

2017 STEM LIBRARIANS SOUTH CONFERENCE

*TRAIL DOCUMENTS – EVALUATE
SCIENTIFIC WORKS*

ISABEL ALTAMIRANO, MLIS
ENGINEERING LIBRARIAN

CREATING THE NEXT®

OUTLINE



Brief History of TRAIL

Partnerships

Collections Available

Information Evaluation Example



BRIEF HISTORY OF TRAIL



Purpose: “TRAIL was formed to meet the challenges of access to U.S. technical report literature. These reports are rapidly disappearing from library shelves and documents collections. TRAIL identifies and digitizes important technical reports, and deposits the resulting files and metadata in trusted repositories: the HathiTrust and the University of North Texas (UNT) digital libraries. TRAIL's work is made possible by its member institutions, which support digitization and cataloging costs through an annual membership fee. .”

BRIEF HISTORY OF TRAIL

Collection has 61, 500 technical reports as of 6/2017.



Majority are from the 20th century.

Partnerships:

Center for Research Libraries (CRL) - website and collaborative workspace

University of Arizona – Processes Documents (organizes shipments, creates catalogs, sends to either U Mich or UNT)

University of Michigan/Google/Hathi Trust – Digitizes regular sized paper reports

University of North Texas – Digitizes larger documents, microfiche, or objects

University of Washington – Developed & maintains search interface

CRL RESEARCH GUIDE COLLECTIONS

Member institutions
nominate a TRAIL
representative.

TRAIL seeks volunteers to
work on all phases of
preserving the
documents.

There are currently 13
Personal Members; their
institutions do not
participate in TRAIL but
these members are
interested in its mission.

Army Corps of Engineering

Coastal Engineering Research Center

Atomic Energy Commission

Ballistic Research Laboratories

Bureau of Mines

Coast Guard

Department of Commerce

Department of Energy

Environmental Protection Agency

Fish & Wildlife Service

Geological Survey

National Advisory Committee for
Aeronautics

National Bureau of Standards

National Earthquake Information Center

Nuclear Regulatory Commission

Office of Saline Waters



TRAIL INTERFACE



Located at CRL website and maintained by University of Washington.



Please let us know how well you were able to find what you were seeking by taking [this](#) 30 second survey.



Search U.S. government technical reports digitized or harvested by TRAIL.

KEYWORD SEARCH

Enter your search term(s):

 [advanced search]

0 results returned

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HATHI TRUST DIGITIZATION EXAMPLE

DECLASSIFIED 12/6/1955



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The extraction of uranium from sodium nitrate solutions with ...
Googin, John M.

[View full catalog record](#)

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Partner login required

Text Only Views

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See the [HathiTrust Accessibility](#) page for more information.

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[Login](#) to make your personal collections permanent

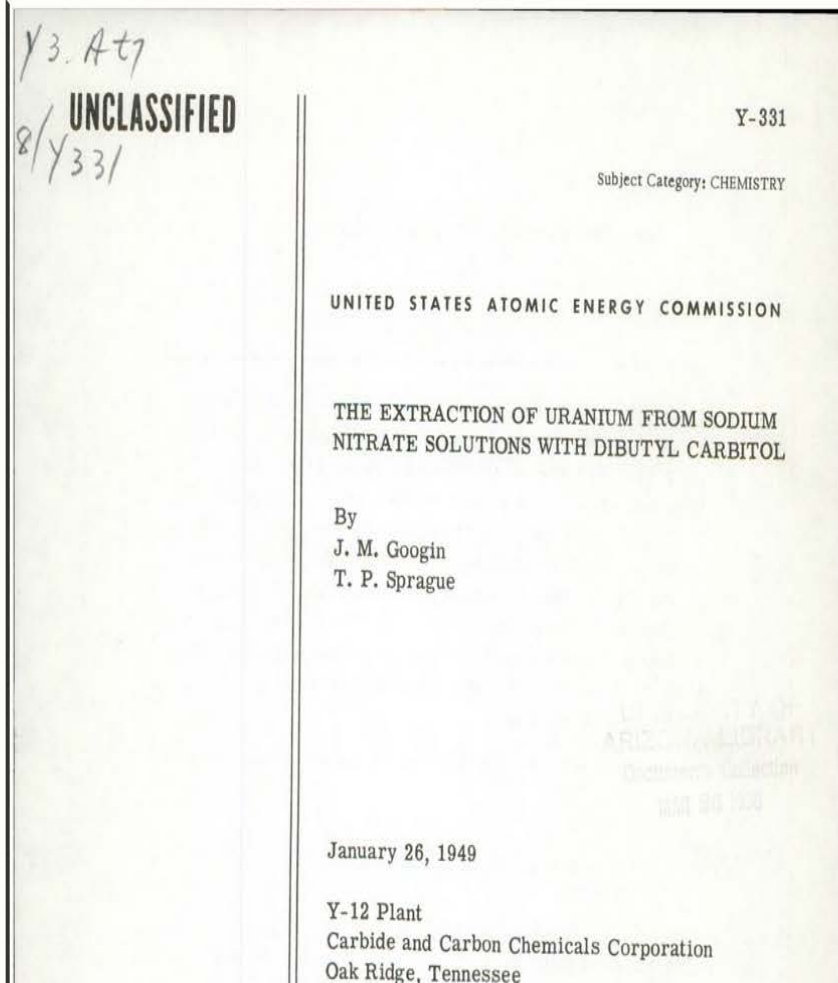
Select Collection

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Permanent link to this book



ADVANCED SEARCH



Please let us know how well you were able to find what you were looking for by taking [this](#) 30 second survey.

Document Type NBSA

Report Number

Title

Publication Year

[\[basic search\]](#)

SIMPLE SEARCH FOR URANIUM

Published Year

- [1900-1909 \(458\)](#)
- [1910-1919 \(4\)](#)
- [1920-1929 \(1\)](#)
- [1940-1949 \(168\)](#)
- [1950-1959 \(754\)](#)
- [1960-1969 \(456\)](#)
- [1970-1979 \(51\)](#)
- [1980-1989 \(41\)](#)
- [1990-1999 \(2\)](#)

Subject

- [Uranium \(447\)](#)
- [Uranium compounds \(124\)](#)
- [Nuclear energy--Research--United States \(120\)](#)
- [Uranium alloys \(90\)](#)
- [Uranium oxides \(72\)](#)
- [Uranium--Metallurgy \(66\)](#)
- [Uranium--Analysis \(65\)](#)
- [Nuclear fuel elements \(56\)](#)
- [Uranium ores \(55\)](#)
- [Extraction \(Chemistry\) \(53\)](#)
- [More...](#)

Author

- [Saller, Henry A. \(19\)](#)
- [Hicks, Clark T. \(18\)](#)
- [Nelli, Joseph R. \(17\)](#)
- [Dickerson, Ronald F. \(15\)](#)
- [Rough, Frank A. \(15\)](#)
- [Rein, James E. \(13\)](#)

Effects of heating on radon-222 emanation from domestic uranium ores

Quarterly report on precipitants and complexing agents for Uranium.

The specific heats at high temperatures of uranium, uranium trichloride and uranium tetrachloride

The hydrolytic behavior of uranium and the transuranic elements.

The extraction of small amounts of uranium from magnesium nitrate solutions with dibutyl carbitol

Mass Analysis of uranium isotopes by emission spectroscopy

The extraction of uranium from sodium nitrate solutions with dibutyl carbitol

Further classification of the spectrum of singly-ionized uranium / by J.R. McNally, Jr. and G.R. Harrison, M.I.T.

The ionic absorption spectra of the uranium halides in a polar, non-aqueous solvent

Status and future requirements for the uranium-233 power reactor program

Fuel cycle development :semiannual progress report for period ending ...

Stable isotopes division semiannual progress report for period ending ...

The vapor pressure of uranium hexafluoride

Determination of alpha activity of uranium in mud

Tests of the M-11 assault mask canister in atmospheres containing uranium hexafluoride, fluorine hydrogen fluoride, decafluorobis (trifluoromethyl) cyclohexane and partially pyrolyzed decafluorobis (trifluoromethyl) cyclohexane

The reaction of uranium tetrafluoride with dry oxygen

The spectrochemical assay of uranium 235 using photomultiplier tubes

Some factors influencing the use of tributyl phosphate for the extraction of uranium in analysis

About This Object

Overview

Who

What

When

Where

Search Inside

Search Inside



View Now

Start Viewing

Magnify First Item

Jump to...

Go

You Are Here: home / search results / this physical object

[United States National Bureau of Standards Ruler]

One of 29 objects in the series: [NBS special publication](#) available on this site.



PDF Version Also Available for Download.

Description

Ruler issued by the United States National Bureau of Standards. The front includes measurements in centimeters (to 15) and inches (to 6); there is text on the back comparing metric and customary units for length, volume, and weight.

Physical Description

1 ruler : plastic ; 3 x 16 cm.

Creation Information

United States. National Bureau of Standards.
December 1972.

COMPARE METRIC AND CUSTOMARY UNITS

	Length	Volume	Weight
Metric	Meter	Liter	Kilogram
Customary	Inch	Teaspoon	Grain
	Foot	Tablespoon	Ounce
	Yard	Cup	Pound
	Rod	Pint	Ton
	Mile	Quart	
		Gallon	

Metric Units are in 10's
 1000 millimeters = 100 centimeters = 1 meter
 1000 meters = 1 kilometer

1 meter \approx 1.1 yards
 1 liter \approx 1.1 quarts
 1 kilogram \approx 2.2 pounds

(\approx approximate)

U.S. DEPARTMENT OF COMMERCE
 National Bureau of Standards
 Washington, D. C. 20234

NBS Special Publication 376
 Issued December 1972

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D. C. 20402 (Order by SD Catalog No. C13.10:376). Price 25 cents.

IDEAS



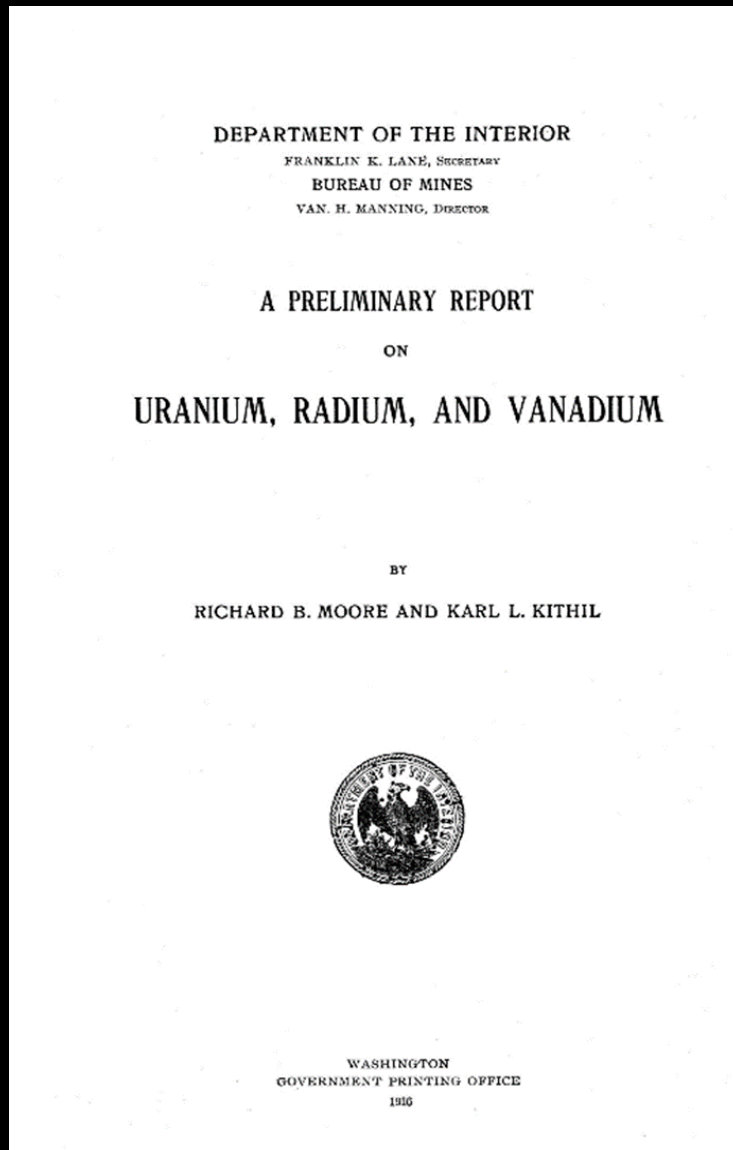
Incorporate in information literacy or basic search classes

Perform double duty – examine older facts and teach catalog or database searching skills for current information

Show reliable websites that have more interactive content to update the incorrect facts



EVALUATION EXAMPLE



Scientific information on older documents can be outdated. Students can use TRAIL documents to start reading scientific works and investigate the current information and reliable websites.

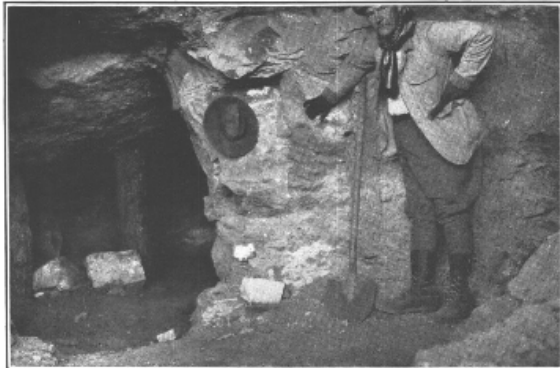
Moore, Richard B. & Kithil, Karl L. A Preliminary Report on Uranium, Radium, and Vanadium, report, 1916; Washington D.C.. (digital.library.unt.edu/ark:/67531/metadc12283/: accessed July 14, 2017), University of North Texas Libraries, Digital Library, digital.library.unt.edu; crediting UNT Libraries Government Documents Department.

BUREAU OF MINES

BULLETIN 70 PLATE III



A. OPENING AND DUMP (BELOW ARROW) OF THE SWINDLER MINE, LONG PARK, COLO.

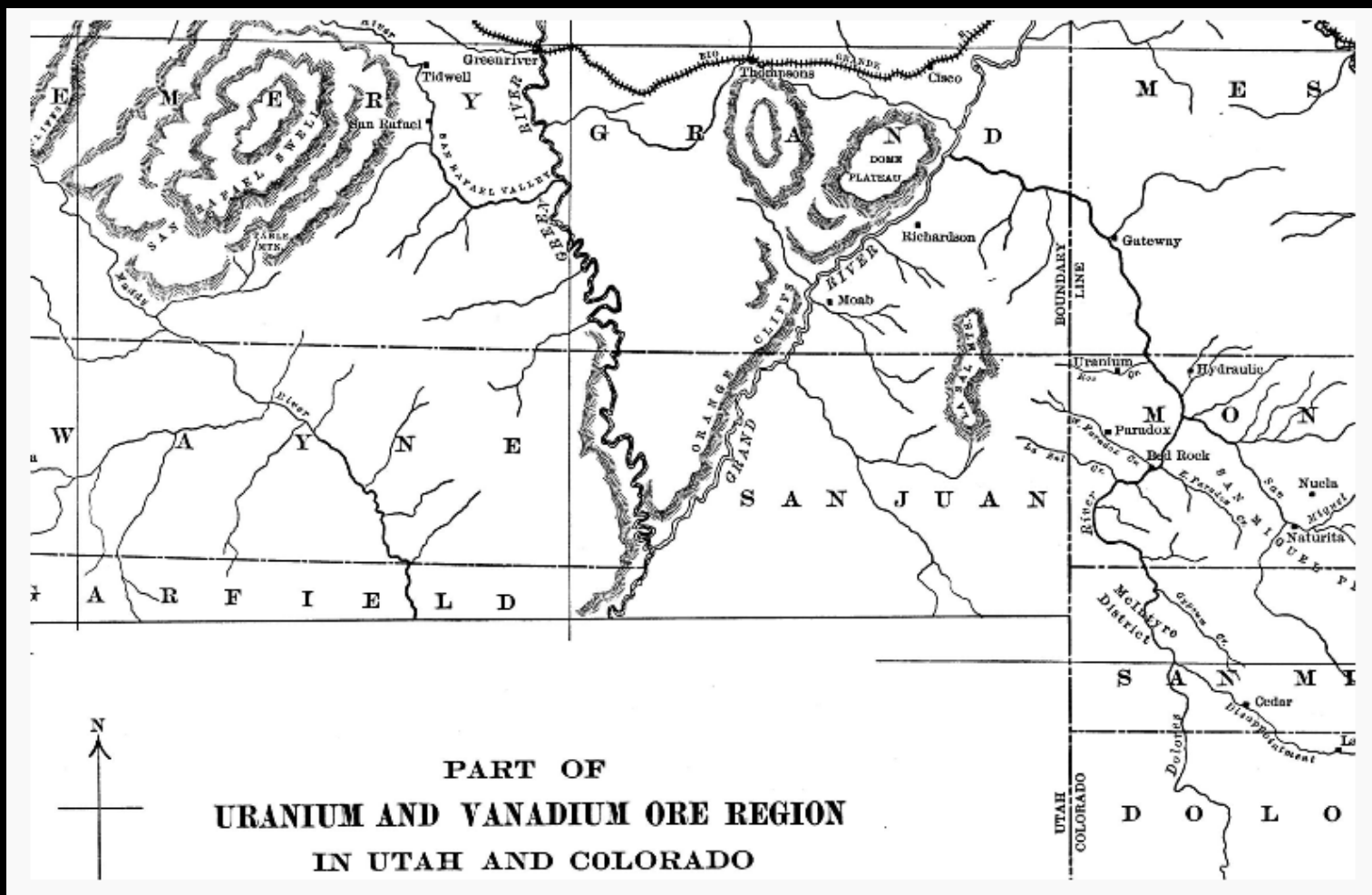


B. CLIFF MINE, SAUCER BASIN, PARADOX VALLEY, SHOWING 4-FOOT STRATUM OF CARNOTITE AND VANADIUM ORE BETWEEN THE POINTS MARKED BY THE HAT AND THE SPADE BLADE.

Page 24A

Photographs show:

- Places that might not exist today
 - Environmental damage
 - Instruments used
 - Safety measures?
 - Vanadium deposits



COMPARE TO TRI (TOXIC RELEASE INVENTORY)



NIH U.S. National Library of Medicine **TOXMAP[®] classic** Environmental Health Maps

Home TRI Facilities TRI Releases TRI Trends Superfund Combo

Search ▶ 2015 2014 2013 2012 2011 & Earlier Set Region Other

Start over

TRI State Fact Sheets [?] --

Current State Air Quality [?] --

Search Results [Edit Search] [Save Results [?]] [TRI]

Vanadium compounds (RN: N770)

TRI - Map shows 37 of 444 on-site TRI releases reported nationwide in 2015

Map Other Data

- US Census Data [?]
- Income Data [?]
- Health Data [?]
- Reference Data [?]

Information about this Chemical

NLM Searches of [?]

- Toxicology Databases
- Human Health Effects
- Manufacturing/Use Info
- Env. Fate / Exposure
- Occupational Exposure
- MedlinePlus@

CDC Searches of [?]

- Toxicology FAQ
- Health Assessments
- All CDC Documents

Health Risk Information [?]

- CDC ToxFAQs
- NJ Hazardous Substance Fact Sheets
- California Proposition 65 Chemicals
- EPA Risk Screening Tool
- CTD Exposure Studies

Toxicology References

MAP CONTROLS

TRI [?] [Save results] Superfund [?] Demographic [?]

- None
- Facilities : 2015
- Releases : 2015
- Trends

- None
- All NPL
- NPL Final
- NPL Deleted
- NPL Proposed

- None
- Population Density - 2000

Apply other demographics

Search chemical | Define a combo map | Start over

Legend [hide values | show values]

- Lowest
- On-site Release Amount
- Highest

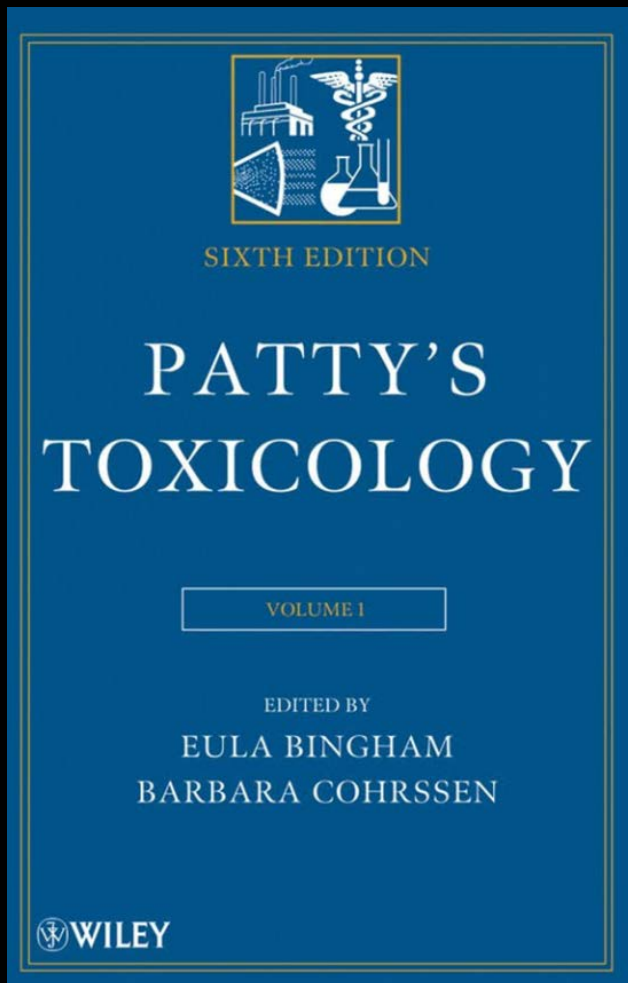
What are current costs mining vanadium? Compare to 1916 expenses.

The sums expended in establishing a camp and in prospecting for ore should be considered and charged against the tonnage obtained from properties found to be valuable. As an example, let it be assumed that an ore contains 2.5 per cent U_3O_8 and 4.5 per cent V_2O_5 , with a value of \$97 per ton, and that the costs for each ton of marketable ore are as follows: Mining and sorting, \$30; powder, tools, etc., \$2; bags, sacking, etc., \$4; hauling, \$20; freight, \$14.50; then the actual cost per ton is \$70.50. If 200 tons of marketable ore are mined yearly \$10 per ton should be added for management and other charges, making the total charge per ton \$80.50. The net profit is \$16.50 per ton of ore shipped.

USES OF VANADIUM.

The main use of vanadium is as an alloy in steels where great toughness and torsional strength are required, such as automobile parts, gears, piston rods, tubes, boiler plates, tires, transmission shafts, bolts, gun barrels, gun shields, and forgings of any kind which have to withstand heavy wear and tear. The vanadium content in

EXAMINE HANDBOOKS FOR CURRENT INFORMATION (KNOVEL)



Vanadium, Niobium, and Tantalum

Konrad Rydzynski, M.D., Ph.D. and Daria Pakulska, Ph.D.

Page 555

Vanadium and its compounds are currently used for a wide variety of purposes. Vanadium is primarily used as a steel-hardening agent. It increases the strength and corrosion resistance of steel. Approximately 83–87% of vanadium consumed in the United States is utilized as an alloying agent for ferrovanadium alloy in the steel industry (27). To

aircrafts. Vanadium compounds also have an important role as industrial catalysts. Vanadium-containing catalysts are used in several oxidation reactions, such as in the manufacture of phthalic anhydride and sulfuric acid, as well as in the production of pesticides and black dyes, inks, and pigments that are used by the textile, printing, and ceramic industries. An important use of vanadium is as an oxidation catalyst in automobile catalytic converters. Other minor functions of vanadium compounds include their use as color modifiers in mercury-vapor lamps, driers in paints and varnishes, and corrosion inhibitors in flue gas scrubbers. Future applications of vanadium compounds may include an increased number of uses as a catalyst, a potential role in superconductors, thermal or light-activated resistor-conductors, vanadate glasses, electrooptical switches, and the induction of high magnetic fields (9, 11–13, 20, 27, 28).

Vanadium has energy storage properties and is being used in a new generation of batteries for electric cars and energy storage systems attached to wind or solar projects to hold power produced during peak production periods until the power grid requires the electricity (29).

RADIUM - MEDICAL USES & HALF-LIFE EXPLANATIONS - PAGE 60

Statements from another source indicate that 80 per cent of cases of arthritis treated with comparatively strong doses of the radium emanation dissolved in water are either cured or greatly benefited. A similar treatment seems to be beneficial for rheumatism. The dosage in such cases is as follows: The radium emanation obtained in one week from 1 gram of radium bromide in solution is dissolved in 17 liters of water. One hundred cubic centimeters of this solution is taken twice a week by the patient. This means that 1 gram of radium bromide can be used for treating about 170 patients at one time.

NEW NAME FOR DISEASE



 U.S. National Library of Medicine



[Health Topics](#)

[Drugs & Supplements](#)

[Videos & Tools](#)

[Home](#) → [Health Topics](#) → [Rheumatoid Arthritis](#)

Rheumatoid Arthritis

Also called: RA

Treatments and Therapies

- [Joint Injection/Aspiration](#) (American College of Rheumatology)
Also in Spanish
- [Joint Replacement Surgery: Health Information Basics for You and Your Family](#)
 (National Institute of Arthritis and Musculoskeletal and Skin Diseases)
Also in Spanish
- [Medicines to Treat Rheumatoid Arthritis](#)
(Consumers Union of U.S., National Center for Farmworker Health) - **PDF**
Also in Spanish
- [Rheumatoid Arthritis and Complementary Health Approaches](#)
 (National Center for Complementary and Integrative Health)

QUESTIONS?

References



Slide 3 – TRAIL Digital Collection Surpasses 61,500 Items, <https://www.crl.edu/news/trail-digital-collection-surpasses-61500-items> And TRAIL Member List, <https://www.crl.edu/grn/trail/member-list>; accessed July 15, 2017.

Slide 4 - TRAIL Digital Collection Surpasses 61,500 Items, <https://www.crl.edu/news/trail-digital-collection-surpasses-61500-items> and About TRAIL <https://www.crl.edu/grn/trail/about-trail>; ; accessed July 15, 2017.

Slide 5 – Series Processing Inventories, <http://trailguides.crl.edu/series>; accessed July 19, 2017.

Slide 6 – Keyword Search, <http://www.technicalreports.org/trail/search/?q>, accessed July 15, 2017.

Slide 7 – Advanced Keyword Search, <http://www.technicalreports.org/trail/searchadv/> , accessed July 15, 2017.

Slide 9 - Googin, B. & Sprague, T.P. *The extraction of uranium from sodium nitrate solutions with dibutyl carbitol* , 1949, <https://babel.hathitrust.org/cgi/pt?id=mdp.39015086511410>, accessed July 14, 2017.

Slide 10 - United States. National Bureau of Standards. [*United States National Bureau of Standards Ruler*], physical object, December 1972; Washington D.C.. (<digital.library.unt.edu/ark:/67531/metadc123540/>: accessed July 15, 2017).

Slides 12, 13, 14, 16, 17, & 20, Moore, Richard B. & Kithil, Karl L. *A Preliminary Report on Uranium, Radium, and Vanadium*, report, 1916; Washington D.C.. (<digital.library.unt.edu/ark:/67531/metadc12283/>: accessed July 14, 2017).

Slide 15 – TOXMAP classic, <https://toxmap-classic.nlm.nih.gov/toxmap/main/index.jsp>, accessed July 15, 2017.

Slides 22 & 23 - Rheumatoid Arthritis, <https://medlineplus.gov/rheumatoidarthritis.html>, accessed July 15, 2017.