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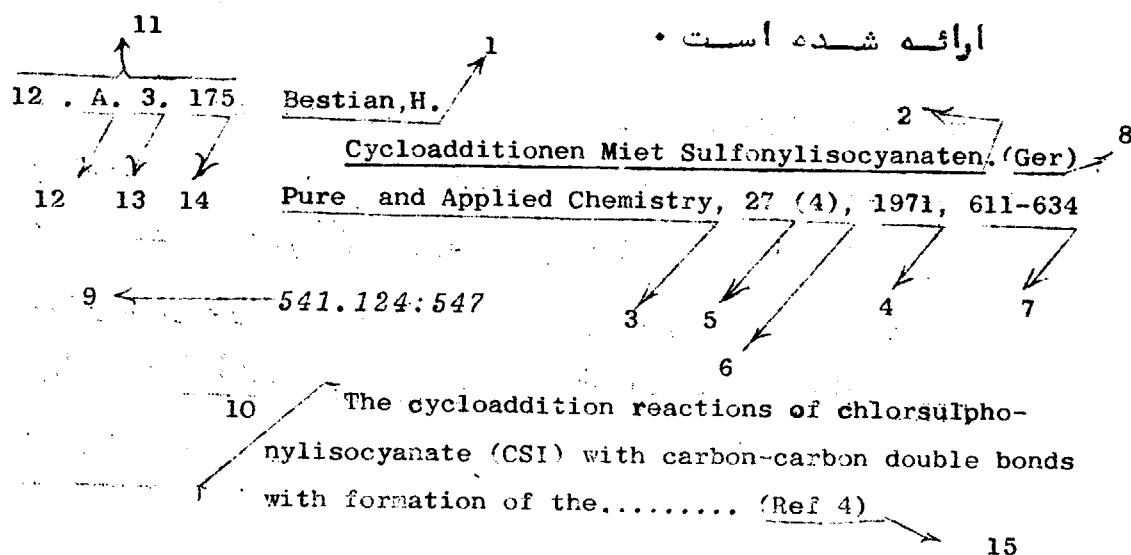
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JOURNALS

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Académie des Sciences, Comptes Rendus Hebdomadaires des
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Acta Biochimica Iranica.

Aminco Laboratory News.

The Analyst.

Annales de Chimie.

Biochimie.

Biochemical Journal

Biochemical Pharmacology

Canadian Journal of Chemistry.

Chemical & Pharmaceutical Bulletin.

Chemical Society Review.

Chemistry in Britain.

Chemistry & Industry.

Collection of Czechoslovak Chemical Communications.

Current Science.

Education in Chemistry,

Ernahrung Umschau.

Exposés Annuels de Biochimie Médicale.

Hoppe-Seyler's Zeitschrift für Physiologische Chemie.

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- 12B.3.151 Holmes, W.H. " The Effect of Fluorine on Pottery Bodies." Transactions and Journal of the British Ceramic Society, 72(1), 1973, 25-29
- 12B.3.152 Roberts, E.W. " Mineralogy of Fluorine in Pottery Raw Materials." Transaction and Journal of the British Ceramic Society, 72(1), 1973, 38
- 12B.3.153 Bessant, K.H.C.; Staudinger, J.J.P. " The Role of Plastics in the Conservation of Resources." Chemistry and Industry, June 16, 1973, 548-551
- 12B.3.154 ———. " Finish for Polyester." International Dyer & Textile Printer, 150(1), 1973, 749
- 12B.3.155 Clarke, A.J.; Bailey, J.E. " Oxidation of Acrylic Fibres for Carbon Fibre Formation." Nature, 243(5403), 1973 146-150

- 12B.3.143 ———. " Contract de \$650 Millions NIGC-Transco Pour
l'Exportation de Methanol et du Gaz Liquefie."
Le Petrole et le Gaz Arabes, 5(110),1973,19
- 12B.3.144 El-Ansary,A.I.;Ezz,S.Y. " Desulphurization of Petroleum
Coke by Butagas." Fuel,52(1),1973,66-70
- 12B.3.145 ———. " Materials for Ceramic Processing," Ceramic
Industry,100(1),1973,31-115
- 12B.3.146 Matkin,D.I. " The Preparation and Treatment of Ceramic
Powders." Transactions and Journal of the British
Ceramic Society,72(2),1973,57-61
- 12B.3.147 Richards,B.P. " Characterization of Mineral Constituents
of Ceramics. by X-Rays." Transaction and Journal of
the British Ceramic Society, 72(6),1973,239-250
- 12B.3.148 Wildblood,N.C. " Fluorine in Ceramic Colours." Trans-
actions and Journal of the British Ceramic Society,
72(1),1973,31-33
- 12B.3.149 McLean,J.W.;Sced,I.R. " Bonding of Dental Porcelain to
Metal I. The Gold Alloy/Porcelain Bond." Transactions
and Journal of the British Ceramic Society, 72(5),
1973,229-232
- 12B.3.150 McLean,J.W.;Sced,I.R. " Bonding of Dental Porcelain to
Metal II. The Base-Metal Alloy/Porcelain Bond."
Transaction and Journal of the British Ceramic
Society, 72(5),1973, 235-238

- 12B.3.134 ———. " The World Sugar Market in 1973." Australian Sugar Journal, 64(10),1973,493-494
- 12B.3.135 Holstein,A.G. " Changes in Carbohydrate Marketing as Affected by Research." Pure and Applied Chemistry, 35(2),1973,169-180
- 12B.3.136 Buchanan,E.J. " An Analysis of the Influence of Sugar Cane Quality on Sugar Recovery." The International Sugar Journal, 75(898),1973,299-303
- 12B.3.137 Kelly,F.H.;Mak,F.K.;Loo,K.C. " A Comparison of Carbonatation and Sulphitation Decolorization in Raw Sugar Syrups." The International Sugar Journal, 75(898),1973,308-310
- 12B.3.138 Evans,R. " A Tritium-Tracer Technique for the Measurement of Oil Consumption in Gasoline and Diesel Engine." International Journal of Applied Radiation and Isotopes, 24(1), 1973, 19-27
- 12B.3.139 Williams,C.S. " Insulated Pipelines Competitive for Transporting Residual Fuel Oil." The Oil and Gas Journal, 71(7),1973,65-67
- 12B.3.140 ———. " La RFA Contribuera à l'Implantation d'Une Raffinerie de 25 millions t/an." La Petrole et le Gaz Arabes, 5(110),1973,18
- 12B.3.141 ———. " Construction d'Une Raffinerie Avec des Intérêts Japonais." Chimie & Industrie,Génie Chimique, 106(15),1973,1059
- 12B.3.142 ———. " L'URSS Pourrait Participer à un Projet de Transport de Gaz Iranian en Europe." Le Pétrole et le Gaz Arabes, 5(110),1973, 19

- 12B.3.123 Bailey, L.D.; Beauchamp, E.G. "Effects of Temperature on NO_3^- and NO_2^- Reduction, Nitrogenous Gas Production, and Redox Potential in a Saturated Soil." Canadian Journal of Soil Science, 53(2), 1973, 213-218
- 12B.3.124 Withamp, M.; Starkey, R.L. "Some Factors Affecting the Determination of Antibiotics in Soil." Soil Science, 115(5), 1973, 376-379
- 12B.3.125 Fliermans, C.B.; Brock, T.D. "Assay of Elemental Sulfur in Soil." Soil Science, 115(2), 1973, 120-122
- 12B.3.126 Hamed, M.G.E.; et al. "Preparation and Chemical Composition of Sweet Potato Flour." Cereal Chemistry, 50(2) 1973, 133-139
- 12B.3.127 Hamed, M.G.E.; et al. "Effect of Adding Sweet Potato Flour to Wheat Flour on Physical Dough Properties and Baking." Cereal Chemistry, 50(2), 1973, 140-146
- 12B.3.128 Taleban, H.; Renner, E. "Untersuchungen Über Kashk, Ein Milchprodukt im Iram." Milchwissenschaft, 27(12), 1972 753-756
- 12B.3.129 ———. "Cooling Tower Operational Problems." Oil & Petrochemical Equipment News, 16(4), 1973, 32-34
- 12B.3.130 Taheri, M.; Haines, G.F. "Optimization of Factors Affecting Scrubber Performance." Journal of Air Pollution Association, 19(6), 1969, 427-431
- 12B.3.131 Taheri, M.; Calvert, S. "Removal of Small Particles from Air by Foam in a Sieve-Plate Column." Journal of Air Pollution Association, 18(4), 1968, 240-245
- 12B.3.132 Magee, J.S.; Blazek, J.J.; Ritter, R.E. "Catalyst Developments in Catalytic Cracking." Oil & Gas Journal, 1973, 71(30) 48-58
- 12B.3.133 Moss, R.L. "Alloy Films of the Platinum Metals as Model Catalysts for Research." Platinum Metals Review, 17(3), 1973, 90-95

List of Titles in

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- 12B.3.112 ———. " A Guide to Corrosion and Its Prevention, (1)." Corrosion Prevention & Control, 20(4), 1973, 7-11
- 12B.3.113 Pery, R.; Robe, K. " \$20,000 Annual Savings Results with Zirconium Heat Exchangers." Chemical Processing, 36(3), 1973, 9
- 12B.3.114 Gelas, B.; Tricot, R.; Castro, R. " Corrosion Inter cristalline du Titane et de Ses Alliages. Observations Sur Joints Soudés." Comptes Rendus de l'Académie des Sciences. C, (24), 1973, 1707-1710
- 12B.3.115 ———. " Surfaces are Epoxy Coated to Repel Chemical Attack." Chemical Processing, 36(3), 1973, 18
- 12B.3.116 ———. " Ball Valve is Fully Ported and Resists Chemicals." Chemical Processing, 36(2), 1973, 34
- 12B.3.117 Dossou, D. " Epoxy Floor Resists Acids, Added Areas Being Treated." Chemical Processing, 36(3), 1973, 16
- 12B.3.118 ———. " Gear Pump Proves Reliable Despite Extreme Demands." Chemical Processing, 36(3), 10, 10
- 12B.3.119 ———. " SO_2 and SO_3 are Kept Dry to Prevent Corrosive Attack." Chemical Processing, 36(3), 11
- 12B.3.120 ———. " Stack Includes Furan Resin for Chemical Resistance. Chemical Processing, 36(2), 1973, 33
- 12B.3.121 Yang, K. " Explosive Interaction of Liquefied Natural Gas and Organic Liquids." Nature, 243(5404), 1973, 221-222
- 12B.3.122 Tennyson, R.N.; Buckingham, P.A. " Synthetic Natural Gas (SNG)." Oil & Gas Journal, 71(16), 1973, 99-102

12A.3.150

Holick, M.F.; et al.

Isotachysterol₃ and 25-Hydroxyisotachysterol₃: Analogs
of 1,25-Dihydroxyvitamin D₃

Science, 180(4089), 1973, 964-966

577.16D₃

Isotachysterol₃, 25-hydroxyisotachysterol₃ and iso-vitamin D₃ have been synthesized and tested for biological activity. Like 1,25-dihydroxyvitamin D₃, isotachysterol₃ stimulates intestinal calcium transport and bone calcium mobilization in anephric rats, whereas 25-hydroxyvitamin D₃ is biologically active in normal rats it is inactive in anephric rats. (Ref 11)

peared in the literature, clinical determinations of certain metabolites and soluble enzymes by means of enzyme electrodes seem quite feasible. Such devices may be made highly specific by the use of appropriate enzymes and a high degree of accuracy can be obtained. Instantaneous and continuous determinations can be made from physiological fluids, and undesirable physiologic responses can theoretically be minimized, thus making long-term clinical monitoring a possibility. Enzyme electrodes may also have a useful lifetime and meet other practical requirements. (Ref 15)

12A.3.149

Krishnamurthy, S.; Kartha, V.N.R.

Vitamin A-Induced Haemolysis and Lipid Peroxidation:
Effect of Vitamin E, D and Antioxidants.

Current Science, 42(7), 1973, 225-227

577.16.A

Vitamin A-induced haemolysis of rabbit and human erythrocytes is inhibited by Vitamins E, D and ascorbic acid, and by glutathione and cysteine. The A-induced haemolysis is not related to lipid peroxidation of the erythrocyte membranes, nor is it due to glutathione instability.

577.1

Biochemistry

12A.3.147

Saeed, S.A.; Warren, B.T.

On the Mode of Action and Biochemical Properties of
Anti-Inflammatory Drugs—I.

Biochemical Pharmacology, 22(16), 1973, 1955-1969

577.1:615.276

The horse-radish peroxidase-hydrogen peroxide (HRP- H_2O_2) catalyzed oxidation of o-dianisidine was inhibited by indomethacin, oxyphenbutazone, nafenamic acid, phenylbutazone and p-acetamidophenol. The greatest inhibitory effect (ID_{50} 0.014 mM) was obtained with indomethacin, and its mode of action in this system has been examined further. The results obtained suggest that indomethacin acted by competing with o-dianisidine for peroxidase and hydrogen peroxide or peroxidasehydrogen peroxide complexes. (Ref 15)

12A.3.148

Gough, D.A.; Andrade, J.D.

Enzyme Electrodes.

Science, 180(4084), 1973, 80-84

577.15[541.135.52]

From the discussion of electrodes and enzymes herein, and from the accounts of enzyme electrodes that have ap-

12A.3.146 Chatterjee,S.K.;Kazemie,M.;Matthaei,H.

Separation of the Ribosomal Proteins by Two-Dimensional Electrophoresis. II.

Hoppe Seyler's Zeitschrift für Physiologische Chemie,(354),
1973,481-486

547.963.3.06

Ribosomal proteins from rabbit reticulocytes were separated by two-dimensional gel electrophoresis. Forty proteins were found in the large subunit, and 33 in the small subunit. The proteins were numbered following the system of Kaltschmidt and Wittmann. (Ref 19)

respectively could be bound. Combined, the large and small subunits synthesized more than 20 times as much polyphenyl-alanine in the poly(U)-coded system as the sum of the separate yields. Purity of the subunits was also checked by RNA analysis in polyacrylamide agarose gels. Proteins extracted from the subunits were separated by electrophoresis in polyacrylamide gels containing either urea or sodium dodecyl sulfate. The approximate molecular weights of 29 protein bands were determined in sodium dodecyl sulfate gels. (Ref 27)

12A.3.145

Granboulan, P.

Maturation du Bactériophage λ Dans des Conditions dissociant la Synthèse des Protéines de Celle du DNA. (Fr)

Biochimie, 55(2), 1973, 143-151

547.963.3.05

Conditions in which the DNA replication of bacteriophage is dissociated from RNA and protein synthesis have been studied. Such a system can be obtained by inducing a thymine deficient bacteria lysogenic for λ in the absence of thymine, then adding thymine with chloramphenicol. It has been demonstrated that the absence of DNA replication allows translation of protein competent for phage assembly. No intermediate structure has been found. The possibility for the phage maturation to take place at the level of the membrane is discussed.

Ser is an unstable hemoglobin with low oxygen affinity. From studies made in the intact cells, the main compensatory mechanism for the decreased oxygen affinity was found to be a Bohr effect, the 2.3 DPG being only moderately high. Moreover the molecular mechanisms of the instability seem to be due mostly to the formation of hemichromes. They appeared exceptionnally fast in Vitro and attained completion within one hour. Even though they were still chemically reducible, they were no longer reducible by a highly purified NADH-methemoglobin reductase preparation.

12A.3.144

Kazemie, M.; Chatterjee, S.K.; Matthaei, H.

Preparation and Characterization of Ribosomal Subunits. (I)

Hoppe-Seyler's Zeitschrift fur Physiologische Chemie, (354), 1973, 417-480

547.963.3.05

Optimum conditions for the preparation of purified and active subunits from rabbit reticulocyte ribosomes were determined. Subunits were obtained by incubation of polysomes with 500mM KCl, 5mM $MgCl_2$ and 0.5mM puromycin. The Mg^{2+}/K^{+} ratio during incubation was critical. The best salt conditions for separation in the sucrose gradient were 500mM KCl and 2.5mM $MgCl_2$. The conditions during collection of the subunits from pooled gradient fractions were studied also. Per nmol of recombined ribosomal subunits, up to 400 and 200 pmol Phe-tRNA^{Phe} and Met-tRNA^{fMet},

be air-dried and powdered before extraction. The main cannabinoids in the extract are determined by g.l.c. using androst-4-ene-3,17-dione as internal standard. The coefficient of variation for repeated determination of THC on a single extract was 1.4%; for all operations, including sampling and extraction, it was 2.7%. Duplicate analyses of 24 samples of herbal cannabis and of 20 reefers, all of varying potency, showed that the errors fell within the expected limits for THC, CBD and CBN. The method is simple and rapid; duplicate determinations can be completed in about $2\frac{1}{2}$ h.

12A.3.142 Delpech, B.; Khuong-Huu, Q.

Alcaloides Steroidiques CLXII Amination Allylique
d'Olefines Steroidiques par l'Intermediaire de Com-
plexes Mercuriques.

Tetrahedron Letters, (17), 1973, 1533-1536

547.94'92

12A.3.143 Wajcman, H. Leroux, A.; Labie, D.

Functional Properties of Hemoglobin Hammersmith.

Biochimie, 55(2), 1973, 119-125

547.963.4

Hemoglobin Hammersmith 42 (CD 1) Phe $\longrightarrow$

R is the mass of the other 17-substituent. Extensive deuterium labelling studies are carried out to verify the modes of formation of these and related ions which are of diagnostic value in analytical work.

12A.3.140

Gossauer, A.; Hirsch, W.

Synthesen Von Gallenfarbstoffen-II Totalsynthese des
Phycocyanobilins. (ger)

Tetrahedron Letters, (17), 1451-1454

547.93.05

12A.3.141

Fairbairn, J.W.; Liebmann, J.A.

The Extraction and Estimation of the Cannabinoids in
Cannabis Sativa L. and its Products.

Journal of Pharmacy & Pharmacology, 25(2), 1973, 150-155

547.93.056

A convenient method for the complete extraction of the cannabinoids from fresh plant material, herbal cannabis, cannabis resin and reefers, has been devised. Chloroform was a more suitable solvent than light petroleum or ethanol and simple shaking of powdered material with the solvent was effective. Fresh material should

affords 1,2-dibenzyl-1,2-dihydro-2,5-diphenylpyrazine (59%) and 1,2-dibenzyl-1,2-dihydro-3,6-diphenylpyrazine (21%), contrary to previous reports. In a series of reactions of N-alkylphenacylamines thermally induced self-condensation is followed by a regiospecific 1,3-alkyl shift to a substituted carbon atom, to given in good yield 1,2-dialkyl-1,2-dihydro-2,5-diphenylpyrazines at temperatures ranging from ambient to 140°. The reaction of phenacyl bromide with methylamine gives N-methyldiphenacylamine, then the reactive 1,4-dihydro-1,4-dimethyl-2,6-diphenylpyrazine. The latter readily forms an addition product with methanol and separately forms an odd-electron species characteristic of 1,4-dialkyl-1,4-dihydropyrazines.

12A.3.139 Middleditch, B.S.; Vouros, P.; Brooks, C.J.W.

Mass Spectrometry in the Analysis of Steroid Drugs
and their Metabolites: Electron-Impact-Induced Fragmentation of Ring D.

Journal of Pharmacy & Pharmacology, (2), 1973, 25, 143-149

547.92:543.51

Certain steroid drugs, their metabolites, and related model compounds which possess a 17-hydroxy group can be converted to trimethylsilyl ethers which give characteristic ions of type $[128 + R]^+$ in their mass spectra, where

12A.3.137

Elkik, E. ; Assadi-Far, H.

Reactivity of Phenacyl Fluoride in Alkaline Medium.

Bulletin de la Société Chimique de France, 1973, 202-210, Jan.

547.572.1

The action of various alkaline reagents with phenacyl fluoride has been studied. Depending upon the basicity of the reagent, two main reactions occur:

— A t t a c k on the carbonyl carbon atom which leads to ketolisation followed, in most cases, with elimination of a fluorine atom, the reaction product still containing a fluorine atom.

— Attack on the fluoromethyl carbon atom leading to non-fluorinated products by substitution of the fluorine atoms.

These results have been compared to those obtained by different authors and, under the same reaction conditions, to those given by phenacyl chloride and bromide.

12A.3.138

Lown, J.W.; Akhtar, M.H.

Self-Condensation and Rearrangement of N-Alkylphenacyl-
amines.

Journal of the Chemical Society, Perkin Transaction I, (7),
1973, 683-686

547.572.1.002

The reaction of phenacyl bromide with benzylamine

12A.3.136

Jahelka, J.; Sterba, V.; Valter, K.

Nitrosation Kinetics and Mechanism of Resorcinol and
ITS O-Methyl Derivatives.

Collection of Czechoslovak Chemical Communications,
38(3), 1973, 877- 883

547.565.2[542.958.2]

Nitrosation kinetics and mechanism of resorcinol and its O-methyl derivatives have been studied in aqueous buffers and mineral acids. The structure and proportion of individual isomers were determined after transformation of the unstable nitroso compounds into the respective nitro derivatives. Non-catalyzed or acid-catalyzed decomposition of the dienone intermediate A into oxime at $\text{pH} < 2.5$ and the reaction of the undissociated phenol with protonated nitrous acid at $\text{pH} > 2.5$ are the rate-determining steps of nitrosation of resorcinol and 3-methoxyphenol. In the case of 1,3-dimethoxybenzene the decomposition of the intermediate into nitrosodimethoxybenzene is rate-limiting. The difference in the overall velocities depends on the ratio of the decomposition rates of the intermediate into the products and into starting substances, because the rates of the reaction of protonated nitrous acid with the substrates are comparable and close to rates of diffusion-controlled processes.

structure et la biogenese des acides mycoliques des corynebacteries, des Nocardia et des Mycobacteries suggere l'existence d'une correlation phylogenetique, dans un sens determine, entre les trois genres bacteriens mentionnes. Il serait interessant d'examiner d'autres genres d'Actinomycetales en vue de rechercher la presence eventuelle des acides mycoliques. La biogenese de certains macrolides rencontres chez differentes especes de Streptomyces semble comporter une etape de condensation mycolique. (Ref 43)

12A.3.135

Jahelka, J.; Machackova, O.; Sterba, V.

Kinetics and Mechanism of Formation of Substituted
Benzenediazonium Ions From Benzenediazohydroxides.

Collection of Czechoslovak Chemical Communications,
38(3), 1973, 706-710

547.556.7.03

The rate constants of N—O bond splitting and the dissociation constants have been determined for six m- and p-substituted benzenediazohydroxides and the respective Hammett ρ constants of the both reactions have been calculated. The N—O bond splitting of benzenediazohydroxides is subject to general acid catalysis, the value of the Bronsted coefficient α being 0.19.

547 *Organic Chemistry.*

- 12A.3.132 Reich, C.J.; Sullivan, G.R.; Mosher, H.S.
 Chiral 1-Deuterio Alcohols. Synthesis and Deter-
 mination of Enantiomeric Purity by Chiral Lanthanide
 NMR Shift Reagents.
Tetrahedron Letters, (17), 1973, 1505-1508

547.260.2:541.63

- 12A.3.133 Etemadi, A.H.
 Les Acides Mycoliques Structure, Biogenese Et Interet
 Phylogenetique.
Exposes' Annuels de Biochimie Medicale, 1967(28), 77-109
(Ref 111)

547.297.1

- 12A.3.134 Etemadi, A.H.
 Correlations Structurales et Biogenetiques des Acides
 Mycoliques en Rapport Avec la Phylogenese de Quelques
 Geners D'actinomycetales.
Bulletin de la Societe' Chimique et Biologique, 49(6),
1967, 695-706

547.297.1[576.852]

L'état actuel de notre connaissance sur la

12A.3.130 Douglas, J.F.; Shahinian, S.

GLC Determination of Methaqualone in Plasma.

Journal of Pharmaceutical Sciences, 62(5), 1973, 835-836

543.544.45[612.129.1]

Simple GLC method was developed for the determination of methaqualone in plasma. The method is rapid and quantitative over the 0.1-10-mcg./ml. range. (Ref 4)

12A.3.131

High Sensitivity Amino Acid and Peptide Analysis at the Carnegie Institution of Washington's Geophysical Laboratory.

Aminco Laboratory News, 29(1), 1973, 4-7. (Ref 7)

543.865

12A.3.129

Collomb, R.; Devalles, B.; Vergnaud, J.M.

Chromatographie en Phase Gazeuse. Methode de Calcul
du Temps de Retention d'un Soluté en Chromatographie
avec Programmation Linéaire de la Pression du gaz
Vecteur. (Fr)

Comptes Rendus de l'Academie de Sciences.C, (1), 1973, 1-4

543.544.25

Une méthode de calcul du temps de rétention des solutés élues en chromatographie avec programmation linéaire de la pression du gaz vecteur, est proposée. La théorie de la propagation repose sur la fait suivant: on assimile la colonne traversée par le gaz en regime transitoire, à une multitude de petits tronçons de colonnes dans lequel le regime est stationnaire. Ainsi, pour chaque tronçon, les calculs peuvent être réalisés de la même façon qu'en chromatographie classique. Les calculs complets necessitant un ordinateur, nous présentons une courbe permettant de calculer par lecture le temps de rétention d'un soluté en fonction des conditions opératoires. (Ref 5)

12A.3.128

Granger, R. Vergnaud, J.M.

Théorie de la Retention Dans le Cas D'une Chromatographie Réalisée avec une Colonne dont la Concentration du Solvant Varie avec l'Inverse de la Racine Carrée de l'Abscisse Longitudinale. (Fr)

Comptes Rendus de L'Académie de Sciences.C, (6), 1973, 475-481

543.544.25

Nous présentons la théorie de la rétention de solutés élués dans une colonne de chromatographie particulière en ce sens que la concentration du solvant décroît le long de la colonne. Cette loi de décroissance de la concentration du solvant est sensiblement la même que la loi de décroissance de la concentration maximale d'un soluté le long de la colonne. Ainsi, la concentration du squalane choisi comme solvant varie avec l'inverse de la racine carrée de l'abscisse longitudinale prise le long de la colonne. Cette méthode de chromatographie devrait pouvoir se révéler intéressante en chromatographie préparative. (Ref 4)

543

Analytical Chemistry

12A.3.127

Eckshlager, K.

Theory on Information as Applied to Analytical Chemistry. IV. Expression of the Results of Quantitative Chemical Analyses.

Collection of Czechoslovak Chemical Communications, 38(5)
1973, 1330-1332

543

In the paper attention is called to the lack of uniformity in expressing the results of quantitative analyses. It is suggested to give the most probable result and its uncertainty according to Shannon's relation together with the data on the number of paralleled determinations from which the results has been drawn. Tabellated values are presented allowing an easier calculation of the uncertainty from the standard deviation and the range of results.

12A.3.125 Epiotis, N.D.; Cherry, W.

Nonbonded Attraction in Organic Molecules and Substituent Effects on Nonbonded Attraction.

Journal of the Chemical Society, Chemical Communications, (8), 1973, 278-279

541.57[547]

Lone pairs can interact with each other and also with adjacent bonds, and this results in net lone pair attraction which is subject to substituent effects; experimental results are in agreement with these general qualitative conclusions.

12A.3.126 Mango, F.D.

The Conservation of Coordinate Bonding and the Catalysis of Allowed and Forbidden Reactions.

Tetrahedron Letters, (17), 1973, 1509-1512

541.572.5[541.128]

12A.3.123 Greenwood, N.N.

International Table of Atomic Weights.
Chemistry in Britain, 9(2), 1973, 52-53

541.23

12A.3.124 Ogilvie, J.F.

Intense Vibrational Absorption Spectra of Trapped
Triatomic Radicals.

Nature, 243(5404), 1973, 210-212

541.515:543.422

Intense spectra of triatomic radicals have been produced by means of a surface reaction of hydrogen atoms, formed by a microwave discharge in flowing gas, with diatomic oxides. Failure of this method to produce detectable formyl radicals is attributed to existence of an activation energy greatly exceeding 200 cm^{-1} for reaction of H with CO. New NH and ND fundamental vibrations of HNO and DNC, at $2,719$ and $2,043 \text{ cm}^{-1}$, are now consistent with the known large bond length. The weak absorption due to the bending mode of DO_2 has at last been located at $1,085.3 \text{ cm}^{-1}$, enabling a vibrational assignment for hydroperoxyl radical to be completed.

sulphate, nitrate, iodide, bromide and chloride cause a sharp drop of the anode potential to low values. The formation of pits has been observed with halides only. The effect of sulphate on the oxide formation rate, unitary rate, and the electric field has been investigated in borate and phosphate solutions. Use of phosphate for repairing the pits formed in halide solutions is described.

12A.3.122

Kindl, B. & et al.

General Model for the Adsorption of Gases on Solids.

Journal of the Chemical Society, Faraday Transactions I.
(7), 1973, 1162-1172

541.183.26

A three parameter model is proposed to describe adsorption of gases on solid surfaces. The model adequately describes data which follow a Langmuir isotherm and data which follow a Dubinin isotherm. Our model is based on the assumption that the surface site energies follow a frozen Maxwell-Boltzmann distribution. All the parameters calculated appear to have definite physical significance and an attempt is made at attaching physical meaning to their observed modes of behaviour. (Ref 21)

541 *Physical Chemistry*

12A.3.120 Smith, F.J.

Standard Kilogram Weights.

Platinum Metals Review, 17(2), 1973, 66-68

54.081

The original metric standard of weight adopted in 1799 was a kilogram fabricated from platinum. The present international standard kilogram was made nearly a century ago from 10 per cent iridium-platinum. Johnson Matthey was deeply concerned with this work and since then has regularly supplied further national prototypes and working standards to a strict specification. (Ref 4)

12A.3.121 Ammar, E.A.

Effect of Some Anions on the Anode Film of Aluminium.

Corrosion Prevention & Control, 19(2), 1973, 8-11

541.13[620.193]

The effect of various anions on the stability of the anode film formed by galvanostatic anodization of Al in borate solution has been studied. Carbonate, phosphate, succinate, and oxalate are capable of sustaining the process of oxide growth. On the other hand, sulphite, sulphate, thio-

54

Chemistry

12A.3.118

Mason, B.

Chemistry of the Moon's Surface.

Chemistry in Britain 9(10), 1973, 456-461

54[523.3]

It's not made of green cheese—and there's no man there either. Yet analysis of the rocks brought back from the moon has certainly not disappointed geologists and chemists. Among the fascinating facts that have emerged are three new minerals, unusually high concentrations of certain elements, and a predominance of radiogenic isotopes of lead. It is still too early to propound a comprehensive theory of the moon's origin and evolution; but the results so far show that the material of the moon was chemically fractionated, that the surface rocks are igneous in origin, and that volcanic activity ceased and the moon became a passive object 3000 million years ago. (Ref 10)

12A.3.119

Letokhov, V.S.

Use of Lasers to Control Selective Chemical Reactions.

Science, 180(4085), 1973, 451-457. (Ref 32)

54[621.375.826]

<u>Journal Title</u>	<u>Year, Volume (issue)</u>
Journal of Pharmaceutical Sciences	1973, 62, (5)
Journal of Pharmacy & Pharmacology	1973, 25, (2)
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