

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 SEVEN, NUMBER EIGHT

DECEMBER 1999

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 SEVEN, NUMBER EIGHT DECEMBER 1999

CONTENTS / CONTEÚDO

A TRIBUTE TO PROFESSOR CLIFFORD A. BUNTON ON HIS 80th BIRTHDAY Lavinel G. Ionescu	1
EQUILIBRIUM AND HYDROLYSIS STUDIES OF PHOSPHATE ESTERS MODEL MOLECULES AND DNA CATALYZED BY OBISDIEN-Zn(II) COMPLEXES Marcia M. Meier, Patricia Karloh, Hernán Terenzi and Bruno Szpoganicz	11
BIOLOGICAL ACTIVE ACYLHYDRAZIDE I. THE O-ACYL-DERIVATIVE NATURE OF MONOACYLATION PRODUCTS OF CYCLIC MALEIC AND PHTHALIC HYDRAZIDE I. Panea, Lucia Bodochi, Teodora Panea, Daniela Zinveliu and Violeta Pascalau	25
BORON EXTRACTORS EVALUATION Luzia Otília Bortotti Favero, Ervim Lenzi, Eduardo Bernardi Lucheses and Luciano Márcio de Moraes	41
QUANTITATIVE DETERMINATION OF FURANOCOUMARINS AND IDENTI- FICATION OF OTHER CHEMICAL CONSTITUTENTS OF RHIZOMES AND LEAVES FROM <i>DORSTENIA TUBICINA</i> AND COMMERCIAL SAMPLES Claudia A. L. Cardoso, Wagner Vilegas and Neli K. Honda ..	51
FUNGITOXIC ACTIVITY OF COMPOUNDS ISOLATED FROM LICHENS Neli K. Honda, Rosenei L. Brum and Maria Rita Marques	61
LIQUID MEMBRANE ION-SELECTIVE ELECTRODES FOR POTENTIO- METRIC DOSAGE OF SOME METAL IONS Maria Pleniceanu, Luninita Simoiu, Marian Isvoranu and Mihaela Baniceru	67
RECOVERY OF MERCURY FROM DENTAL AMALGAMS COLLECTED IN THE NORTHWEST REGION OF PARANÁ STATE, BRAZIL Rogerio B. Brasil, Claudenice Rodrigues and Jorge Nozaki..	79
HEIGHT MEASUREMENTS OF THE SPECTRUM AS AN ALTERNATIVE TO CONVENTIONAL SPECTROPHOTOMETRIC ANALYSIS OF A KMnO_4 - $\text{K}_2\text{Cr}_2\text{O}_7$ MIXTURE Carmen D. Cardoso, Martha R. Adaime and Nádia S. Viaro ..	87
COORDINATION COMPOUNDS OF Cu(II) AND Ni(II) WITH SCHIFF BASES DERIVED FROM FORMYLMENTHONE AND <i>o</i> -, <i>m</i> -, <i>p</i> -TOLUIDINE Adalgiza Ciobanu, Florica Zalaru, D. Albinescu and Christina Zalaru	95
PHYSICAL CHEMICAL STUDIES OF THE AGGREGATION AND CATALYTIC PROPERTIES OF THE SURFACTANT CETYLDIMETHYLETHYLAMMONIUM BROMIDE (CDEAB) Lavinel G. Ionescu, Silvia Dani and Elizabeth Fátima de Souza	105