



LENR Research Documentation

What Have We Learned So Far?

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1



LENR Research Documentation Initiative

- Origin: Storms Pilot Project
- Host: LENRGY, LLC
- Preceded by...
 - LENR public policy analysis
 - Assistance to interested parties (e.g., National Instruments)



*Portion of Storms' Hardcopy Files
(Now at Marriott Library)*

2

LENR Research Documentation Initiative

- Objectives
 - Capture records while still available
 - Preserve for possible reanalysis
 - Honor the LENR “heroes”
- Methods/Procedure
- Status
 - 28 Participants
 - 17 Projects
 - 21 Reports



3

What Have We Learned About....

- LRDI Projects
- Participants
- Records
- Preservation & Archiving
- Interviews
- Status of the LENR Field
- Future Opportunities

Participant:
George Miley



Records:
Dave Nagel



Archive: Storms at
Marriott Library



4

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What Have We Learned About....

LRDI Projects?

- LRDI Umbrella for Projects
- Systematic Procedure
- Confidential with Participants
- Site Visits Are Essential
- Hands-on Record Collection
- Interviews Best Conducted in Person: Phone Recording Also Available
- Document Records with Memos Leading to Project Report
- “Live” & “Legacy” Projects
 - Actively with Participant
 - Participant Not Available

17 LRDI Participants

5

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What Have We Learned About....

Participants?

<p>As Researchers...</p> <table border="0"> <tr><td>Competent</td><td>Conscientious</td></tr> <tr><td>Creative</td><td>Experienced</td></tr> <tr><td>Dedicated</td><td>Fractious</td></tr> <tr><td>Driven</td><td>Varied</td></tr> <tr><td>Secretive (sometimes...)</td><td>Open-Minded (mostly...)</td></tr> </table>	Competent	Conscientious	Creative	Experienced	Dedicated	Fractious	Driven	Varied	Secretive (sometimes...)	Open-Minded (mostly...)	<p>As People...</p> <table border="0"> <tr><td>Professional</td><td>Articulate</td></tr> <tr><td>Honest</td><td>Original</td></tr> <tr><td>Adventurous</td><td>Personable</td></tr> <tr><td>Competitive</td><td>Opinionated</td></tr> <tr><td>Hardworking</td><td>Fun!</td></tr> </table> <p>Regarding Projects...</p> <table border="0"> <tr><td>Supportive</td><td>Engaging</td></tr> <tr><td>Cooperative</td><td>Open</td></tr> <tr><td>Receptive</td><td>Helpful</td></tr> <tr><td>High Integrity</td><td>Enjoyable</td></tr> </table>	Professional	Articulate	Honest	Original	Adventurous	Personable	Competitive	Opinionated	Hardworking	Fun!	Supportive	Engaging	Cooperative	Open	Receptive	Helpful	High Integrity	Enjoyable
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Graham Hubler, Ashraf Imam, Dave Nagel

6


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What Have We Learned About....

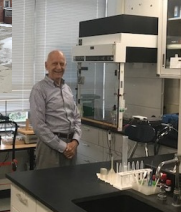
Participants' Labs?

- Variety of LENR Methods
 - Electrolytic
 - Gas loading
 - Gas discharge
 - Several others
- Variety of Signatures
 - Excess heat
 - Nuclear: tritium, low-level radiation, neutrons, etc.
- Variety of Facilities
 - University labs
 - Private commercial labs
 - Home labs

George Miley's Fusion Studies Lab, Univ. of Illinois




Dave Nagel in His LENR Lab at GWU



Tom Claytor's High Mesa Technology, White Rock, NM



Dennis Letts' Home Lab, Austin, TX



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7

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What Have We Learned About....

Participants

In Memoriam...

- Charles Beaudette
- Peter Gluck
- Ludwig Kowalski
- Mahadeva Srinivasan









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8

What Have We Learned About....

LENR Records?

- Generally of Two Types
 - Documents
 - Data
- Main Variables
 - Original data type
 - Collection & recording
 - Media (hardcopy, electronic)
 - Completeness
 - Recordkeeping methods
 - Retention, preservation
- Major Impact of the Digital Age!



Tom Passell with His LENR Lab Records
Boxed for Archiving
Mountain View, CA

9

What Have We Learned About....

Records Categories?

- Publications & presentations
- Unpublished reports
- Electronic files: current & legacy media
 - Documents (reports, etc.)
 - Experimental data
- Hardcopy records
- LENR laboratory
- Lab and other notebooks
- LENR books and journals (library)
- Conference proceedings (e.g., ICCF)



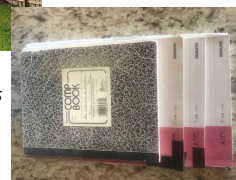
SKINR Electronic Files

Nagel's Hardcopy Files



Letts' LENR Laboratory

Miles' Lab Notebooks



10

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What Have We Learned About....

Preservation & Archiving

Univ. of Utah
Marriott Library

- Different Solutions for Record Types
- Hardcopy Records: Univ. of Utah Marriott Library
 - “Home” of cold fusion
 - Strong interest in CF records
 - Substantial current holdings
 - LRDI pilot: Ed Storms, 11/2021
 - Tom Passell underway
- Electronic Records: Not Yet Determined
 - Currently backed up on two hard drives
 - Central repository needed
 - Need for access & confidentiality





Special Collections
Reviewing Room



Storms LENR Records
Being Loaded for Transport
to Marriott Library

11

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What Have We Learned About....

Interviews

- Essential for LRDI Projects
- Complement to Records
- Necessary for Research Timeline
- More than One Is Best for Completeness
- The “Glue” for Reports
- In-Person Is Superior to Phone Recording
- Recording with Cell Phone App
- Phone Call Recording with APP
- Transcription by Online Service



Smart Recorder
(In-Person)





Tape-A-Call
(by Phone)



Rev.com
(Transcription)

Used Successfully in LRDI

12

What Have We Learned About....

Status of the LENR Field?

- Confirmations!
- Rejection & Marginalization
 - Hallmark of the field
 - Catch-22 situation
 - Impediment for resolving reproducibility & explanation
- Research Community
 - “Circle the wagons” culture
 - Camaraderie, mutual respect
 - Self-selection of interested parties
 - Loosely bonded; sometimes fractious members

You were rejected. Do you have evidence to assure me that funding is now warranted?

↓


I need the funding to develop the evidence.

↓

I'm sorry, if you don't have the evidence, we can't provide funding.

Catch-22 Diagram for Cold Fusion Status



13





What Have We Learned About....

Status of the LENR Field?


- Stand-Alone Scientific Processes & Tools
 - Society & awards (ICMNS, Preparata Award)
 - Conferences (ICCF)
 - Publications (JCMNS)
 - Magazine (IE)
 - Online library (LENR-CANR.org)
 - Online chat (Google Group)
- Variable & Inconsistent Funding
 - Spotty resources from government agencies
 - Private investors: for-profit, angel
 - Much reliance on non-traditional sources
- Need for Younger Researchers!



LENR-CANR.ORG

A library of papers about cold fusion



14

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Future LRDl Opportunities

- Seems Like “Just Getting Started”
 - More participants
 - Greater depth for existing projects
- Permanent Archive
 - Marriott Library for hardcopy
 - Solution TBD for electronic
- Integrated LRDl Report
 - What has been achieved?
 - What has been learned?
- Outreach & Communications: Emphasize the Public Realm
 - Publications & magazine articles
 - Presentations
 - Within and outside the LENR field
 - Seek permission for project reports to public realm
 - LRDl findings to broader scientific community
 - Advancing the LENR cause: How can this effort improve the prospects of LENR?

15

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In Conclusion...

- LENR Realization Is Essential to Humanity!
 - Clean, cheap, safe, reliable energy source
 - Abatement of global climate change
- The Loss of LENR Research Records Would Be a Tragedy
 - For the participants
 - For the field
 - For achieving LENR and its benefits
 - For the future of humankind
- The LRDl Objectives are Being Met
 - Methods well established
 - Many records preserved
 - Long-term archive partly solved
 - Universally accepted as a good idea
 - Powerful combination of records and interviews
- LRDl Projects are Fun!

16



Thank You!

- Participants (and several spouses!)
- Anthropocene Institute
- New Energy Foundation & IE Magazine
- Marriott Library, University of Utah
- LENR-CANR.org
- Ed Storms: Pilot projects for the LRD1 and Marriott Library

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