

- M. Mintas and  
W. G. Filby**      **Surface Charging of Zinc Oxide During  
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- The magnitude of the charge is 0.4 to 0.6 eV at room temperature and decreases at higher temperatures to almost zero . . . . .
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I. Butula,  
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V. Vela

**Reaktionen mit 1-Benzotriazolcarbon-  
säurechlorid. VII. Die Umsetzung mit  
Aminosäuren**

Das 1-Benzotriazolcarbonsäurechlorid reagiert mit Aminosäuren unter Bildung von *N*-(1-Benzotriazolylcarbonyl)-aminosäuren am besten in Dioxan .

435—440

B. Zorc und  
I. Butula

**Reaktionen mit *N*-(1-Benzotriazolyl-  
carbonyl)-aminosäuren. I. Synthese von  
Hydantoinen und Hydantoinensäure-ami-  
den**

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K. Tabaković  
and  
I. Tabaković

**Electrochemical Synthesis of Hetero-  
cyclic Compounds. XI. Annellation of  
Coumarin Ring via Cathodic Reduction  
of 3-Nitrocoumarin Derivatives**

The reaction of the carbonyl compound, as an electrophile, with an electrochemically generated amino group as a nucleophile has been studied by employing the annellation of the coumarin ring via cathodic reduction of 3-nitrocoumarin derivatives by controlled potential. The reduction reactions of several 3-nitrocoumarin derivatives are described . . . . .

451—458

V. C. Koshy  
and  
S. G. Tandon

**Extractive Spectrophotometric Determi-  
nation of Vanadium(V) with *N*-*p*-Chlo-  
rophenyl-2-naphthohydroxamic Acid  
and Investigation of Its Solid Complex**

The extractive spectrophotometric determination of vanadium(V) by using *N*-*p*-chlorophenyl-2-naphthohydroxamic acid is described as a simple, selective and sensitive quantitative method. The solid complex,  $\text{VOCl}(\text{C}_{17}\text{H}_{11}\text{NO}_2\text{Cl})_2$ , was prepared and characterised by melting point, elemental analysis, visible and infrared spectra . . . . .

459—464

**R. Kant,  
R. Srivastava,  
and  
O. Prakash**

**Palladium Ternary Complex with Chromeazurool S and Cetyltrimethylammonium Bromide and Cetylpyridinium Bromide**

Formation of green coloured ternary complexes between palladium, chromeazurool S and cetyltrimethylammonium bromide or cetylpyridinium bromide has been studied and proposed as a spectrophotometric method for micro-determination of palladium. The method is described as sensitive, precise and selective . . . . .

465—472

**V. Simeon,  
Z. Radić, and  
E. Reiner**

**Inhibition of Cholinesterases by the Oximes P2AM and Toxogonin**

The reversible inhibition of electric eel acetylcholinesterase by P2AM (2-(hydroxyamino)methyl-1-methyl-pyridinium chloride) and Toxogonin (1,1'-[oxybis(methylene)]bis (4-(hydroxyimino)-methyl-pyridinium dichloride) was studied using acetylthiocholine as substrate. The correlation between the degree of inhibition and acetylcholine and oxime concentrations fits a theoretical model which postulates that the substrate and the inhibitor bind to two sites on the enzyme: the catalytic site and an allosteric, substrate-inhibition site . . . . .

473—480

**S. Lapanje,  
M. Simič, and  
A. Pavlič**

**Interactions of  $\alpha$ -Chymotrypsinogen A with Some Alkylureas**

The interactions of  $\alpha$ -chymotrypsinogen A with urea, methyl-, *N,N'*-dimethyl-, ethyl-, *N,N'*-diethyl-, and propylurea were studied by means of calorimetry and circular dichroism. The transfer of the protein from water to aqueous urea and methylurea solutions is accompanied by release of heat, whereas the transfer of the same protein to solutions of other alkylureas is characterized by consumption of heat. The alkylureas are found to be less efficient denaturants than urea . . . . .

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