Research4Life: ARDI, HINARI, AGORA, and OARE

Mussadiq Hussain
Program Officer, Innovation and Technology Support Section
Webinar: Asking questions
Webinar: Asking questions

→ Enter your question
Webinar: Asking questions

→ Press "Send"
Webinar: Asking questions

→ See your questions and answers
Overview

- What is Research4Life (R4L)?
- How can I sign up for ARDI and other R4L programs?
- How can I use ARDI?
Research4Life: Background

- Free or low-cost access to academic and professional peer-review content online for institutions in developing countries
- Over 44,000 journals, books, and databases from over 150 contributing publishers
Research4Life: Partnership

- Public-private partnership
  - WIPO, FAO, UNEP, WHO
  - Cornell University and Yale University
  - International Association of Scientific, Technical & Medical Publishers
  - Microsoft (technology partner)

- Objective: Reducing the scientific knowledge gap between industrialized countries and the developing world (→ Millennium Development Goals)
Research4Life: Programs

ARDI

Research for Innovation

World Intellectual Property Organization

HINARI

Research in Health

World Health Organization

AGORA

Research in Agriculture

Food and Agriculture Organization of the United Nations

OARE

Research in the Environment

United Nations Environment Programme
Research4Life: Eligibility (countries)

- **Group A (Free access)**
  - Inclusion in the UN list of LDCs
  - HDI less than 0.63
  - GNI per capita at or below $1600

- **Group B (Low-cost access)**
  - HDI at or below 0.67
  - GNI per capita less than $5000

→ Not all publishers provide access to all eligible countries
Research4Life: Eligibility (institutions)

- Local, non-profit institutions
  - universities and colleges
  - professional schools
  - research institutes
  - agricultural extension centers and experiment stations
  - teaching hospitals
  - government offices
  - national libraries
  - local NGOs
Research4Life: Beneficiaries

- Participation in Research4Life on institution basis (institutional username and password)
  - Access available to all Authorised Users (employees, permanent or visiting faculty, or students)
- Access available to Walk-in Users while on-site
- Limited downloading and printing permitted
  → electronic reserves and course packs
- Content not to be made available to third parties
ARDI Homepage (wipo.int/ardi)

**ARDI – Research for Innovation**

The Access to Research for Development and Innovation (ARDI) program is coordinated by WIPO together with its partners in the publishing industry with the aim to increase the availability of scientific and technical information in developing countries.

By improving access to scholarly literature from diverse fields of science and technology, ARDI seeks to:

- reinforce the capacity of developing countries to participate in the global knowledge economy; and
- support researchers in developing countries in creating and developing new solutions to technical challenges faced on a local and global level.

Currently, 17 publishers provide access to around 20,000 journals, books, and reference works for 117 developing countries and territories through ARDI.

[Request an account]
Step 1: Check registration status

Registration form is available in three languages: English, Spanish and French

If your institution is an academic, government or research institution in a developing country, you may be eligible to join one or more of the Research4Life Programmes [check eligibility].

Your institution might already be registered with one of the programmes. If so, it can register again for a different programme, but before proceeding, please check the list of registered institutions [registered universities and professional schools by programme].

Please note that (1) Only one registration per programme is required per institution, and (2) More than one contact is required to register an institution. (3) Individuals are not eligible to register, only institutions. (4) Only one programme can be selected for registration at a time. (5) Registration instructions are available in: English, español and français at http://www.research4life.org/howtoregister2/

Once we review your registration, we will issue a common username and password for all staff at your institution. As HINARI, AGORA, OARE and ARDI are in fact virtual libraries, we suggest that your institution’s librarian be our main contact point. Should your institution not have a library, your director will be the main contact.
Step 1: Check registration status
Step 1: Check registration status

<table>
<thead>
<tr>
<th>Sri Lanka</th>
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</thead>
<tbody>
<tr>
<td>Jaffna</td>
<td>University of Jaffna</td>
<td>ARDI</td>
</tr>
<tr>
<td>Nugegoda</td>
<td>University of Sri Jayewardenepura</td>
<td>ARDI</td>
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</tbody>
</table>
Step 2: Complete registration form

**Programme (REQUIRED):**
Please select one programme based on the information needs of your organization. More information on the content available in each programme is available by clicking on the programme logos above.

| **Country, area, or territory (REQUIRED):** |  |
| **Type of institution (REQUIRED):** |  |
| **Institution name full (REQUIRED):** |  |
| **Institution postal address:** |  |
| **Institution city (REQUIRED):** |  |
| **Telephone country code:** | **Telephone city code:** |
| **Institution telephone number (REQUIRED) (NOTE: exclusively numeric; no symbols, no spaces allowed):** |  |
| **Institution fax number:** |  |
| **Institution website:** |  |

Describe briefly your institution and its activities,
(NOTE: max 255 characters):
Step 3: Start using ARDI

Dear Sir/Madam,

Thank you for your interest in the Access to Research for Development and Innovation (ARDI) program, administered by the World Intellectual Property Organization in cooperation with its partners in the scientific and technical publishing community. Through ARDI, your institution can benefit from low-cost access to an extensive collection of scientific and technical journals, books, and other resources.

We are pleased to hereby provide you with the login details required to access to resources made available through ARDI and request that you return the attached Institution User License agreement to us at your earliest convenience and no later than one month after receiving this email.

Your institution's login details are as follows:

Username: 
Password: 
Portal: http://ardi2.wipo.int

Please note that you are encouraged to share your organization’s login details with all employees, permanent or visiting faculty, and students at your institution. The login details may not be shared with users outside of your organization. However, users outside of your organization may use ARDI resources while on the premises of your organization, e.g. if an employee logs into ARDI for them. More information about the use of ARDI resources can be found in the ARDI Frequently Asked Questions (FAQs) at: http://wipo.int/ardi/en/faq/

To begin accessing the resources available through ARDI, please follow these steps:

1. Go to the ARDI homepage (http://www.wipo.int/ardi) and click the “Login” button, or navigate directly to the login page at: http://ardi.wipo.int

- Username and password
- Instructions on using ARDI
Step 4: Sign Institution User License

INSTITUTION USER LICENCE

The Access to Research for Development and Innovation (ARDI) program is coordinated by the World Intellectual Property Organization (WIPO) in collaboration with science and technology publishers and content providers. It is intended to provide access to scientific and technical information to national patent offices and academic and research institutions so as to stimulate innovation and promote the use of industrial property rights in least developed and developing countries. Access to this information will generally be provided at no cost by the Publishers to designated institutions in certain countries (Group A) that fulfil at least one of the following criteria: status as a least developed country, a Human Development Index score below 0.63 or gross national income per capita equal to or below 1800 US dollars. Access to this information will generally be provided at low cost by the Publishers to designated institutions in certain countries (Group B) that do not meet the criteria for Group A but do fulfil the following criteria: a Human Development Index score equal to or below 0.67 or gross national income per capita below 5000 US dollars. Access will be governed by the terms of this Licence.

In order to benefit from this offer, qualifying institutions in Group A and Group B countries that sign up for access to the content made available through ARDI will maintain their existing journal subscriptions, as of the year of their registration with ARDI.

This Licence constitutes a formal and legal agreement between

.......................................................................................................................(Institution)

Outlines rights and responsibilities of participating institutions
Scenario

You have carried out a search in a patent database for inventions related to antifouling coatings for ship hulls and have come across a particularly interesting patent application.

Photo source: Doug Beckers
Scenario

You review the search report associated with the patent application to find related publications.
## International Search Report

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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</table>
ARDI homepage (wipo.int/ardi)

ARDI – Research for Innovation

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R4L login

Type your user name and password.

User name: ardi1k500
Password: ******

Sign In

Our expanded authentication system is currently requiring a second login of your HINARI, AGORA, OARE or ARDI access accounts for some publishers. We apologise for the inconvenience and are working to reduce the need for this second login request.

Nuestro sistema de autenticación ampliado está solicitando el inicio de una segunda sesión en HINARI, AGORA, OARE y ARDI para tener acceso al contenido de ciertas editoriales. Solicitamos disculpas por las molestias y le informamos que estamos
ARDI content portal (logged in)

Logged in from: Sri Lanka
Tip!

Keep the portal page open until you are finished using ARDI
ARDi content portal: Journal list (S)

Journals by Title

Safety and Health at Work (Elsevier) v. 1 (2006) - current issue
Safety Science (Elsevier) v. 18:3 (1999) - current issue
SAS Journal (Elsevier) v. 1 (200) - current issue
Scandinavian Journal of Management (Elsevier) v. 11 (1995) - current issue
Schizophrenia Research (Elsevier) v. 14:2 (1995) - current issue
Science (American Association for the Advancement of Science) v. os-1 (1880) - current issue
Science & Justice (Elsevier) v. 35 (1995) - current issue
Science & Sports (Elsevier) v. 10 (1995) - current issue
Science and Technology (Scientific & Academic Publishing) v. 1 (2011) - current issue
ARDI content portal: Journal list (S)

- *Seminars in Ultrasound, CT and MRI* (Elsevier) v. 16 (1995) - current issue
- *Sensors and Actuators B: Chemical* (Elsevier) v. 23 (1995) - current issue
- *Separation and Purification Reviews* (Taylor & Francis) v. 1 (1972) - current issue
- *Separation and Purification Technology* (Elsevier) v. 11 (1997) - current issue
- **Separation Science & Technology** (Taylor & Francis) v. 1 (1966) - current issue
- *Separation Science and Technology* (Elsevier) v. 1 (1998) - current issue
- *Separations Technology* (Elsevier) v. 5 (1995) - v. 6 (1996)
- *Serials Review* (Elsevier) v. 21 (1995) - current issue
- *Serodiagnosis and Immunotherapy in Infectious Disease* (Elsevier) v. 7 (1995) - v. 8:40606 (1997)
- *Service Science and Management Research* (Science and Engineering Publishing Company) v. 1 (2012) - current issue
Journal homepage

The online platform for Taylor & Francis Group content

Search

Advanced and citation search

Home > List of Issues

Browse journal

View all volumes and issues

Current Issue

Latest articles

Most read articles

Most cited articles

Authors and submissions

Separation Science and Technology

Taylor & Francis

Publication History

Sample copy

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ISSN

0149-6395 (Print), 1520-5754 (Online)

Publication Frequency

18 issues per year

Most read

Existing and Prospective Sorption Technologies for the Removal of Arsenic in Water
Laurent Dambies
Volume 39, Issue 3, 2005

Most cited

Separation of CO2 from Flue Gas: A Review
Douglas Aaron, et al.
Volume 40, Issue 1-3, 2005

State-of-the-art Adsorption and Membrane Separation

WIPO
WORLD INTELLECTUAL PROPERTY ORGANIZATION
Journal homepage
Abstract

A novel silica-polyamine composite material, WP-1, was synthesized according to a new patented procedure for aqueous heavy metal ion removal. The effects of pH and initial concentration of metal ions on adsorption were investigated. Results showed that WP-1 has metal ion capacities in the order Cu(II) > Ni(II) > Fe(III) and generally works best in the 2-4 pH range. Kinetic studies showed the Cu(II) adsorption reaction occurs in a second-order fashion with a rate constant of $4.4 \times 10^{-4}$ s$^{-1}$. Two similar silica-polyamine materials, prepared by different procedures cited in the literature, were compared with WP-1 for Cu(II) ion capacity and mechanical durability. These tests showed that capacities were more than twice as high when the new patented procedure was used, indicating much better coverage of the silica gel. During repeated metal loading and unloading tests, WP-1 maintained up to 94% of its initial Cu(II) capacity and its mechanical integrity for 3000 cycles, whereas testing of the other materials had to be stopped prematurely due to degradation of the materials.

INTRODUCTION

The use of silica gel as a matrix for grafting organic molecules is well known and has many applications in separation technology [1a], [1b], [1c]. The chief drawback of silica gel is that incomplete coverage of the surface with a functionalized silane reagent renders the composite susceptible to dissolution at pH extremes [3a]. In Witts’ study of preparing silica-based materials for application in high-performance liquid chromatography (HPLC), it was found that humidification of the gel yields a monolayer of water adsorbed to the silica surface [2]. Subsequent horizontal polymerization of mixed trifunctional silanizing reagents produces a stabilized material with increased substrate coverage compared to conventionally prepared silica gel. These steps protect the material from degradation at pH extremes by significantly reducing the number of exposed silanol groups on or near the silica surface.

Traditionally, chelating groups are bound to silica gel by first reacting the chelating group with a functionalized silane followed by bonding to the silica surface (Fig. 1a and c) [3a], [3b], [3c]. These organosilanes hydrolyze then bind to the silanol sites on the silica through the process of hydrogen bonding followed by covalent bond formation with concomitant loss of water [4]. When large molecules such as polymers are introduced, steric hindrance becomes a factor in preventing uniform coverage of the silica surface (Fig. 1a and b). Typical silica surface coverage with organochlorosilanes for reverse-phase chromatography coatings is less than 50% due to steric effects [5]. The presence of water in the hydrolysis step (either added, on the substrate surface, or from the atmosphere) will produce polymer oligomers, increasing steric effects and causing the polymer to deposit on the silica surface in clumps rather than in uniform sheets. As a consequence, many silanol sites on the silica surface remain unreacted. The regeneration of many chelating materials involves a step in which the material is rinsed in base. Attack of the unreacted silanol groups by base results in eventual disintegration of the silica, rendering the silica–chelate systems prepared in this manner inappropriate for use in remediation or industrial recovery projects.
Comparison of Novel and Patented Silica-Polyamine Composite Materials as Aqueous Heavy Metal Ion Recovery Materials

SUSAN T. BEATTY, ROBERT J. FISCHER, EDWARD ROSENBERG & DAVID PANG
pages 2723-2739

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CrossRef (10) | Web of Science (15) | Scopus (18)
Article Views: 34

Further Information
Abstract | References | Related articles
Comparison of Novel and Patented Silica–Polyamine Composite Materials as Aqueous Heavy Metal Ion Recovery Materials

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ABSTRACT

A novel silica–polyamine composite material, WP-1, was synthesized according to a new patented procedure for aqueous heavy metal ion removal. The effects of pH and initial concentration of metal ions on adsorption were investigated. Results showed that WP-1 has metal ion capacities in the order Cu(II) > Ni(II) > Fe(II) and generally works best in the 2–4 pH range. Kinetic studies showed the Cu(II) adsorption reaction occurs in a second-order fashion with a rate constant of $4.4 \times 10^{-4} \text{ s}^{-1}$. Two similar silica–polyamine materials, prepared by different procedures cited in the literature, were compared with WP-1 for Cu(II) ion capacity and mechanical durability. These tests showed that capacities were more than twice as high when the new patented procedure was used, indicating much better coverage of the silica gel. During repeated metal loading and unloading tests, WP-1 maintained up to 94% of its initial Cu(II) capacity and its mechanical integrity for 3000 cycles, whereas testing of the other materials had to be stopped prematurely due to degradation of the materials.

INTRODUCTION

The use of silica gel as a matrix for grafting organic molecules is well known and has many applications in separation technology (1). The chief
Troubleshooting

- Is the portal page still open?
- Is the journal available through ARDI (for the publication period you are accessing)?
We would like you to share with us your opinion on this webinar. All participants will receive an email after this webinar with a link to a very short survey, which will take you only 2 – 4 minutes to complete. We value your input and are looking forward to your replies.