

# INDEX

- Active laboratory notebook, 4  
Alkalinity, 245, 246, 251, 253
- Beer's law, 102  
Biochemical oxygen demand (BOD), 217, 220–223,  
227, 228, 317, 320, 321
- Capillary column GC, 33, 46, 63, 64, 66, 69, 88, 113,  
115, 117, 170, 171, 173, 186  
Carbon dioxide (CO<sub>2</sub>), 33, 51, 53–55, 58, 247,  
248, 249  
CFC, 58  
Chlorinated pesticides, 39, 42, 83, 84, 86  
Chromophores, 103  
Coefficient of regression, 10
- DDT, 39, 43, 83, 92, 152, 189  
Detection limit, 8, 18  
Diffusion, 280  
Dispersion, 293, 296, 305, 306, 308, 309, 312  
Dissolved oxygen (DO), 207, 209, 212, 217,  
219–221, 318  
Distribution coefficient ( $K_d$ ), 191, 193,  
196–199, 297
- EDTA, 151, 162, 259–262  
Electroneutrality, 74, 82
- Fate and transport, 277, 285, 293, 303
- Flame atomic absorption spectroscopy (FAAS), 73,  
78–80, 127, 129, 131, 151–153, 158–161,  
191, 195, 201
- Gasoline, 61, 62, 64, 113, 114, 117  
Global warming, 49, 52  
Greenhouse effect, 49  
Groundwater sampling, 25
- Hardness, 257  
Henry's law constant, 33–36, 45  
High performance liquid chromatography (HPLC),  
115, 143–145, 167, 170, 171, 173
- Inactive laboratory notebook, 4  
Inductively coupled plasma (ICP), 164  
Infrared (IR), 49, 51, 52, 56, 58  
Internal standard, 42, 86, 90, 179, 183  
Ion chromatograph (IC), 73, 76–79  
Ion-specific electrodes, 93, 151, 163
- Limit of linearity, 102  
Limit of quantitation, 102  
Linear least squares analysis, 8, 148
- Mass balance, 233
- Natural organic matter (NOM), 84, 168, 172  
Nitroaromatics, 143

- pC-pH, 252, 267, 268, 275
- Polychlorinated biphenyls (PCBs), 39, 83, 86, 152
- Precipitation, 123, 130–132
- Propagation of uncertainty (POU), 10, 13, 17
  
- Releasing agent, 154, 159–161
  
- Sediment sampling, 25
- Signal-to-noise ratio, 104, 107
- Soil sampling, 26, 27
- Soxhlet, 179, 181, 184
- Standard addition, 152
- Standard analysis plan, 19
- Standard deviation, 9, 13, 15, 16
- Standard operation procedure, 19
  
- Statistical analysis, 7
- Student's *t* test, 7, 10, 17, 91, 108
  
- Total dissolved solids (TDS), 234, 239
- Total solids (TS), 237
- Total suspended solids (TSS), 233, 238
- Tenax, 34, 39, 41, 42
  
- UV-Visible, 101, 102
  
- Vostok ice core, 53, 54
  
- Water sampling, 22, 24, 30
- Winkler titration, 207, 210, 211, 229
- Working laboratory notebook, 4