

Subject index

- Adrenergic receptor**
Beta-adrenoceptor antagonist therapy in hyperthyroidism: effects on lymphocyte metabolic activity and the relation between aerobic and anaerobic metabolism in lymphocytes 191
Thermogenic effect of two β -adrenoceptor blocking drugs, propranolol and carvedilol, on skeletal muscle in rats. A microcalorimetric study 183
- Aerobic**
Impact of carbon dioxide evolution on the calorimetric monitoring of fermentations 85
- Albumin**
Thermodynamic aspects of the molecular recognition of drugs by human serum albumin 379
- Alga**
A differential photomicrocalorimetric method for investigating the rate of energy storage in plants 351
Aspects of the energetic balance of plant cells under different salt conditions 357
- Allometry**
Size effects on metabolic rate in cell, tissue, and body calorimetry 227
- Anaerobic**
Impact of carbon dioxide evolution on the calorimetric monitoring of fermentations 85
- Animal wastewater**
Calorimetric and respirometric characteristics of the decomposition of animal wastewaters in soil 37
- Anoxia**
Bioenergetics of a highly adaptable brackish water polychaete 1
Hypoxia and anoxia in insects: microcalorimetric studies on two species (*Locusta migratoria* and *Manduca sexta*) showing different degrees of anoxia tolerance 209
- Apis**
A method for continuous direct calorimetric measurements of energy metabolism in intact hornet (*Vespa crabro*) and honeybee (*Apis mellifera*) colonies 293
- Aquatic animal**
A portable unit for direct calorimetry of small aquatic animals 255
A portable, battery-powered unit for oximetry on small aquatic animals 303
- Aquatic ecology**
Size spectra of heat production of microplankton of Sevastopol Bay 53
- ATP**
Metabolic uncoupling in *Saccharomyces cerevisiae* 99
Prediction of recovery after ischemia. A microcalorimetric and biochemical study of rat liver tissue 161
Thermogenic effect of two β -adrenoceptor blocking drugs, propranolol and carvedilol, on skeletal muscle in rats. A microcalorimetric study 183
- Bacteria**
Pigment-dependent light influence on the energetics of *Serratia marcescens* 63
- Baseline evaluation**
On-line detection of baseline variations through torque measurements in isothermal reaction calorimeters 79
- Benign**
Influence of malignancy and cytostatic treatment on microcalorimetric behaviour of urological tissue samples and cell cultures 145
- Bioenergetics**
A method for continuous direct calorimetric measurements of energy metabolism in intact hornet (*Vespa crabro*) and honeybee (*Apis mellifera*) colonies 293
Bioenergetics of a highly adaptable brackish water polychaete 1

- Comparative investigations on the effect of environmental salt stress on energy metabolism of amphipods estimated by ^{31}P NMR spectroscopy and microcalorimetry 45
- Biomass**
 Metabolic uncoupling in *Saccharomyces cerevisiae* 99
 Site-fitness and growth-rate selection of *Eucalyptus* for biomass production 335
- Blood**
 Microcalorimetric determination of blood heat output in human neonates 219
- Calorimetry**
 A method for continuous direct calorimetric measurements of energy metabolism in intact hornet (*Vespa crabro*) and honeybee (*Apis mellifera*) colonies 293
 A portable unit for direct calorimetry of small aquatic animals 255
 Beta-adrenoceptor antagonist therapy in hyperthyroidism: effects on lymphocyte metabolic activity and the relation between aerobic and anaerobic metabolism in lymphocytes 191
 Biocenergetics of a highly adaptable brackish water polychaete 1
 Calculating locomotor activity and energy utilisation factors from indirect calorimetric measurements 271
 Calorimetric and respirometric characteristics of the decomposition of animal wastewaters in soil 37
 Calorimetric investigations on thermoregulation and growth of wax moth larvae *Galleria mellonella* 241
 Degradation of naphthalene by *Pseudomonas* sp. strain KR3 investigated by flow calorimetry 29
 Direct and indirect calorimetric investigations on some snakes 261
 Energetic study of human lymphocytes and the metabolic response to antigenic stimulation 177
 Measurement of oxygen consumption and heat production in plasma from uremic patients on chronic dialysis treatment 173
 Site-fitness and growth-rate selection of *Eucalyptus* for biomass production 335
 Size effects on metabolic rate in cell, tissue, and body calorimetry 227
 Studies on insect growth regulating (IGR) and toxic effects of *Ledum palustre* extracts on *Tenebrio molitor* pupae (*Coleoptera, Tenebrionidae*) using calorimetric recordings 247
- Candida**
 On-line heat flow measurement in laboratory fermenters 111
- Carbon dioxide**
 Impact of carbon dioxide evolution on the calorimetric monitoring of fermentations 85
- Carvedilol**
 Thermogenic effect of two β -adrenoceptor blocking drugs, propranolol and carvedilol, on skeletal muscle in rats. A microcalorimetric study 183
- Cell culture**
 Cellular thermogenesis in L-929 mouse fibroblasts. The influence of oxygen availability on growth, heat production and intermediary metabolism 155
- Chlorella**
 A differential photomicrocalorimetric method for investigating the rate of energy storage in plants 351
 Aspects of the energetic balance of plant cells under different salt conditions 357
- Cichlasoma nigrofasciatum**
 Specific oxygen consumption in two life stages of the cichlid fish *Cichlasoma nigrofasciatum* 283
- Cichlid**
 Specific oxygen consumption in two life stages of the cichlid fish *Cichlasoma nigrofasciatum* 283
- Corophium**
 Energy strategy of *Corophium volutator* (Pallas, 1766) (*Amphipoda*) population from the Gulf of Gdańsk 11
- Crabtree effect**
 Cellular thermogenesis in L-929 mouse fibroblasts. The influence of oxygen availability on growth, heat production and intermediary metabolism 155
- Cytostatic treatment**
 Influence of malignancy and cytostatic treatment on microcalorimetric behaviour of urological tissue samples and cell cultures 145
- Development**
 Specific oxygen consumption in two life stages of the cichlid fish *Cichlasoma nigrofasciatum* 283
- Direct calorimeter**
 A portable unit for direct calorimetry of small aquatic animals 255

- Direct and indirect calorimetric investigations on some snakes 261
- Drug
Thermodynamic aspects of the molecular recognition of drugs by human serum albumin 379
- DSC
Determination of the specific heat capacity of healthy and tumorous human tissue 199
- Ecdysis
Studies on insect growth regulating (IGR) and toxic effects of *Ledum palustre* extracts on *Tenebrio molitor* pupae (Coleoptera, Tenebrionidae) using calorimetric recordings 247
- Ecological stress
Aspects of the energetic balance of plant cells under different salt conditions 357
- EMF
Physical properties of a vacuum-deposited thermopile for heat measurements 307
- Energetic balance
Aspects of the energetic balance of plant cells under different salt conditions 357
- Energetic coefficient
Calorimetric and respirometric characteristics of the decomposition of animal wastewaters in soil 37
- Energy balance
Energetic investigation of *Saccharomyces cerevisiae* during transitions. Part 2. Energy balance and thermodynamic efficiency 131
- Energy expenditure
Calculating locomotor activity and energy utilisation factors from indirect calorimetric measurements 271
- Energy storage
A differential photomicrocalorimetric method for investigating the rate of energy storage in plants 351
- Energy strategy
Energy strategy of *Corophium volutator* (Pallas, 1766) (*Amphipoda*) population from the Gulf of Gdańsk 11
- Enthalpy
Energetic investigation of *Saccharomyces cerevisiae* during transitions. Part 2. Energy balance and thermodynamic efficiency 131
Enthalpy convergence temperatures: proteins and model compounds 371
Thermodynamic aspects of the molecular recognition of drugs by human serum albumin 379
- Entropy
Thermodynamic aspects of the molecular recognition of drugs by human serum albumin 379
- Eucalyptus*
Site-fitness and growth-rate selection of *Eucalyptus* for biomass production 335
- Fermentation
Impact of carbon dioxide evolution on the calorimetric monitoring of fermentations 85
- Finite element method
Physical properties of a vacuum-deposited thermopile for heat measurements 307
- Fish
A portable unit for direct calorimetry of small aquatic animals 255
A portable, battery-powered unit for oximetry on small aquatic animals 303
Specific oxygen consumption in two life stages of the cichlid fish *Cichlasoma nigrofasciatum* 283
- Flow calorimetry
Degradation of naphthalene by *Pseudomonas* sp. strain KR3 investigated by flow calorimetry 29
- Galleria mellonella*
Calorimetric investigations on thermoregulation and growth of wax moth larvae *Galleria mellonella* 241
- Gammarus*
Comparative investigations on the effect of environmental salt stress on energy metabolism of amphipods estimated by ³¹P NMR spectroscopy and microcalorimetry 45
- Gas perfusion microcalorimeter
A gas perfusion microcalorimeter for studies of plant tissue 323
- Glucose pulse
On-line heat flow measurement in laboratory fermenters 111
- Glycolysis
Metabolic uncoupling in *Saccharomyces cerevisiae* 99
- Gulf of Gdańsk
Energy strategy of *Corophium volutator* (Pallas, 1766) (*Amphipoda*) population from the Gulf of Gdańsk 11
- Heat of growth
On-line heat flow measurement in laboratory fermenters 111

- Heat production
Size spectra of heat production of microplankton of Sevastopol Bay 53
- Heavy metal
Relation between substrate-induced respiration and heat loss from soil samples treated with various contaminants 21
- Hediste*
Bioenergetics of a highly adaptable brackish water polychaete 1
- Homeorhesis
Stability and reliability of ontogenesis 363
- Human serum albumin
Thermodynamic aspects of the molecular recognition of drugs by human serum albumin 379
- Hydration
Enthalpy convergence temperatures: proteins and model compounds 371
- Hyperthyroidism
Beta-adrenoceptor antagonist therapy in hyperthyroidism: effects on lymphocyte metabolic activity and the relation between aerobic and anaerobic metabolism in lymphocytes 191
- Hypoxia
Bioenergetics of a highly adaptable brackish water polychaete 1
Hypoxia and anoxia in insects: microcalorimetric studies on two species (*Locusta migratoria* and *Manduca sexta*) showing different degrees of anoxia tolerance 209
- Illumination
Pigment-dependent light influence on the energetics of *Serratia marcescens* 63
- Indirect calorimetry
A portable, battery-powered unit for oximetry on small aquatic animals 303
Calculating locomotor activity and energy utilisation factors from indirect calorimetric measurements 271
Direct and indirect calorimetric investigations on some snakes 261
Size effects on metabolic rate in cell, tissue, and body calorimetry 227
Specific oxygen consumption in two life stages of the cichlid fish *Cichlasoma nigrofasciatum* 283
- Instrument
Physical properties of a vacuum-deposited thermopile for heat measurements 307
- Ischemia
Prediction of recovery after ischemia. A microcalorimetric and biochemical study of rat liver tissue 161
- Isothermal reaction calorimeter
On-line detection of baseline variations through torque measurements in isothermal reaction calorimeters 79
- Larval development
Calorimetric investigations on thermoregulation and growth of wax moth larvae *Galleria mellonella* 241
- L-cell
Cellular thermogenesis in L-929 mouse fibroblasts. The influence of oxygen availability on growth, heat production and intermediary metabolism 155
- Ledum
Studies on insect growth regulating (IGR) and toxic effects of *Ledum palustre* extracts on *Tenebrio molitor* pupae (*Coleoptera, Tenebrionidae*) using calorimetric recordings 247
- Lipid
Energy strategy of *Corophium volutator* (Pallas, 1766) (*Amphipoda*) population from the Gulf of Gdańsk 11
- Liver
Prediction of recovery after ischemia. A microcalorimetric and biochemical study of rat liver tissue 161
- Locomotion
Calculating locomotor activity and energy utilisation factors from indirect calorimetric measurements 271
- Locusta*
Hypoxia and anoxia in insects: microcalorimetric studies on two species (*Locusta migratoria* and *Manduca sexta*) showing different degrees of anoxia tolerance 209
- Lymphocyte
Beta-adrenoceptor antagonist therapy in hyperthyroidism: effects on lymphocyte metabolic activity and the relation between aerobic and anaerobic metabolism in lymphocytes 191
Energetic study of human lymphocytes and the metabolic response to antigenic stimulation 177
- Malignant
Influence of malignancy and cytostatic treatment on microcalorimetric behaviour of urological tissue samples and cell cultures 145

Manduca

Hypoxia and anoxia in insects: microcalorimetric studies on two species (*Locusta migratoria* and *Manduca sexta*) showing different degrees of anoxia tolerance 209

Marenzelleria

Bioenergetics of a highly adaptable brackish water polychaete 1

Mass balance

Energetic investigation of *Saccharomyces cerevisiae* during transitions. Part 1. Mass balances 119

Metabolic rate

Direct and indirect calorimetric investigations on some snakes 261

Prediction of recovery after ischemia. A microcalorimetric and biochemical study of rat liver tissue 161

Size effects on metabolic rate in cell, tissue, and body calorimetry 227

Metabolism

Beta-adrenoceptor antagonist therapy in hyperthyroidism: effects on lymphocyte metabolic activity and the relation between aerobic and anaerobic metabolism in lymphocytes 191

Calorimetric investigations on thermoregulation and growth of wax moth larvae *Galleria mellonella* 241

Comparative investigations on the effect of environmental salt stress on energy metabolism of amphipods estimated by ³¹P NMR spectroscopy and microcalorimetry 45

Energetic investigation of *Saccharomyces cerevisiae* during transitions. Part 1. Mass balances 119

Energetic study of human lymphocytes and the metabolic response to antigenic stimulation 177

Site-fitness and growth-rate selection of *Eucalyptus* for biomass production 335

Studies on insect growth regulating (IGR) and toxic effects of *Ledum palustre* extracts on *Tenebrio molitor* pupae (Coleoptera, Tenebrionidae) using calorimetric recordings 247

Methanobacterium

Thermodynamic analysis of *Methanobacterium thermoautotrophicum* 71

Microbial calorimetry

On-line heat flow measurement in laboratory fermenters 111

Microcalorimetry

A gas perfusion microcalorimeter for studies of plant tissue 323

Aspects of the energetic balance of plant cells under different salt conditions 357

Cellular thermogenesis in L-929 mouse fibroblasts. The influence of oxygen availability on growth, heat production and intermediary metabolism 155

Comparative investigations on the effect of environmental salt stress on energy metabolism of amphipods estimated by ³¹P NMR spectroscopy and microcalorimetry 45

Hypoxia and anoxia in insects: microcalorimetric studies on two species (*Locusta migratoria* and *Manduca sexta*) showing different degrees of anoxia tolerance 209

Influence of malignancy and cytostatic treatment on microcalorimetric behaviour of urological tissue samples and cell cultures 145

Microcalorimetric determination of blood heat output in human neonates 219

Prediction of recovery after ischemia. A microcalorimetric and biochemical study of rat liver tissue 161

Microplankton

Size spectra of heat production of microplankton of Sevastopol Bay 53

Model

Enthalpy convergence temperatures: proteins and model compounds 371

Physical properties of a vacuum-deposited thermopile for heat measurements 307

Site-fitness and growth-rate selection of *Eucalyptus* for biomass production 335

Muscle

Physical properties of a vacuum-deposited thermopile for heat measurements 307

Naphthalene

Degradation of naphthalene by *Pseudomonas* sp. strain KR3 investigated by flow calorimetry 29

Neonate

Microcalorimetric determination of blood heat output in human neonates 219

Nereis

Bioenergetics of a highly adaptable brackish water polychaete 1

NMR

Comparative investigations on the effect of environmental salt stress on energy metabolism of amphipods estimated by ³¹P NMR spectroscopy and microcalorimetry 45

Ontogenesis

Stability and reliability of ontogenesis 363

Oximetry

A portable, battery-powered unit for oximetry on small aquatic animals 303
 Specific oxygen consumption in two life stages of the cichlid fish *Cichlasoma nigrofasciatum* 283

Oxygen availability

Cellular thermogenesis in L-929 mouse fibroblasts. The influence of oxygen availability on growth, heat production and intermediary metabolism 155

Oxygen consumption

Measurement of oxygen consumption and heat production in plasma from uremic patients on chronic dialysis treatment 173

PAH

Degradation of naphthalene by *Pseudomonas* sp. strain KR3 investigated by flow calorimetry 29

Pesticide

Relation between substrate-induced respiration and heat loss from soil samples treated with various contaminants 21

pH

Impact of carbon dioxide evolution on the calorimetric monitoring of fermentations 85

Photomicrocalorimetry

A differential photomicrocalorimetric method for investigating the rate of energy storage in plants 351

Pigment-dependent light influence on the energetics of *Serratia marcescens* 63

Phototransformation

Pigment-dependent light influence on the energetics of *Serratia marcescens* 63

Phytohaemagglutinin

Energetic study of human lymphocytes and the metabolic response to antigenic stimulation 177

Pigment

Pigment-dependent light influence on the energetics of *Serratia marcescens* 63

Plasma

Measurement of oxygen consumption and heat production in plasma from uremic patients on chronic dialysis treatment 173

Polychaete

Bioenergetics of a highly adaptable brackish water polychaete 1

Portable equipment

A portable, battery-powered unit for oximetry on small aquatic animals 303

Postprandial thermogenesis

Calculating locomotor activity and energy utilisation factors from indirect calorimetric measurements 271

Potato

A gas perfusion microcalorimeter for studies of plant tissue 323

Propranolol

Thermogenic effect of two β -adrenoceptor blocking drugs, propranolol and carvedilol, on skeletal muscle in rats. A microcalorimetric study 183

Protein

Enthalpy convergence temperatures: proteins and model compounds 371

Pseudomonas

Degradation of naphthalene by *Pseudomonas* sp. strain KR3 investigated by flow calorimetry 29

Puck Bay

Energy strategy of *Corophium volutator* (Pallas, 1766) (*Amphipoda*) population from the Gulf of Gdańsk 11

Pupa

Studies on insect growth regulating (IGR) and toxic effects of *Ledum palustre* extracts on *Tenebrio molitor* pupae (*Coleoptera*, *Tenebrionidae*) using calorimetric recordings 247

Reliability

Stability and reliability of ontogenesis 363

Reperfusion

Prediction of recovery after ischemia. A microcalorimetric and biochemical study of rat liver tissue 161

Respiration

Relation between substrate-induced respiration and heat loss from soil samples treated with various contaminants 21

Respirometry

Bioenergetics of a highly adaptable brackish water polychaete 1

Calorimetric and respirometric characteristics of the decomposition of animal wastewaters in soil 37

Saccharomyces

Metabolic uncoupling in *Saccharomyces cerevisiae* 99

On-line heat flow measurement in laboratory fermenters 111

- Saccharomyces cerevisiae*
 Energetic investigation of *Saccharomyces cerevisiae* during transitions. Part 1. Mass balances 119
 Energetic investigation of *Saccharomyces cerevisiae* during transitions. Part 2. Energy balance and thermodynamic efficiency 131
- Saccharopolyspora*
 On-line detection of baseline variations through torque measurements in isothermal reaction calorimeters 79
- Salt
 Aspects of the energetic balance of plant cells under different salt conditions 357
- Salt pollution
 Comparative investigations on the effect of environmental salt stress on energy metabolism of amphipods estimated by ³¹P NMR spectroscopy and microcalorimetry 45
- Serratia*
 Pigment-dependent light influence on the energetics of *Serratia marcescens* 63
- Size effect
 Size effects on metabolic rate in cell, tissue, and body calorimetry 227
- Size spectra
 Size spectra of heat production of microplankton of Sevastopol Bay 53
- Skeletal muscle
 Thermogenic effect of two β -adrenoceptor blocking drugs, propranolol and carvedilol, on skeletal muscle in rats. A microcalorimetric study 183
- Snake
 Direct and indirect calorimetric investigations on some snakes 261
- Soil
 Calorimetric and respirometric characteristics of the decomposition of animal wastewaters in soil 37
 Relation between substrate-induced respiration and heat loss from soil samples treated with various contaminants 21
- Specific heat capacity
 Determination of the specific heat capacity of healthy and tumorous human tissue 199
- Stability
 Stability and reliability of ontogenesis 363
- Tenebrio*
 Studies on insect growth regulating (IGR) and toxic effects of *Ledum palustre* extracts on *Tenebrio molitor* pupae (*Coleoptera*, *Tenebrionidae*) using calorimetric recordings 247
- Thermodynamic efficiency
 Energetic investigation of *Saccharomyces cerevisiae* during transitions. Part 2. Energy balance and thermodynamic efficiency 131
- Thermodynamics
 Stability and reliability of ontogenesis 363
 Thermodynamic analysis of *Methanobacterium thermoautotrophicum* 71
- Thermogenesis
 Cellular thermogenesis in L-929 mouse fibroblasts. The influence of oxygen availability on growth, heat production and intermediary metabolism 155
 Thermogenic effect of two β -adrenoceptor blocking drugs, propranolol and carvedilol, on skeletal muscle in rats. A microcalorimetric study 183
- Thermopile
 Physical properties of a vacuum-deposited thermopile for heat measurements 307
- Thermoregulation
 Calorimetric investigations on thermoregulation and growth of wax moth larvae *Galleria mellonella* 241
- Thyroid hormone
 Beta-adrenoceptor antagonist therapy in hyperthyroidism: effects on lymphocyte metabolic activity and the relation between aerobic and anaerobic metabolism in lymphocytes 191
- Transition
 Energetic investigation of *Saccharomyces cerevisiae* during transitions. Part 1. Mass balances 119
 Energetic investigation of *Saccharomyces cerevisiae* during transitions. Part 2. Energy balance and thermodynamic efficiency 131
- Tumour
 Determination of the specific heat capacity of healthy and tumorous human tissue 199
 Influence of malignancy and cytostatic treatment on microcalorimetric behaviour of urological tissue samples and cell cultures 145
- Uncoupling
 Metabolic uncoupling in *Saccharomyces cerevisiae* 99
- Uremia
 Measurement of oxygen consumption and heat production in plasma from uremic patients on chronic dialysis treatment 173

Urogenital tract

Influence of malignancy and cytostatic treatment on microcalorimetric behaviour of urological tissue samples and cell cultures 145

Vacuum deposition

Physical properties of a vacuum-deposited thermopile for heat measurements 307

Vespa

A method for continuous direct calorimetric measurements of energy metabolism in intact

hornet (*Vespa crabro*) and honeybee (*Apis mellifera*) colonies 293

Wastewater

Calorimetric and respirometric characteristics of the decomposition of animal wastewaters in soil 37

Zymomonas

Impact of carbon dioxide evolution on the calorimetric monitoring of fermentations 85