Subject Index¹

Volume 6

sulfotransferase model, 6, 95 Association constants guantidinium. 6, 181 Azide acylation of azide, 6, 165 Active sites arginine association with oxyanions, 6, 181 Acylimidazoles hydrolysis by cycloamylose, 6, 323 Adenylate cyclase soluble adrenocortical, stabilization by fluoride (cattle), 6, 223 Adrenocortical adenylate cyclase hydrophobic chromatography (cattle), 6, 223 inhibition by Lubrol-PX (cattle), 6, 223 Affinity labeling tRNA and a protein, 6, 431 Alcohol dehydrogenase liver, alkylated: substituent effects (horse), 6, 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial pions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Annatabine anitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic antitumor antibiotic antitumor antibiotic antitumor antibiotic antitumor antibiotic sulfotransferase model, 6, 95 Association constants guanidinium, 6, 181 Azide acylation, 6, 165 Benzolalpyrene quinones reactions with r-butylthiol, 6, 415 Binding model: aminoacyl-tRNA to ribosomes, 6, 103 Biomimetic reactions tumor inhibitors, with SH compounds and enzymes, 6, 287 Biosynthesis papaverine, stereospecificity, 6, 43 vitamin B ₁₂ , mechanism, 6, 397 Biotin catalysis, 6, 79 models, 6, 79 Brønsted plot, deviation, 6, 127 Butylphenyl acetate cleavage, 6, 127 general base catalytic rate, 6, 13 Benzolalpyrene quinones reactions with r-butylthiol, 6, 415 Binding model: aminoacyl-tRNA to ribosomes, 6, 103 Biomimetic reactions tumor inhibitors, with SH compounds and enzymes, 6, 287 Biotin catalysis, 6, 79 Brønsted plot, deviation, 6, 137	A	Aryl sulfate
acylation of azide, 6, 165 Active sites arginine association with oxyanions, 6, 181 Acylimidazoles hydrolysis by cycloamylose, 6, 323 Adenylate cyclase soluble adrenocortical, stabilization by fluoride (cattle), 6, 223 Adrenocortical adenylate cyclase hydrophobic chromatography (cattle), 6, 223 Affinity labeling tRNA and a protein, 6, 431 Alcohol dehydrogenase liver, alkylated: substituent effects (horse), 6, 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial pions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Annauncement Academic space experiments, 6, 219 Antitiumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic guanidinium, 6, 181 Azide acylation, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 Benzolalpyrene quinones reactions with r-butylthiol, 6, 415 Binding model: aminoacyl-tRNA to ribosomes, 6, 103 Biomimetic reactions tumor inhibitors, with SH compounds and enzymes, 6, 287 Biosynthesis acylation, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 aromatic substitution, 6, 165 acylation, 6, 181 Azide calalysic, 6, 13 Benzolalpyrene quinones reactions with r-butylthiol, 6, 415 Binding model: aminoacyl-tRNA to ribosomes, 6, 103 Biomimetic reactions vitamin B ₁₂ mechanism,	A mark and the state of the sta	
Active sites arginine association with oxyanions, 6 , 181 Acylimidazoles hydrolysis by cycloamylose, 6 , 323 Adenylate cyclase soluble adrenocortical, stabilization by fluoride (cattle), 6 , 223 Adrenocortical adenylate cyclase hydrophobic chromatography (cattle), 6 , 223 Affinity labeling tRNA and a protein, 6 , 431 Alcohol dehydrogenase liver, alkylated: substituent effects (horse), 6 , 117 zinc ion function in, 6 , 137 Alkylation reductive: liver alcohol dehydrogenases, substituent effects (horse), 6 , 117 Allenic thioester hydration, catalyzed by crotonase, 6 , 49 Aminoacyl-tRNA ribosomes, binding, 6 , 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial biosynthesis, 6 , 273 Annabasine biosynthesis, 6 , 273 Annabasine biosynthesis, 6 , 273 Annatitumor, maytansine: reactions with DNA, 6 , 453 Antitumor antibiotic Azide acylation, 6 , 165 aromatic substitution, 6		
arginine association with oxyanions, 6 , 181 Acylimidazoles hydrolysis by cycloamylose, 6 , 323 Addenylate cyclase soluble adrenocortical, stabilization by fluoride (cattle), 6 , 223 Adrenocortical adenylate cyclase hydrophobic chromatography (cattle), 6 , 223 inhibition by Lubrol-PX (cattle), 6 , 233 inhibition by Lubr		-
Acylimidazoles hydrolysis by cycloamylose, 6, 323 Addenylate cyclase soluble adrenocortical, stabilization by fluoride (cattle), 6, 223 Adrenocortical adenylate cyclase hydrophobic chromatography (cattle), 6, 223 inhibition by Lubrol-PX (cattle), 6, 223 Affinity labeling tRNA and a protein, 6, 431 Alcohol dehydrogenase liver, alkylated: substituent effects (horse), 6, 117 zinc ion function in, 6, 137 Alkylation reductive: liver alcohol dehydrogenases, substituent effects (horse), 6, 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial production, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Anatabine biosynthesis, 6, 273 Anatabine biosynthesis, 6, 273 Anatabine biosynthesis, 6, 273 Anatabine abosynthesis, 6, 273 Anatabine biosynthesis, 6, 273 Anatabine abosynthesis, 6, 273 Anatabine abosyn		
hydrolysis by cycloamylose, 6, 323 Adenylate cyclase soluble adrenocortical, stabilization by fluoride (cattle), 6, 223 Adrenocortical adenylate cyclase hydrophobic chromatography (cattle), 6, 223 inhibition by Lubrol-PX (cattle), 6, 223 Affinity labeling tRNA and a protein, 6, 431 Alcohol dehydrogenase liver, alkylated: substituent effects (horse). 6, 117 zinc ion function in, 6, 137 Alkylation reductive: liver alcohol dehydrogenases, substituent effects (horse), 6, 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial production, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Anatabine anitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic Academic space experiments, 6, 219 Antitumor antibiotic B 2-Benzimidazoleacetic acid in m-t-butylphenyl acetate cleavage, 6, 127 general base catalytic rate, 6, 13 Benzo[alpyrene quinones reactions with t-butylthiol, 6, 415 Binding model: aminoacyl-tRNA to ribosomes, 6, 103 Biomimetic reactions tumor inhibitors, with SH compounds and enzymes, 6, 287 Biosynthesis papaverine, stereospecificity, 6, 43 vitamin B ₁₂ , mechanism, 6, 397 Biosini catalysis, 6, 79 models, 6, 79 models, 6, 127 -Butylphenyl acetate cleavage, 6, 127 -Butylphenyl acetate cleavage, 6, 103 Benzo[alpyrene quinones reactions with r-butylthiol, 6, 415 Binding model: aminoacyl-tRNA to ribosomes, 6, 103 Biomimetic reactions tumor inhibitors, with SH compounds and enzymes, 6, 287 Biosynthesis papaverine, stereospecificity, 6, 43 vitamin B ₁₂ , mechanism, 6, 397 Biotin catalysis, 6, 79 models, 6, 79 rodels, 6, 79 rodels, 6, 79 rodels, 6, 29 rodels, 6, 20 rotations in m-t-butylphenyl acetate cleavage, 6, 103 rotat		
Adenylate cyclase soluble adrenocortical, stabilization by fluoride (cattle), 6 , 223 Adrenocortical adenylate cyclase hydrophobic chromatography (cattle), 6 , 223 inhibition by Lubrol-PX (cattle), 6 , 245 inhibition by Lubrol-PX (cattl	•	aromatic substitution, o , 103
soluble adrenocortical, stabilization by fluoride (cattle), 6, 223 Adrenocortical adenylate cyclase hydrophobic chromatography (cattle), 6, 223 inhibition by Lubrol-PX (cattle), 6, 223 Affinity labeling tRNA and a protein, 6, 431 Alcohol dehydrogenase liver, alkylated: substituent effects (horse), 6, 117 zinc ion function in, 6, 137 Alkylation reductive: liver alcohol dehydrogenases, substituent effects (horse), 6, 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial production, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Annatoine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antitiumor antibiotic Adrenocortical adenylate cyclase hydroplase in microbial production, 6, 223 Benzzimidazoleacetic acid in mr-t-butylphenyl acetate cleavage, 6, 127 Benzimidazoleacetic acid in mr-t-butylphenyl acetate cleavage, 6, 127 Benzzimidazoleacetic acid in mr-t-butylphenyl acetate cleavage, 6, 127 Benzzimidazoleacetic acid in mr-t-butylphenyl acetate cleavage, 6, 127 Benzzimidazoleacetic acid in mr-t-butylphenyl acetate cleavage, 6, 127 Biosynthesis, ch 287 Biosynthesis, 6, 287 Biosynthesis, 6, 29 Biosynthesis,		
Adrenocortical adenylate cyclase hydrophobic chromatography (cattle), 6, 223 inhibition by Lubrol-PX (cattle), 6, 223 Affinity labeling tRNA and a protein, 6, 431 Alcohol dehydrogenase liver, alkylated: substituent effects (horse), 6, 117 zinc ion function in, 6, 137 Alkylation reductive: liver alcohol dehydrogenases, substituent effects (horse), 6, 117 Allenic thioester hydration. catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial onough cutton, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic 2-Benzimidazoleacetic acid in mr-t-butylphenyl acetate cleavage, 6, 127 general base catalytic rate, 6, 13 Benzo[alpyrene quinones reactions with t-butylthiol, 6, 415 Binding model: aminoacyl-tRNA to ribosomes, 6, 103 Biomimetic reactions tumor inhibitors, with SH compounds and enzymes, 6, 287 Biosynthesis papaverine, stereospecificity, 6, 43 vitamin B ₁₂ , mechanism, 6, 397 Biotin catalysis, 6, 79 Brønsted plot, deviation, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with r-butylthiol, 6, 415 Binding model: aminoacyl-tRNA to ribosomes, 6, 103 Biomimetic reactions tumor inhibitors, with SH compounds and enzymes, 6, 287 Biosynthesis papaverine, stereospecificity, 6, 43 vitamin B ₁₂ , mechanism, 6, 397 Biotin catalysis, 6, 79 Brønsted plot, deviation, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with r-butylthiol, 6, 415		В
Adrenocortical adenylate cyclase hydrophobic chromatography (cattle), 6, 223 inhibition by Lubrol-PX (cattle), 6, 223 inhibition bics transport, intestine cleavage, 6, 127 inhibition bics transport, intestine (rat), 6, 203 inhibition by Lubrol-PX (cattle), 6, 223 inhibition bics transport, intestine (rat), 6, 203 inhibition bics transport, intestine (rat), 6,		2 Bondinidan-Israelia asid
hydrophobic chromatography (cattle), 6, 223 inhibition by Lubrol-PX (cattle), 6, 223 Affinity labeling tRNA and a protein, 6, 431 Alcohol dehydrogenase liver, alkylated: substituent effects (horse), 6, 117 zinc ion function in, 6, 137 Alkylation reductive: liver alcohol dehydrogenases, stituent effects (horse), 6, 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial production, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Annatabine biosynthesis, 6, 273 Annatab		
inhibition by Lubrol-PX (cattle), 6, 223 Affinity labeling tRNA and a protein, 6, 431 Alcohol dehydrogenase liver, alkylated: substituent effects (horse), 6, 117 zinc ion function in, 6, 137 Alkylation reductive: liver alcohol dehydrogenases, substituent effects (horse), 6, 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial production, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Annatabine biosynthesis, 6, 273 Antabine biosynthesis, 6, 273 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic Binding model: aminoacyl-tRNA to ribosomes, 6, 103 Biomimetic reactions tumor inhibitors, with SH compounds and enzymes, 6, 287 Biosynthesis papaverine, stereospecificity, 6, 43 vitamin B ₁₂ , mechanism, 6, 397 Biosynthesis papaverine, stereospecificity, 6, 43 vitamin B ₁₂ , mechanism, 6, 397 Brønsted plot, deviation, 6, 13 m-t-Butylthiol reactions with benzo[a]pyrene quinones, 6, 415 C Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79		
Affinity labeling tRNA and a protein, 6, 431 Alcohol dehydrogenase liver, alkylated: substituent effects (horse), 6, 117 Zinc ion function in, 6, 137 Alkylation reductive: liver alcohol dehydrogenases, substituent effects (horse), 6, 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ro ribosomes, 6, 287 Biosymthesis papaverine, stereospecificity, 6, 43 vitamin B ₁₂ , mechanism, 6, 397 Biotin catalysis, 6, 79 Brønsted plot, deviation, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with benzo[alpyrene quinones, 6, 415 biosynthesis, 6, 273 Annatabine biosynthesis bio		
tRNA and a protein, 6, 431 Alcohol dehydrogenase liver, alkylated: substituent effects (horse), 6, 117 zinc ion function in, 6, 137 Alkylation reductive: liver alcohol dehydrogenases, substituent effects (horse), 6, 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial duction, 6, 263 Ammonium lons, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Annatabine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic Alkylated: substituent effects (horse), 6, 117 Biomimetic reactions tumor inhibitors, with SH compounds and enzymes, 6, 287 Biosynthesis, 6, 287 Biosynthesis, 6, 297 Biotin catalysis, 6, 79 models, 6, 79 Biotin catalysis, 6, 79 models, 6, 79 Biotin catalysis, 6, 79 models, 6, 79 Teatlylhenol, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with benzo[alpyrene quinones, 6, 415 Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Carboxyl Antitumor antibiotic		
Alcohol dehydrogenase liver, alkylated: substituent effects (horse), 6, 117 zinc ion function in, 6, 137 Alkylation reductive: liver alcohol dehydrogenases, substituent effects (horse), 6, 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial vions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Annatabine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic model: aminoacyl-tRNA to ribosomes, 6, 103 Biomimetic reactions tumor inhibitors, with SH compounds and enzymes, 6, 287 Biosynthesis, 6, 287 Biosynthesis, 6, 297 Biotin catalysis, 6, 79 models, 6, 79 Brønsted plot, deviation, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with benzo[alpyrene quinones, 6, 415 Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Carboxyl transfer reactions, joitin mediated, 6, 79		
liver. alkylated: substituent effects (horse). 6. 117 zinc ion function in, 6. 137 Alkylation reductive: liver alcohol dehydrogenases, substituent effects (horse), 6. 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial duction, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Annatabine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic Biomimetic reactions tumor inhibitors, with SH compounds and enzymes, 6, 287 Biosynthesis papaverrine, stereospecificity, 6, 43 vitamin B ₁₂ , mechanism, 6, 397 Biotin catalysis, 6, 79 models, 6, 79 Brønsted plot, deviation, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with benzo[a]pyrene quinones, 6, 415 Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79		
tumor inhibitors, with SH compounds and enzymes, 6, 287 Biosynthesis papaverine, stereospecificity, 6, 43 vitamin B ₁₂ , mechanism, 6, 397 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial duction, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Anatabine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic tumor inhibitors, with SH compounds and enzymes, 6, 287 Biosynthesis papaverine, stereospecificity, 6, 43 vitamin B ₁₂ , mechanism, 6, 397 Biotin catalysis, 6, 79 models, 6, 79 Bronsted plot, deviation, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with benzo[a]pyrene quinones, 6, 415 Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Carboxyl Antitumor antibiotic		
Alkylation reductive: liver alcohol dehydrogenases, substituent effects (horse), 6, 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial production, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Anatabine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic renzymes, 6, 287 Biosynthesis papaverine, stereospecificity, 6, 43 vitamin B ₁₂ , mechanism, 6, 397 Biotin catalysis, 6, 79 models, 6, 79 Brønsted plot, deviation, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with benzo[a]pyrene quinones, 6, 415 Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79		
reductive: liver alcohol dehydrogenases, substituent effects (horse), 6, 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial production, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Anatabine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic Allenic thioester vitamin B ₁₂ , mechanism, 6, 397 Biotin catalysis, 6, 79 models, 6, 79 Brønsted plot, deviation, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with benzo[alpyrene quinones, 6, 415 Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79		
stituent effects (horse), 6, 117 Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial production, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic Antitumor antibiotic Aminoacyl-tRNA catalyzed by crotonase, 6, 49 Biotin catalyzis, 6, 79 models, 6, 79 Brønsted plot, deviation, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with benzo[alpyrene quinones, 6, 415 Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by a-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79	•	
Allenic thioester hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial production, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic vitamin B ₁₂ , mechanism, 6, 397 Biotin catalysis, 6, 79 models, 6, 79 Brønsted plot, deviation, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with benzo[a]pyrene quinones, 6, 415 Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by a-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79		·
hydration, catalyzed by crotonase, 6, 49 Aminoacyl-tRNA ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial production, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic Biotin catalysis, 6, 79 models, 6, 79 Brønsted plot, deviation, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with benzo[a]pyrene quinones, 6, 415 Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by a-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79	Allenic thioester	
ribosomes, binding, 6, 103 2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial production, 6, 263 Ammonium cleavage, 6, 127 Anabasine cleavage, 6, 127 Anatabine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic models, 6, 79 Brønsted plot, deviation, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with benzo[alpyrene quinones, 6, 415 Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by a-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79	hydration, catalyzed by crotonase, 6, 49	
2-Amino-4-keto-3-methylpentanoic acid vitamin B ₁₂ antimetabolite, microbial production, 6, 263 Ammonium cleavage, 6, 127 ions, association with oxyanions, 6, 181 Anabasine cleavage, 6, 127 t-Butylthiol reactions with benzo[alpyrene quinones, 6, 415 biosynthesis, 6, 273 Anatabine closynthesis, 6, 273 Announcement clademic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic antib		catalysis, 6 , 79
vitamin B ₁₂ antimetabolite, microbial production, 6, 263 Ammonium close sassociation with oxyanions, 6, 181 Anabasine closynthesis, 6, 273 Anatabine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic plots, deviation, 6, 13 m-t-Butylphenyl acetate cleavage, 6, 127 t-Butylthiol reactions with benzo[alpyrene quinones, 6, 415 Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by a-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79		models, 6 , 79
duction, 6, 263 Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Anatabine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic m-i-Butylphenyl acetate cleavage, 6, 127 i-Butylthiol reactions with benzo[a]pyrene quinones, 6, 415 c Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by a-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79		Brønsted
Ammonium ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Anatabine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic cleavage, 6, 127 I-Butylthiol reactions with benzo[a]pyrene quinones, 6, 415 C Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by a-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79		plot, deviation, 6, 13
ions, association with oxyanions, 6, 181 Anabasine biosynthesis, 6, 273 Anatabine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic		m-t-Butylphenyl acetate
Anabasine reactions with benzo[alpyrene quinones, 6, 415 biosynthesis, 6, 273 Anatabine biosynthesis, 6, 273 Announcement Calcium Academic space experiments, 6, 219 transport, intestine (rat), 6, 203 Antibiotic y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic transfer reactions, biotin mediated, 6, 79		cleavage, 6 , 127
biosynthesis, 6, 273 Anatabine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79		•
Anatabine biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79		reactions with benzo[a]pyrene quinones, 6, 415
biosynthesis, 6, 273 Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic Antitumor antibiotic Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79	· · · · · · · · · · · · · · · · · · ·	
Announcement Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic Calcium transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79		С
Academic space experiments, 6, 219 Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic Antitumor antibiotic transport, intestine (rat), 6, 203 y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79	•	
Antibiotic antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic Antitumor antibiotic Antitumor antibiotic y-Carbomethoxy-y-valerolactone hydrolysis by \alpha-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79		
antitumor, maytansine: reactions with DNA, 6, 453 Antitumor antibiotic hydrolysis by α-chymotrypsin, 6, 329 Carboxyl transfer reactions, biotin mediated, 6, 79		
453 Carboxyl Antitumor antibiotic transfer reactions, biotin mediated, 6, 79		
Antitumor antibiotic transfer reactions, biotin mediated, 6, 79		
	135	•
maytansine, reactions with DNA, 6, 453 Catalysis Acute Acute Catalysis		·
Aorta enzyme model, as sulfotransferase, 6, 95		
microsomes, prostaglandin I ₂ biosynthesis (dog), general base, ester hydrolysis, 6 , 13 intramolecular nucleophilic, 6 , 71		
Arene oxides nucleophilic and general basic, 6 , 323		
in biosynthesis, 6 , 393 of oxime group, 6 , 95		· · · · · · · · · · · · · · · · · · ·

¹ Boldface numbers indicate volume; lightface numbers indicate pagination.

Catalysis continued	5-Deoxypyridoxal
polyethylenimine, 6 , 165	catalyzed reactions, effects of Zn2+ and Cu2+, 6,
Charge-relay	31
system	Dienes
model, 6 , 13	from enones via tosylhydrazones. 6, 203
in serine esterases, cycloamylose as probe, 6,	Dihydroflavin
127	-dependent monooxygenase, oxygen activation
Chitooligosaccharides	by, 6 , 421
preparation, 6, 483	1,4-Dihydropyridines
Chlorodinitrobenzoate	anisochronity of C-4 protons, 6, 403
substitution, 6, 165	1α,25-Dihydroxyvitamin D ₃
Cholesterol	active analog, synthesis, 6 , 203
biosynthesis, role of lanost-8-ene-3 β , 32-diol, 6 , 473	Dimethylallylpyrophosphate
a-Chymotrypsin	diversion from polyisoprenoid to cyclopiazonic
hydrolysis of	acid biosynthesis (mold), 6 , 53
γ -carbomethoxy- γ -valerolactone by, 6 , 329	Dimethylallyltransferase
D-pyroglutamate esters by, 6 , 329	primary and secondary (mold), 6, 53
substrates in active site of, 6, 329	2,4-Dinitrophenyl sulfate hydrolysis, 6 , 95
Circular dichroism	Displacement reaction
p-nitrophenolate cycloamylose complexes, 6 ,	tumor inhibitors, with SH group, 6, 287
465	DNA
Conformation	reactions with maytansine, 6, 453
folded, slow interconversion, 6, 403	reactions with may tansme, 0 , 455
solution, ionophore A23187 and Mg salt, 6, 1	
Copper	
effects of Zn ²⁺ and Cu ²⁺ on 5-deoxypyridoxal	E
catalyzed reactions, 6, 31	
Crotepoxide	Electrophilic addition
biosynthesis, 6, 393	tumor inhibitors, to SH group, 6, 287
Crotonase	Enzyme
liver, catalyzes hydration of allenic thioesters	arginine at active sites, 6, 181
(cattle), 6 , 49	model catalysis, as sulfotransferase, 6, 95
Cyanoborohydride	Equilibrium constants
immonium salt reduction, 6, 89	guanidinium and ammonium ions with oxy-
Cycloamylose	anions, 6, 181
-accelerated cleavage of acylimidazoles, 6, 323	Ergot alkaloid biosynthesis, 6 , 443
induced optical activity in substrates, 6, 465	Ester
as probe, charge-relay system, 6, 1276	hydrolysis, model for charge relay, 6, 13
a-Cyclodextrin	Ester side chain
in m-t-butylphenyl acetate cleavage, 6, 127	antitumor activity, as enhancement factor, 6, 287
Cyclopiazonic acid	antitation delivity, as emianoement factor, 0, 207
biosynthesis (mold), 6, 53	
β-Cyclopiazonic acid synthetase	_
in biosynthesis (mold), 6, 53	G
Cysteine adduct of pseudouridine, 6, 103	Calle and I
nucleophilic substitution by, 6 , 431	Geldanaldehyde
Cytotoxicity	hydrazones and oximes of, synthesis, 6, 341
geldanamycin and derivatives, 6, 341	Geldanamycin
gramming our and dolly duy bo, U, 571	aromatic chromophore of, 6, 353 hydrazones and oximes of gelanaldehyde, 6, 341
.	phenazine and phenoxazinone derivatives, syn-
D	thesis, 6, 353
3-Deoxy-1α-hydroxyvitamin D ₃	General base catalysis
synthesis and bioassay, 6, 203	ester hydrolysis. 6. 13

Guanidinium	L
ions, association with oxyanions, 6, 181	*
5'-Guanylylimidodiphosphate	Lactate dehydrogenase
stabilization of adenylate cyclase, 6, 223	model reaction, stereochemistry, 6, 21
	Lanost-8-ene-3 β , 32-diol
	role in cholesterol biosynthesis, 6 , 473
Н	Lanosterol
••	demethylation, 6, 473
Hihg-pressure liquid chromatography	formic acid from, 6, 473
racemization analysis in peptide synthesis, 6 , 239	hydroxylated intermediates, 6 , 473
Hydration	Leucine
allenic thioesters, catalyzed by crotonase, 6 , 49	in indole alkaloid biosynthesis, 6, 511 L-Leucine
Hvdrocarbons	
carcinogenic, quinone metabolites, 6, 415	as reversant of B ₁₂ antagonist, 6 , 263
Hydrogen bonding	Lithio-N-methylethylenethiourea model for isourea form of biotin, 6 , 79
antitumor activity, as enhancement factor, 6, 287	Lithio-N-methylethyleneurea
Hydrolysis	model for isourea form of biotin, 6 , 79
amides, acylimidazoles by cycloamylose, 6, 323	Liver
2,4-dinitrophenyl sulfate, 6, 95	alkylated alcohol dehydrogenases, substituent
Hydrolysis	effects (horse), 6 , 117
ester, model for charge relay, 6, 13	crotonase, catalyzes hydration of allenic thio-
mechanism	esters (cattle), 6 , 49
N-phenylphthalamic acid. 6, 71	Lysine
phthalamic acid, 6, 71	nucleophilic substitution by, 6, 431
methyl D-pyroglutamates by α -chymotrypsin, 6 ,	Lysozyme
329	catalysis, substrate distortion in, 6, 483
5-Hydroxyprostacyclines	synthetic substrates, 6, 483
in prostaglandin I ₂ biosynthesis, 6 , 311	
	М
	1 V1
I	Magnesium
Indole alkaloid	Magnesium salt of ionophore A23187, solution conformation, 6, 1
Indole alkaloid biosynthesis, 6, 511	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra
Indole alkaloid biosynthesis, 6, 511 In Memoriam	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine calcium transport (rat), 6, 203	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine calcium transport (rat), 6, 203 Ionophore A23187	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine calcium transport (rat), 6, 203	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191 Metal ion
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine calcium transport (rat), 6, 203 Ionophore A23187 and Mg salt, solution conformation, 6, 1 Isoboldine	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191 Metal ion induced reaction specificity, vitamin B ₆ models,
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine calcium transport (rat), 6, 203 Ionophore A23187 and Mg salt, solution conformation, 6, 1 Isoboldine from reticuline with rat liver enzyme, 6, 249	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191 Metal ion induced reaction specificity, vitamin B ₆ models, 6, 31
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine calcium transport (rat), 6, 203 Ionophore A23187 and Mg salt, solution conformation, 6, 1 Isoboldine from reticuline with rat liver enzyme, 6, 249 Isobutyrate	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191 Metal ion induced reaction specificity, vitamin B ₆ models, 6, 31 L-Methionine
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine calcium transport (rat), 6, 203 Ionophore A23187 and Mg salt, solution conformation, 6, 1 Isoboldine from reticuline with rat liver enzyme, 6, 249	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191 Metal ion induced reaction specificity, vitamin B ₆ models, 6, 31 L-Methionine as reversant of B ₁₂ antagonist, 6, 263
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine calcium transport (rat), 6, 203 Ionophore A23187 and Mg salt, solution conformation, 6, 1 Isoboldine from reticuline with rat liver enzyme, 6, 249 Isobutyrate metabolism in <i>P. putida</i> , 6, 191	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191 Metal ion induced reaction specificity, vitamin B ₆ models, 6, 31 L-Methionine as reversant of B ₁₂ antagonist, 6, 263 Methyl D-pyroglutamates
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine calcium transport (rat), 6, 203 Ionophore A23187 and Mg salt, solution conformation, 6, 1 Isoboldine from reticuline with rat liver enzyme, 6, 249 Isobutyrate metabolism in P. putida, 6, 191 Isochorismic acid	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191 Metal ion induced reaction specificity, vitamin B ₆ models, 6, 31 L-Methionine as reversant of B ₁₂ antagonist, 6, 263 Methyl D-pyroglutamates 5-carbomethoxy-2-pyrrolidones, hydrolysis by α -
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine calcium transport (rat), 6, 203 Ionophore A23187 and Mg salt, solution conformation, 6, 1 Isoboldine from reticuline with rat liver enzyme, 6, 249 Isobutyrate metabolism in P. putida, 6, 191 Isochorismic acid intramolecular cyclization, 6, 393	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191 Metal ion induced reaction specificity, vitamin B ₆ models, 6, 31 L-Methionine as reversant of B ₁₂ antagonist, 6, 263 Methyl D-pyroglutamates 5-carbomethoxy-2-pyrrolidones, hydrolysis by a- chymotrypsin, 6, 329
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine calcium transport (rat), 6, 203 Ionophore A23187 and Mg salt, solution conformation, 6, 1 Isoboldine from reticuline with rat liver enzyme, 6, 249 Isobutyrate metabolism in P. putida, 6, 191 Isochorismic acid intramolecular cyclization, 6, 393 Isopentenyl pyrophosphate isomerase	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191 Metal ion induced reaction specificity, vitamin B ₆ models, 6, 31 L-Methionine as reversant of B ₁₂ antagonist, 6, 263 Methyl D-pyroglutamates 5-carbomethoxy-2-pyrrolidones, hydrolysis by a- chymotrypsin, 6, 329 Microsomes
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine calcium transport (rat), 6, 203 Ionophore A23187 and Mg salt, solution conformation, 6, 1 Isoboldine from reticuline with rat liver enzyme, 6, 249 Isobutyrate metabolism in P. putida, 6, 191 Isochorismic acid intramolecular cyclization, 6, 393 Isopentenyl pyrophosphate isomerase	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191 Metal ion induced reaction specificity, vitamin B ₆ models, 6, 31 L-Methionine as reversant of B ₁₂ antagonist, 6, 263 Methyl D-pyroglutamates 5-carbomethoxy-2-pyrrolidones, hydrolysis by a- chymotrypsin, 6, 329
Indole alkaloid biosynthesis, 6 , 511 In Memoriam Kupchan, S. M., 6 , 221 Intestine calcium transport (rat), 6 , 203 Ionophore A23187 and Mg salt, solution conformation, 6 , 1 Isoboldine from reticuline with rat liver enzyme, 6 , 249 Isobutyrate metabolism in <i>P. putida</i> , 6 , 191 Isochorismic acid intramolecular cyclization, 6 , 393 Isopentenyl pyrophosphate isomerase structure, size and properties (mold), 6 , 53	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191 Metal ion induced reaction specificity, vitamin B ₆ models, 6, 31 L-Methionine as reversant of B ₁₂ antagonist, 6, 263 Methyl D-pyroglutamates 5-carbomethoxy-2-pyrrolidones, hydrolysis by a- chymotrypsin, 6, 329 Microsomes aorta, prostaglandin I ₂ biosynthesis (dog), 6, 311 Model
Indole alkaloid biosynthesis, 6, 511 In Memoriam Kupchan, S. M., 6, 221 Intestine calcium transport (rat), 6, 203 Ionophore A23187 and Mg salt, solution conformation, 6, 1 Isoboldine from reticuline with rat liver enzyme, 6, 249 Isobutyrate metabolism in P. putida, 6, 191 Isochorismic acid intramolecular cyclization, 6, 393 Isopentenyl pyrophosphate isomerase	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191 Metal ion induced reaction specificity, vitamin B ₆ models, 6, 31 L-Methionine as reversant of B ₁₂ antagonist, 6, 263 Methyl D-pyroglutamates 5-carbomethoxy-2-pyrrolidones, hydrolysis by a- chymotrypsin, 6, 329 Microsomes aorta, prostaglandin I ₂ biosynthesis (dog), 6, 311
Indole alkaloid biosynthesis, 6 , 511 In Memoriam Kupchan, S. M., 6 , 221 Intestine calcium transport (rat), 6 , 203 Ionophore A23187 and Mg salt, solution conformation, 6 , 1 Isoboldine from reticuline with rat liver enzyme, 6 , 249 Isobutyrate metabolism in <i>P. putida</i> , 6 , 191 Isochorismic acid intramolecular cyclization, 6 , 393 Isopentenyl pyrophosphate isomerase structure, size and properties (mold), 6 , 53	Magnesium salt of ionophore A23187, solution conformation, 6, 1 Mass spectra vitamin D analogs, 6, 203 Maytansine reactions with DNA, 6, 453 Metabolism isobutyrate in P. putida, 6, 191 Metal ion induced reaction specificity, vitamin B ₆ models, 6, 31 L-Methionine as reversant of B ₁₂ antagonist, 6, 263 Methyl D-pyroglutamates 5-carbomethoxy-2-pyrrolidones, hydrolysis by a- chymotrypsin, 6, 329 Microsomes aorta, prostaglandin I ₂ biosynthesis (dog), 6, 311 Model charge-relay system, 6, 13

Monooxygenases	P
flavin and pterin dependent, 6, 421	
	Pallidine
	from reticuline with rat liver enzyme, 6, 249
N	Papaverine
***	stereochemistry of aromatization, 6, 43
NAD(H)	stereospecificity in biosynthesis, 6, 43
chiral models, 6, 403	[20]Paracyclophane oxime
Neighboring group participation	enzyme model, 6, 95
antitumor activity, as enhancement factor, 6, 287	Penicillium cyclopium
Nicotinamide adenine dinucleotide	cyclopiazonic acid biosynthesis, 6, 53
reduced, model compounds, 6, 21	2-(4-Pentyl)-2-cyclohexenol
spin-labeled analog, preparation, 6, 157	cyclization, 6, 257
Nicotinamide adenine dinucleotide phosphate	Peptide
reduced, model compounds, 6, 21	covalent linking to nucleic acids, 6, 431
Nicotine	synthesis, racemization studies, 6, 239
biosynthesis, 6, 273	Phenazine
[5.6-13C ₂]Nicotinic acid	and phenoxazinone derivatives of geldanamycin,
synthesis, 6 , 273	polymerase inhibition, 6, 353
p-Nitrophenolate cycloamylose	a-Phenyl-a-aminomalonic acid
complexes, structure: circular dichroism studies,	5-deoxypyridoxal catalyzed reactions, effects of
6 , 465	Zn^{2+} and Cu^{2+} , 6, 31
Nornicotine	N-Phenylphthalamic acid
biosynthesis, 6, 273	hydrolysis, mechanism, 6 , 71
Norreticuline	Phosphate
stereospecifically labeled, 6, 43	association to guanidinium ion, 6 , 181
Nuclear magnetic resonance	Photooxygenation
¹³ C, tobacco alkaloids, 6, 273	arene oxides in biosynthesis, 6, 393
¹ H	Phthalamic acid
chiral pyridine dinucleotide models, 6, 403	
ionophore A23187 and Mg salt, 6, 1	hydrolysis, mechanism, 6, 71
spectra, vitamin D analogs, 6, 203	Phthalic anhydride
Nucleic acids	intermediate in phthalamic acid hydrolysis, 6 , 71
covalent linking of peptides to, 6, 431	Pipoxide
Nucleophilic substitution	biogenesis, 6 , 393
at C-2 of S-alkylated 2-thiocytidines by cysteine	Polyethylenimine
and lysine, 6 , 431	modified, catalysis of nucleophilic substitution reactions of azide ions, 6, 165
	Polyisoprenoid
` 0	biosynthesis (mold), 6, 53
	Polymerase
Octopine	reverse transcriptase, of Rauscher leukemia
stereochemistry, 6, 89	virus: inhibition by derivatives of geldana-
Octopine dehydrogenase	mycin, 6 , 341
substrate, 6, 89	RNA-dependent DNA (RDDP) from Rauscher
Oxenoid	leukemia virus, inhibition, 6, 353
intermediate, $C_{4a}-C_{10a}$ perepoxy flavin, $C_{4a}-C_{8a}$	Prostacycline
perepoxy pterin, 6, 421	synthesis, 6 , 311
Oxime	Prostaglandin I ₂
macrocyclic, in 2,4-dinitrophenyl sulfate hydro-	biosynthesis, 6, 311
lysis, 6 , 95	Protein
Oxyanions	interaction with nucleic acids, 6, 431
association with guanidinium and ammonium ions, 6, 181	Protoberberines from reticuline with rat liver enzyme, 6 , 249
Oxygen	Pseudomonas putida
activation, mechanism, 6, 421	isobutyrate metabolism 6, 191

SUBJECT INDEX

Pseudouridine cysteine adduct, 6, 103 Pyridine dinucleotide chiral models, 6, 403 Pyrimidines from nucleophilic substitution, 6, 431 D-Pyroglutamate esters hydrolysis by \alpha-chymotrypsin, 6, 329	Sulfotransferase model, 6 , 95 Synthesis pyrolysis, 3-(\alpha,\alpha-dimethylallyl)indolines, 6 , 443
R	Tetrahydropterin -dependent monooxygenase, oxygen activation by, 6, 421
Racemization analysis in peptide synthesis by HPLC, 6, 239 Rat liver enzyme phenol oxidation of reticuline, 6, 249 Reaction specificity metal ion induced, vitamin B ₆ models, 6, 31 Reduction by NAD(P)H model, 6, 21 Reductive alkylation liver alcohol dehydrogenases, substituent effects (horse), 6, 117 Reticuline phenol oxidation with rat liver enzyme, 6, 249	2-Thiocytidine nucleophilic substitution at C-2 by cysteine and lysine, 6 , 431 Transcarboxylation biotin mediated, 6 , 79 Tricyclo[5.4.0.0 ^{3.8}]undecane ring system, synthesis, 6 , 257 Tumor inhibitors, SH-alkylating, 6 , 287
RNA transfer chemistry, 6, 431 ribosomes, binding, 6, 103	Uro'gen III → cobyrinic acid transformation, mechanism, 6, 397
. S	v
Senopoxide biogenesis, 6, 393 Solution conformation ionophore A23187 and Mg salt, 6, 1 Spectrophotometry phthalic anhydride as intermediate, detection, 6, 71 Spin -labeling, nicotinamide adenine dinucleotide analogs, 6, 157 Spin-spin coupling of contiguous ¹³ C atoms, tobacco alkaloids, 6, 273 Stereochemistry isobutyrate in P. putida, 6, 191 lactate dehydrogenase-model reaction, 6, 21 octopine and isomers, 6, 89 Stereospecificity in papaverine biosynthesis, 6, 43 Substituent effects alkylated liver alcohol dehydrogenases (horse), 6, 117	γ-Valerolactone γ-carbomethoxy, hydrolysis by α-chymotrypsin, 6, 329 Verarine synthesis, 6, 371 Veratramine synthesis, 6, 371 Veratrobasine synthesis, 6, 371 Veratrum alkaloids synthesis, 6, 371 Verticine synthesis, 6, 371 Verticine synthesis, 6, 371 Vinca rosea vindoline biosynthesis in, 6, 511 Vindoline biosynthesis, 6, 511 oxidation, 6, 511 Vitamin B ₆ model systems, metal ion induced reaction selectivity, 6, 31

Vitamin B₁₂
antimetabolite, microbial production, **6**, 263
biosynthesis, mechanism, **6**, 397
Vitamin D
3-deoxy analogs, nmr and mass spectra, **6**,
203

Zinc effects of Zn²⁺ and Cu²⁺ on 5-deoxypyridoxal catalyzed reactions, 6, 31 ion, function in alcohol dehydrogenase catalysis, 6, 137