

WorldWideScience.org: What Makes it Unique?

Lorrie Johnson



U.S. Department of Energy

WorldWideScience Alliance Operating Agent

What is WorldWideScience.org?



- Over 100 national and international scientific databases and portals
- More than 70 countries are represented



Benefits to the Searcher...

- Searches the "deep web," which may not be searchable by major search engines
- Performs a real-time, simultaneous search of participating databases
- > Overcomes barrier of needing to know about all resources
- > Little or no burden on database owners
- Returns a consolidated, relevance-ranked results list
- Links to original records at source databases, including full text if available
- Integrates symbiotic technologies to further accelerate scientific discovery

A variety of databases and formats...

-		
	Digital.CSIC (Spain)	National Science Foundation Public
	Digital Repository Service at National Institute of Oceanography (India)	National Science Foundation Multim
	Directory of Open Access Journals (Sweden)	
	• DNA Data Bank of Japan	National Research Council Canada
	DOD Public Access Search	Norwegian Open Research Archives
	DOE OSTI.GOV	OpenAIRE
	•	OpenGrey (European Union)
	DOE Public Access Gateway for Energy & Science (PAGES)	P3 (Projects, People, Publications)
	DRYAD	PLEIADI (Italy)
	EKT National Archive of PhD Theses (HEDI) (Greece)	PubAg
	Energy Technology Data Exchange (ETDEWEB)	PubMed Central
	ERIC Institute of Education Sciences	
	Europe PubMed Central	Research Data Australia
	European Nucleotide Archive (ENA)	Russian union catalog of scientific li
	European Union Open Data Portal	ScienceCinema (United States)
	•	Science Central
	Federal Science Library	Science.gov (United States)
	German National Library of Science and Technology (TIB)	Select to expand list of databases
	Grey Guide Repository	Scientific Electronic Library Online(A

- Over 60 English language databases from around the world
- 20 Multilingual (non-English) databases
- Multimedia sources audio and visual content
- I5 Research Data Sources and over a dozen Public Access resources
- And, most recently, scientific <u>SOFTWARE</u> and <u>CODE</u>

A Measure of WorldWideScience.org's Uniqueness

33 sample queries launched in Google, Google Scholar, and WorldWideScience.org

Similar quantities in the numbers of results, but very little overlap

Among the "top 50" results from each search engine, only ~10% overlap – or 90% uniqueness – in WorldWideScience.org results



Google and Google Scholar Results for: Clean Coal Combustion

boogle	clean coal combustion	=	Google Scholar	clean coal combustion			
	All News Images Shopping Videos More Settings	• T	Articles	About 693,000 results (0.21 sec)			
	About 8,920,000 results (0.46 seconds)		Any time Since 2018 Since 2017	EU clean coal technology—co- combustion of coal and biomass KRG Hein, JM Bemtgen - Fuel processing technology, 1998 - Elsevier Apart from a more economical use of fossil fuels, the application of regenerative energy			
	Burning coal without adding to global carbon dioxide levels is a major technolo challenge which is being addressed. The most promising ' clean coal ' technolog involves using the coal to make hydrogen from water, then burying the resultan	ogy	Since 2014 Custom range	sources should be advanced in order to reduce CO 2 emissions. One of the alternatives considered to decrease the net emissions of CO 2 are the cultivation and combustion of			
	carbon dioxide by-product and burning the hydrogen. Clean Coal Technologies Carbon Capture and Storage CCS		Sort by relevance Sort by date	[CITATION] Fundamentals of coal combustion for clean and efficient use LD Smoot - Coal science and technology, 1993 - ci.nii.ac.jp 検索. すべて、本文あり. すべて、本文あり. タイトル. 著者名. 著者ID. 著者所属. 刊行物名. ISSN.			
	www.world-nuclear.org/information-library/energy-and/clean-coal-technologies.aspx	ood	 ✓ include patents ✓ include citations 	… (検索・サイン(本文の)・サイン(本文の)・メイトル、省自名、省目の、省目の、商用(高・101) 約名 133N. 巻号ページ、出版者、参考文献、出版年、年から 年まで、検索、閉じる、検索、検索、 利用者のみなさまにご不便をおかけしておりますことをお詫び申し上げます。NII-ELS … ☆ 99 Cited by 201 Related articles All 2 versions №			
People also ask			Create alert	The future challenges for " clean coal technologies": joining efficiency increase and pollutant emission control <u>A Franco</u> , AR Diaz - Energy, 2009 - Elsevier Keywords. Coal . Energy production. Pollutant control. Advanced technologies. IGCC.			
	Is clean coal clean?						
	What makes clean coal clean?			Abbreviations. ASU air separation unit. CC carbon content. CE combustion efficiency. CR conversion rate. CCT clean coal technologies. CFBC circulating fluidized bed combustion			
Res	Clean Coal Technologies Carbon Capture and Storage CCS www.world-nuclear.org/information-library/energy/clean-coal-technologies.aspx • Burning coal without adding to global carbon dioxide levels is a major technological challenge without		[BOOK] Combustion and gasification of coal A Williams, <u>M Pourkashanian</u> , JM Jones, N Skorpuska - 2000 - osti.gov Industrial coal combustion applications are then outlined, together with other combustion applications, including co-firing, coal -water slurries and briquettes. Finally, gasification of coal , a possible major clean coal technology of the future is discussed ☆ 99 Cited by 103 Related articles ≫ Related searches				
being addressed. The most promising 'clean coal' technology involves using the coal to make hydrog from water, then burying the resultant carbon dioxide by-product and burning the hydrogen. Managing wastes from coal · Producing oxygen for · Other demonstration projects				clean coal combustion fluidized bed coal combustion technology clean coal combustion circulating coal combustion clean and efficient use fluidized bed circulating			
	Clean coal technology - Wikipedia https://en.wikipedia.org/wiki/Clean_coal_technology ▼ This causes a reduced burning efficiency and an increased emissions output. Reduction of moist			cientific results, but many are			
	from the coal prior to combustion can reduce emissions by up to 50 percent. The UK government working towards a clean energy future and supports clean coal projects across the country. Technology · Clean coal and the · Clean coal and health · Notes	ent is	b	ehind publisher paywalls			
	What is clean coal technology? HowStuffWorks https://science.howstuffworks.com > Science > Environmental Science > Green Science •			C Huan - Agricultural Research in the Arid Areas, 2005 🏠 ସହ Cited by 47 Related articles			

WorldWideScience.org Results for: Clean Coal Combustion

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Create new alert from this search	
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Papers (2299) Multimedia (13) Data (30) Public Access (269) ALL (21)	342)
Results 1 - 10 of 2342 Sort by: Rank V Limit to: All Collections (2342) V ««	« 1 2 3 4 5 » »»
 Clean coal combustion boiler ★★★★★ German National Library of Science and Technology (TIB) XIA DESEN; LI XIAOGUANG; LIU HUQUN 2016-01-01 European Patent Office 	 Coal clean-combustion co-combustion agent and application method thereof. ★★★★★ German National Library of Science and Technology (TIB) WANG JIANBIN; CAI DELIANG; HUANG LIANGGU 2016-01-01 European Patent Office
Clean Coal Combustion Technology Transfer	Use of clean coal combustion by-products in highway repairs
British Library Ele Smiarowski, A. e PROCEEDINGS Includes data, software, mul	
Clean Coal Com ★★★★★ British Library Electronic Table of Contents (United Kingdom) Barz, M. et al. VDI-Bericht. VOL 1750, ; 2003, 469-476 VDI; 1999 (pages 469-476) 2003	 Effect of Clean Coal Combustion Products in Reducing Soluble Phosphorus in Soil I. Adsorption Study. ★★★★★ Science.gov (United States) Seshadri, Balaji; Bolan, Nanthi S.; Kunhikrishnan, Anitha
Clean coal combustion with in situ impregnated sol-gel sorbent ♂ ★★★★★ OpenAIRE ♂ Duisterwinkel, A.E.	2013-04-01 NASA Astrophysics Data System (ADS) DOI: 10.1007/s11270-013-1524-2 Volume: 224 Pages: 1524 Not Available
2018-07-28	Effect of Clean Coal Combustion Products in Reducing Soluble Phosphorus in Soil I. Adsorption Study C
□ <u>Clean coal combustion with in situ impregnated sol-gel sorbent</u> ★★★★★	PubAg Seshadri, Balaji; Bolan, Nanthi S.; Kunhikrishnan, Anitha 2013-01-01 Water, air, and soil pollution Volume: 224 Issue: 4 Pages: 1524-1524 Keywords: acid soils, adsorption, alkaline soils, application rate, calcium, coal, combustion, fluidized beds, fl The study examined the effectiveness of various coal combustion products (CCPs) [fly ash (FA), fluidized using batch sorption studies. The results indicated that P adsorption increased with increasing application rate

WorldWideScience.org Topic Pages

Utilizing the power of Google, Bing, Yahoo, and other search engines:

Millions of Topic Pages created

Exposes distributed WorldWideScience.org content to commercial search engines via site map protocols



<u>Multilingual Translations</u>: Query is translated into languages of all databases, searches are completed, and results are combined into a single, relevance-ranked results list. User translates results into their preferred language.

	WORLDWIDESCIENCE.OR The Global Science Gatew	
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THIEL CHRISTIAN (14)	Original Title: CONTROL APPARATUS FOR ELECTRIC VEHICLES	business
Braunschweig Symposium		D. L.Y. D. L. 10
Hybrid and Electric Vehicles	article Institute of Scientific and Technical Information of China (English)	Public Release: 19- Jul-2013 Electric
(12)	Ein Motorsteuergerät steuert die Elektrische Eingangsleistung einer MG-Einheit und damit Variationen o unterdrücken	vehicles and smart
FULLI Gianluca (12)		grids: First EU
K. T. Chau (11)	Original Summary: A motor control unit controls the input electric power of a MG unit to thereby suppress variations o	between smart grids
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Integration of Scientific Research Data

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Japan (30) ▼ Authors Freeland, Howard J (38) WOCE Upper Ocean Thermal, UDT (5) Bradley, B. A. (4)	3 Experiments With Buoyancy-driven Ocean Circulation	Eurek/ Short-circuit	roject(s):	doi:10.1594/PA WOCE (2002): Worl Office, WOCE Re, Spring, 180/02, D' Quality control proce World Ocean Circu	NGAEA.3240 d Ocean Circulat oort, Southampto /D-ROM ssing in the UOT lation Experime	063 iton Experiment, Global Data, Version 3.0. WOCE International Project n, UK, published by U.S. National Oceanographic Data Center, Silver DAC system a ent (WOCE) a	
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(45) Bao, Ning (4) More Jblications New Journal of (39) Science (39)	Guantum Entanglement Growth under Random Unitary Dynamics Control of the second sec	key problem in nonequilibrium quantum j uit. Our results reveal <u>Read More</u> McCaskey, Alexander Release Di There is a lack of state-of-the Titan. Tensor Network Quant	2. Tensor Network Quantum Virtual Machine (TNQVM) McCaskey, Alexander Release Date: 2017-01-20 There is a lack of state-of-the-art quantum computing simulation software that scales on heterogeneous system Titan. Tensor Network Quantum Virtual Machine (TNQVM) provides a quantum simulator that leverages a distri- network of GPUs to simulate quantum circuits in a manner that leverages recent results from tensor network the		
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3. Quantum Virtual Machine (QVM)

elease Date: 2017-01-20

Inclusion of Scientific Software and Code

te-of-the-art HPC simulation tools for simulating general quantum computing. Furthermore, there tools that integrate current quantum computers into existing classical HPC workflows. This n Virtual Machine (QVM), solves this problem by providing an extensible framework for pluggable uantum processing units (QPUs). It enables the execution of low level quantum assembly codes its of such executions.

4. TASQC Quantum Key Transfer Program

User Friendly Features:

- Basic and Advanced Search Options
- Ability to search selected databases (via Advanced Search)
- Results tabs for Text, Multimedia, Data/Software, Public Access
- Sort by Rank, Date, Title, Author
- Limit results to specific databases
- Refine results by Topic, Authors, Country, Document Type (full text), Language, etc.
- Textual and visual clustering capabilities
- Mark/Save records
- Routine, customizable Alerts service

Thank you!



WorldWideScience.org Operating Agent Lorrie Johnson JohnsonL@osti.gov