

Subject Index

A

Acrylate, 19
 Applications, industrial, 19 (*See also under specific applications*)
 Arrhenius parameters, 259
 Ash, 19
 ASTM standards
 C 595: 207
 D 297: 61
 D 1412: 273
 D 2584: 100
 D 3172: ix, 28, 260
 E 691: 33
 E 1131: vii, 28, 61
 E 1136: 19
 E 1603: 28
 Atmospheric pressure chemical ionization mass spectrometry, 135
 Automobile parts, 85 (*See also Sheet molding compounds*)

B

Bearings, motor, light-duty, 85
 Bentonite, 272
 Biological products, injectable, 48
 Biomass, 259
 Birch wood, 227
 Black Hills bentonite, 272
 Braun's native lignin, 227
 British Standard BS 1016: 21
 Briodo equations, 259
 Brown coal, 19
 Buoyancy effects, 160
 Bruning profile, 227

C

Calcium carbonate, 38, 204, 245
 Calcium oxide, 245
 Carbon black, 19, 38, 59
 Carbon, fixed, 216
 Carbon fibers, 85, 117
 Carbonate evaluation, 38, 204, 245
 Carbonate minerals, oil shale retorting, 216

Catalysts, 170
 Cellulose, 227, 259
 Cement hydration, 204
 Charcoal, 19
 Chemical ionization mass spectrometry, 135
 Clays and clay products, 272
 Coal, 19, 30, 245, 259
 Coal-wood carbonization, 227
 Coats-Redfern equations, 259
 Coffee beans, 135
 Coke, 19
 Compositional analysis
 chemistry, use of, 38
 definition and general discussion, viii, 1
 evolved gas analysis, 1, 170
 infrared spectroscopy in, 147
 mass spectrometry in, 135
 standard method, development of, 28
 symmetrical thermomicrobalance in, 160

D

Decomposition, route of, 177
 Derivative thermal analysis, 177
 Diamond, 19, 227
 Differential scanning calorimetry, 85, 117
 Drugs, 48
 Dry ink, 135
 Duval, C., vii

E

Elastomers, 19, 30, 38, 59
 Evolved gas analysis, 1, 170

F

Fibers
 carbon, 85, 117
 synthetic, 147
 Fischer assay, 216
 Fixed carbon, 216
 Flour, 19

Flue gas scrubbers, 245, 254
 Fluidized bed combustion furnaces, 245
 Fourier transform infrared spectroscopy, 147
 Fuel pumps, 85
 Fuels
 coal, 19, 30, 245, 259
 solid waste and refuse-derived, 259
 Furnaces
 fluidized bed, 245
 thermogravimetric, 1

G

Gas analysis techniques, 1, 170
 Glass-filled polymers, 85, 98, 117
 Glass flakes, in sheet molding compounds, 98
 Graphite, 227 (*See also* Carbon; Coal; Diamond)
 Guar gums, 135
 Gypsum, 254

H

Hectorite, 272
 Hydration of cement, 204

I

Industrial applications, 19 (*See also under specific applications*)
 Infrared spectroscopy, 147
 Inks, dry 135
 Instrumentation, thermogravimetric
 differential scanning calorimetry, 85, 117
 Fourier transform infrared spectroscopy, 147
 general, 1
 mass spectrometry, 135
 microthermobalances, 160
 Intermediates, isolation of, 177

K

Kaolinite, 272
 Karl Fischer moisture analysis, 48
 Kinetic evaluation, 204, 259

L

Lanthanide complexes, 177
 Ligands, thermal stability of, 177
 Lignin, 227
 Limestone, 245, 254

M

Mass spectrometry, 135
 Microthermobalances, 160
 Military applications, 59
 Minerals
 calcium carbonate, 38, 204, 245
 calcium oxide, 245
 clays and clay products, 272
 gypsum, 254
 limestone, 245, 254
 oil shale, 170, 216
 Moisture, 48
 Molded parts, 70
 Molybdenum oxides, 19
 Motor bearings, light-duty, 85
 Multielement evolved gas analysis, 170

O

Oil, lubricating, 30
 Oil drilling fluid, 272
 Oil shale, 170, 216
 Oil yield, 216
 Organo-clay, 272

P

Pine cellulose, 227
 Plateau, thermogravimetry, 160
 Polyacrylonitrile, 147
 Polyaramids, 147
 Polyethylene, 19
 Polymer additives, 204
 Polymeric materials (*See also specific polymers*)
 glass filled, 85, 117
 polystyrene + carbon black + silicone oil + calcium carbonate + titanium dioxide, 38
 Polyolefins, 147
 Polyphenylene sulfide, 85, 117
 Polystyrene, 38
 Polytetrafluoroethylene, 85, 117
 Polyvinyl alcohol, 147
 Portland cement, 204
 Portlandite evaluation, 204
 Power plants, coal fired, 245, 254
 Proximate analysis, 19, 227, 259
 Pumps, fuel, 85

R

Refuse-derived fuels, 259
 Resins (*See* Polymeric materials)

Retorting diagnostics, 216
 Rubber, 19, 38, 59, 135

S

Scrubbers, flue gas, 245, 254
 Shale oil, retorting, 216
 Sheet molding compounds, 70, 98
 Silicone rubber, 38
 Solid-waste fuels, 259
 Stability, long-term 160
 Standard method, development of, 28
 Standards, 21, 28 (*See also* ASTM standards)
 Styrene-butadiene blends, 135
 Sulfur scrubbing, 245, 254
 Switch contact carriers, 117
 Symmetrical thermomicrobalances, 160

T

Test method, standard, 28 (*See also* ASTM standards)
 Thermal degradation, 147
 Thermogravimetry
 applications (*See under specific application*)

 calibration, 1
 chemistry, use of, 38
 computerization, 1
 derivative thermal analysis, 177
 evolved gas analysis, 1, 170
 furnaces, 1
 general descriptions, viii, 1
 instrumentation, 1, 85, 117, 135, 147, 160
 nomenclature, 1
 plateau, 160
 proximate analysis, 19, 227, 259
 standards, 21, 28 (*See also* ASTM standards)
 stoichiometric weight factors, 1
 Thermomagnetometry, 14
 Track pads, 59

V

Vaccines, 48
 Volatile matters, 147, 216

W

Water molecules, 177
 Wood aging, 227