmental factors, **182:19**
- Pesticide photolysis on soil, humic substances effects, **182:18**
- Pesticide photolysis on soil, mass transport in soil, **182:19**
- Pesticide photolysis on soil, photic depth in soil, **182:21**
- Pesticide photolysis on soil, soil component effects, **182:17**
- Pesticide photolysis on soil, soil properties, **182:22**
- Pesticide photolysis, surfactant effects, **182:12**
- Pesticide photoreactions on soils (diagram), **182:23**
- Pesticide poisonings, clinical cases, Uruguay, **181:127, 129**
- Pesticide properties, ionisable compounds adsorption, **188:164**
- Pesticide reactions with active oxygen species (table), **182:88**
- Pesticide reactions with hydroxyl radical (table), **182:88**
- Pesticide reactions with ozone (table), **182:88**
- Pesticide reactions with singlet oxygen (table), **182:88**
- Pesticide regulations, Uruguay, **181:113, 116**
- Pesticide residue tolerances, foods, Uruguay, **181:119**
- Pesticide residues, agricultural crops, Uruguay, **181:119**
- Pesticide residues, blood, Uruguay, **181:125, 127, 129**
- Pesticide residues, drinking water, Uruguay, **181:121**
- Pesticide residues, environmental, Uruguay, **181:121, 124**
- Pesticide residues, foods, Uruguay, **181:122**
- Pesticide residues, human fat, Uruguay, **181:130**
- Pesticide residues, humans, S. America, **185:21, 25**
- Pesticide residues, lemon oils, Uruguay, **181:125**
- Pesticide residues, sewage effluents, Uruguay, **181:122**
- Pesticide restrictions, Uruguay, **181:115**
- Pesticide risk assessment, conservation biology vantage, **187:34**
- Pesticide risk assessment, ecological vantage, **187:31**
- Pesticide risk assessment, Europe, **187:1 ff.**
- Pesticide risk, human health, Uruguay, **181:127**

- Pesticide transport/distribution, water-sediment system (diag.), **187:134**
- Pesticide usage, Uruguay, **181:111 ff.**
- Pesticide vapor pressure vs water solubility, **181:9**
- Pesticide waste disposal, Uruguay, **181:122**
- Pesticide water-sediment experimental designs, **187:155**
- Pesticides, airborne fate, **181:1 ff.**
- Pesticides, airborne hydroxyl removal, **181:15**
- Pesticides, aquatic ecosystem effects, **187:6**
- Pesticides, atmospheric removal, **181:7**
- Pesticides, CAS numbers (table), **188:205**
- Pesticides, CAS numbers, **181:28, 134**
- Pesticides, chemical names (table), **188:205**
- Pesticides, chemical names, **181:28, 134**
- Pesticides, common names, **181:28, 134**
- Pesticides, disposal of outdated, Uruguay, **181:130**
- Pesticides, ecosystem effects, **187:4**
- Pesticides, experimental photolysis in air, **181:12**
- Pesticides, fate in mesocosms, **187:208**
- Pesticides, fate in microcosms, **187:208**
- Pesticides, fate in water-sediment systems, **187:162, 165**
- Pesticides, gas-phase oxidative rates, **181:19**
- Pesticides, impacts on nontargets, **187:4**
- Pesticides in water-sediment systems, **187:133 ff.**
- Pesticides, indirect effects, **187:5, 7**
- Pesticides, listed as hazardous air pollutants, **181:27**
- Pesticides, long-term effect assessment, **187:2**
- Pesticides manufactured in Uruguay, **181:115**
- Pesticides, off-target movement, **181:1 ff.**
- Pesticides, oxidative rate estimations, **181:20**
- Pesticides, photolysis, **182:2 ff.**
- Pesticides, photoreaction types (diagram), **182:7**
- Pesticides, sediment levels S. America, **185:17**
- Pesticides, soil adsorption coefficients (K_{oc}) (chart), **187:142**
- Pesticides, soil diffusion coefficients (table), **182:92**
- Pesticides, soil levels S. America, **185:11**
- Pesticides, sunlight photodegradation, **182:2 ff.**
- Pesticides, surface water contaminants, **188:150**
- Pesticides, usage in S. America, **185:2**
- Pesticides, used in cocaine/heroin production, **190:45**
- Pesticides, UV absorption profiles, **182:3**
- Pesticides, volatilization, **181:4**
- Pesticides, water levels S. America, **185:12**
- Pesticides, water-sediment conjugation, **187:147, 154**
- Pesticides, water-sediment degradation processes, **187:145**
- Pesticides, water-sediment hydrolysis, **187:147, 153**
- Pesticides, water-sediment oxidation, **187:146, 152**
- Pesticides, water-sediment photolysis, **187:150**
- Pesticides, water-sediment redox reactions, **187:148**
- Pesticides, water-sediment reduction, **187:146, 153**
- Petroleum hydrocarbons, earthworm avoidance, **188:98**
- PFAAs, see Perfluorinated alkyl acids, **186:133**
- PFAs, perfluorinated acids, marine mammals, **184:3**
- PFOS, aquatic hazard assessment, **186:160**
- PFOS, aquatic plant benchmark, **186:161**
- PFOS, aquatic toxicity benchmarks, **186:160**

- PFOS, bioaccumulation factors for plants, **186:143**
- PFOS, bioconcentration factors, **186:138, 140**
- PFOS, biodegradation, **186:136**
- PFOS, bird tissue residues, **186:166**
- PFOS, bird toxicity benchmarks, **186:165**
- PFOS, chemical structure, **186:134**
- PFOS, critical body burden, fish, **186:162**
- PFOS, ecotoxicology, **186:143 ff.**
- PFOS, effects activated sludge, **186:143**
- PFOS, effects aquatic macrophytes, **186:145**
- PFOS, effects invertebrates, **186:146**
- PFOS, effects phytoplankton, **186:143**
- PFOS, environmental fate, **186:135**
- PFOS, environmental persistence, **186:133**
- PFOS, fish bioconcentration factors, **186:140**
- PFOS, hazard assessment, **186:157**
- PFOS, hydrolysis, **186:136**
- PFOS, octanol/water partitioning, **186:137**
- PFOS, perfluorooctane sulfonates, marine mammals, **184:3**
- PFOS, photolysis, **186:136**
- PFOS, physico/chemical properties, **186:135**
- PFOS salts, **186:135**
- PFOS, *See* Perfluorooctanesulfonate, **186:133 ff.**
- PFOS, soil adsorption/desorption, **186:138**
- PFOS, terrestrial invertebrates benchmark, **186:165**
- PFOS, terrestrial plants benchmark, **186:164**
- PFOS, terrestrial toxicity benchmarks, **186:164**
- PFOS, thermal stability, **186:137**
- PFOS toxicity, amphibians, **186:151**
- PFOS toxicity, aquatic invertebrates (table), **186:147**
- PFOS toxicity, birds, **186:154, 158, 166**
- PFOS toxicity, fish (table), **186:150, 163**
- PFOS toxicity, terrestrial invertebrates, **186:152**
- PFOS toxicity, terrestrial plants, **186:152**
- PFOS toxicity, terrestrial vertebrates, **186:154**
- PFOS, uptake terrestrial plants, **186:142**
- PFOS, uses, **186:134**
- pH influence on degradation, ionisable compounds, **188:199**
- pH influence on sorption, ionisable pesticides, **188:192**
- pH influence, soil adsorption, **188:175, 180**
- Pharmacology of geophagy, **183:122**
- PHC studies, delphinoids, **184:11**
- PHCs, “grasshopper” effect, **184:3**
- PHCs (Persistent Organohalogen Contaminants), physicochemical properties, 2
- PHCs, beluga whale blubber (table), **184:24**
- PHCs, delphinoid blubber, *in vitro* assays, **184:39**
- PHCs, dolphin blubber (table), **184:12**
- PHCs, free-ranging delphinoids’ blubber (table), **184:37**
- PHCs, global transport, **184:3**
- PHCs, killer whale blubber (table), **184:18**
- PHCs, monodontid blubber (table), **184:24**
- PHCs, narwhal blubber (table), **184:25**
- PHCs, phocoenid blubber (table), **184:20**
- PHCs, pilot whale blubber (table), **184:19**
- PHCs, porpoise blubber (table), **184:20**
- PHCs, sources & spatial distribution, **184:4**
- PHCs, spatial trends, marine mammals, **184:29, 36**
- PHCs, temporal trends, marine mammals, **184:34, 36**
- PHED (Pesticide Handlers Exposure Database), **186:110, 112**
- PHED task force, **186:110, 112**

- Phenmedipham, water-sediment degradation profile, **187:188**
- Phenoxy acid herbicides, ionisable, **188:150**
- Phenoxy herbicide chemical structures, **182:136**
- Phenoxy herbicides, photodegradation on soils, **182:61**
- Phenoxyalkanoate herbicides, photodegradation on soils, **182:61**
- Phenoxyalkanoic acids, fate in water-sediment systems, **187:170**
- Phenoxyalkanoic esters, fate in water-sediment systems, **187:170**
- Phenyl ring opening, *via* oxidation (diag.), **187:152**
- Philippines, mercury contamination, **181:156**
- Phoca caspica* (Caspian seal), epizootics, **184:2**
- Phoca groenlandica* (harp seal), **184:9**
- Phoca hispida* (ringed seal), **184:5**
- Phoca sibirica* (Baikal seal), epizootics, **184:2**
- Phoca vitulina* (harbour seal), seal epizootics, **184:2**
- Phocoena phocoena* (harbour porpoise), **184:10**
- Phocoenid blubber PHCs (table), **184:20**
- Phorate, microcosm degradation profile, **187:217**
- Phorate, photooxidation, **181:13**
- Phosphate, analogue of Arsenic V, **189:47**
- Phosphates, fate in water-sediment systems, **187:169**
- Phosphorescence lifetime, pesticides, **182:4**
- Phosphorescence wavelength spectra, pesticides (table), **182:80**
- Phosphorodithioates, fate in water-sediment systems, **187:169**
- Phosphorothioates, fate in water-sediment systems, **187:165**
- Phosphorothiolates, fate in water-sediment systems, **187:169**
- Phosphorous cycle, organic matter role, **188:128**
- Photoc depth, pesticide photolysis on soil, **182:21**
- Photochemical processes, pesticide photodegradation, **182:5**
- Photodegradation, amide herbicides on glass, **182:43**
- Photodegradation, amide herbicides on plants, **182:75**
- Photodegradation, amide herbicides on soils, **182:63**
- Photodegradation, anilide herbicides on glass, **182:43**
- Photodegradation, anilide herbicides on soils, **182:63**
- Photodegradation, azole herbicides in solvents, **182:55**
- Photodegradation, azole herbicides on glass, **182:45**
- Photodegradation, azole herbicides on plants, **182:75**
- Photodegradation, azole herbicides on soils, **182:67**
- Photodegradation, carbamates in solvents, **182:52**
- Photodegradation, carbamates on glass, **182:42**
- Photodegradation, carbamates on plants, **182:73**
- Photodegradation, carbamates on soils, **182:62**
- Photodegradation, dicarboximide herbicides in solvents, **182:54**
- Photodegradation, dicarboximide herbicides on glass, **182:43**
- Photodegradation, dicarboximide herbicides on soils, **182:63**
- Photodegradation, imide herbicides on plants, **182:75**
- Photodegradation of pesticides, atmospheric oxygen species, **182:29**
- Photodegradation, organochlorines in solvents, **182:49**
- Photodegradation, organochlorines on glass, **182:37**
- Photodegradation, organochlorines on plants, **182:69**
- Photodegradation, organochlorines on soils, **182:58**

- Photodegradation, organophosphorus esters in solvents, **182:49**
- Photodegradation, organophosphorus esters on glass, **182:38**
- Photodegradation, organophosphorus esters on plants, **182:70**
- Photodegradation, organophosphorus esters on soils, **182:58**
- Photodegradation, pesticides, **182:2 ff.**
- Photodegradation, pesticides in foliar/topical application (table), **182:120**
- Photodegradation, pesticides in organic solvents, **182:47**
- Photodegradation, pesticides in plant model systems, **182:47**
- Photodegradation, pesticides in solvents (table), **182:101**
- Photodegradation pesticides, light sources (exptl), **182:31**
- Photodegradation, pesticides on clay thin-layers (table), **182:105**
- Photodegradation, pesticides on glass, **182:36**
- Photodegradation, pesticides on glass/silica gel (table), **182:94**
- Photodegradation, pesticides on plants, **182:69**
- Photodegradation, pesticides on plants, environmental factors (illus), **182:11**
- Photodegradation, pesticides on soil & clays, **182:56**
- Photodegradation, phenoxy herbicides on soils, **182:61**
- Photodegradation products, sulfonamides, **187:80, 83**
- Photodegradation, pyrethroids in solvents, **182:51**
- Photodegradation, pyrethroids on glass, **182:39**
- Photodegradation, pyrethroids on plants, **182:73**
- Photodegradation, pyrethroids on soils, **182:61**
- Photodegradation, triazine herbicides on glass, **182:45**
- Photodegradation, triazine herbicides on soils, **182:67**
- Photodegradation, urea herbicides in solvents, **182:55**
- Photodegradation, urea herbicides on glass, **182:44**
- Photodegradation, urea herbicides on plants, **182:75**
- Photodegradation, urea herbicides on soils, **182:66**
- Photoinduced rearrangement, pesticides, **182:40, 44, 57, 66, 68**
- Photoionization, atmospheric pesticides, **181:11**
- Photolysis chamber, soil studies (diagram), **182:33**
- Photolysis chambers, pesticide photodegradation studies, **182:32**
- Photolysis light sources, **182:31**
- Photolysis on plants, illumination conditions, **182:10**
- Photolysis, pesticides, **182:2 ff.**
- Photolysis, pesticides in air experimental, **181:12**
- Photolysis, pesticides/water-sediment, **187:150**
- Photolysis, PFOS, **186:136**
- Photolysis, simazine, **189:15**
- Photooxidative rearrangement, pesticides, **182:40, 44, 57, 66, 68**
- Photophysical pathways, energy state diagram, **182:4**
- Photophysical processes, pesticide photodegradation, **182:3**
- Photoreactions, pesticides (diagram), **182:7**
- Photosensitizer wavelength emission profiles (table), **182:86**
- Physeter macrocephalus* (sperm whaled), **184:9**
- Physicochemical parameters, HNPs, **188:14**
- Physicochemical properties, simazine, **189:2**
- Physicochemical properties, sulfonamides (table), **187:71**
- Physiologically Based Pharmacokinetic (PBPK) Models, **189:141**
- Phytoplankton, PFOS effects, **186:143**
- Phytoplankton, Reconquista River, **185:49**

- Phytoremediation, mercury & floating plants, **181:152**
- Picloram, water-sediment degradation profile, **187:163**
- Picolinafen, water-sediment degradation profile, **187:181**
- Picoxystrobin, water-sediment degradation profile, **187:175**
- Pilot whale blubber PHCs (table), **184:19**
- Pilot whales, **184:7**
- Pinnipeds, organohalogen contaminants, **184:1ff.**
- Pit lakes (gold mining), cyanide retention, **183:46**
- Pit lakes (gold mining), environmental effects, **183:45**
- Pit lakes (gold mining), perpetual management, **183:47**
- Plankton, mercury contamination, Chile, **183:6**
- Plant leaf anatomy (diagram), **182:13**
- Plant model systems, pesticide photodegradation, **182:36, 47**
- Plant remediation, alternative to chemical technology, **188:64**
- Plant remediation, heavy metals in water, **188:59 ff.**
- Plant tolerance, arsenic, **189:54**
- Plant wax chemistry, **182:14**
- Plant waxes, UV absorption spectra, **182:15**
- Plasma retinol reduction, PHCs marine mammals, **184:10**
- Plastics incineration, dioxin formation, **190:7, 21**
- Pleurodynia, entovirus related, **186:23**
- PME (paper mill effluent), stream release, **185:68**
- Poliovirus, probability of infection, different routes, **186:39**
- Poliovirus, tapwater exposure, children, **186:39**
- Pollutant input, S. America, **185:2 ff.**
- Pollutant ranges in sediments, S. America, **185:15**
- Pollutant ranges in soils, S. America, **185:10**
- Pollutant ranges in water, S. America, **185:13**
- Pollutants, soil health impact, **188:141**
- Polybrominated biphenyls (PBBs), **188:2**
- Polybrominated diphenyl ethers (PBDEs), **188:2**
- Polybrominated diphenyl ethers (PBDEs), human tissue levels, **183:55 ff.**
- Polychlorinated biphenyls (PCBs), **190:1**
- Polychlorinated biphenyls (PCBs), usage S. America, **185:5**
- Polychlorinated dibenzo-*p*-dioxins (PCDDs), **190:1**
- Polychlorinated dibenzofurans (PCDFs), **190:1**
- Polychlorinated furans, marine mammals, **184:4**
- Polychlorinated HNP (Q1), **188:4, 17**
- Polychloronaphthalenes (PCNs), **188:2**
- Polyethylene balls, pond coverage duck repellent, **183:37**
- Polyhalogenated compounds, contaminants, **188:1 ff.**
- Polyvinyl chloride (PVC) incineration, dioxin formation, **190:8, 22**
- Polyvinyl chloride incineration, dioxin formation, **190:2**
- Poppy eradication, Colombia, **190:43 ff.**
- Poppy eradication, glyphosate, **190:43 ff.**
- Poppy, opium, morphine, heroin source, **190:44**
- Poppy production, control recommendations (Colombia), **190:108**
- Poppy production, environmental impacts (Colombia), **190:104**
- Poppy production, human health impacts (Colombia), **190:103**
- POPs (persistent organic pollutants), **188:2**
- POPs (see Persistent organic pollutants), **185:1 ff.**
- POPs, soil levels in S. America, **185:9**
- Porpoise blubber PHCs (table), **184:20**

- Porpoise liver, perfluorinated compounds (table), **184:26**
- Porpoises, pollutant levels S. America, **185:19**
- Pot worm (*Enchytraeus crypticus*), zinc bioassays, **186:80**
- Potassium, in human nails, **185:162**
- PPE (Personal protective equipment), **186:21**
- Predatory mite bioassays, DDT-contaminated soils, **186:89**
- Predicted environmental concentrations, sulfonamides (table), **187:91**
- Pregnancy, lead exposure effects, **185:95**
- Primisulfuron, adsorption coefficient, **188:185, 189**
- Probability of infection, poliovirus different routes, **186:39**
- Prochloraz, adsorption coefficient, **188:190**
- Prochloraz, ionisable herbicide, **188:158**
- Prochloraz, photoinduced rearrangement, **182:68**
- Profenofos, water-sediment degradation profile, **187:167**
- Progesterone, androgens from, paper production, **185:77**
- Prometryn, ionisable herbicide, **188:156**
- Propargite, water-sediment degradation profile, **187:199**
- Propiconazole, adsorption coefficient, **188:190**
- Propiconazole, water-sediment degradation profile, **187:196**
- Propineb, water-sediment degradation profile, **187:190**
- Proposed mercury criteria, resource protection, **181:178**
- Propoxycarbazone, water-sediment degradation profile, **187:193**
- Propyzamide, water-sediment degradation profile, **187:178**
- Prostigmate bioassays, DDT-contaminated soils, **186:89**
- Prosulfuron, adsorption coefficient, **188:189**
- Prosulfuron, water-sediment degradation profile, **187:191**
- Prothioconazole, water-sediment degradation profile, **187:196**
- Pulp bleaching, paper production, **185:71**
- Pulp effluent, effects on aquatic environment, **185:68**
- Pulp processing, paper production, **185:71**
- Pulping methods, paper production, **185:70**
- PVC (polyvinyl chloride) incineration, dioxin formation, **190:8, 22**
- Pymetrozine, water-sediment degradation profile, **187:204**
- Pyraclostrobin, water-sediment degradation profile, **187:176**
- Pyraflufen-ethyl, water-sediment degradation profile, **187:200**
- Pyrene, earthworm response, **188:91**
- Pyrethroid chemical structures, **182:137**
- Pyrethroid illnesses, California, **186:57 ff.**
- Pyrethroid illnesses, group vs individual, California, **186:60**
- Pyrethroid photodegradation, in solvents, **182:51**
- Pyrethroid photodegradation, on glass, **182:39**
- Pyrethroid photodegradation, on plants, **182:73**
- Pyrethroid photodegradation, on soils, **182:61**
- Pyrethroid photoinduced *cis/trans* isomerization, **182:40**
- Pyrethroid-related illnesses, California, table, **186:60**
- Pyrethroids, exposure symptoms (human), table, **186:61**
- Pyrethroids, fate in water-sediment systems, **187:170**
- Pyrethroids, illness & use report data, California, **186:59**
- Pyrethroids, illness episodes, California, **186:62**
- Pyrethroids, mode of action, **186:58**
- Pyrethroids, symptom array & exposure route, **186:61**

- Pyrethroids, Types I & II, described, **186:57**
- Pyrethroids, use violations, **186:62**
- Pyridate, water-sediment degradation profile, **187:199**
- Pyriproxyfen, water-sediment degradation profile, **187:203**
- Pyruvate oxidation inhibition, arsenic, **184:110**
- Q1, (heptachloromethyl bipyrrole), **188:17**
- Q1, *Alteromonas luteoviolaceus* production, **188:18**
- Q1, analytical aspects, **188:19**
- Q1, chemical structures (figure), **188:17**
- Q1, concentrations marine environment (table), **188:22**
- Q1, environmental distribution, **188:20**
- Q1, identical to U3, **188:18**
- Q1, important polychlorinated HNP, **188:4, 17**
- Q1, reference standard available, **188:19**
- QWASFI, pesticide water-air-sediment-film interaction model, **187:160**
- Radium**, in human nails, **185:161**
- Rana pipiens*, gonadal abnormalities, **187:104**
- Rana sylvatica*, trematode infection vs pesticide exposure, **187:7**
- Raphidocellis subcapitata* (alga), aquatic pesticide monitoring, **187:12**
- RATL, Canadian reptile/amphibian lethality database, **187:7**
- Realistic upper bound, pesticide exposure, **186:120**
- Recommendations, lead exposure prevention, **185:130**
- Reconquista River, a “dead river”, **185:57**
- Reconquista River, abiotic parameters, **185:42**
- Reconquista River, analytical portrait, **185:42**
- Reconquista River, biotic parameters, **185:49**
- Reconquista River description, **185:37**
- Reconquista River, fecal pollution, **185:51, 53**
- Reconquista River, heavy metal levels, **185:45**
- Reconquista River, insecticide levels, **185:47**
- Reconquista River, microbiology, **185:51**
- Reconquista River, N-NH₄ pollution, **185:52**
- Reconquista River of Argentina, highly polluted, **185:35 ff.**
- Reconquista River, physicochemical parameters, **185:42**
- Reconquista River, pollution details, **185:39**
- Reconquista River, toxicity bioassays, **185:53**
- Reconquista River, turbidity, **185:48**
- Reconquista River, University of Luján studies, **185:40**
- Reconquista River, water quality chemical indexes, **185:48**
- Reconquista River, water sample analyses, **185:43**
- Red Book (National Academy of Science), **186:108**
- Red shrimp, mercury contamination, Chile, **183:9**
- Redox conditions, arsenic soil role, **189:45**
- Redox potential, arsenic (diagram), **184:106**
- Redox reactions, pesticides/water-sediment, **187:148**
- Redtop grass (*Agrostis stolonifera*), copper-tolerant, **186:87**
- Reduced biodiversity & species extinction, pesticide effects, **187:29**
- Reduction, pesticides/water-sediment, **187:146, 153**
- Reentry Worker Exposure, **186:114**
- Regulatory control, PBDEs, **183:84**
- Regulatory guidelines, pesticide water-sediment designs (table), **187:157**

- REI (Restricted entry intervals), **186:114**
- Reproductive effects, paper production effluent, **185:78**
- Reproductive impairment, PHCs, marine mammals, **184:9**
- Reproductive toxicity, PBDEs, **183:81**
- Reptiles, geophagous (table), **183:120**
- Residential pesticide exposure duration, **186:123**
- Residue tolerances, pesticide foods, Uruguay, **181:119**
- Residue transferability (pesticide), to field workers, **186:114**
- Resin acids (diterpenoid carboxylic acids), paper production, **185:85**
- Resmethrin, photooxidative rearrangement (diagram), **182:40**
- Respiration inhibition, cyanide higher plants, **183:37**
- Respiration rate, pesticide exposure, **186:122**
- Respiratory illness, enterovirus-related, **186:21**
- Restricted entry intervals (REI), **186:114**
- Rheumatoid arthritis, enterovirus-related, **186:25**
- Rice husks, metal remediation, water, **188:68**
- Rice straw, metal remediation, water, **188:68**
- Rimsulfuron, adsorption coefficient, **188:185, 189**
- Ringed seals, **184:5**
- Río Uruguay, pesticide contamination levels, **181:126**
- Risk assessment, contaminated soil, **186:73 ff.**
- Risk assessment, ecological, earthworm biomarker, **188:85 ff.**
- Risk assessment endpoints, enteric viral diseases, children, **186:38**
- Risk assessment, enteric viral infection, children, **186:33**
- Risk assessment, PBDEs, **183:87**
- Risk assessment, pesticides Europe, **187:1 ff.**
- Risk characterization, enteric viruses water/children, **186:38**
- Rivers, mercury contamination, Chile, **183:9**
- Rodent kills, cyanide, **183:35**
- Rodenticide chemical structures, miscellaneous, **182:152**
- Rotavirus, diarrhea cause, **186:4**
- Rotavirus gastroenteritis, incidence vs children age, **186:6**
- Rotavirus, greatest agents of infant gastroenteritis, **186:6**
- Rotavirus Group A, endemic worldwide, **186:6**
- Rotavirus Group B, adult diarrhea source, **186:6**
- Rotavirus, incidence by age, **186:25**
- Rotavirus, most common viral diarrhea pathogen, **186:4**
- Rotavirus prevalence, by country, **186:8**
- Rotavirus, waterborne enteric disease, children, **186:36**
- Roundup® herbicide, effects on frogs, **190:87**
- Ruthenium, in human nails, **185:161**
- Safe level, pesticide foliar residue, **186:115**
- Safety criteria, mercury hazard prevention, **181:178**
- Salicylic acid, adsorption coefficient, **188:184**
- Santiago, Chile, atmospheric lead pollution, **185:100**
- Sawdust (wood), metal remediation, water, **188:72**
- Scientific names, dolphins (table), **184:12**
- Seafood, arsenic main dietary source, **184:115**
- Seals, harbour, epizootics, **184:2**
- Seasonal variation, children's blood lead, **185:104**
- Seaweed, metal remediation, water, **188:72**
- Secondary sexual characteristics, paper production effluent, **185:81**
- Sediment contamination, lead, Brazil, **184:74, 76**

- Sediment lead criteria, Canada, **184:75**
- Sediments, physical properties, **187:138**
- Segmented gonads, abnormalities, defined, **187:124**
- Selenium, Chinese coal contamination, **189:98**
- Selenium, Chinese coal hazard, **189:98**
- Selenium, epidemic in China, **189:98**
- Selenium health effects, indoor coal burning, **189:89 ff.**
- Selenium, in human nails, **185:161**
- Selenium, potential health effects, **188:63**
- Selenium, species in nature, **189:98**
- Selenosis, case photos China, **189:99**
- Sex reversal, amphibians, defined, **187:106**
- Shell Chemical Co., cyclodiene insecticides S. America, **185:3**
- Shellfish, pollutant levels S. America, **185:18**
- Sherwin Williams, paint lead contents, **185:98**
- Siberia, mercury contamination, **181:158**
- Silthiofam, water-sediment degradation profile, **187:178**
- Silver, in human nails, **185:161**
- Simazine, abiotic degradation, **189:14**
- Simazine, agricultural management practices, **189:10**
- Simazine, air behavior, **189:13**
- Simazine, algicide, **189:1**
- Simazine, annual use volume, **189:1**
- Simazine, available formulations, **189:2**
- Simazine, biodegradation, **189:15**
- Simazine, chemical name, **189:1**
- Simazine, chemical structure, **189:3**
- Simazine, chemical synthesis method, **189:4**
- Simazine, chemodynamics, **189:4**
- Simazine, crustacean toxicity, **189:1**
- Simazine, degradation pathways, **189:8**
- Simazine, earthworm toxicity, **189:2**
- Simazine, groundwater contamination California, **189:5**
- Simazine herbicide, chemistry and fate, **189:1 ff.**
- Simazine, hydrolysis, **189:14**
- Simazine, in rainfall, **189:13**
- Simazine, ionisable herbicide, **188:150, 156**
- Simazine metabolism, cytochrome P-450 oxidation, **189:17**
- Simazine, mode of action, **189:4**
- Simazine, orchard management, **189:10**
- Simazine, oxidation, **189:14**
- Simazine, pesticide management practices, **189:10**
- Simazine, photolysis, **189:15**
- Simazine, physicochemical properties, **189:2**
- Simazine, precipitation, **189:13**
- Simazine, proprietary names, **189:2**
- Simazine, snail toxicity, **189:2**
- Simazine, soil behavior, **189:4**
- Simazine, soil half-life, **188:201**
- Simazine, soil half-lives, **189:3**
- Simazine, soil runoff characteristics, **189:9**
- Simazine, soil sorption, **189:4, 6**
- Simazine, sorption to organic matter, **189:7**
- Simazine, surface water contamination, **189:12**
- Simazine, toxicity to crustacean, **189:1**
- Simazine, toxicity to earthworms, **189:2**
- Simazine, water behavior, **189:11**
- Simazine, water quality criteria, **189:13**
- Singlet oxygen, reactions with pesticides (table), **182:88**
- Sink holes, groundwater drawdown, **183:41**
- Sitosterol- β , reduced fish steroids, **185:76, 82**
- Smoking, effects nail/element studies, **185:150**
- Snails, simazine toxicity, **189:2**
- Sodium cyanide, bird mortality (table), **183:34**
- Sodium cyanide, use in gold mining, **183:21**
- Sodium, dietary need, geophagy, **183:116**
- Sodium hydroxide, pulp bleaching, **185:72**
- Soil adsorption, anion exchange, **188:170, 176**

- Soil adsorption, bound residues, **188:174**
- Soil adsorption, cation (water) bridging, **188:173, 176**
- Soil adsorption, cation exchange, **188:171, 176**
- Soil adsorption, charge transfer, **188:171, 176**
- Soil adsorption coefficients (K_{oc}), pesticides (chart), **187:142**
- Soil adsorption, compound basicity, **188:177**
- Soil adsorption, hydrophobic sorption, **188:167**
- Soil adsorption, hydrophobicity, **188:177**
- Soil adsorption, ionic exchange, **188:170, 176**
- Soil adsorption, ionisable compounds, **188:160**
- Soil adsorption, ionisable pesticide behavior prediction, **188:175**
- Soil adsorption, ionisable pesticides, **188:149 ff.**
- Soil adsorption, ligand exchange, **188:172, 176**
- Soil adsorption, mechanisms (table), **188:176**
- Soil adsorption mechanisms, **188:166**
- Soil adsorption, pH influence, **188:175, 180**
- Soil adsorption, van der Waals interactions, **188:168, 176**
- Soil clay influence on sorption, ionisable pesticides, **188:196**
- Soil components influence on sorption, ionisable pesticides, **188:193**
- Soil contaminants, realistic assessment, **188:108**
- Soil contamination, lead, Brazil, **184:70, 73**
- Soil, daily amount ingested (geophagy), **183:125**
- Soil, diet fraction (geophagy), **183:124**
- Soil diffusion coefficients, pesticides (table), **182:92**
- Soil, effect on element content human nails, **185:153**
- Soil, geophagous contaminant absorption, **183:126**
- Soil health assessment, soil microflora monitors, **188:127 ff.**
- Soil health concept, **188:128**
- Soil health indicators, chemical/physical properties, **188:135**
- Soil health indicators, microbial, **188:136**
- Soil health measurement, **188:130**
- Soil health, microbial activity, **188:139**
- Soil health, microbial functional stability, **188:140**
- Soil health monitoring, microflora, **188:127 ff.**
- Soil health, pollutant impact, **188:141**
- Soil health/quality indicators (table), **188:131**
- Soil ingestion, by vertebrates (geophagy), **183:115 ff.**
- Soil ingestion, daily estimates (geophagy), **183:124**
- Soil lead, **185:129**
- Soil levels, pollutants S. America, **185:9**
- Soil microbial biomass vs biodiversity, **188:137**
- Soil microflora, soil health assessment, **188:127 ff.**
- Soil microorganisms, affect arsenic availability, **189:47**
- Soil microorganisms, arsenic toxicity, **189:59**
- Soil organic matter, affect arsenic availability, **189:47**
- Soil organic matter influence on sorption, ionisable pesticides, **188:194**
- Soil organic matter, solid description, **188:195**
- Soil organic matter, water-dissolved description, **188:195**
- Soil *pH*, affect arsenic availability, **189:47**
- Soil *pH*, ionisable compounds degradation, **188:198**
- Soil *pH*, measurement techniques, **188:152**
- Soil photolysis chamber (diagram), **182:33**

- Soil pollutants, earthworm behavior (diag.), **188:116**
- Soil properties, ionisable compounds adsorption, **188:162**
- Soil properties, pesticide photolysis on soil, **182:22**
- Soil quality, defined, **188:129**
- Soil risk assessment, earthworm biomarkers, **188:85 ff.**
- Soil sorption and degradation processes, linkage, **188:201**
- Soil sorption, measurement, **188:160**
- Soil surface models, pesticide photodegradation, **182:35**
- Soil surface structure (illus), **182:19**
- Soils, arsenic content, global, **184:101**
- SOM (soluble organic matter), sulfonamide sorption, **187:88**
- Songbird kills, cyanide, **183:33**
- Sorbent adsorption capacities, metal remediation, water, **188:71**
- Sorption and degradation processes, linkage, **188:201**
- South America, air pollutant levels, **185:9**
- South America, bird pollutant levels, **185:20**
- South America, contaminated sites as pollutant sources, **185:7**
- South America, fish pollutant levels, **185:19**
- South America, mercury contamination, **181:154**
- South America, persistent organic pollutants, **185:2 ff.**
- South America, pollutant input, **185:2**
- South America, shellfish pollutant levels, **185:18**
- South America, soil pollutant ranges, **185:10**
- South America, underrepresented in pollutant information, **185:2**
- South America, water pollutant levels, **185:13**
- Spatial trends, PHCs marine mammals, **184:29, 36**
- Speciation, defined, **184:120**
- Speciation methods, arsenic, **184:122, 126**
- Species extinction & reduced biodiversity, pesticide effects, **187:29**
- Spectral irradiance, photolysis studies light sources (diagram), **182:31**
- Spectral overlap, acceptor/donor (illus), **182:8**
- Sperm whales, **184:9**
- Spinosad, water-sediment degradation profile, **187:205**
- Spinosyn, aerobic aquatic metabolism (diag.), **187:208**
- Spinosyn, chemical structures, **182:156**
- Spirodiclofen, water-sediment degradation profile, **187:199**
- Spiroxamine, water-sediment degradation profile, **187:204**
- Spleen, children, immature marginal zone compartment, **186:2**
- Springtail bioassays, DDT-contaminated soils, **186:89**
- Springtails (*Folsomia candida*), zinc bioassay, **186:79**
- Springtails, copper bioassays, **186:86**
- Springtails, heavy metal bioassays, **186:83**
- Standardized test procedures, contaminated soils, **186:75**
- Stenella coeruleoalba* (striped dolphin), epizootics, **184:2**
- Steroid effects, gonads fish/frogs, **187:111**
- Steroid-binding protein (SBP), paper production contaminants, **185:81**
- Steroids, paper production effluent effects, **185:78**
- Stockholm Convention on Persistent Organic Pollutants, **184:4**
- Stranded delphinoid PHC studies, **184:35**
- Stratification, pesticide water-sediment studies, **187:213**
- Striped dolphins, epizootics, **184:2**
- Strobin analogues, fate in water-sediment systems, **187:174**
- Study methods, contaminates marine mammals, **184:11**

- Subdivision U (EPA), pesticide exposure monitoring history, **186:112**
- Sugar-beet pulp, metal remediation, water, **188:70, 72**
- Sugar-cane bagasse, metal remediation, water, **188:68, 72**
- Sugarcane, ethanol production, **189:31**
- Sulfabenzamide, physicochemical properties, **187:75**
- Sulfacetamide, physicochemical properties, **187:76**
- Sulfadiazine, physicochemical properties, **187:74**
- Sulfadimethoxine, physicochemical properties, **187:74**
- Sulfadimidine, physicochemical properties, **187:71**
- Sulfadoxine, physicochemical properties, **187:78**
- Sulfamerazine, physicochemical properties, **187:76**
- Sulfamer, physicochemical properties, **187:77**
- Sulfamethoxazole, physicochemical properties, **187:72**
- Sulfamethoxypyridazine, physicochemical properties, **187:75**
- Sulfanilamide, physicochemical properties, **187:73**
- Sulfapyridine, physicochemical properties, **187:72**
- Sulfentrazone, adsorption coefficient, **188:193**
- Sulfite pulping, paper production, **185:71**
- Sulfometuron, adsorption coefficient, **188:185**
- Sulfonamide antibiotics, average physicochemical properties, **187:78**
- Sulfonamide antibiotics, estimated usage, **187:69**
- Sulfonamide veterinary drugs, environmental contaminants, **187:67 ff.**
- Sulfonamides, abiotic degradation, **187:80**
- Sulfonamides, biotransformation in mammals, **187:79**
- Sulfonamides, biphasic biotransformation, **187:79**
- Sulfonamides, DOM sorption, **187:88**
- Sulfonamides, environmental concentrations (table), **187:91**
- Sulfonamides, general chemical structure (illus.), **187:71**
- Sulfonamides, herbicide metabolites, **187:68**
- Sulfonamides, hydrolysis products, **187:84**
- Sulfonamides, in environment, **187:67 ff.**
- Sulfonamides, in manure fertilizer, **187:69**
- Sulfonamides, photodegradation products, **187:80, 83**
- Sulfonamides, physicochemical properties (table), **187:71, 78**
- Sulfonamides, predicted environmental concentrations, **187:89**
- Sulfonamides, residues in ground/surface waters, **187:86**
- Sulfonamides, residues in manure, **187:84**
- Sulfonamides, residues in soil, **187:85**
- Sulfonamides, soil sorption, **187:87**
- Sulfonamides, SOM sorption, **187:88**
- Sulfonylurea chemical structures, **182:144**
- Sulfonylurea herbicides, fate in water-sediment systems, **187:189**
- Sulfonylurea herbicides, ionisable, **188:150**
- Sulfosulfuron, water-sediment degradation profile, **187:192**
- Sulfur cycle, organic matter role, **188:128**
- Sulfur dioxide, wastewater cyanide removal, **183:26**
- Sunlight intensity, pesticide photolysis, **181:10**
- Sunlight photodegradation, pesticides, **182:2 ff.**
- Surface water contaminants, ionisable herbicides, **188:150**
- Surface water contamination, lead, Brazil, **184:74**

- Surface water contamination, simazine, **189:12**
- Surface water lead limits, Brazil, **184:75**
- Surfactant effects, pesticide photolysis, plants, **182:13**
- Sururu mytella falcata* (mussel), lead content, Brazil, **184:64**
- Symptoms, pyrethroid-related illnesses, table 61
- Synthetic pyrethroid illnesses, California, **186:57 ff.**
- T**-cell helper function, children deficient, **186:2**
- Tadpole assays, polluted streams, **185:55**
- Tantalum, in human nails, **185:162**
- Tapwater intake by age, **186:32**
- TCPM, tris(4-chlorophenyl)methane, **184:3**
- TCPMe, tris(4-chlorophenyl)methanol, **184:3**
- Tebufenozide, water-sediment degradation profile, **187:201**
- Tebupirimfos, water-sediment degradation profile, **187:167**
- Teflon sheets, pesticide photodegradation studies, **182:44**
- Temporal trends, PHCs marine mammals, **184:34, 36**
- Tepraloxydim, water-sediment degradation profile, **187:204**
- TEQ (toxicity equivalent) emissions, S. America, **185:6**
- Teratogenicity, PBDEs, **183:81**
- Terbutryn, adsorption coefficient, **188:186, 190**
- Terbutryn, ionisable herbicide, **188:158**
- Terbutryn, water-sediment degradation profile, **187:197**
- Terminology, gonadal abnormalities, **187:117**
- Terrestrial birds, geophagous (table), **183:121**
- Terrestrial flora, cyanide effects, **183:36**
- Terrestrial mammals, geophagous (table), **183:118**
- Terrestrial reptiles, geophagous (table), **183:120**
- Test earthworm, described, **188:109**
- Test exposure conditions, earthworm biomarkers, **188:111**
- Testicular dysgenesis, defined, **187:106**
- Testicular oocytes, defined, **187:107, 109, 122**
- Testicular oogenesis, defined, **187:107**
- Testis-ova, defined, **187:107**
- Testosterone effects, gonads fish/frogs, **187:112**
- Testosterone-binding, paper production effluent, **185:81**
- Tetrabromophenoxyanisoles, chemical structures, **188:24**
- Tetraethyl lead, air contamination, Brazil, **184:67**
- Tetraethyl lead exposure, lead in urine indicator, **184:90**
- Tetraethyl lead, gasoline content Mexico, **181:42**
- Theoretical upper-bound estimate (TUBE), pesticide exposure, **186:119**
- Thermomechanical pulping, paper production, **185:71**
- Thiabendazole, water-sediment degradation profile, **187:203**
- Thiacloprid, aerobic aquatic metabolism (diag.), **187:207**
- Thiacloprid, water-sediment degradation profile, **187:201**
- Thiamethoxam, water-sediment degradation profile, **187:202**
- Thifensulfuron-methyl, water-sediment degradation profile, **187:191**
- Thiobencarb, water-sediment degradation profile, **187:187**
- Thiourea, cyanide substitute leaching method, **183:39**
- Thyroid hormone reduction, PHCs marine mammals, **184:10**
- Tilapia rendalis*, lead contamination, Brazil, **184:64**
- Tissue residues, insecticides, S. America, **185:21, 25**
- TNT, earthworm avoidance, **188:99**
- Toenails, biomarker trace element exposure, **185:141, 148**

- Tolclofos-methyl, water-sediment degradation profile, **187:166**
- Toothed whales, organohalogen contaminants, **184:2**
- Total suspended solids (TSS), paper production, **185:74**
- Toxaphene, marine mammals, **184:4**
- Toxaphene, use in S. America, **185:4**
- Toxicity bioassays, Reconquista River, **185:53**
- Toxicity equivalence, incinerator exhaust, **190:29**
- Toxicity equivalent (TEQ) emissions, S. America, **185:6**
- Toxicity, PFOS, animals & plants, **186:143 ff.**
- TOXSWA, pesticide water-sediment lab studies model, **187:161**
- Trace element dispersal, coal burning, **189:90**
- Trace element exposure, human nail biomarkers, **185:141 ff.**
- Trace elements, coal, **189:91**
- Trace elements, human nails, **185:161**
- Trace metals, downstream mining, **183:24**
- Tralomethrin, microcosm degradation profile, **187:218**
- Transfer coefficient (pesticides), to field workers, **186:114**
- Transferable turf residue, pesticide, **186:118**
- TRIAD system, sediment quality, described, **186:96**
- Triasulfuron, water-sediment degradation profile, **187:191**
- Triazine chemical structures, **182:151**
- Triazine herbicide photodegradation, on glass, **182:45**
- Triazine herbicide photodegradation, on soils, **182:67**
- Triazine herbicides, **189:2**
- Triazine herbicides, fate in water-sediment systems, **187:195, 198**
- Triazine herbicides, ionisable, **188:150**
- Triazines, adsorption coefficient, **188:190**
- Triazinones, adsorption coefficient, **188:190**
- Tribufos, water-sediment degradation profile, **187:168**
- Triclopyr, adsorption coefficient, **188:188, 192**
- Triclopyr, ionisable herbicide, **188:160**
- Triclopyr, microcosm degradation profile, **187:216**
- Trifloxystrobin, water-sediment degradation profile, **187:175**
- Trifloxysulfuron sodium, water-sediment degradation profile, **187:192**
- Trifluralin, microcosm degradation profile, **187:219**
- Trifluralin, photooxidative dealkylation, **181:14**
- Trifluralin, water-sediment degradation profile, **187:201**
- Trinexapac-ethyl, water-sediment degradation profile, **187:199**
- Tropospheric oxidation, kinetics, **181:17**
- Tropospheric pesticide residues, sources, **181:4**
- Tropospheric pesticides, fate processes, **181:8**
- Tropospheric photooxidation, principles, **181:15**
- Tropospheric transport of pesticides, **181:1 ff.**
- TSS (total suspended solids), paper production, **185:74**
- TUBE (theoretical upper-bound estimate), pesticide exposure, **186:119**
- Tungsten, in human nails, **185:162**
- Turf, transferable pesticide residue, **186:118**
- Tursiops truncatus* (bottlenose dolphin), epizootics, **184:2**
- Two-chamber test system, earthworm avoidance, **188:97**
- Type I pyrethroids, described, **186:57**
- Type II pyrethroids, described, **186:57**
- Tyrian purple, marine mollusk source, **188:42**

- U3**, identical to Q1, **188:18**
- Underground water contamination,
lead, Brazil, **184:70, 73**
- United States, mercury contamination,
181:159
- Urea chemical structures, **182:140**
- Urea herbicide photodegradation, in
solvents, **182:55**
- Urea herbicide photodegradation, on
glass, **182:44**
- Urea herbicide photodegradation, on
plants, **182:75**
- Urea herbicide photodegradation, on
soils, **182:66**
- Urea herbicides, fate in water-sediment
systems, **187:189**
- Urine delta aminolevulinic acid, lead
exposure indicator, **185:101**
- Urine, tetraethyl lead, human exposure
indicator, **184:90**
- Uruguay, map, **181:112**
- Uruguay, pesticide regulations, **181:113**
- Uruguay, pesticide usage, **181:111 ff.**
- UV absorption profiles, pesticides, **182:3**
- UV-B radiation, glass absorption,
182:10, 14
- Vapor pressure vs water solubility,
pesticides, **181:9**
- Vat leaching (gold), using cyanide, **183:23**
- Vertebrate soil ingestion (geophagy),
183:115 ff.
- Veterinary antibiotics, worldwide total
usage, **187:67**
- Veterinary drug occurrence, different
environments (illus.), **187:70**
- Veterinary drugs, sulfonamides in the
environment, **187:67 ff.**
- Vinylethylene (butadiene), **189:132**
- Viral diarrhea, causal organisms, **186:4**
- Viral protein 4, children's inability to
cleave virulent strain, **186:5**
- VOCs (volatile organic compounds),
paper production, **185:73**
- Volatile organic compounds (VOCs),
paper production, **185:73**
- Waste incineration, dioxin formation
mechanisms, **190:31**
- Waste incineration, dioxin production,
190:1 ff.
- Wastewater cyanide removal, alkaline
chlorination, **183:26**
- Water, arsenic content, global, **184:101**
- Water hyacinth, cyanide removal
technology, **183:38**
- Water intake by age, **186:32**
- Water quality chemical indexes,
Reconquista River, **185:48**
- Water quality criteria, heavy metals
(table), **188:64**
- Water quality criteria, simazine, **189:13**
- Water/sediment cyanide levels,
downstream mining, **183:24**
- Water/sediment trace metals,
downstream mining, **183:24**
- Water temperature, mercury effects,
181:171
- Water-sediment pesticide degradation
processes, **187:145**
- Water-sediment, pesticide kinetic
analysis, **187:159**
- Water-sediment pesticide lab studies,
designs (table), **187:157**
- Water-sediment systems, pesticide
behavior, **187:133 ff.**
- Waterborne enteric viral diseases,
children, **186:35**
- Waxes, fruit/leaf composition (table),
182:89
- Weight-of-evidence (WOE),
ecotoxicological term, **188:86**
- Whale halogenated contaminants,
study methods, **184:11**
- Whales, organochlorine contaminants,
184:1 ff.
- Wheat bran, metal remediation, water,
188:72
- WHO pesticide toxicity categories,
181:114
- WHO recommended value, arsenic
drinking water, **184:101**
- Whole-body dosimetry, pesticides,
186:113

- Wildlife effect, water reduction & riparian habitat, **183:44**
- Wildlife mortality, cyanide/gold leaching, **183:25**
- Wildlife protection, cyanide, **183:32, 37**
- WOE (weight-of-evidence), ecotoxicological term, **188:86**
- Wood bark, metal remediation, water, **188:73**
- Wood/leaves incineration, dioxin formation, **190:9,24**
- Wood processing methods, paper production, **185:70**
- Worker reentry exposure database, **186:116**
- Worst case, pesticide exposure, **186:120**
- Y**
- Yttrium, in human nails, **185:161**
- Zalophus californianus* (California sea lion), **184:10**
- Zeolite, metal remediation, water, **188:73**
- Zinc, aquatic environment hazard, **188:62**
- Zinc chloride, earthworm response, **188:91**
- Zinc content, Reconquista River, **185:46**
- Zinc, earthworm biomarkers, **188:87**
- Zinc, in human nails, **185:161**
- Zinc protoporphyrine (ZPP), blood lead measure, **185:111**
- Zinc-contaminated soils, risk assessment, **186:77**
- Zinc-contaminated soils, screening levels, **186:78**
- Zinc-contaminated soils, The Netherlands, **186:78**
- Zinc-contaminated soils, United Kingdom, **186:81**
- Zooplankton, Reconquista River, **185:51**
- Zoxamide, water-sediment degradation profile, **187:178**
- ZPP (zinc protoporphyrine), blood lead measure, **185:111**
- Zwitterionic compounds, adsorption coefficient, **188:191**