

#### Chemical Engineering Postgraduate Workshop

Lesego Makhafola lesego.makhafola@up.ac.za Department of Library Services

26 January 2015





# **Information literacy**

- Library catalogue
- E-books
- Scopus
- SciFinder
- Finding e-journals
- Interlending
- Standards and patents



### How to search

Youtube video Searching 101 (4:24) Ruth Gaba Concordia Univeristy, Wisconsin

http://www.youtube.com/watch?v=0oBrsxqd-E&list=PLeFfgHkOe-s4-4jStalcwsReJB8UyqB9b

Compiled by Lesego Makhafola for student library training purposes

### But how?

Ö



• analyse **T**opic

Understand concepts

determine Keywords

do the  ${f S}$ earch



# **Research question**

How would you produce graphene-based nanosheets by means of chemical reduction of exfoliated graphite oxide?

- Analyze the topic
- Determine keywords



# **Research question**

How would you produce graphene-based nanosheets by means of chemical reduction of exfoliated graphite oxide?

- graphene-based nanosheets
- Chemical reduction
- Exfoliated graphite oxide



## Where to search

- Encyclopaedias and reference works
- Handbooks
- Research articles
- Internet

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2015

#### Libraries/Units/Collections

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### EBIT web site (http://www.library.up.ac.za/ebit/)

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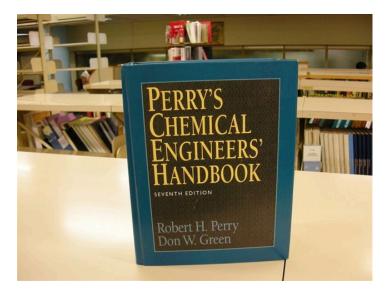
# Start your literature search with encyclopaedias, dictionaries, handbooks for background information

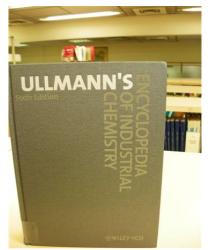
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#### Library Reference works (N 660)

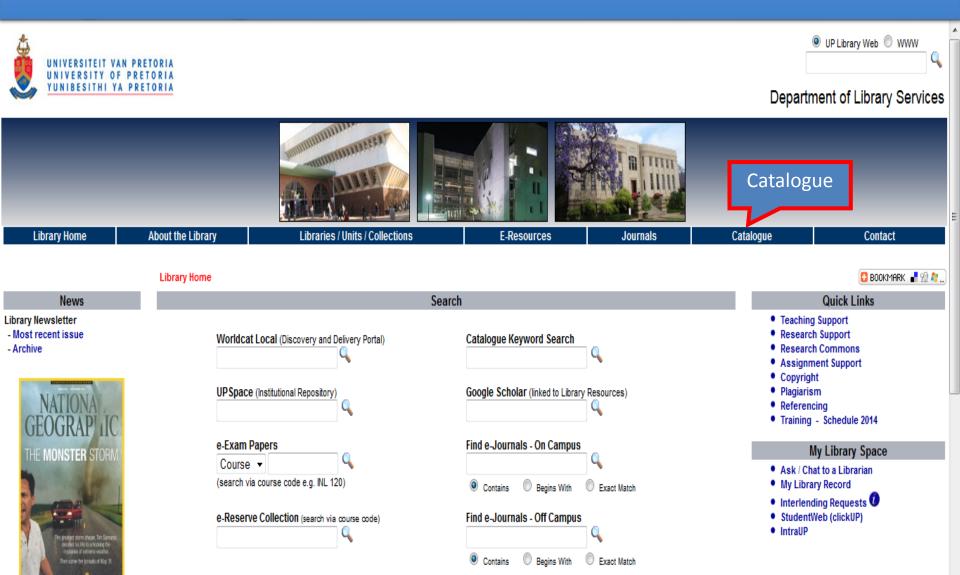








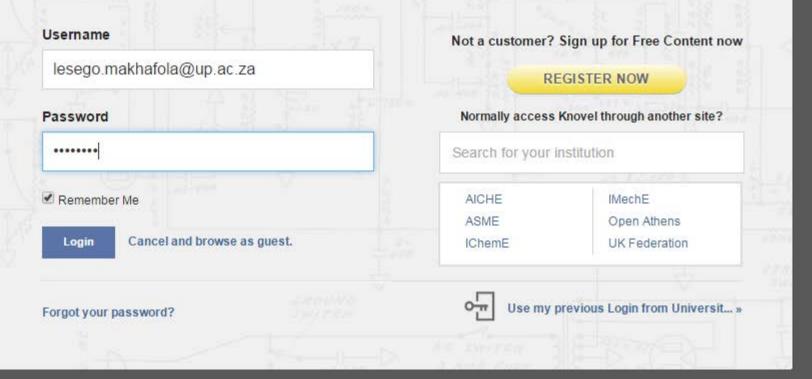
### Library web site http://www.library.up.ac.za



# Knovel library = 5 000 engineering books



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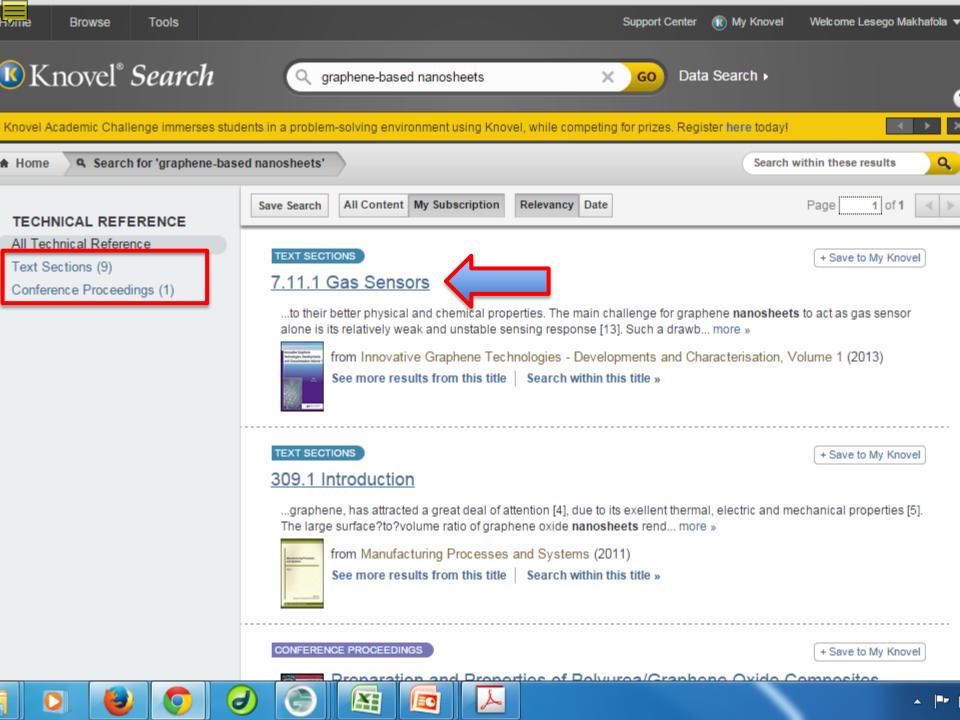




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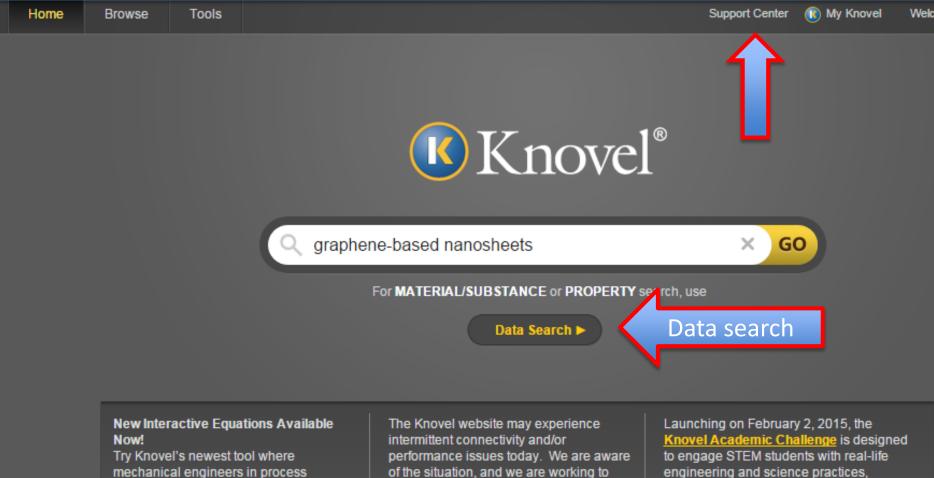


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Share URL Create Citation Download Section	fuel cells [130, 168]. 7.11 Sensor Applications	
Print Section	The high surface area and high conductivity of metal NP-GO/rGO composites make these substrates promising materials for sensing with potential applications in the field of analytical chemistry.	
	7.11.1 Gas Sensors	
	Carbon nanotube-based sensors have ruled the area of gas sensing for many years. However, in the last few years, graphene-based materials are seen as serious competitors due to their better physical and chemical properties. The main challenge for graphene nanosheets to act as gas sensor alone is its relatively weak and unstable sensing response [13]. Such a drawback may be overcome by introducing metal NP to the graphene nanosheets. Graphene nanosheets supported noble metal NP such	Shortcuts 📼
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### Data Search See the tutorial at Support Center



industries go to find equations, paired with worked examples and ready to use calculation software to help solve problems faster.

resolve it. We appreciate your patience while we do so.

immersing them in a professional problemsolving environment using Knovel's optimized search, trusted content and interactive tools. Register here!

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#### Data search query builder

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#### News and Announcements

- Invitation: Not Your Mother's Library: From Book Warehouse to Center for 21st Century Learning by Gary Shaffer
- Special Collections: Book of the month January / February 2015
- MiEi on compute

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You must be a registered student/staff member to access library e-resources. You need to type your student/personnel no. (without	Student/Staff no (8 digits) eg 04234567
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*** If you do not have a PIN or forgot your PIN click on the "request a new PIN" link below and follow the instructions ***	Submit
Keep your PIN confidential at all times. If there are more than five failed attempts to log in, the system will block access to the patron account for 3 minutes.	Request a new PIN
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#### Search results

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Web Images More	<u></u>	
Google	"graphene-based nanosheets"	
Scholar	About 2,290 results (0.06 sec)	
Articles Case law My library	Synthesis of graphene-based nanosheets via chemical reduction of exfoliated graphite of S Stankovich, <u>DA Dikin</u> , RD Piner, KA Kohlhaas Carbon, 2007 - Elsevier Reduction of a colloidal suspension of exfoliated graphene oxide sheets in water with hydrazine hydrate results in their aggregation and subsequent formation of a high-surface- area carbon material which consists of thin graphene-based sheets. The reduced material Cited by 4843 Related articles All 16 versions Web of Science: 3966 Cite Save	xide [PDF] from cvut.cz
Any time Since 2015 Since 2014 Since 2011 Custom range	<b>Graphene-Based Nanosheets</b> with a Sandwich Structure S Yang, X Feng, L Wang, K Tang Angewandte Chemie, 2010 - Wiley Online Library Two-dimensional (2D) nanomaterials, which possess nanoscale dimension in thickness only and infinite length in the plane, have attracted tremendous attention owing to their unique properties and potential applications in the areas of electronics [1] and sensors [2] Cited by 201 Related articles All 7 versions Web of Science: 181 Cite Save	
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<ul> <li>✓ include patents</li> <li>✓ include citations</li> </ul>	Y.; Nguyen, ST; Ruoff, RS Synthesis of graphene-based nanosheets via chemical reduction of exfoliated graphite oxide Carbon 2007 45 1558 1565 Cited by 3224 Related articles All 14 versions Web of Science: 2518 Cite Save	
I Create alert	Gram-scale production of graphene based on solvothermal synthesis and sonication M Choucair, P Thordarson, JA Stride - Nature Nanotechnology, 2008 - nature.com Science 319, 1229–1232 (2008).   Article   PubMed   ChemPort  ; Stankovich, S. et al. Synthesis of graphene-based nanosheets via chemical reduction of exfoliated graphite oxide. Carbon 45, 1558–1565 (2007).   Article   ChemPort  ; Stankovich, S. et al Cited by 570 Related articles All 12 versions Web of Science: 385 Cite Save	[HTML] from nature.com Full View
	Processable aqueous dispersions of graphene nanosheets	[HTML] from nature.com

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# Journals

# Only Titles on UP Catalogue and the E-Journal list

# Contents indexed in Electronic resources

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2015

#### Electronic resources

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### What is Scopus?

•World's Largest Abstract & Citation Database of peer-reviewed literature Intuitive search and browse functionality



# **Research question**

How would you produce graphene-based nanosheets by means of chemical reduction of exfoliated graphite oxide?

- graphene-based nanosheets
- Chemical reduction
- Exfoliated graphite oxide

#### 

#### Submit keywords

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4 TITLE-ABS-KEY ("wastewater management")

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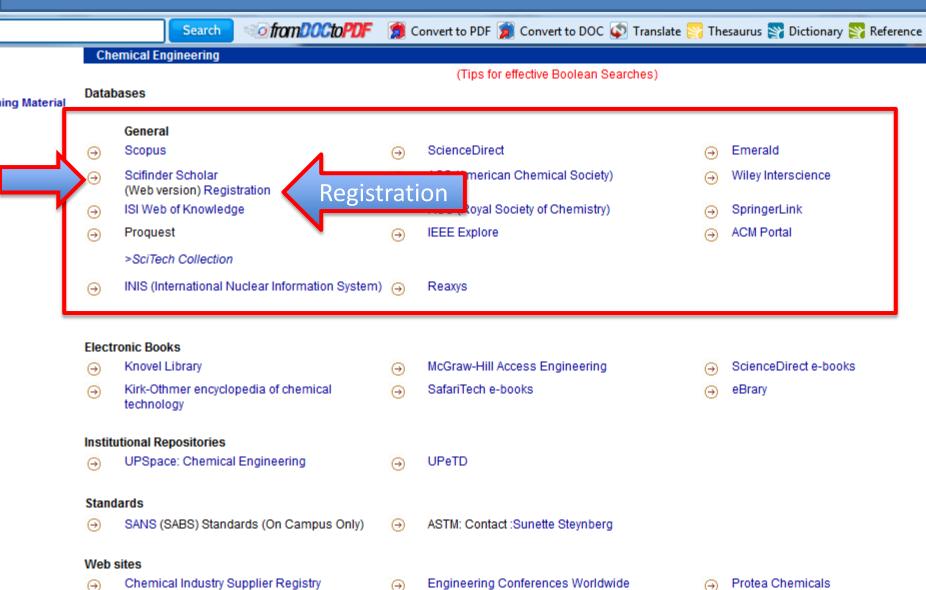
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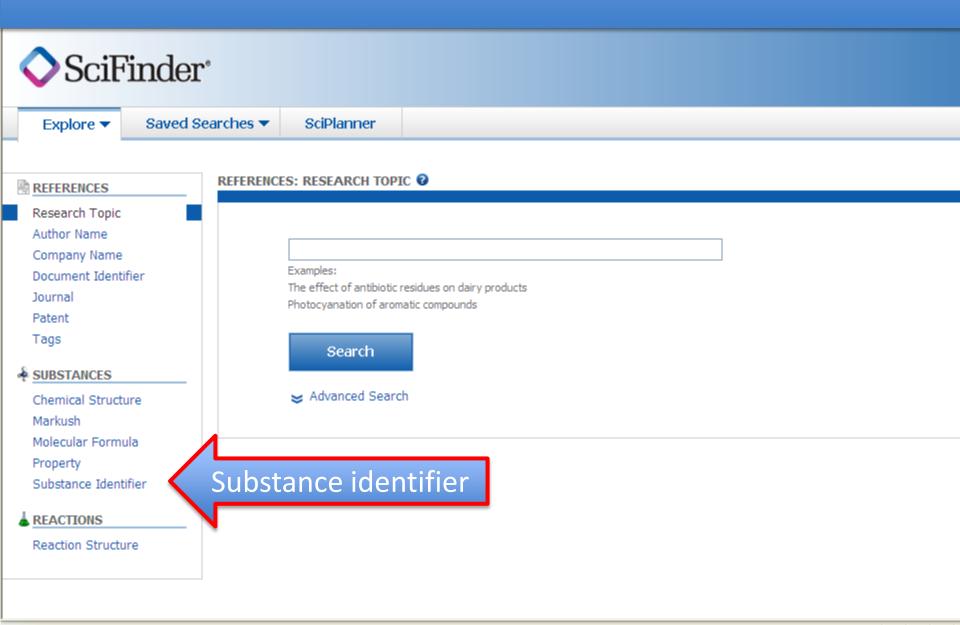
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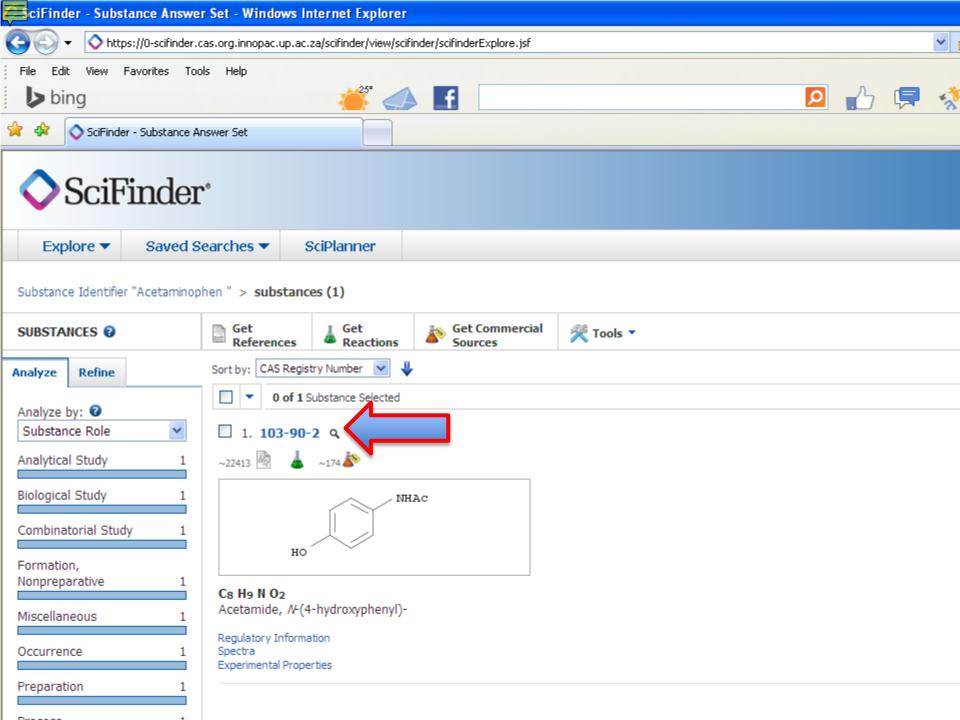
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#### SciFinder search screen

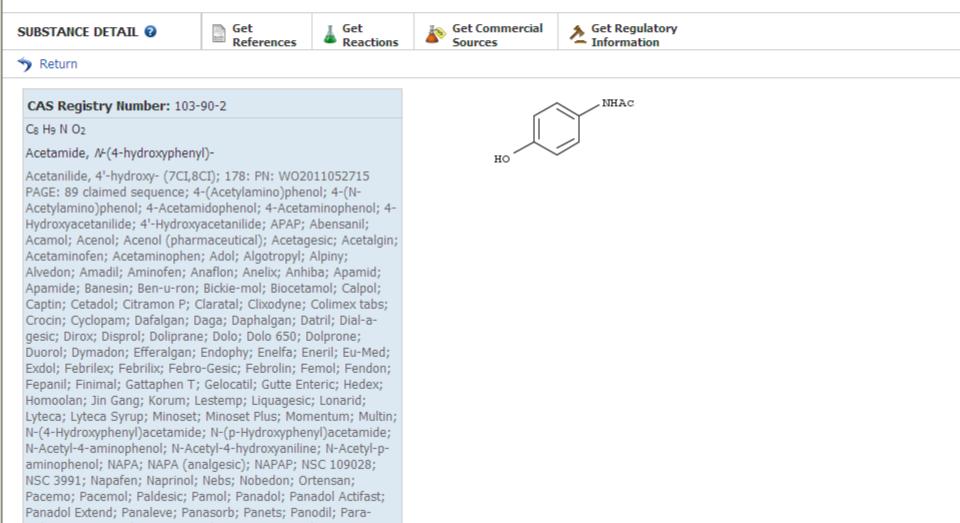


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#### Variants for Acetamide

#### Substance Identifier "Acetaminophen " > substances (1) > 103-90-2

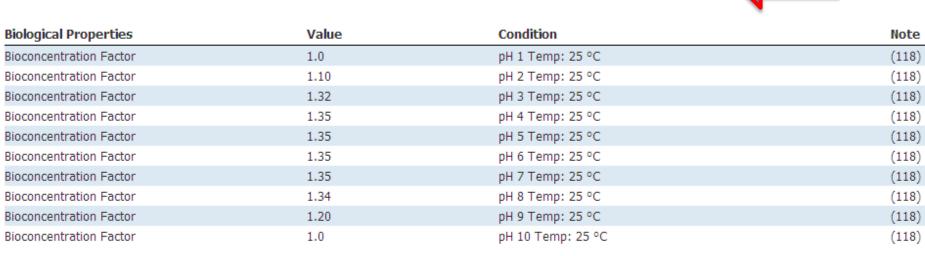




Bioactivity Indicators

Target Indicators

#### Predicted Properties: Biological Chemical Density Lipinski and Related Spectra Structure-related Thermal



Chemical Properties	Value	Condition	Note
Кос	13.1	pH 1 Temp: 25 °C	(118)
Koc	35.1	pH 2 Temp: 25 °C	(118)
Кос	42.2	pH 3 Temp: 25 °C	(118)
Кос	43.1	pH 4 Temp: 25 °C	(118)
Кос	43.2	pH 5 Temp: 25 °C	(118)
Кос	43.2	pH 6 Temp: 25 °C	(118)
Кос	43.1	pH 7 Temp: 25 °C	(118)
Koc	42.7	pH 8 Temp: 25 °C	(118)
Кос	38.3	pH 9 Temp: 25 °C	(118)
Кос	19.0	pH 10 Temp: 25 °C	(118)



### References at the bottom

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Melting Point	160-161 °C	Solv: water (7732-18-5)	(76)CAS
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Melting Point	See full text	1 of 6	(9)CAS
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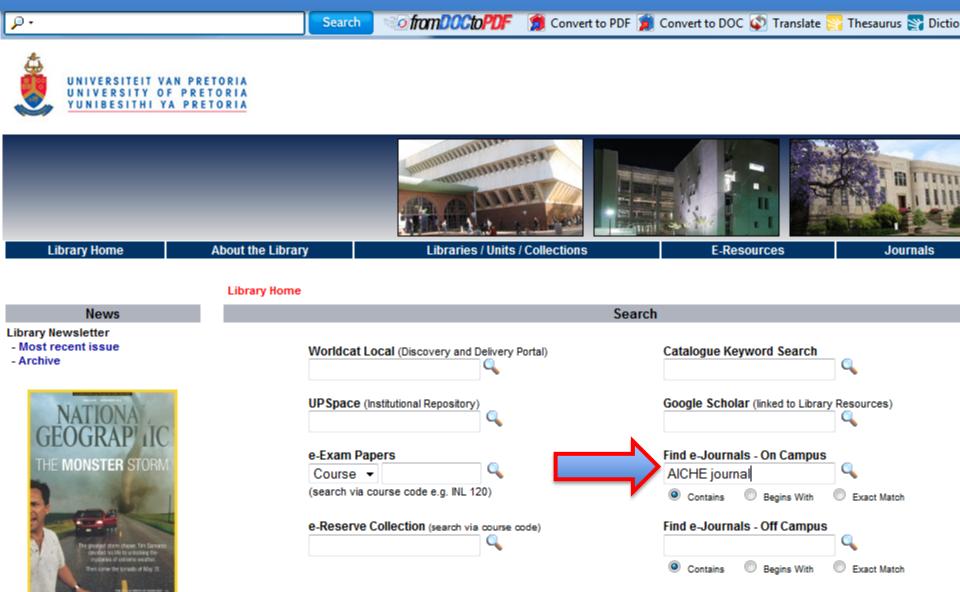
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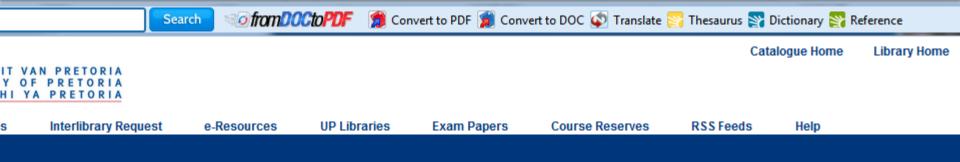


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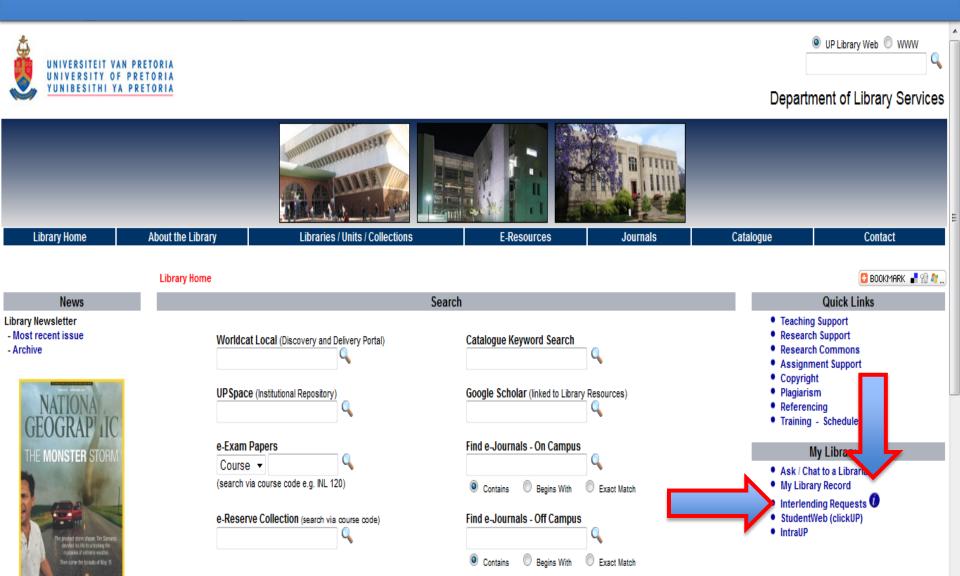
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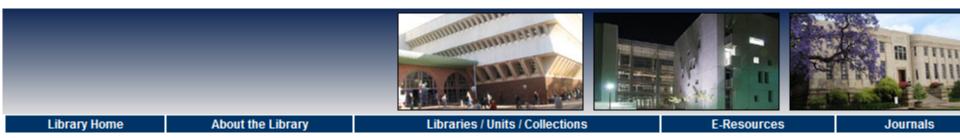
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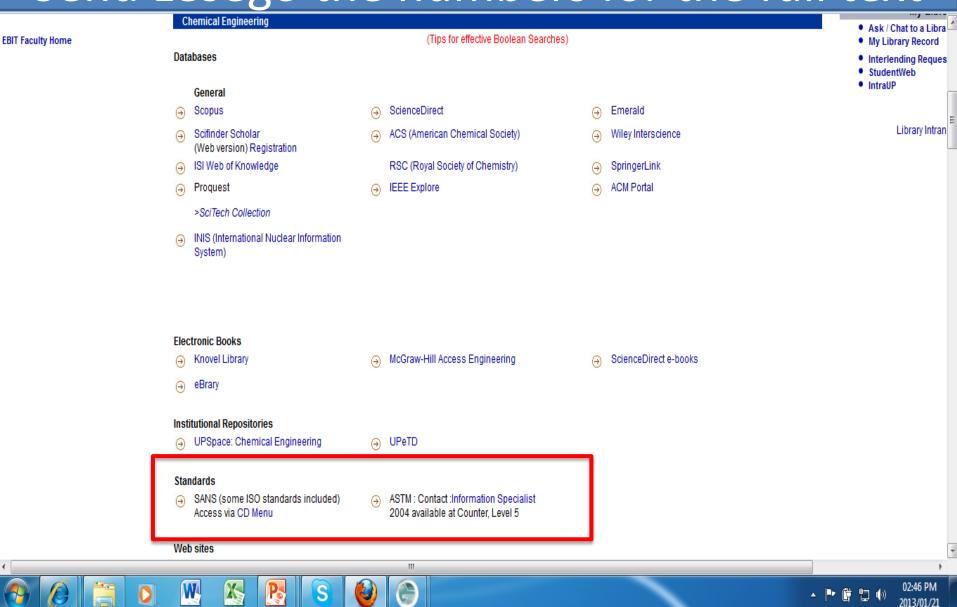
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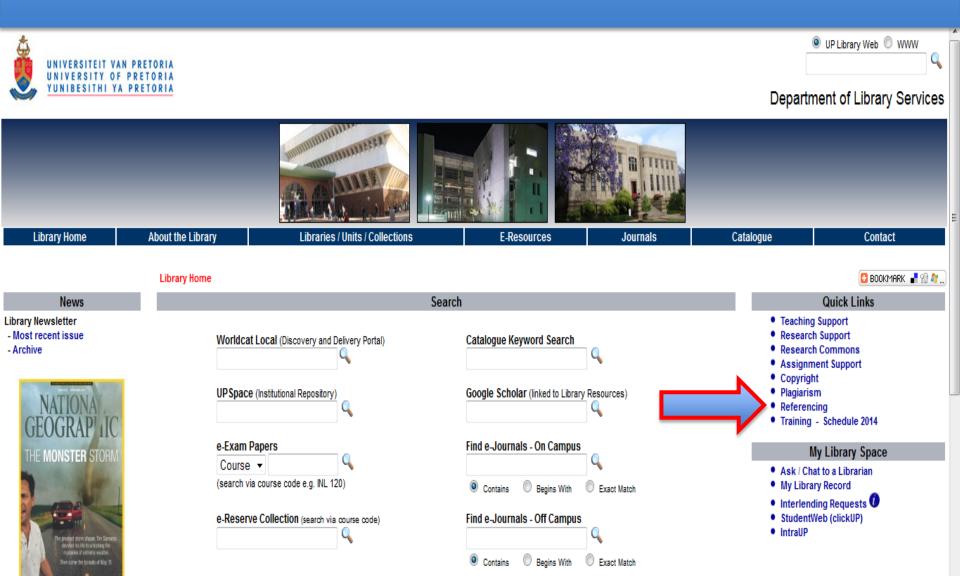


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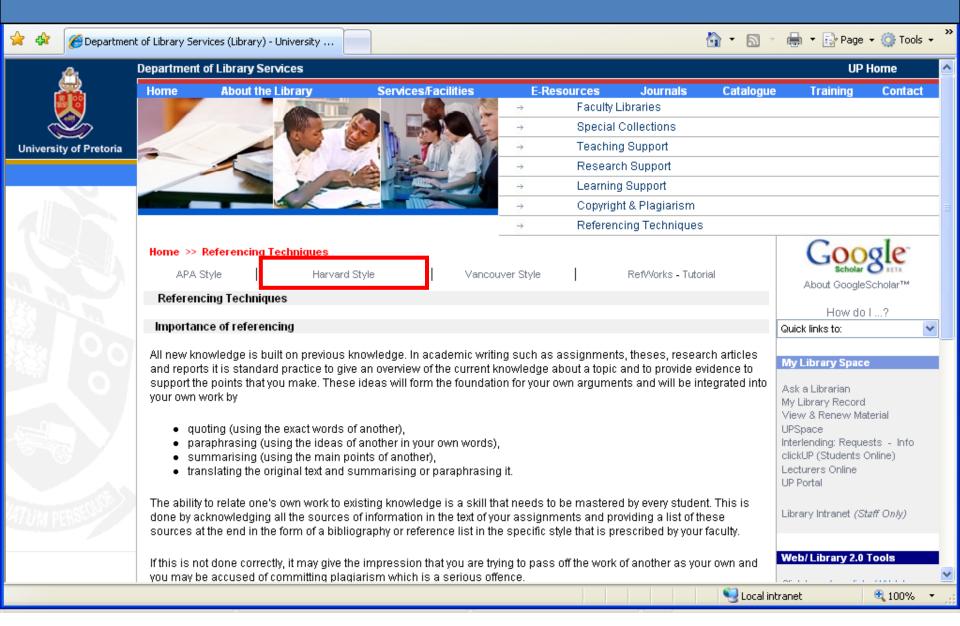
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