TABLE OF CONTENTS OF VOLUME 28 (1981)

Number 1	P. MISAELIDES (Manchester) Excitation Functions for ¹² C-Induced Reactions on ⁹³ Nb	W. M. KHALIFA, A. A. EL MILIGY and M. M. ABDEL-AZIZ (Cairo) Straight Radiation Vulcanization of Five Diene Based Rubbers		
	D. BHATTA, S. R. MOHANTY and K. C. SAMAN-	SYED MOOSA HASANY and ZAHID UMAR (Rawalpindi) Search for the Optimal Conditions for the Extraction of Mercury from Aqueous Thiocyanate-Nitrate Solutions by Diphenyl-2-Pyridylmethane in Benzene 43		
	TARAY (Bhubaneswar) Annealing of Chemical Radiation Damage in Potassium and Caesium Bromates 1 E. IANOVICI, P. LERCH, G. ZAHNER (Lausanne and A. G. MADDOCK (Cambridge) Chemical Effects of Isomeric Transition of 95mTc in Inorganic Tc(IV)-Complexes 2 A. KRÜGER and K. H. LIESER (Darmstadt) On the Preparation of 99Mo of High Specific Activity by Szilard-Chalmers Reactions 2 P. BENEŠ, A. S. SANYAL, Z. KRIŠTOFIKOVÁ and M. OBDRŽÁLEK (Praha) Radiotracer Study of Lead Adsorption on Glass from Very Dilute Aqueous Solutions 3	Studies of the Chemical Behavior of Carrier-Free 68 Ge. I. Purification by Distillation from Acidic Chloride Solutions 47 J. D. BAKER, R. J. GEHRKE, R. C. GREEN- WOOD and D. H. MEIKRANTZ (Idaho Falls, Idaho) Rapid Separation of Individual Rare-Earth Elements from Fission Products 51 S. A. EL-FEKEY, M. Y. FARAH and N. H. ROFAIL (Cairo) Some Aspects on Fluorination of UO ₂ Using		
Number 2 E. IANOVICI, P. LERCH, Z. PROSO, G. ZAHNER (Lausanne) and A. G. MADDOCK (Cambridge), Chemical Effects of the Nuclear Isomeric Transition 95mTc-95Tc in Some Solid Pertechnetates 5 G. A. BRINKMAN, F. M. KASPERSEN and J. TH. VEENBOER (Amsterdam), Reaction of Recoil 38CI Atoms with Liquid Chlorobenzenes 6		(Rome), Gas-Phase Acylation Reactions. Acetylation of Phenols by Radiolytic CH ₃ CO ⁺ lons 87 O. J. HEINONEN, J. LEHTO and J. K. MIETTINEN (Helsinki), Sorption of Strontium(II) and Radio Strontium lons on Sodium Titanate 93		
	J. N. KHANVILKAR, A. T. M. SHARIFULLAH, B. R. KUNDALKAR and A. J. MUKHEDKAR (Pune) (n, γ) Reactions of Metal Complexes-III. Isothermal Annealing of Halide in 3-Halo-2,4-pentanedionates 6 B. VEKIĆ, M. VLATKOVIĆ and L.J. ĐUMIJA (Zagreb), Chemical Effects of Gamma Irradiation in Sodium Chloride with Incorporated Iodide (¹³¹ I), Part I. Identification of Interhalogen Species 7	Phosphate 97 GANN TING and TE-WEI LEE (Lung-Tan), Extraction of Uranium (VI) from Phosphoric Acid by Mono-(2-Ethylhexyl) Phosphoric Acid and Neutral Organophosphorus Synergist in Kerosene Diluent 103 R. SCHIEDER, K. H. SORGALLA and W. HERR (Köln), The Determination of Osmium Isotope		
	B. VEKIĆ and M. VLATKOVIĆ (Zagreb), Chemical Effects of Gamma Irradiation in Sodium Chloride with Incorporated Iodide (¹³¹ I), Part II. Effects of Iodine Concentration and of Thermal Annealing	M. A. KHILLA, S. A. EL-FEKEY and M. EL-MAMOON YAHIA (Cairo), Electrical Conductivity of Some Uranium Oxides in the		

255

Number 3	YU. M. KULYAKO, V. YA. FRENKEL, I. A. LEBEDEV, T. I. TROFIMOV, B. F. MYASOEDOV, and A. N. MOGILEVSKII (Moscow) Oxidation Potential of Bk (IV)-Bk (III) System and Stability of Bk (IV) in Sulfuric Acid Solutions 119 SHIGERU IKUTA (Tokyo) and MASASHI		D. J. PRUETT (Oak Ridge, Tennessee) The Solvent Extraction Behavior of Technetium. Part I. The Nitric Acid-Tri-n-butyl Phosphate System 153 M. Y. MIRZA, F. IK. NWABUE, and S. AHMED (Nsukka) Solvent Extraction of Zr (IV) and Nb (V) with		
	IMAMURA (Saitama) Theoretical Study on the Proton Transfer Following the β^- -Decay in Tritiated Hydrogen Bonded Systems	123	1-Phenyl-3-methyl-4-benzoyl-pyrazole-5-one a Tri-iso-octylamine from Different Mineral Acid Solutions. Separation of Niobium from Zirconium		
	K. D. VAN DER LINDE, S. SPOELSTRA-VAN BALEN, A. H. W. ATEN Jr., and F. M. KASPER- SEN (Amsterdam) Chemistry of Nuclear Recoil ¹⁸ F-Atoms in Gaseous Fluoroethanes Using the ¹⁹ F(p, pn) ¹⁸ F Reaction 129		A. T. KANDIL and K. FARAH (Cairo) Thermodynamic Studies of TOPO Adducts of Thulium Tris-TTA Chelates in Various Solvents 163 A. T. KANDIL and K. FARAH (Cairo)		
	K. D. VAN DER LINDE, S. SPOELSTRA-VAN BALEN, A. H. W. ATEN Jr., and F. M. KASPER SEN (Amsterdam) Reactions of ¹⁸ F Recoil Atoms in Gaseous CF ₃ − CF ₃ and CF ₃ − CF ₂ H R. N. BHAVE and B. S. M. RAO (Pune) Reactions of Recoil Halogens in Binary Organic Liquids M. N. CHEEMA, M. MUFAZZAL SAEED, ABID ALI, and I. H. QURESHI (Nilore, Rawalpindi) Radiochemical Separation of Fe (III), Co (II), Zn (II) and Sc (III) Using 2-Thenoyltrifluoroacetone-Tribenzylamine Synergic Extraction System	٦-	On the Thermodynamics of Formation of Tm(TTA) ₃ (TOPO) ₃	169	
		137	AL CECAL (Splai Bahlui) and D. CIOBANU (la Radiochemical Study of the Corrosion of Som Steel Samples of the Type OLC-15, OL-37, OLC-45, and OL-60 in Different Aggressive Media		
			G. PFREPPER, H. MAI, M. HERRMANN, and H. LANGGUTH (Leipzig) The Resistance of Ion Exchangers to Nitric A and Radiation. III. Investigations of the Resistance of the WofMC 50 Type Chelating Ion Exchanger to Gamma Radiation in the Air-dr State and in Nitric Solutions	-	
Number 4			∟ISSUE ot Atom Chemistry	,	
	D. S. URCH (London) Recent Developments in Gas-Phase Hot Atom Chemistry	183	EDWARD P. RACK (Lincoln and Omaha, Net Liquid Phase Hot Atom Chemistry: At Cross- roads		
	PETER P. GASPAR (St. Louis, Mo.) and JOW. ROOT (Davis, Calif.) Chemical Kinetics and Hot Atom Chemistre Present Status and Future Perspectives		HORST MÜLLER (Freiburg i. Br.) Hot Atom Chemistry in Inorganic Solids – The Present Status and Future Aspects	233	
	P. M. KROGER and J. T. MUCKERMAN (Up N. Y.) Quasiclassical Trajectory Study of Hot-Atom	ton,	DEZSÖ HORVÁTH (Budapest) Chemistry of Pionic Hydrogen Atoms	241	
	Reactions of C(1D) with HI	215	Author Index of Volume 28	255	

PREFACE

This issue is the second in a series in which the editors and publisher of Radiochimica Acta wish to present subjects of current topical interest written by experts in their respective fields. Our intention is not to provide comprehensive reviews but rather to focus on the current state of the art in active research areas.

The "10th International Symposium Hot Atom Chemistry" held in Loughborough, provided a forum for a number of the research areas concerned with the chemistry which results from nuclear transformations both from the experimental and theoretical viewpoints. Related areas are also presented and serve to underline the overlap between hot atom chemistry and other chemical research disciplines. Coverage is nevertheless incomplete with a notable lack of discussion of the applied areas. These topics will be included as a part of the next special issue, "Radiochemistry Related to Life Sciences".

No editorial supervision or alteration of the subject matter was imposed in order to allow full scope to the authors viewpoints.

The Editors