UNT Libraries Digital Infrastructure

Mark Phillips
Assistant Dean for Digital Libraries
UNT Libraries
December 10, 2012
A timeline
2003 – Began working with IndexData to develop first infrastructure
2004 – Realized that we didn't know what we wanted
2005 – The Portal to Texas History launches
2006 – UNT Libraries' Digital Collections launches
2007 – Scale became a problem. Keeping up with content and access
2008 - We took a step back... to rethink our approach
2009 – Portal to Texas History launched on Aubrey and Coda Infrastructure
2010 – UNT Digital Library launched on Aubrey and Coda Infrastructure
2012 – The Gateway to Oklahoma History launched on Aubrey and Coda infrastructure
UNT Libraries Digital Collections
Over 400,000 unique digital items.
8 million primary files
(pages, images, pdf files)
Unified discovery via library website
Access:

Public (359,847)
Use restricted to UNT Community (6,373)

Partner:

UNT Libraries Government Documents Department (84,119)
Oklahoma Historical Society (44,495)
UNT Libraries (41,038)
The Dolph Briscoe Center for American History (14,654)
Hardin-Simmons University Library (13,871)

More...

Resource Type:

Newspaper (157,366)
Photograph (76,813)
Text (42,477)
87 TB of 1st copy archival data in Coda
How robust digital library infrastructure changes the conversation
Moving the conversation from how to what
Examples
Faculty scholarship
The Scholarly Works Collection is home to materials from the UNT community's research, creative, and scholarly activities. It serves as UNT's Open Access Repository. This collection brings together articles, papers, artwork, music, research data, reports, presentations, and other scholarly and creative products representing the expertise in our university community.

UNT Scholarly Works aims to:

- Provide easy access to valuable scholarly and creative materials from the UNT community.
- Promote discovery through effective search and navigation tools.
- Secure long-term access through stewardship and preservation.
- Ensure sustainability through continuing system improvements.
- Showcase UNT's research and creative achievements to a worldwide audience.

To learn more about UNT Scholarly Works, see our web page or contact us at untrepository@unt.edu.

Browse the holdings of this collection.
Empowering Digital Libraries Users through Combining Taxonomies with Folksonomies

Date: October 2012
Creator: Almench, Daniel Gelaw
Description: This poster presents discussion on empowering digital library users through combining taxonomies and folksonomies. Given the increase in the number and heterogeneity of digital resources, it has become increasingly difficult for researchers to find relevant contents in their own areas, let alone related disciplines. As more users move into the more self-structured digital environment, a new paradigm for user experience will be required.
Contributing Partner: UNT Libraries

Repurposing Existing Digital Resources and Smoothing Interdisciplinary Communication: Environmental Policy Collection
Alzheimer’s Disease and Potential Benefit of Music Therapy: A Work in Progress

Description:

This poster discusses research on Alzheimer’s disease (AD) and the potential benefit of music therapy. People are living longer due to advancement in the medical and technology fields. In 2008, 12.6% of Americans were 65 years or older, with 10% of this group suffering from AD. Since 1980, the number of people with the disease has doubled. The cause and cure are currently unknown. AD can be devastating, as memory and functioning begin to decline and once-simple tasks become difficult. While research to find a cure is underway, music therapy may be helpful in increasing the quality of life for sufferers. When recognizable music is played, many patients are able to hum or sing along with the song despite not remembering what they had just said. This suggests that music therapy can have a positive effect on people suffering from AD.

Creator(s):

- Noll, Lindy
- Eva, Susan

Creation Date:

April 15, 2010

Partner(s):

UNT Honors College
About | Browse this Partner

Collection(s):

UNT Scholarly Works
About | Browse this Collection

Usage:

- Total Use: 36
- Past 30 days: 12
- Yesterday: 0
The Amyloid β protein combined with genetic factors is currently created from the proteins accumulate in the brain and affect tasks become difficult. Rats who were trained to pull levers were injected with the AD, the effects wore off the next day. This suggests that the protein adulthood, eventually causing AD. There are vaccines and a developed to prohibit the protein from accumulating (241).

The cholinergic hypothesis suggests that a choline acetyltransferase. This enzyme is used to create acetylcholine, a neurotransmitter skills (Francis 137). When given medication that blocks the a developed amnesia. A medication that can reverse these effects.

Since patients are able to sing words to a song, but have trouble affected parts of the brain. The right hemisphere is considered hemisphere is more logical. The earliest case study on the right an attack of a violent illness which resulted in a paralysis of loss of speech. He can sing certain hymns, which he had learned distinctly as any healthy person...Yet this man is dumb, cannot communicate by making signs with his hand” (Springer and
Student scholarship
What's Inside this Collection.

Theses and dissertations represent a wealth of scholarly and artistic content created by masters and doctoral students in the degree-seeking process. In 1999, the University of North Texas was one of the first American universities to begin requiring electronic theses or dissertations (ETDs) for graduation. Some ETDs in this collection are restricted to use by the UNT community.

Browse the holdings of this collection
Electrostatic Mechanism of Emission Enhancement in Hybrid Metal-semiconductor Light-emitting Heterostructures

Description:
IF-V thyratrons have been put to use in a variety of applications including laser diodes for modern LED devices and for solid-state white lighting. Plasma has become the forefront over the past decade as a means for increasing the internal quantum efficiency (IQE) of devices through resonant interaction with surface plasmons which exist at metal/dielectric interfaces. Increases in emission intensity of an order of magnitudes have been previously reported using silver thin-films on InP/InAlGaAs MQW’s, the dependence on resonant interaction between the plasmon and the light emitter in the applications of plasmonics for light emission. This dissertation presents a new non-resonant mechanism based on electrostatic interaction of carriers with induced image charges in a nearby metallic nanoparticle. Enhancement similar in strength to that of plasmonics is observed, without the restrictions imposed upon resonant interactions, in this work we demonstrate several key features of this new interaction, including intensity-dependent saturation, increased in the radiative recombination lifetime, and strongly nonhomogeneous light emission. We also present a model for the interaction based on the aforementioned image charge interactions. Also discussed are results of work done in the course of this research leading to the development of a novel technique for strain measurement in light-emitting structures. This technique makes use of a spectral fitting model to extract information about electron-phonon interactions in the sample which can then be related to strain using theoretical modeling.

Creator(s):
Lopais, Antonio

Creation Date:
May 2012

Partner(s):
UNT Libraries
About | Browse this Partner

Collection(s):
UNT Theses and Dissertations
About | Browse this Collection

Usage:
Total Uses: 20
Past 30 days: 15
Yesterday: 0
Electrostatic Mechanism of Emission Enhancement in Hybrid Metal-semiconductor Light-emitting Heterostructures

extremely sensitive to the threading dislocation density [3]. Therefore much effort has been made towards controlling the dislocation density in the GaN buffer sample. A number of techniques have been developed towards this end, many of which make use of lateral growth to bend the threading dislocations, preventing them from reaching the surface of the buffer layer.

2.3.1 Epitaxial Layer Over-Growth

One such method is epitaxial layer over-growth (ELOG) [17]. In ELOG, a mask layer of SiO₂ is grown atop a GaN seed layer and partly removed to provide apertures

![Diagram](image_url)

Figure 2.2 Schematic diagram of ELOG-grown GaN. A GaN buffer is grown on sapphire substrate. b, SiO₂ is grown on the GaN and partly removed to create a mask to constrain growth. c, Growth is resumed, and proceeds only through the apertures in the mask, the blue arrows signal the direction of growth. d, After the mask growth proceeds normal to the surface in the seed regions and parallel to the surface in the wing regions. TDs only remain in the seed region.

Electrostatic Mechanism of Emission Enhancement in Hybrid Metal-semiconductor Light-emitting Heterostructures

This item is available in multiple formats. Choose one below.

**Read this Thesis or Dissertation**
- Number of Items: 105
- Filetype: jpg (image)

**Download this Thesis or Dissertation**
- Number of Items: 1
- Filetype: pdf (file)

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Feedback:
If you are having problems, need to report errors, or have questions or comments for the staff, please use our Feedback Form.
Leveraging existing infrastructure to meet new needs
Research data
Joseph Britton Freshwater Mussel Collection

What's Inside this Collection.

About Joseph C. Britton, Jr.

Joseph C. Britton, Jr. was born on October 14, 1942 in Fort Worth, Texas. He earned a Bachelor's of Science and a Master's Degree in Biology from Texas Christian University (1963 and 1965 respectively). He earned a Ph.D. from George Washington University in 1970. His career began as the Assistant Director of Exhibits at the Smithsonian Institution National Museum of Natural History in Washington, D.C. where his early studies were of the marine bivalve family Lucinidae. Dr. Britton returned to his hometown of Fort Worth, Texas in the early 1970s and accepted a faculty position in the Biology Department at Texas Christian University. His research interests then transitioned to freshwater bivalves. He surveyed Texas waters for native mussels and studied the ecology and distribution of the invasive freshwater...
Megaloniass nervosa, Specimen #1647

Hammondtree, Sarah. Megaloniass nervosa, Specimen #1647. UNT Digital Library.
Statistics for Joseph Britton Freshwater Mussel Collection

3,461 Total Uses / 1,617 Total Items (7,622 files) / 1,536 Visible / 81 Hidden

Usage by Month/Year

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Documenting Plate Waste in Middle School Cafeterias Using Digital Still Photography

What's Inside this Collection.

These images document the disappearance of food and beverage items by photographing trays before and after schoolchildren ate lunch. The images were taken in North Texas during lunchtime in urban middle schools that participated in the National School Lunch and School Breakfast Programs.

About the Project

These photographs come from USDA-ERS Project #10.263, "Testing a Food Choice Innovation for Middle School Cafeterias," conducted from October 2010 to May 2011. Researchers were P. Connors, C. Bednar, B. Davenport, and L. Kennon.

Equipment and Procedure

Three Canon PowerShot 1400 cameras with 8 GB memory cards were used. An apparatus forming a T-aerial was constructed using ¾ inch PVC pipe with fittings and a GorillaGripper to suspend each camera at a height of two feet above a black FOAMCORE board cut to fit the top shelf of a food trolley. To position trays directly below the camera an 8x15 inch white rectangle replicating dimensions of the Genpak five-compartment Styrofoam lunch tray was outlined on the
Description: Images taken at a North Texas middle school documenting the food on a lunch tray and the remains on the same tray after the meal was consumed. These images are part of a study to document what food students are eating.

Creator(s): Connors, Priscilla

Location(s): United States - Texas

Creation Date: March 30, 2011

Partner(s): UNT College of Merchandising, Hospitality and Tourism

Collection(s): Documenting Plate Waste in Middle School Cafeterias Using Digital Still Photography

Usage: Total Uses: 25
Past 30 days: 8
Yesterday: 0
Connors, Priscilla. Student Lunch Tray: 01_20110330_01B5919. UNT Digital Library.
Statistics for Documenting Plate Waste in Middle School Cafeterias Using Digital Still Photography

4,238 Total Uses / 1,414 Total Items (2,830 files) / 1,414 Visible / 0 Hidden

Usage by Month/Year

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Building collections with born-digital freely available content
Congressional Research Service Reports

What’s Inside this Collection.

About This Collection

The Congressional Research Service (CRS) does not provide direct public access to its reports, requiring citizens to request them from their Members of Congress. Some Members, as well as several non-profit groups, have posted the reports on their web sites. This site is not affiliated with the Congressional Research Service, but aims to provide integrated, searchable access to many of the full-text CRS reports that have been available at a variety of different web sites since 1980.

The information on this site is compiled and made available as a public service by the Government Documents Department at the UNT Libraries. UNT does not make any warranty as to the accuracy, reliability, or completeness of the information and is not responsible for any errors or omissions or for results obtained from the use of the information. Distribution of the information does not constitute such a warranty. Use of the information is the sole responsibility of the user.

About the Congressional Research Service
Environmental Policy Collection

What's Inside this Collection.

About This Collection

The Environmental Policy Collection contains a variety of open access resources that provide a balanced view on environmental issues and their potential consequences. The current focus of the collection is climate change, and the documents come from such agencies and individuals as:

- United States Climate Change Science Program
- National Oceanic and Atmospheric Administration
- International Geosphere-Biosphere Programme
- Climate Change and Agriculture and Food Security
- Earth System Science Partnership
- Intergovernmental Panel on Climate Change
- United Nations Environment Programme
- World Meteorological Organization
- University of North Texas (UNT) graduate students

About This Project

The UNT Libraries are working to identify, collect, organize, and manage digital resources relevant to environmental policy. For this endeavor, the Libraries will provide digital infrastructure and stewardship to ensure perpetual access to these resources.
Improved infrastructure has allowed us to scale with demand
Infrastructure Change
It has moved the conversation from

“How will we do it?”

to

“What do we want to do?”
Mark Phillips

mark.phillips@unt.edu

http://texashistory.unt.edu/
http://digital.library.unt.edu/
http://gateway.okhistory.org/