Increasing Access to Clemson University Patents

Jan Comfort, *Clemson University*
Andy Wesolek, *Clemson University*
Lisa Bodenheimer, *Clemson University*
Brenda Burk, *Clemson University*

Available at: https://works.bepress.com/jan_comfort/21/
Increasing Access to Clemson University Patents

Jan Comfort | Andy Wesolek | Lisa Bodenheimer | Brenda Burk
Medium sized public land grant institution
17,000 undergrads, 5,000 grads
5,000 faculty and staff
80 undergrad and 110 grad programs focused on STEM

Ranked 20th by US News & World Report 2015
(doctoral granting public universities)
What is a patent?

A property right granted by the government of the United States to an inventor “to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States for a limited time in exchange for public disclosure of the invention when the patent is granted.”

U.S. Constitution
Article 1, Section 8, Clause 8

“Congress shall have power...
To promote the progress of science and useful arts by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.”
A patent must be:

• New (never written about or disclosed)
• Useful (so no perpetual motion machines)
• Unobvious (no tiny changes/improvements)
How do patents fit into the research process?

A patent is NOT a journal article (purpose is to report on original research). A patent documents a process or a discovery for purposes of commercialization.
Lots of Information is *ONLY* Available in Patents

80% found only in patents!*

How we provide access to patents

1. Summon
Nanoparticle

From Encyclopædia Britannica

Ultrafine unit with dimensions measured in nanometres (nm; billionths of a metre). Nanoparticles exist in the natural world and are also created as a result of human activities. Owing to their submicroscopic size, they have unique material characteristics, and manufactured nanoparticles may find practical applications in a variety of areas, including medicine, engineering, catalysis, and environmental remediation.

Read more

1. NANOPARTICLE
   by KANWAR, JAGAT RAKESH; KANWAR, RUPINDER, KAUR
   11/2012
   Permalink
   The present invention relates to methods of producing nanoparticles. In particular, the invention relates to nanoparticles for delivery of an active agent including drugs and vaccines. La...

2. NANOPARTICLE
   by AMI, MAKIKO; NEMORI, RYOICHI; KOJIMA, MASAYOSHI
   10/2007
   Permalink
How we provide access to patents

2. LibGuides
Again, doesn’t exactly highlight Clemson patents...
Then one day it hit me. Why not add Clemson patents into TigerPrints – our IR? And then, why not also include them in the Library’s catalog? And the project Was born.
Increase Visibility of Clemson’s Research
Increase the Chance that Clemson Patents Will be Discovered
Increase the Chance that Clemson Patents Will be Licensed
Promote TigerPrints
How to get to TigerPrints
Articles and Research

Article Indexes and Databases

Multiple Subjects
- Academic Search Complete
- LexisNexis
- Academic OneFile
- Web of Science (citation indexes)
- Ingenta
- Google Scholar (with Clemson links)

All Databases
- Databases A-Z - see a list of all databases by name
- #ABCDEFGHIJKLMNOPQRSTUVWXYZ

Research by Subject
- Accounting
- Agricultural Education
- Agriculture
- Animal & Veterinary Sciences
- Anthropology
- Aquaculture
- Architecture
- Art
- Astronomy
- Education
- Educational Counseling
- Educational Leadership
- Electrical & Computer Engineering
- Engineering
- English
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- Literature
- Management
- Marketing
- Materials Science
- Mathematics
- Mechanical Engineering
- Medicine
- Military Studies
- Music

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At a Glance

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William C. Brumfield

Reader from: Glen Allen, Virginia, United States

Community and Place: A Study of Four African American Benevolent Societies and their C...
Kimberly Martin
All Authors

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5 of 1377
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339,823 Downloads in the past year
I am broadly interested the evolution of musculoskeletal function in animals. To understand how animals perform the tasks that allow them to survive, I test the functional consequences of variation in biological design through experimental studies of musculoskeletal biomechanics, primarily in vertebrate systems. To understand how function evolves, I take a comparative approach to these analyses, conducting studies in a phylogenetic context and frequently drawing on data from the fossil record as well as extant species. Studies of vertebrate locomotion are a particular focus in my lab, and our recent research in this area has included studies of (1) the evolution of limb bone safety factors through studies of limb bone loading in amphibians, reptiles, mammals, and fossil mammal-like reptiles, (2) the kinematics and hydrodynamics of aquatic locomotion in turtles, (3) how muscle function changes between locomotor behaviors in alligators and turtles, (4) comparisons of limb bone allometry among reptilian, amphibian, and mammalian lineages, and (5) comparisons of the mechanics of waterfall climbing among species of Hawaiian goboid fishes. I am also generally interested in bone biomechanics, and my lab has initiated long term work examining the evolution of the mechanical properties of vertebrate limb bones and deer antler, with a particular emphasis on the application of phylogenetic comparative methods in these analyses. Other projects include examinations of feeding and sucker function in goboid fishes, studies of musculoskeletal function in insects, and paleoecological and taphonomic studies of Cretaceous fossil assemblages from North America.

**Articles**


  Selective pressures generated by locomotor challenges act at the level of the individual. However, phenotypic...

- **Evolutionary Novelty versus Exaptation: Oral Kinematic in Feeding versus Climbing in the Waterfall-Climbing Hawaiian Goby Sicyopterus stimpsoni** (with Joshua Cullen, Takashi Maie, and Heiko L. Schoenfuss), *PLOS ONE* (2013)

  Species exposed to extreme environments often exhibit distinctive traits that help meet the demands of...


  Many species of gobid fishes adhere to surfaces using a sucker formed from fusion of the anterior premaxillai...
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Sessions
...Of course, we have to have content for people to come see

• Patents!
  – No copyright complications
  – Already digital
  – Clemson faculty have produced a ton of them!*

*one ton = ~328 total patents.
How to most effectively add 328 records to TigerPrints?

Crosswalk this
...to this
Oxygenated pitch and processing same

Ludovic P. Cornec
Charles C. Pain

Document Type
Patent

Publication Date
7-6-1993

Patent Number
patent number 5225070

Abstract
A method is provided which includes infusing oxygen into pitch material without stabilizing the oxygen-infused pitch material. In addition, the invention includes further processing steps (including heat stabilization in either an inert atmosphere or an oxygen-containing atmosphere, deformation, pyrolysis, and/or composite formation) performed after or in conjunction with the oxygenation process. Moreover, the invention includes the composition of matter (in any of a number of different physical forms such as powder, fiber, shaped article, composites) resulting from the practice of this oxygenation process, either alone or in conjunction with the further processing steps. The composition has a homogeneous distribution of oxygen and can be heat stabilized in an inert atmosphere.

Application Number
07/737446

Assignees
Clemson University (Clemson, SC)

Filing Date
1991-07-29

Primary Class
208/44

Other Class
208/6, 208/22
Copyright Vs. Contracts
USPTO to the Rescue!

USPTO Patent Full-Text and Image Database

Data current through April 21, 2015..

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Search Reset

Patents from 1790 through 1975 are searchable only by Issue Date, Patent Number, and Current US Classification.
When searching for specific numbers in the Patent Number field, patent numbers must be seven characters in length, excluding commas, which are optional.
328 Clemson Patents
07/10/2013 - 8/9/2015

Total Views in TigerPrints: 3144
Total Downloads in TigerPrints: 1968

632 views from the online catalog
Results

• Good source of content and “Google Juice” for the Repository

• Enhanced visibility of Clemson Scholarship

• Opportunity to recruit more content through congratulatory emails
From TigerPrints to the Catalog

Repurposing Electronic Patents
Metadata for the Catalog
Why do this? Why it is innovative?

• Patents become a tool for outreach and promotion when they become part of the IR and the catalog.

• The catalog is one of the library’s most authoritative and widely available resources.

• The cross-walking of IR metadata to MARC also extends the function of the catalog to include non-traditional library materials.
Disclosed are photoluminescent particles. The particles include a core nano-sized particle of carbon and a passivation agent bound to the surface of the nanoparticle. The passivation agent can be, for instance, a polymeric material. The passivation agent can also be derivatized for particular applications. For example, the photoluminescent carbon nanoparticles can be derivatized to recognize and bind to a target material, for instance a biologically active material, a pollutant, or a surface receptor on a tissue or cell surface, such as in a tagging or staining protocol.
How did we approach this?
Planning for the project

MARC and Millennium: with record in hand

– Chose MARC tags for metadata particular to patents, taking into account our Millennium MARC tables and indexing rules.

– Created a Millennium load profile, to add system-specific codes and MARC fields to the records.

– Testing in our development (test) database and in our test public catalog to see how searching worked.
Planning for the project, part 2:
Created documentation/training materials

On our StaffWeb:
Step 1, Harvested IR metadata using MarcEdit:
Step 2, Manipulated TigerPrints metadata with MARCEdit
Step 3, The final load into our local public catalog
Things to consider during implementation

• Local policies for including minimal level records in your catalog
• Your ILS and its capabilities for indexing, batch editing, and display
• How these records will go into your discovery tool
• This can be considered a work in progress
IT'S JUST THE BEGINNING...
A tobacco harvester comprising a mobile unit with an endless defoliation belt mounted on roller assemblies. There are front and rear upper assemblies and a lower intermediate assembly to provide a lower V-shaped path including a front stripping course, a rear conveyor course and a generally horizontal return course. The belt is provided with openings spaced apart a sufficient distance so that as the belt is travelling diagonally downwardly over its front stripping course each of the stalks will enter one of the openings and the sides of each opening will push the leaves of the stalk downwardly and remove them.

18 Claims, 17 Drawing Figures
One step further . . .
One step further . . .
One step further . . .

• Office of Research
  – Patent Records to varying degree of details

• Dept./School Records
  – School of Agriculture, Forestry and Environmental Sciences
  – Dean’s Correspondence
  – Pee Dee Research Center Records

• Administrative Records
  – President’s Records
  – General Counsel Records