

SCIENCO
**SOUTHERN BRAZILIAN JOURNAL
OF CHEMISTRY**

ISSN 0104-5431

**AN INTERNATIONAL FORUM FOR THE RAPID PUBLICATION
OF ORIGINAL SCIENTIFIC ARTICLES DEALING WITH CHEMISTRY AND
RELATED INTERDISCIPLINARY AREAS**

VOLUME FOUR, NUMBER FOUR

DECEMBER 1996

EDITOR

LAVINEL G. IONESCU, Departamento de Química, CCNE, Universidade Luterana do Brasil, Canoas, RS & Instituto de Química, Pontifícia Universidade Católica do Rio Grande do Sul, Porto Alegre, RS, BRASIL

EDITORIAL BOARD

- D. BALASUBRAMANIAN, Centre for Cellular and Molecular Biology, Hyderabad, INDIA
RECTOR E. BERTORELLO, Departamento de Química Orgánica, Facultad de Ciencias Químicas, Universidad Nacional de Córdoba, Córdoba, ARGENTINA
AÉCIO P. CHAGAS, Instituto de Química, UNICAMP, Campinas, SP, BRASIL
JUAN JOSÉ COSA, Departamento de Química y Física, Facultad de Ciencias Exactas, Universidad Nacional de Río Cuarto, Río Cuarto, ARGENTINA
GLENN A. CROSBY, Department of Chemistry, Washington State University, Pullman, WA, USA
VITTORIO DEGIORGIO, Dipartimento di Elettronica, Sezione di Fisica Applicata, Università di Pavia, Pavia, ITALIA
JOSÉ C. TEIXEIRA DIAS, Departamento de Química, Universidade de Coimbra, Coimbra, PORTUGAL
XORGE A. DOMINGUEZ, Departamento de Química, Instituto Tecnológico y de Estudios Superiores de Monterrey, Monterrey, N.L., MÉXICO
OMAR A. EL SEUD, Instituto de Química, Universidade de São Paulo, São Paulo, SP, BRASIL
ERNESTO GIESBRECHT, Instituto de Química, Universidade de São Paulo, São Paulo, SP, BRASIL
FERNANDO GALEMBECK, Instituto de Química, UNICAMP, Campinas, SP, BRASIL
NISSIM GARTI, Casali Institute of Applied Science, Hebrew University of Jerusalem, Jerusalem, ISRAEL
GASPAR GONZALEZ, Centro de Pesquisa, CENPES-PETROBRAS, Ilha do Fundão, Rio de Janeiro, RJ, BRASIL
YOSHITAKA GUSHIKEM, Instituto de Química, UNICAMP, Campinas, SP, BRASIL
WILLIAM HASE, Department of Chemistry, Wayne State University, Detroit, MI, USA
I. B. IVANOV, Laboratory of Thermodynamics and Physico-chemical Hydrodynamics, Faculty of Chemistry, University of Sofia, Sofia, BULGARIA
IVAN IZQUIERDO, Departamento de Bioquímica, Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, BRASIL
V.A. KAMINSKY, Karpov Institute of Physical Chemistry, Moscow, RUSSIA
MICHAEL LAING, Department of Chemistry, University of Natal, Durban, SOUTH AFRICA
EDUARDO LISSI, Departamento de Química, Universidad de Santiago de Chile, Santiago, CHILE
WALTER LWOWSKI, Department of Chemistry, New Mexico State University, Las Cruces, N.M., USA
G. MANOHAR, Bhabha Atomic Research Centre, Chemistry Division, Bombay, INDIA
AYRTON FIGUEIREDO MARTINS, Departamento de Química, Universidade Federal de Santa Maria, Santa Maria, RS, BRASIL
FRED MENDER, Department of Chemistry, Emory University, Atlanta, GA, USA
MICHAEL J. MINCH, Department of Chemistry, University of the Pacific, Stockton, CA, USA
K. L. MITTAL, IBM Corporate Technical Institutes, Thornwood, N.Y., USA
ARNO MÜLLER, Escola de Engenharia, Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, BRASIL
JOSE MIGUEL PARRERA, Instituto de Investigaciones en Catalisis y Petroquímica, Universidad Nacional del Litoral, Santa Fe, ARGENTINA
LARRY ROMSTED, Department of Chemistry, Rutgers University, Piscataway N.J., USA
GILBERTO FERNANDES DE SÁ, Departamento de Química Fundamental, Universidade Federal de Pernambuco, Recife, PE, BRASIL
DIMITRIOS SAMIOS, Instituto de Química, Universidade Federal do Rio Grande do Sul, Porto Alegre, RS, BRASIL
DIOGENES DOS SANTOS, Department of Molecular Biology, Oxford University, Oxford, ENGLAND
JOSEPH A. SCHUFFLE, Department of Chemistry, New Mexico Highlands University, Las Vegas, N.M., USA
BEN K. SELINGER, Department of Chemistry, Australian National University, Canberra, AUSTRALIA
KOZO SHINODA, Department of Applied Chemistry, Faculty of Engineering, Yokohama National University, Yokohama, JAPAN
CRISTOFOR I. SIMIONESCU, Academia Română, Filiala Iasi, Iasi, ROMANIA
UMBERTO TONELLATO, Dipartimento di Chimica Organica, Università degli Studi di Padova, Padova, ITALIA
DIETER VOLLHARDT, Max Planck Institut für Kolloid und Grenzflächenforschung, Berlin, GERMANY
RAOUL ZANA, Institut Charles Sadron, CRM-EAHP, Strasbourg, FRANCE

SOUTHERN BRAZILIAN JOURNAL OF CHEMISTRY

ISSN 0104-5431

VOLUME FOUR, NUMBER FOUR

DECEMBER 1996

CONTENTS / CONTEÚDO

ERNESTO GIESBRECHT, GREAT CHEMICAL EDUCATOR AND FATHER OF BRAZILIAN INORGANIC CHEMISTRY Lavinel G. Ionescu	1
GLUCOSE AND LACTOSE BIOSENSORS COUPLED WITH MICRO-DIALYSIS PROBE FOR CONTINUOUS MONITORING Mihaela Cheregi, Cristina Matachescu, Danila Moscone and Anton Ciucu	9
MODELS FOR THE ACTIVE SITE STRUCTURE OF PURPLE ACID PHOSPHATASES Marcos Aires De Brito	19
HIGH SERUM LIPID PEROXIDES AND THEIR SIGNIFICANCE IN PATIENTS WITH LIVER DEFICIENCY Maria Greabu and R. Olinescu	27
USE OF MONTMORILLONITE (SMECTITE) AS CATALYST FOR OLEFIN POLYMERIZATION AND TRANSFORMATION OF SULFUR COMPOUNDS Rogério Gomes Rodrigues, Graziela Finger and Paulo César Pereira Das Neves	35
THE ELECTRICAL BEHAVIOUR OF THE M_xHgI_4 INORGANIC COMBINATION AND SOME STRUCTURAL ALTERATIONS VERSUS THE PRESSURE Tudor Rosu, Lidia Paruta and Anca Emandi	45
MICELLAR CATALYZED HYDROLYSIS OF LITHIUM p-NITRO-PHENYL ETHYL PHOSPHATE (LIPNEF) AND THE PSEUDO PHASE ION EXCHANGE MODEL Lavinel G. Ionescu, D. A. R. Rubio and Elizabeth Fátima De Souza	59
SYNTHESIS OF SOME THEOPHYLLINE DERIVATIVES Corneliu Oniscu, Adina Dumitrascu, Eugen Horoba and Dan Cascaval	83
CARBON-13 NMR OF ALIPHATIC TERTIARY AMIDES Paulo Irajara Borba Carneiro and Roberto Rittner	93
DUNCAN ARTHUR MACINNES, FOREMOST AMERICAN ELECTRO-CHEMIST Joseph A. Schufle	97
SYNTHESIS OF NEW BENZO(E)DIBENZOFURO(2,3-b)-OXEPIN-5(14H)-ONES Stelian Florea, Anca Nicolae and Ovidiu Maior	101
Author Index	109