CHRIST

COLLEGE (AUTONOMOUS)

IRINJALAKUDA, KERALA

POST GRADUATE & RESEARCH DEPARTMENT OF CHEMISTRY

DR.TOM CHERIAN
ASSISTANT PROFESSOR & RESEARCH SUPERVISOR

Area of specialization: Spectrophotometric techniques, Phytochemistry, Synthesis, characterization and biological studies of coordination complexes.

24 Research publications in national and international peer reviewed journals

,

RESEARCH GROUP

DR. TOM CHERIAN (SUPERVISOR)

SR. LOVELY JACOB A

MRS. DEEPTHI VARGHESE

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JOURNAL PUBLICATIONS

Analytical Letters ›
Volume 38, 2005 - Issue 13

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Molecular Spectroscopy

A New Spectrophotometric Method for the Determination of Arsenic in Environmental and Biological Samples

Tom Cherian & B. Narayana

Pages 2207-2216 | Received 05 May 2005, Accepted 24 Jun 2005, Published online: 02 Feb 2007

Download citation | https://doi.org/10.1080/00032710500260555

2

J. Braz. Chem. Soc., Vol. 16, No. 2, 197-201, 2005.
Printed in Brazil - ©2005 Sociedade Brasileira de Química
0103 - 5053 $6.00+0.00

Article

Rapid Spectrophotometric Determination of Trace Amounts of Chromium Using Variamine Blue as a Chromogenic Reagent

B. Narayana* and Tom Cherian

Department of Studies and Research in Chemistry, Mangalore University. Mangalagangothri-574199, India

J. Braz. Chem. Soc., Vol. 16, No. 5, 978-981, 2005.
Printed in Brazil - ©2005 Sociedade Brasileira de Química
0103 - 5053 $6.00+0.00

Article

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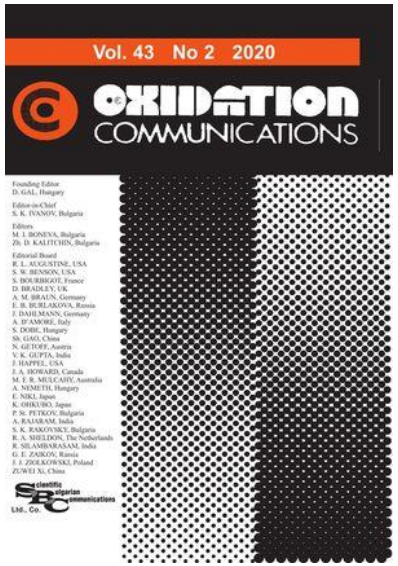
A Facile Spectrophotometric Method for the Determination of Periodate Using Azure B

B. Narayana* and Tom Cherian

Department of Post Graduate Studies and Research in Chemistry, Mangalore University, Mangalagangothri – 574 199, India

4



Scientific Bulgarian Communications

Spectrophotometric determination of trace amounts of chromium by the oxidation of azure B

Journal: OXIDATION COMMUNICATIONS 28(4) (2005) Pages: 923 - 929

▼ Authors

B. Narayana; T. Cherian

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Bulletin of the Chemical Society of Ethiopia

A SIMPLE SPECTROPHOTOMETRIC DETERMINATION OF TRACE AMOUNTS OF VANADIUM USING THIONIN

Tom Cherian
Department of Post Graduate Studies and Research in Chemistry, Mangalore University, Mangalagangothri – 574 199, Karnataka, India

B. Narayana*
Department of Post Graduate Studies and Research in Chemistry, Mangalore University, Mangalagangothri – 574 199, Karnataka, India

PDF

Published
2005-11-22

Indian Journal of Chemical Technology
Vol. 12, September 2005, pp. 596-600

6

Spectrophotometric determination of chromium using saccharin

Tom Cherian & B Narayana*

Department of Post Graduate Studies and Research in Chemistry, Mangalore University, Mangalagangothri 574 199, India

introduction of chromium salts into soils has some positive effects due to activation of some biochemical processes[1]. Cr(III) is an essential nutrient for maintaining normal physiological function[2], whereas Cr(VI) is toxic[3]. The determination of chromium by spectrophotometric method based on oxidation of organic compounds[4-6] and on formation of ion

Indian Journal of Chemical Technology
Vol. 13, January 2006, pp. 36-40

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Spectrophotometric determination of arsenic in environmental and biological samples

B Narayana,* Tom Cherian, Mendalin Mathew & Chand Pasha

Department of Post Graduate Studies and Research in Chemistry, Mangalore University, Mangalagangothri 574 199, India
Email: nbadiadka@yahoo.co.uk

Indian Journal of Chemical Technology
Vol. 12, September 2005, pp. 593-595

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Spectrophotometric determination of dissolved oxygen in water

B Narayana*, Mendalin Mathew, Tom Cherian & Chand Pasha

Department of Post Graduate Studies and Research in Chemistry, Mangalore University, Mangalagangothri 574 199, India

disadvantage is the equipment cost and also the time involved is considerably high. Polarographic methods using dropping mercury electrodes or the rotatory electrode have not been always reliable because impurities in the test solutions can cause electrode poisoning and other interferences. Many modifications of the Winkler's dissolved oxygen

Journal of Analytical Chemistry, Vol. 60, No. 8, 2005, pp. 706–709. From Zhurnal Analiticheskoi Khimii, Vol. 60, No. 8, 2005, pp. 798–801.

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ARTICLES

An Easy Spectrophotometric Method for the Determination of Hypochlorite Using Thionin[1]

B. Narayana, M. Mathew, K. Vipin, N. V. Sreekumar, and T. Cherian

Department of Studies in Chemistry, Mangalore University, Mangalagangothri, 574 199, Karnataka, India

e-mail: nbadiadka@yahoo.co.uk

Received February 21, 2003; in final form, June 10, 2004

10

Articles • J. Braz. Chem. Soc. 17 (3) • June 2006 • https://doi.org/10.1590/S0103-50532006000300022 COPY

A new system for the spectrophotometric determination of trace amounts of nitrite in environmental samples

Tom Cherian Badiadka Narayana ABOUT THE AUTHORS

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Indian Journal of Chemical Technology
Vol. 13, May 2006, pp. 222-225

A new system for spectrophotometric determination of trace amounts of selenium

Tom Cherian & B Narayana*

Department of Post Graduate Studies and Research in Chemistry, Mangalore University, Mangalagangothri 574 199, India

Bull. Chem. Soc. Ethiop. **2006**, 20(1), 143-147.
Printed in Ethiopia

ISSN 1011-39

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SHORT COMMUNICATION

SPECTROPHOTOMETRIC METHOD FOR THE DETERMINATION OF IODATE USING METHYLENE BLUE AS A CHROMOGENIC REAGENT

B. Narayana*, Chand Pasha, Tom Cherian and Mendalin Mathew

Department of Post Graduate Studies and Research in Chemistry, Mangalore University, Mangalagangothri – 574 199, Karnataka, India

RESEARCH ARTICLE

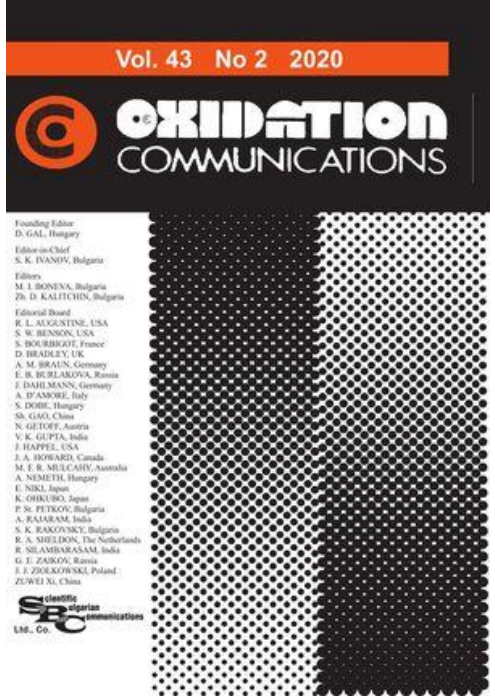
T. Cherian and B. Narayana,
S. Afr. J. Chem., 2007, **60**, 8–10,
<http://journals.sabinet.co.za/sajchem/>.

13

A Facile Spectrophotometric Method for the Determination of Iodate in Table Salt using New Chromogenic Reagents

Tom Cherian and B. Narayana*

Department of Post Graduate Studies and Research in Chemistry, Mangalore University, Mangalagangothri-574 199, India.



Scientific Bulgarian Communications

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A facile spectrophotometric determination of endosulphan by the oxidation of variamine blue

Journal: OXIDATION COMMUNICATIONS 30(2) (2007) Pages: 247 - 252

▼ Authors

T. Cherian; B. Narayana

JCBPS; Section D; Feb. 2015 – Apr. 2015, Vol. 5, No. 2; 2207-2211. E- ISSN: 2249 –1929

Journal of Chemical, Biological and Physical Sciences

An International Peer Review E-3 Journal of Sciences

Available online at www.jcbsc.org

Section D: Environmental Sciences

CODEN (USA): JCBPAT Research Article

Phytochemical Studies on the Bark of *Butea monosperma* Plant from Thrissur District,Kerala

MityThambi[1*], Tom Cherian[2]

[1*]Department of Chemistry, Catholicate College, Pathanamthitta,Kerala-689647(India).

[2]Department of Chemistry, Christ College, Irinjalakuda, Kerala- 680125 (India).

INTERNATIONAL JOURNAL OF ENVIRONMENT

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PHYSICO-CHEMICAL CHARACTERISTICS OF GROUND WATER SAMPLES FROM DIFFERENT AREAS OF THRISSUR DISTRICT, KERALA STATE, INDIA

Mity Thambi[1], Tom Cherian[2*], Anju Therese Jose[3], Sunaina Jamal[4]

[1]Department of Post Graduate Studies and Research in Chemistry, Catholicate College, Pathanamthitta – 689 647, Kerala

[2,3,4] Department of Post Graduate Studies and Research in Chemistry, Christ College, Irinjalakuda, Thrissur-680 125, Kerala

[*]Corresponding author: drtomcherian@gmail.com

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Mity Thambi
Department of Chemistry,
Catholicate College,
Pathanamthitta.

Tom Cherian
Department of Chemistry,
Christ College, Irinjalakuda.

Phytochemical investigation of the bark of *Strychnos-nux-vomica* and its antimicrobial properties

Mity Thambi, Tom Cherian

Abstract
Strychnos-nux-vomica which belongs to the family *loganiacea* also called Kanjiram is a medium-sized tree. The bark of the plant was under investigation. The bark of the plant was collected and extracted using ethyl acetate solvent. GC-MS analysis was conducted to identify the components present in it. The major components present in this extract were strychnine and brucine. The antibacterial screening of the extract was carried out by disc diffusion method. The extract was tested against four pathogenic bacterial stains of gram positive and gram negative organism. The ethyl acetate extract of Strychnos-*nux-vomica* shows antimicrobial activity.

JIPBS

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www.jipbs.com

ISSN: 2349-2759

Research Article

Pesticidal Properties on the Leaf Extracts of *Strychnos-Nux-Vomica* Plant

Mity Thambi[1], Tom Cherian*[2]

[1]Department of Chemistry, Catholicate College, Pathanamthitta, Kerala, India.
[2]Department of Chemistry, Christ College, Irinjalakuda, Kerala, India.

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Mity Thambi
Department of Chemistry,
Catholicate College,
Pathanamthitta.

Tom Cherian
Department of Chemistry,
Christ College, Irinjalakuda.

Pesticidal activity of the leaves of *Manihot esculenta* against the pest *Sitophilus oryzae*

Mity Thambi, Tom Cherian

Abstract
Manihot esculenta, Cassava also called, tapioca-root, kappa (predominantly in India) a woody shrub of the *Euphorbiaceae* family native to South America. In the present study reveals that, plant extracts of *Manihot esculenta* leaves in ethyl acetate solvent is highly toxic against adults of *Sitophilus oryzae*. Higher doses and exposure time are required to achieve 100% mortality for the adults of *Sitophilus oryzae*. The ethyl acetate extract of *Manihot esculenta* could be used as a potential grain protectant against *Sitophilus oryzae*. The use of botanical materials as insecticides will benefit our agricultural sector. They are not only of low cost, but have no environmental impact in term of insecticidal hazard. Therefore, the findings of the current experiments strongly support the use and exploration of botanicals in pest management practices.

Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 7, Issue, 07, pp. 18406-18409, July 2015

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

ISSN: 0975-833X

RESEARCH ARTICLE

A PRELIMINARY STUDY ON LARVICIDAL EFFICACY OF THREE TRADITIONAL MEDICINAL PLANTS AGAINST DENGUE VECTOR, AEDES AEGYPTI

[2]Misvar Ali, K., [3]MityThambi, *,[1]Tom Cherian, [1]Sunaina Jamal, K. and [1]Anju Therese Jose

[1]Department of Post Graduate Studies and Research in Chemistry, Christ College, Irinjalakuda, Kerala, 685125
[2]Communicable Disease Research Laboratory, St. Joseph's College, Irinjalakuda, Kerala, 680121
[3]Department of Chemistry, Catholicate College, Pathanamthitta, Kerala - 689645

wjpmr, 2017,3(1), 286-290.

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www.wjpmr.com

SJIF Impact Factor: 3.535

Research Article

ISSN 2455-3301

WJPMR

PESTICIDAL ACTIVITY OF THE LEAVES OF *MANIHOT ESCULENTA* AGAINST THE PEST *TRIBOLIUM CASTANEUM*

Tom Cherian[1] and Mity Thambi[2*]

[1]Department of Chemistry, Christ College, Irinjalakuda.
[2]Department of Chemistry, Catholicate College, Pathanamthitta.

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Tom Cherian
Department of Chemistry, Christ College, Irinjalakuda, Kerala, India

Mity Thambi
Department of Chemistry, Baselius College, Kottayam, Kerala, India

Phytochemical investigation of the leaves of *Gliricidia sepium* and its antimicrobial properties

Tom Cherian and Mity Thambi

Abstract
Gliricidia sepium is a leguminous tree and belongs to the family *Fabaceae*. It is a medium-sized tree and can grow to from 10 to 12 meters high used in many tropical and sub-tropical countries for various purposes such as live fencing, fodder, coffee shade, firewood, green manure and rat poison. The leaves of the plant were under investigation. The leaves of the plant was collected and extracted using petroleum ether, ethyl acetate and ethanol solvent. The antibacterial screening of these extracts was carried out by disc diffusion method. The extract was tested against four pathogenic bacterial stains of both *gram positive* and *gram negative* organism. The ethyl acetate extract of *Gliricidia sepium* shows high antimicrobial activity.

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A Review on the Relevance of Curcuminoids in Corona Pandemic Situation

Lovely Jacob A[1], Tom Cherian[2]

[1]Assistant Professor, Department of Chemistry, Little Flower College, Guruvayoor, Kerala, India

[2]Dr.Tom Cherian, Assistant Professor, PG and Research Department of Chemistry, Christ College ,Irinjalakuda, Kerala, India

lovely.a@littleflowercollege.edu.in [1], drtomcherian@gmail.com [2]

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Synthesis, Characterization and Biochemical assessment of 1,7 diphenyl heptanoids

Lovely Jacob A[1], Tom Cherian[2], Jesy E J [3], Seena Thomachan[4], Deepthy Varghese[5]

[1]Assistant Professor, Department of Chemistry, Little Flower College, Guruvayoor

[2] Assistant Professor, Christ College, Irinjalakkuda, University of Calicut

[3]Little Flower College, Guruvayoor

[4]SRGPTC,Thriprayar,University of Calicut

[5]Christ College, Irinjalakkuda, University of Calicut

POST GRADUATE & RESEARCH DEPARTMENT OF CHEMISTRY
CHRIST COLLEGE (AUTONOMOUS) , iRINJALAKUDA