Finding Engineering Information

ENCS 282 - Fall 2019

Tim Walsh (Librarian for MIAE & CSE)
tim.walsh@concordia.ca

Chloe Lei (Librarian for BCEE & ECE)
chloe.lei@concordia.ca

Danielle Dennie (Librarian for CME)
danielle.dennie@concordia.ca

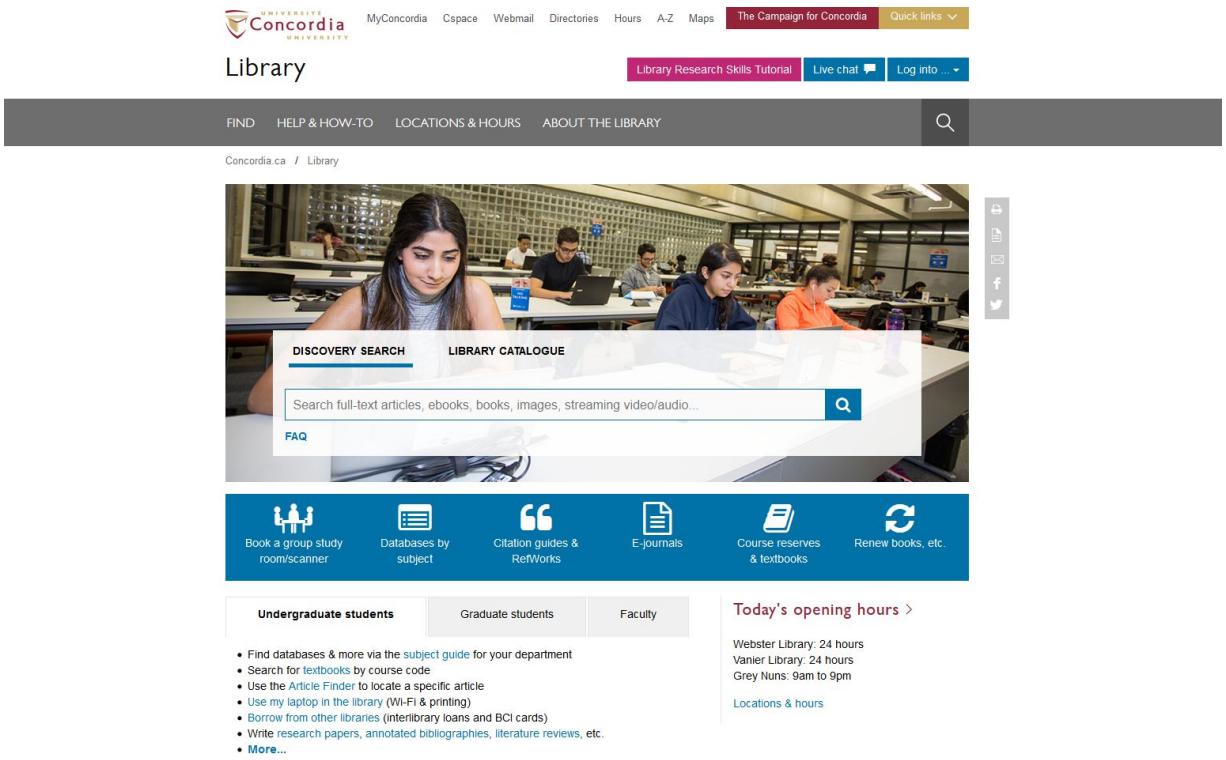
Today

- Library resources
- Finding the latest research
  - Document types
  - Searching for information resources
  - Getting access to information resources
- Standards, costs, and patents
- Citing
- Getting help

Slides: **https://tinyurl.com/encs282-f19**

Library resources

library.concordia.ca



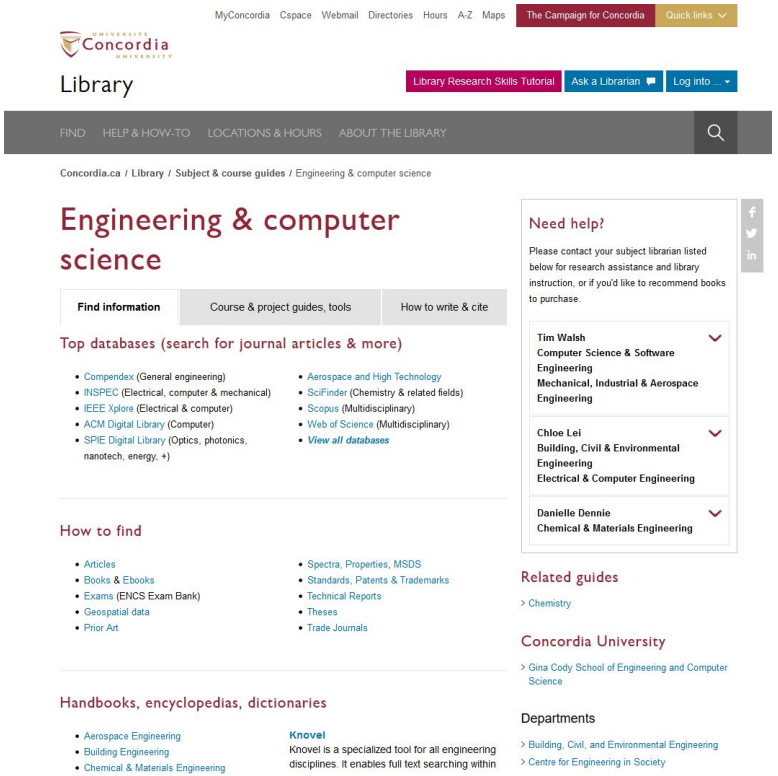
Engineering & Computer Science Subject Guide

- Links to **databases**, books, ebooks, data, standards, technical reports, etc.
- Handbooks, encyclopedias, and dictionaries
- Course and project guides
- Writing and **citation guides** (IEEE, Zotero)
- **Librarian contact information**

From library website:

Help & How-To -> Subject & course guides -> Engineering & Computer Science

https://www.concordia.ca/library/guides/encs.html



Finding the latest research

What constitutes a scholarly source?

Your professors will expect that sources you cite in your work are **scholarly** sources. Scholarly sources are verified, typically through the **peer review** process. If a source is **peer reviewed** or **refereed**, it has been verified by peer scholars prior to publication.

Scholarly sources are typically published in venues such as **conference papers**, **journal articles** (in *traditional* or *open access* journals), and **books**.

Find out if a journal is peer-reviewed:
https://ulrichsweb.serialssolutions.com/
More on peer review:
https://library.concordia.ca/help/finding/articles/peer-review.php

Scholarly publication cycle

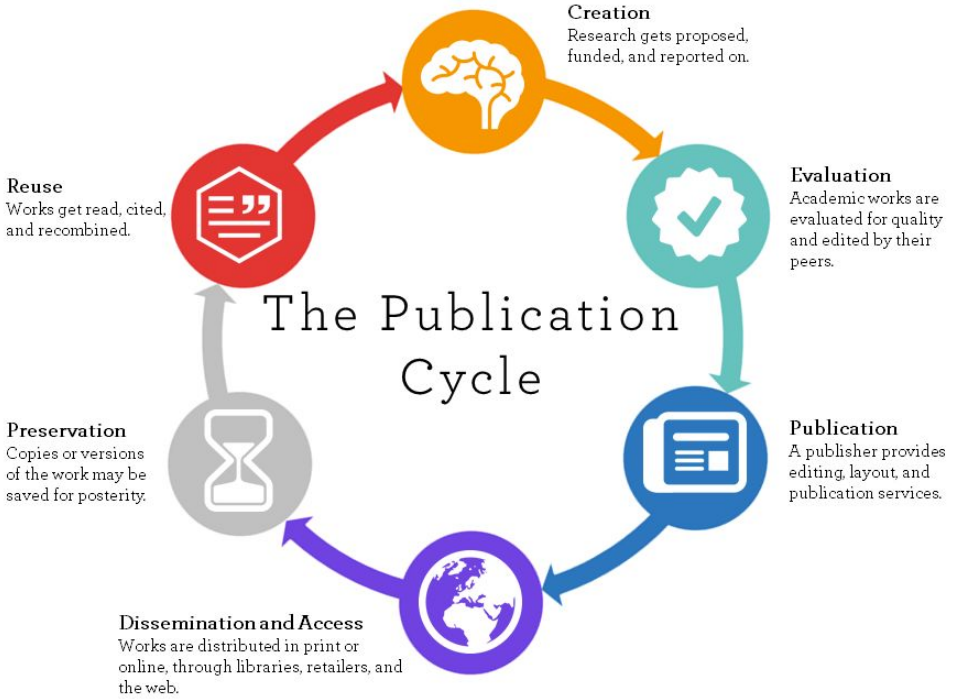
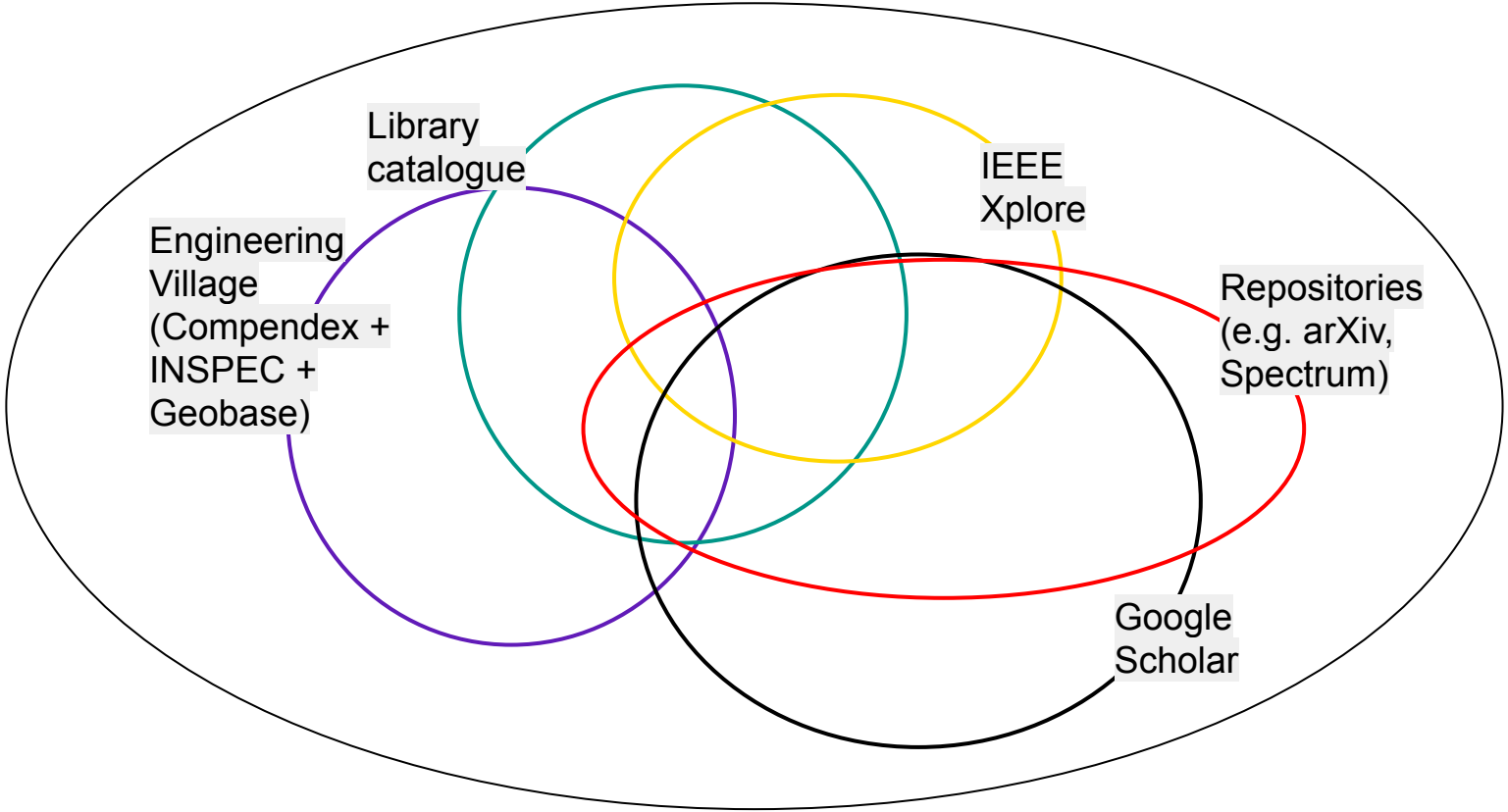


Image source: University of Winnipeg, https://library.uwinnipeg.ca/scholarly-communication/index.html

Research/scholarly information



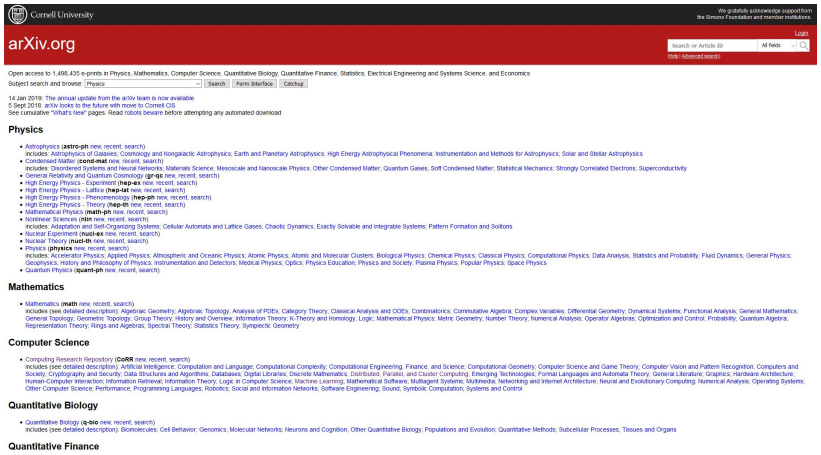
Resources available via Concordia Library

- **Bibliographic databases (citations/abstracts)**
  - Compendex ← *General engineering; via Engineering Village*
  - INSPEC ← *Electrical, computer & mechanical; via Engineering Village*
  - Aerospace and High Technology ← *Aerospace*
- **Full text databases (full papers)**
  - IEEE Xplore ← *Electrical & computer*
  - ACM Digital Library ← *Computer*

Always connect to these databases through the library website, especially when off-campus, to avoid paywalls and difficulties with accessing content!

Open access repositories

- arXiv (Based at Cornell; widely-used open access repository for computer science, physics, math, etc.)
- OSF Preprints (pre-print repositories for many disciplines)
- Federal Science Library (Canadian and other documents or data)
- Unpaywall (Chrome/Firefox extension that will search a large database of 24m+ open access copies of paywalled scholarly articles)



Google Scholar

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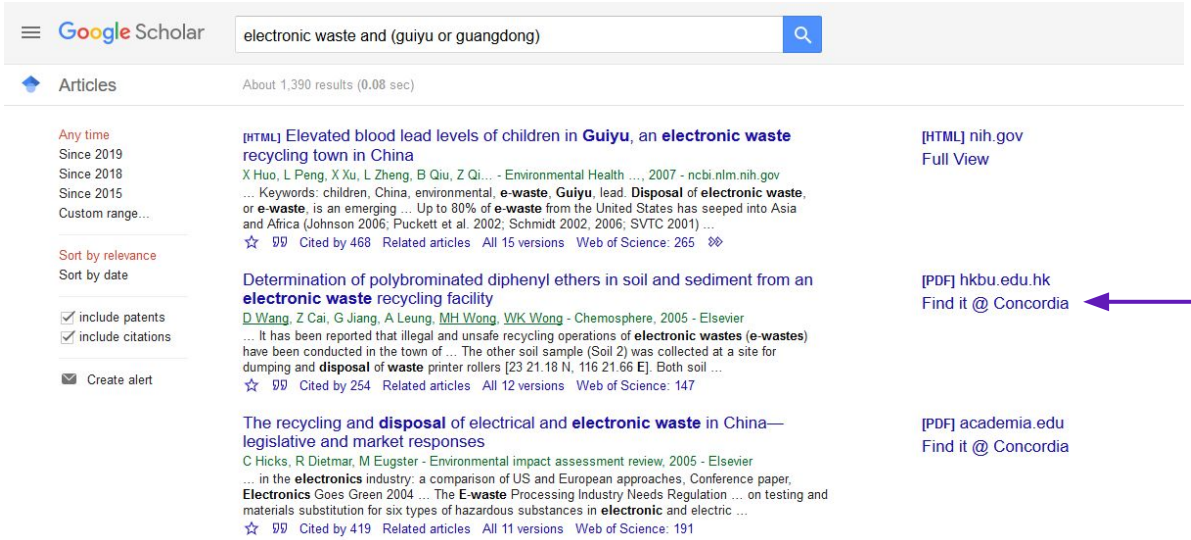
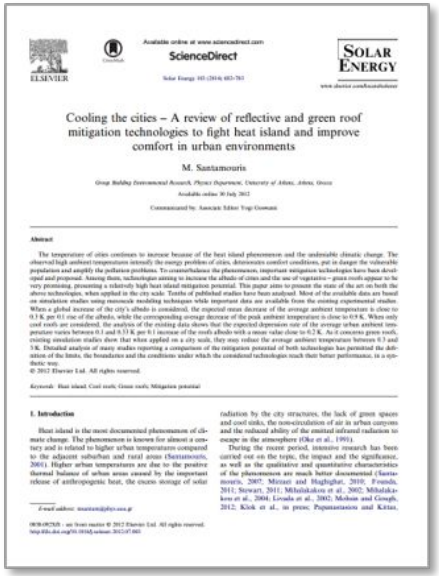


Document types

What are the types of green roofs on city buildings?

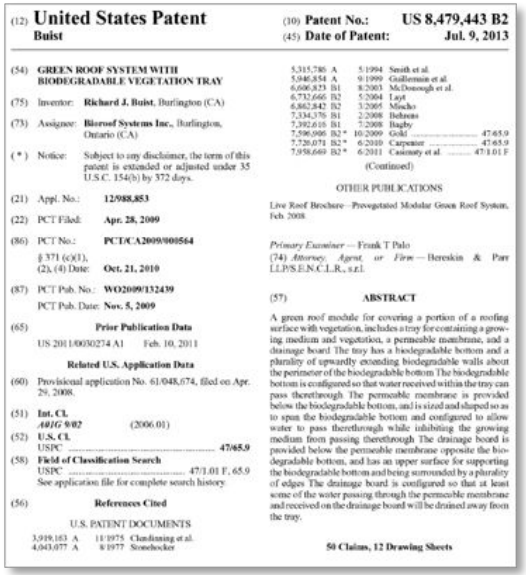
Document types



Cooling the cities – A review of reflective and green roof mitigation technologies to fight heat island and improve comfort in urban environments

M. Santamouris

[Scholarly sources](#)
(peer reviewed)



(12) **United States Patent**
Buist

(10) **Patent No.: US 8,479,443 B2**
(45) **Date of Patent: Jul. 9, 2013**

(54) **GREEN ROOF SYSTEM WITH BIODEGRADABLE VEGETATION TRAY**

(75) Inventor: **Richard J. Buist**, Burlington (CA)

(73) Assignee: **Bioroof Systems Inc.**, Burlington, Ontario (CA)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 372 days.

(21) Appl. No.: **12/988,853**

(22) PCT Filed: **Apr. 28, 2009**

(86) PCT No.: **PCT/CA2009/000564**
§ 371 (c)(1),
(2), (4) Date: **Oct. 21, 2010**

(87) PCT Pub. No.: **WO2009/132439**
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(65) **Prior Publication Data**
US 2011/0030274 A1 Feb. 10, 2011

Related U.S. Application Data

(60) Provisional application No. 61/048,674, filed on Apr. 29, 2008.

(51) **Int. Cl.**
A01G 9/02 (2006.01)

(52) **U.S. Cl.**
USPC **47/65.9**

(58) **Field of Classification Search**
USPC ..... 47/1.01 F, 65.9
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,919,163	A	11/1975	Clendinning et al.	
4,043,077	A	8/1977	Stonehocker	
5,315,785	A	5/1994	Smith et al.	
5,946,854	A	9/1999	Guillemin et al.	
6,606,823	B1	8/2003	McDonough et al.	
6,732,666	B2	5/2004	Layt	
6,862,842	B2	3/2005	Mischo	
7,334,376	B1	2/2008	Behnam	
7,392,616	B1	7/2008	Bagby	
7,596,906	B2 *	10/2009	Gold	47/65.9
7,720,071	B2 *	6/2010	Carpenter	47/65.9
7,958,669	B2 *	6/2011	Casiematy et al.	47/1.01 F

(Continued)

OTHER PUBLICATIONS

Live Roof Brochure—Prevegetated Modular Green Roof System, Feb. 2008.

Primary Examiner — Frank T Palo
(74) *Attorney, Agent, or Firm* — Bereskin & Parr LLP/S.E.N.C.L.R., s.r.l.

(57) **ABSTRACT**

A green roof module for covering a portion of a roofing surface with vegetation, includes a tray for containing a growing medium and vegetation, a permeable membrane, and a drainage board. The tray has a biodegradable bottom and a plurality of upwardly extending biodegradable walls about the perimeter of the biodegradable bottom. The biodegradable bottom is configured so that water received within the tray can pass therethrough. The permeable membrane is provided below the biodegradable bottom, and is sized and shaped so as to span the biodegradable bottom and configured to allow water to pass therethrough while inhibiting the growing medium from passing therethrough. The drainage board is provided below the permeable membrane opposite the biodegradable bottom, and has an upper surface for supporting the biodegradable bottom and being surrounded by a plurality of edges. The drainage board is configured so that at least some of the water passing through the permeable membrane and received on the drainage board will be drained away from the tray.

50 Claims, 12 Drawing Sheets

[Primary sources](#)
(statistics, patents)

COOL ROOFING
2006

Green Roofs in the City

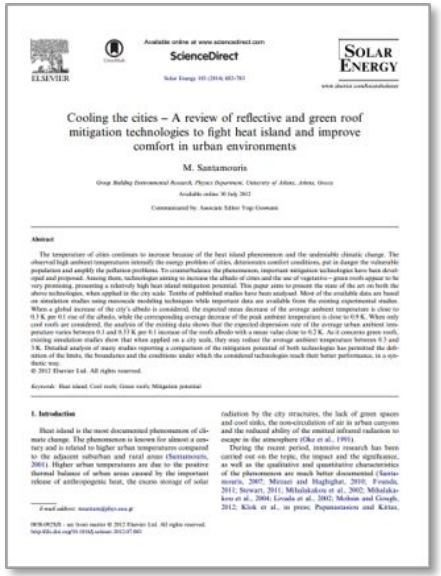
Chicago's Cultural Center Showcases Garden Roof

by Chris King

Design and Testing

[Popular culture sources](#)
(trade journals, newspapers, etc.)

Why? Think about audience



Available online at www.sciencedirect.com
ScienceDirect
Solar Energy 85 (2011) 3–24
SOLAR ENERGY
www.elsevier.com/locate/solener

Cooling the cities – A review of reflective and green roof mitigation technologies to fight heat island and improve comfort in urban environments

M. Santamouris

Group Building Environmental Research, Physics Department, University of Athens, Athens, Greece

Available online 30 July 2012

Communicated by: Associate Editor Yogi Goswami

Abstract

The temperature of cities continues to increase because of the heat island phenomenon and the undesirable climatic change. The observed high ambient temperatures intensify the energy problem of cities, deteriorates comfort conditions, put in danger the vulnerable population and amplify the pollution problems. To counterbalance the phenomenon, important mitigation technologies have been developed and proposed. Among them, technologies aiming to increase the albedo of cities and the use of vegetation – green roofs appear to be very promising, presenting a relatively high heat island mitigation potential. This paper aims to present the state of the art on both the above technologies, when applied in the city scale. Tombs of published studies have been analysed. Most of the available data are based on simulation studies using mesoscale modeling techniques while important data are available from the existing experimental studies. When a global increase of the city's albedo is considered, the expected mean decrease of the average ambient temperature is close to 0.1 K per 0.1 rise of the albedo, while the corresponding average decrease of the peak ambient temperature is close to 0.5 K. When only cool roofs are considered, the analysis of the existing data shows that the expected depression rate of the average urban ambient temperature varies between 0.3 and 0.33 K per 0.1 increase of the roofs albedo with a mean value close to 0.2 K. As it concerns green roofs, existing simulation studies show that when applied on a city scale, they may reduce the average ambient temperature between 0.3 and 3 K. Detailed analysis of many studies reporting a comparison of the mitigation potential of both technologies has permitted the definition of the limits, the boundaries and the conditions under which the considered technologies reach their better performance, in a synthetic way.

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Keywords: Heat island; Cool roofs; Green roofs; Mitigation potential

1. Introduction

Heat island is the most documented phenomenon of climate change. The phenomenon is known for almost a century and is related to higher urban temperatures compared to the adjacent suburban and rural areas (Santamouris, 2001). Higher urban temperatures are due to the positive thermal balance of urban areas caused by the important release of anthropogenic heat, the excess storage of solar radiation by the city structures, the lack of green spaces and cool sinks, the non-circulation of air in urban canyons and the reduced ability of the emitted infrared radiation to escape in the atmosphere (Oke et al., 1991).

During the recent period, intensive research has been carried out on the topic, the impact and the significance, as well as the qualitative and quantitative characteristics of the phenomenon are much better documented (Santamouris, 2007; Mirzaei and Haghighat, 2010; Founda, 2011; Stewart, 2011; Mihalakakou et al., 2002; Mihalakakou et al., 2004; Livada et al., 2002; Mohsin and Gough, 2012; Klok et al., in press; Papanastasiou and Kittas,

E-mail address: msantam@phys.uoa.gr

0038-092X/$ - see front matter © 2012 Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.solener.2011.08.003

(12) **United States Patent**
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3,919,103 A 11/1975 Clendening et al.
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5,946,854 A 9/1999 Guillemin et al.
6,606,823 B1 8/2003 McDonough et al.
6,732,666 B2 5/2004 Layt
6,862,842 B2 3/2005 Mischo
7,334,376 B1 2/2008 Behrens
7,392,616 B1 7/2008 Bagby
7,596,906 B2 * 10/2009 Gold 47/65.9
7,728,071 B2 * 6/2010 Carpenter 47/65.9
7,958,689 B2 * 6/2011 Casteneda et al. ..... 47/1.01 F

(Continued)

OTHER PUBLICATIONS

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50 Claims, 12 Drawing Sheets

COOL ROOFING
2006

Green Roofs in the City

Chicago's Cultural Center Showcases Garden Roof

by Chris King

The City of Chicago, like many cities, is interested in saving energy and reducing both the heat island effect and wastewater runoff. But instead of simply preaching the virtues of garden roofs, Mayor Richard M. Daley has decided to make it a priority to install them on public buildings, including City Hall, which was capped with a new garden roof in 2001.

When experts determined the Chicago Cultural Center was in need of a new roof, it seemed like another ideal candidate for a green roof system, as it was another marquee public building in a prominent location. Bordered by Michigan, Washington and Randolph, its rooftop is visible from many surrounding residential and commercial high-rise buildings, and it is situated right next to Millennium Park, a top tourist destination. But the first of many challenges on this project was that the building, designed by the Boston firm of Shepley, Rutan & Coolidge and dedicated in 1897 to serve as the city's main public library, was not designed to support a garden roof, and there was a question as to whether the building could handle the additional weight. Furthermore, the building's ornate inner architecture, which includes intricate plaster ceilings and two stained-glass domes, could not be damaged.

The same high-profile location that made the building a prime spot for a garden roof also posed huge obstacles to its installation. The busy surrounding streets could not be closed to traffic, and events scheduled at the facility would have to continue with as little disruption as possible while the roofing project was completed. The Chicago Cultural Center contains two concert halls, two theaters, and eight exhibition spaces, as well as a cabaret performing space, a senior center, a café, shops, and a visitor center. It hosts over 1,000 programs and art exhibitions every year, so removing the old roof, loading the materials and completing the installation while keeping distractions to a minimum would be a tough goal to achieve.

Design and Testing

The team assembled for the project included area businesses R.M. Chin and Associates, which served as the architectural/engineering design and construction manager on the project, architect Bauer-Latoza Studios, Klein & Hoffman Engineers, roof consultant Alwin Group, and roofing contractor Anderson & Shah.

The first step was to conduct a feasibility study to determine if the existing roof could sustain a vegetated roof system. Klein & Hoffman Engineers determined that the building could support the weight, but only if it were strengthened at certain key areas. Josh Dorotsach of Klein & Hoffman explained that the main roof structure incorporated 16-foot spanning steel trusses, which were near their maximum capacity due to the installation of heavy HVAC mechanical equipment in the 1970s.

The key question was how to support the trusses without causing unsightly additions visible above the roof or harming the ornate ceilings on its underside. The engi-

Academics: what are possible approaches? What has been researched?

Market: What has been patented and/or marketed? What is industry doing?

Society: What is being discussed in media? (popular and/or within trades)

Searching for information resources

What are the types of green roofs on city buildings?

Google

What are the types of green roofs on city buildings?

All Images News Videos Shopping More Settings Tools

About 315,000,000 results (0.88 seconds)

Introduction to types of green roofs on buildings in cities - Livingroofs.org
https://livingroofs.org/introduction-types-green-roof/
The planning, implementation and maintenance of all these **types** is covered in the UK **Green roof** Code of Practice. ... In the UK there are three sub-**categories**: Extensive sedum. Extensive biodiverse.

Images for What are the types of green roofs on city ...

More images for What are the types of green roofs on city buildings? Report images

What are the different types of green roofs? - BCIT Commons
https://commons.bcit.ca/greenroof/faq/what-are-the-different-types-of-green-roofs/
Extensive **Green Roofs** – designed for environmental solutions ... growing medium. low-maintenance ground-cover plants. ideal for large flat-roof **buildings** and apartments. ... Chicago **City** Hall: Light weight soils at 4, 6 and 18 inches in depth.

Green roof - Wikipedia
https://en.wikipedia.org/wiki/Green_roof
A **green roof** or **living roof** is a roof of a **building** that is partially or completely covered with ... A concentration of **green roofs** in an **urban** area can even reduce the **city's** average temperatures during the summer, ... Some existing **buildings** cannot be retrofitted with certain **kinds of green roof** because of the weight load of the ...

People also ask

How thick does a green roof need to be?
What is a green roof system?
Are green roofs good for the environment?
How do green roofs work?

Feedback

Why don't all public buildings have green roofs ... - The Nature of Cities
https://www.thenatureofcities.com/.../why-dont-all-public-buildings-have-green-roofs-...
Aug 12, 2015 - Or all large private **buildings** (e.g. businesses)? Would this be a good ..... **Green roofs** need an Apple **type** OS or a MS Windows OS to make ...

Google Scholar

What are the types of green roofs on city buildings?

Articles

About 97,300 results (0.33 sec)

Any time
Since 2018
Since 2017
Since 2014
Custom range...

Sort by relevance
Sort by date

include patents
include citations

Create alert

The role of extensive **green roofs** in sustainable development
KL Getter, DB Rowe - HortScience, 2006 - hortsci.ashspublications.org
... But the amount of shading is highly dependent on the **types** of plants chosen, because ... when strongly fertilized (Jauch, 1993), although the author did not indicate **what** is considered ... depth influences rate of substrate coverage and plant growth regardless of **species** Durhman et ...
Cited by 650 Related articles All 9 versions Web of Science: 259

[PDF] ashspublications.org
Find it @ Concordia

[PDF] Space for urban wildlife: designing **green roofs** as habitats in Switzerland
S Brenneisen - Urban habitats, 2006 - urbanhabitats.org
... typical flora and fauna. Figure 2 shows some of the habitat **types** associated with the area, which ... layer of gravel (Figure 4). Water drainage is thus often limited on the Wollishofen **roofs**, and **what** ... **species** that are extremely sun and drought tolerant ...
Cited by 332 Related articles All 5 versions

[PDF] urbanhabitats.org

Green roofs in temperate climates and in the hot-humid tropics–far beyond the aesthetics
M Köhler, M Schmidt, F Wilhelm Grimme... - Environmental ..., 2002 - emeraldinsight.com
... This **type** of **roof** proved to be very durable and until recently almost totally free of maintenance ... Different **types** of Sedum and different **types** of moss grow on a 7cm layer of substrate ... of the evaporating water and second, as soon as the cavity water is evaporated (**what** effects the ...
Cited by 180 Related articles All 6 versions

[PDF] researchgate.net
Find it @ Concordia

Adapting **cities** for climate change: the role of the **green** infrastructure
SE Gill, JF Handley, AR Ennos, S Pauleit - Built environment, 2007 - ingentaconnect.com
... The three **types** of residential area have different surface covers from each other (figure 3). In ... Additionally, soil **type** is very important (figure 9). Faster infiltrating soils, such as sandy soils ... Tree **species** which are less sensitive to drought can be chosen from temperate zones, such ...
Cited by 1174 Related articles All 15 versions

[PDF] jstor.org
Find it @ Concordia

Green roofs as urban ecosystems: ecological structures, functions, and services
E Oberndorfer, J Lundholm, B Bass, RR Coffman... - ..., 2007 - academic.oup.com
... Advanced Search. Article Navigation. Close mobile search navigation Article navigation. Issue Cover. Volume 57. Issue 10. November 2007. Article Contents. Abstract. History of **green roofs**. **Green-roof** vegetation. Ecosystem services provided by **green roofs**.
Cited by 975 Related articles All 20 versions Web of Science: 418

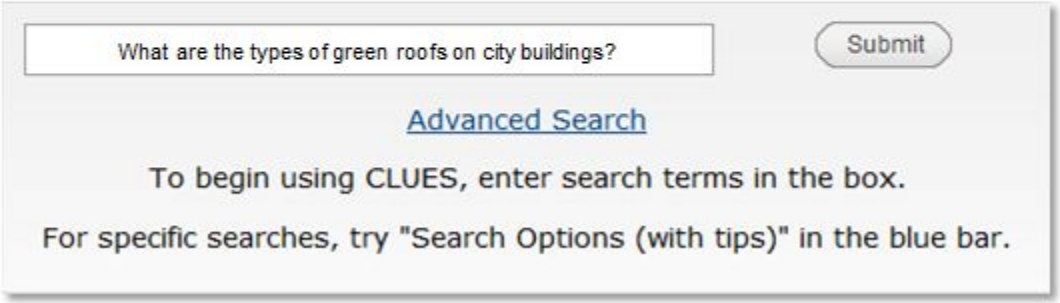
[HTML] oup.com
Full View

[HTML] Investigation of **green roof** thermal performance in temperate climate: A case study of an experimental **building** in Florianópolis **city**, Southern Brazil
S Parizotto, R Lamberts - Energy and **buildings**, 2011 - Elsevier
... On the other hand, the heat flux data gathered in the different **roof types** seem to be a more ... Comparison between heat fluxes across each **roof type** is shown in Fig ... The cooler temperatures were observed in the substrate layer, in opposite to **what** has been observed for the warm ...
Cited by 107 Related articles All 8 versions Web of Science: 56

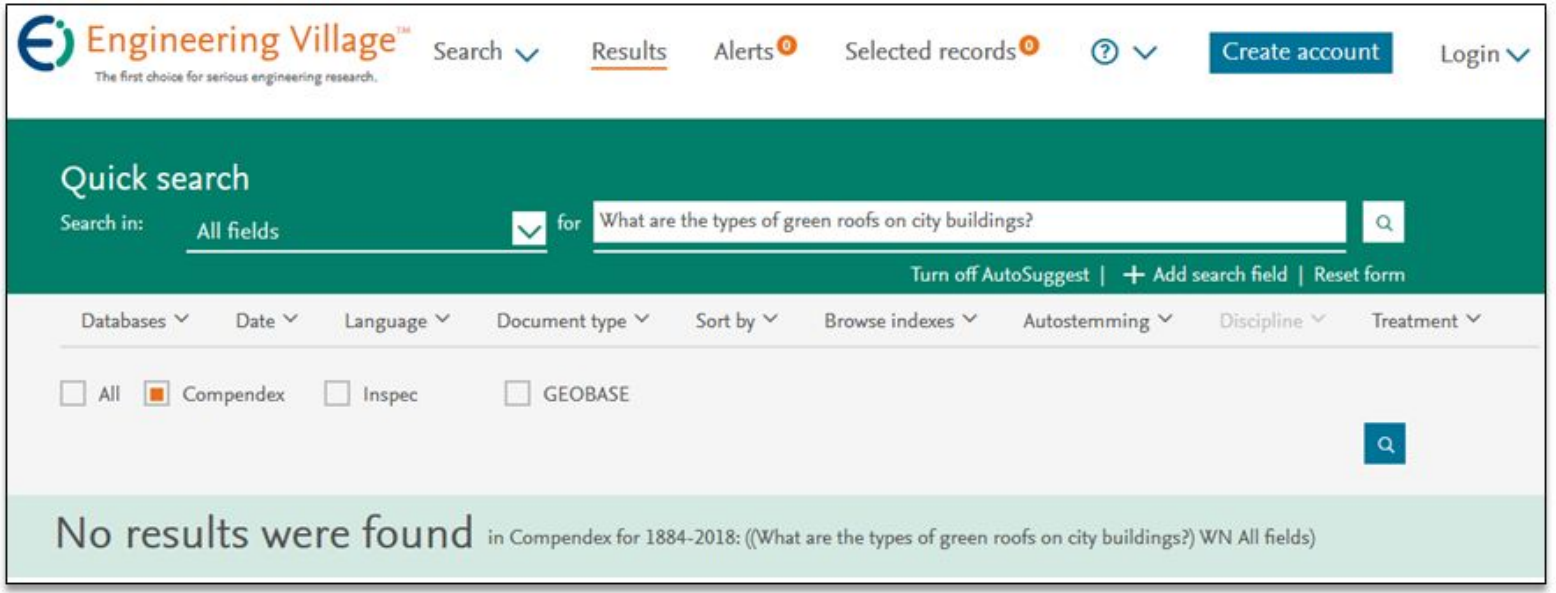
[HTML] sciencedirect.com
Find it @ Concordia

Concordia University

CLUES Library Catalogue



NO ENTRIES FOUND



NO ENTRIES FOUND

(out of "22 million indexed records from 77 countries across 190 engineering disciplines" in Compendex?)

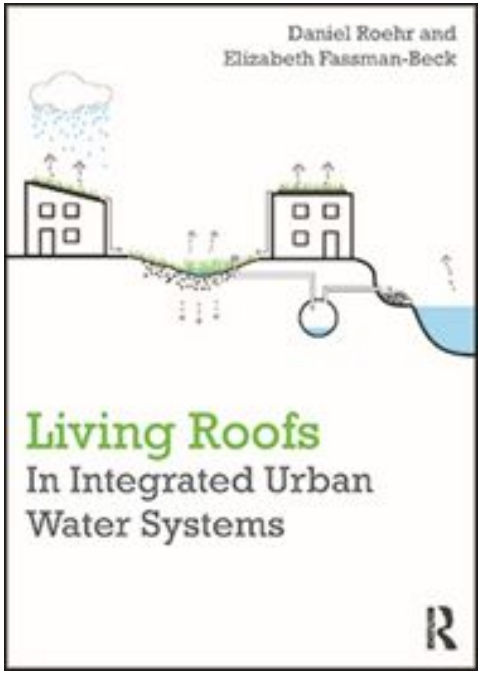
Finding key concepts and synonyms

What are the types of green roofs on city buildings?

Concepts	Synonyms
Green roofs	Living roofs OR vegetated roofs
Buildings	Offices OR highrises

Why synonyms?

Authors, publishers, and cataloguers may use different terms to describe the same concept!

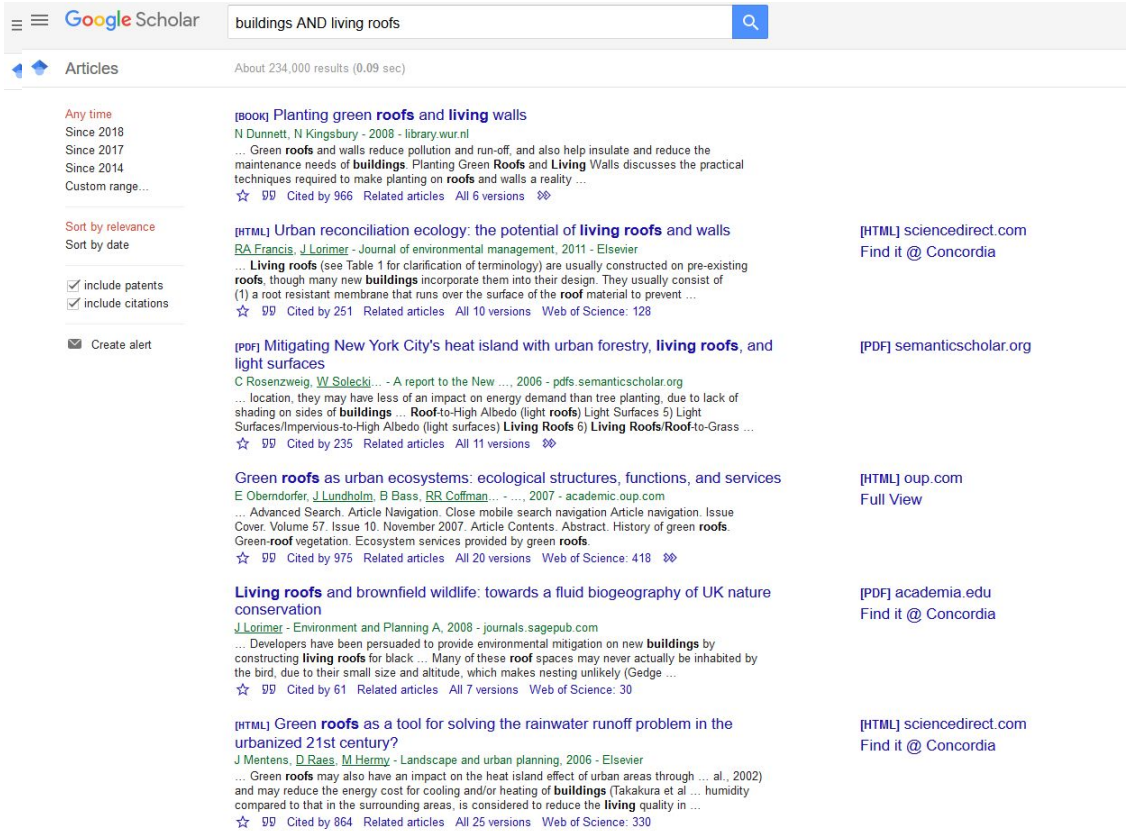


Creating a search strategy

Simple

Concept 1 AND Concept 2

Concept 1 AND Synonym 2



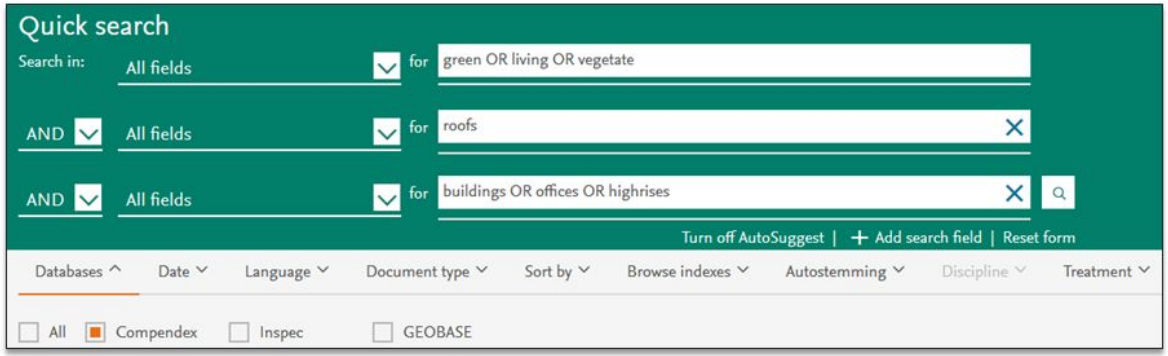
Creating a search strategy

Advanced

Concept 1 OR Synonym

AND Concept 2 OR Synonym

AND Concept 3 OR Synonym



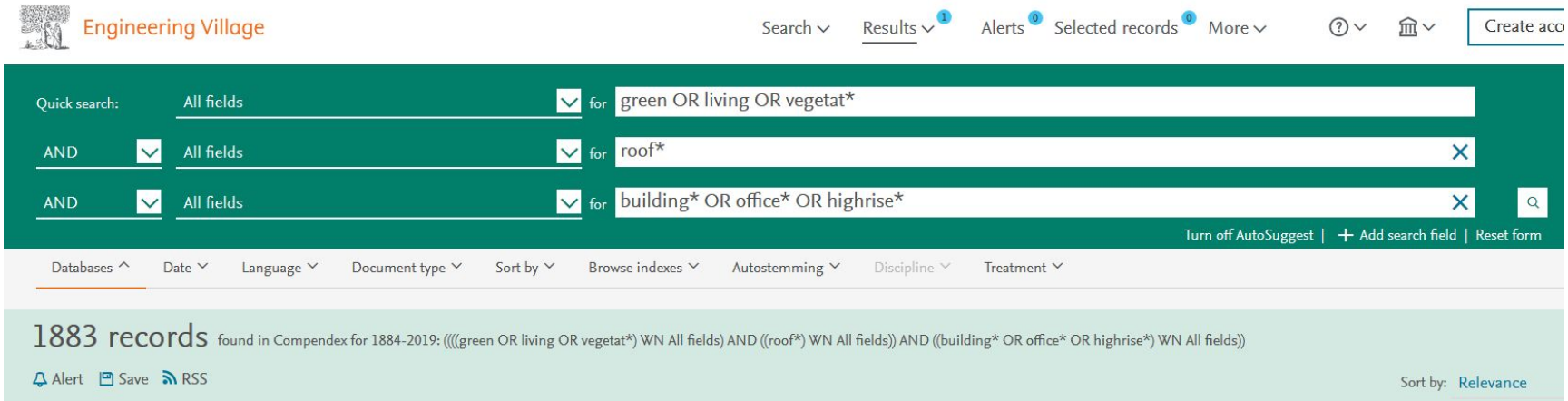
Creating a search strategy

Search tip: **truncations!**

roof = roof

roofs = roofs (*not* roof*!)*

roof* = roof OR roofs OR roofing

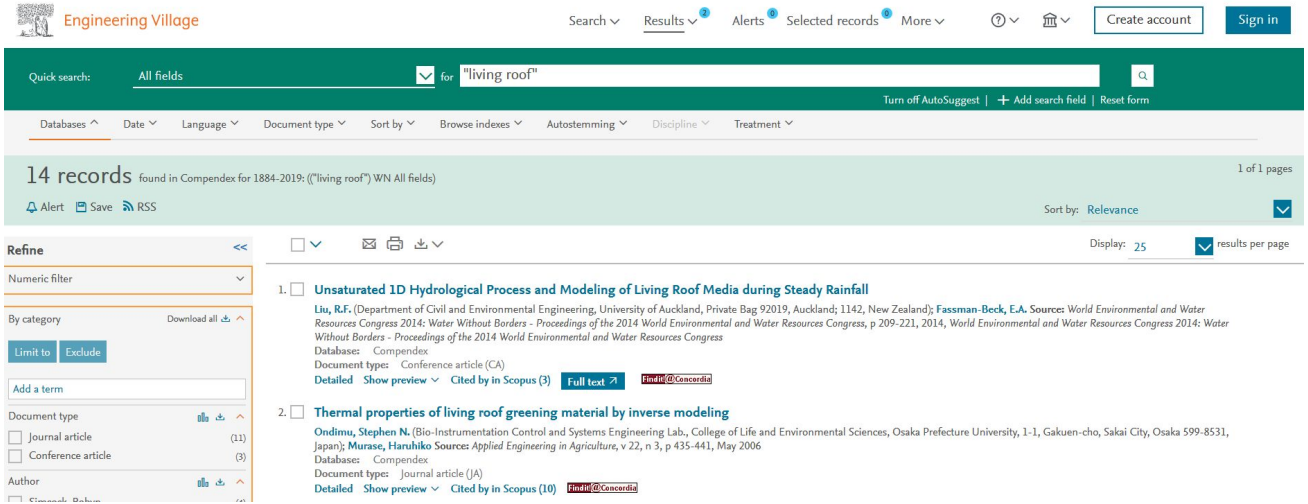


Creating a search strategy

Search tip: **quotation marks!**

living roof = living OR roof

“living roof” = exact match only



Let’s practice

Exercise 1: Concepts and their Synonyms

How can drones be used to survey vegetated areas?

tinyurl.com/encs282-concepts

Exercise 2: Searching Compendex

How can drones be used to survey vegetated areas?

tinyurl.com/encs282-db

Getting access to resources

I found an article I want in (e.g.) Compendex. How do I get access to the full text?

1. Look for **Full text** or **PDF** button, if one exists.
2. Look for **Find it @ Concordia** button
3. Request a copy through **Interlibrary Loan (COLOMBO)**
4. **Ask a Librarian** if you need help!

183 records found in Compendex for 1884-2020: ((("electronic waste" or e-waste) WN All fields) AND ((recycl* or reuse) WN All fields)) AND ((Guiyu or Guangdong) WN All fields))

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ld a term

cument type

- Journal article (171)
- Conference article (7)
- Article in Press (3)
- Book chapter (1)

Bar chart

thor

- Xu, Xijin (29)
- Huo, Xia (29)
- Mai, Bi-Xian (19)
- Luo, Xiao-Jun (16)
- Fu, Jiamo (13)

View more

thor affiliation

- State Key Laboratory Of Organic Geochemistry, Guangzhou Institute Of Geochemistry, Chinese Academy Of Sciences (24)

1. **Policy on E-waste in China - Case study of Guiyu town, Guangdong province**

   Li, Bin (University of Jiaxing, Jiaxing, Zhejiang, 314001, China); Du, Huanzheng; Bao, Jiqing; Higano, Yoshiro; Li, Yang **Source:** *Proceedings - International Conference on Computer Distributed Control and Intelligent Environmental Monitoring, CDCIEM 2011*, p 2482-2485, 2011, *Proceedings - International Conference on Computer Distributed Control and Intelligent Environmental Monitoring, CDCIEM 2011*

   Database: Compendex

   Document type: Conference article (CA)

   Detailed | Show preview | Cited by in Scopus (2) | Full text | Findit@Concordia

2. **Heavy metal contamination from electronic waste recycling at Guiyu, southeastern China**

   Guo, Yan (School of Environmental Science and Public Health, Wenzhou Medical College, Wenzhou 325035, China); Huang, Changjiang; Zhang, Hong; Dong, Qiaoxiang **Source:** *Journal of Environmental Quality*, v 38, n 4, p 1617-1626, July-August 2009

   Database: Compendex

   Document type: Journal article (JA)

   Detailed | Show preview | Cited by in Scopus (52) | Full text | Findit@Concordia

3. **E-waste environmental contamination and public health effects in Guiyu, southeast China**

   Ban, Hao (Analytic Cytology Laboratory and the Key Immunopathology Laboratory of Guangdong Province, Shantou University Medical College, Guangdong, China); Xu, Xijin; Wu, Kusheng; Sun, Di; Zhang, Jian; Alabi, Okunola Adenrele; Huo, Xia **Source:** *E-Waste: Management, Types and Challenges*, p 109-128, 2012

   Database: Compendex

   Document type: Book chapter (CH)

   Detailed | Show preview | Findit@Concordia

4. **Assessment of cadmium exposure for neonates in Guiyu, an electronic waste pollution site of China**

   Li, Yan (Analytical Cytology Laboratory, Key Immunopathology Laboratory of Guangdong Province, Shantou University Medical College, Shantou 515041, China); Huo, Xia; Liu, Junxiao; Peng, Lin; Li, Weiqiu; Xu, Xijin **Source:** *Environmental Monitoring and Assessment*, v 177, n 1-4, p 343-351, June 2011

   Database: Compendex

   Document type: Journal article (JA)

   Detailed | Show preview | Cited by in Scopus (34) | Full text | Findit@Concordia

Université Concordia University LIBRARY

You are looking for:

E-waste environmental contamination and public health effects in Guiyu, southeast China
Ban, Hao. *E-Waste: Management, Types and Challenges* v. no. p. 109 Year: 2012

Check the library catalogue:

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Standards, costs, and patents

07 33 Natural Roof Coverings

07 33 63 – Vegetated Roofing

07 33 63.10 Green Roof Systems

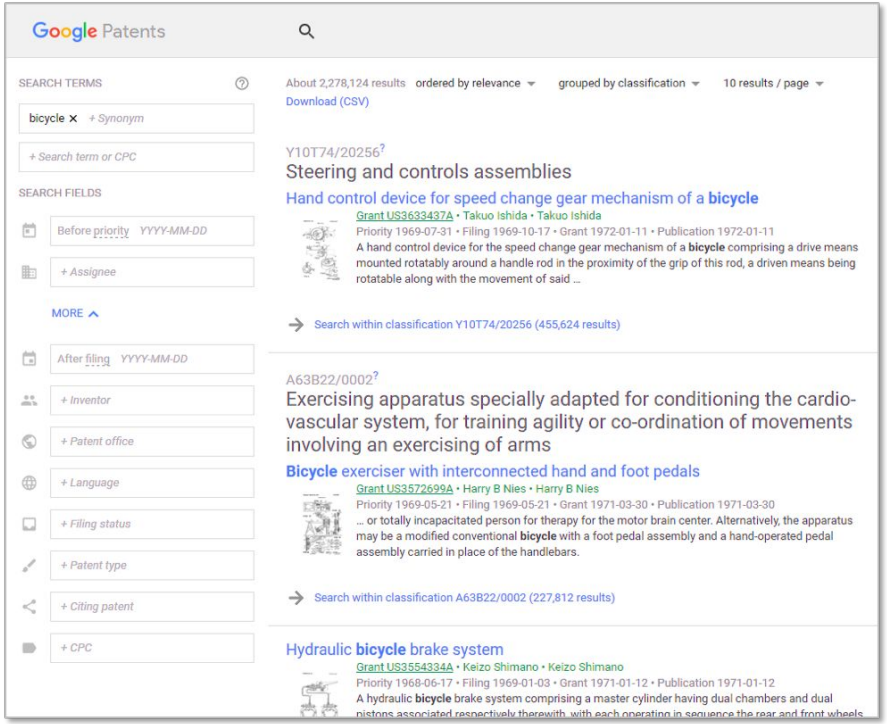
			Crew	Daily Output	Labor-Hours	Unit	2012 Bare Costs Material	Labor	Equipment	Total	Total Incl O&P
0010	**GREEN ROOF SYSTEMS**										
0020	Soil mixture for green roof 30% sand, 55% gravel, 15% soil	G									
0100	Hoist and spread soil mixture 4 inch depth up to five stories tall roof	G	B-13B	4000	.014	S.F.	.25	.53	.28	1.06	1.38
0150	6 inch depth	G		2667	.021		.37	.80	.41	1.58	2.08
0200	8 inch depth	G		2000	.028		.50	1.07	.55	2.12	2.79
0250	10 inch depth	G		1600	.035		.62	1.33	.69	2.64	3.49
0300	12 inch depth	G		1335	.042		.75	1.60	.82	3.17	4.17
0310	Alt. man-made soil mix, hoist & spread, 4" deep up to 5 stories tall roof	G		4000	.014		1.50	.53	.28	2.31	2.76
0350	Mobilization 55 ton crane to site	G	1 Eqhv	3.60	2.222	Ea.		106		106	160
0355	Hoisting cost to five stories per day (Avg. 28 picks per day)	G	B-13B	1	56	Day		2,125	1,100	3,225	4,450
0360	Mobilization or demobilization, 100 ton crane to site driver & escort	G	A-3E	2.50	6.400	Ea.		266	55.50	321.50	460
0365	Hoisting cost six to ten stories per day (Avg. 21 picks per day)	G	B-13C	1	56	Day		2,125	1,625	3,750	5,050
0370	Hoist and spread soil mixture 4 inch depth six to ten stories tall roof	G		4000	.014	S.F.	.25	.53	.41	1.19	1.53
0375	6 inch depth	G		2667	.021		.37	.80	.61	1.78	2.30
0380	8 inch depth	G		2000	.028		.50	1.07	.81	2.38	3.08
0385	10 inch depth	G		1600	.035		.62	1.33	1.02	2.97	3.85
0390	12 inch depth	G		1335	.042		.75	1.60	1.22	3.57	4.60
0400	Green roof edging treated lumber 4" x 4" no hoisting included	G	2 Carp	400	.040	L.F.	.82	1.76		2.58	3.61
0410	4" x 6"	G		400	.040		2.11	1.76		3.87	5.05
0420	4" x 8"	G		360	.044		4.32	1.96		6.28	7.80
0430	4" x 6" double stacked	G		300	.053		4.21	2.35		6.56	8.25
0500	Green roof edging redwood lumber 4" x 4" no hoisting included	G		400	.040		6.40	1.76		8.16	9.75
0510	4" x 6"	G		400	.040		11.20	1.76		12.96	15
0520	4" x 8"	G		360	.044		20.50	1.96		22.46	25.50
0530	4" x 6" double stacked	G		300	.053		22.50	2.35		24.85	28
0550	Roof membrane and root barrier, not including insulation:	G									
0560	Fluid applied rubber membrane, reinforced, 215 mil thick	G	G-5	350	.114	S.F.	.26	3.88	.51	4.65	7.35
0570	Root barrier	G	2 Rofc	775	.021		.70	.77		1.47	2.06
0580	Moisture retention barrier and reservoir	G	"	900	.018		2.70	.67		3.37	4.08
0600	Planting sedum, light soil, potted, 2-1/4" diameter, two per S.F.	G	1 Clab	420	.019		5	.67		5.67	6.55
0610	one per S.F.	G	"	840	.010		2.50	.33		2.83	3.26
0630	Planting sedum mat per S.F. including shipping (4000 S.F. min)	G	4 Clab	4000	.008		6	.28		6.28	7.05
0640	Installation sedum mat system (no soil required) per S.F. (4000 S.F. min)	G	"	4000	.008		8.35	.28		8.63	9.65
0645	Note: pricing of sedum mats shipped in full truck loads (4000-5000 S.F.)	G									

Finding standards

- Webster Library, 2nd floor
- Non-circulating - you can't check them out, so you will have to scan the pages you need in the Library
- Canadian, American, and international standards (CSA, ASTM, ANSI, ISO, ASCE, etc.)
- ENCS Subject Guide: Standards, patents & trademarks

Patents

- Google Patents
- Canadian Patent Database
- US Patent and Trademark Office



Citing

Citing: General information

See ENCS Subject Guide for information on citing and **IEEE citation style**

What do you need to cite?

- Any text you quote from another document, website, book, etc.
- Paraphrasing someone's words or ideas
- Images, graphs, etc.

What do you not need to cite?

- Common knowledge, facts, events, dates, concepts

Citing: Avoiding plagiarism

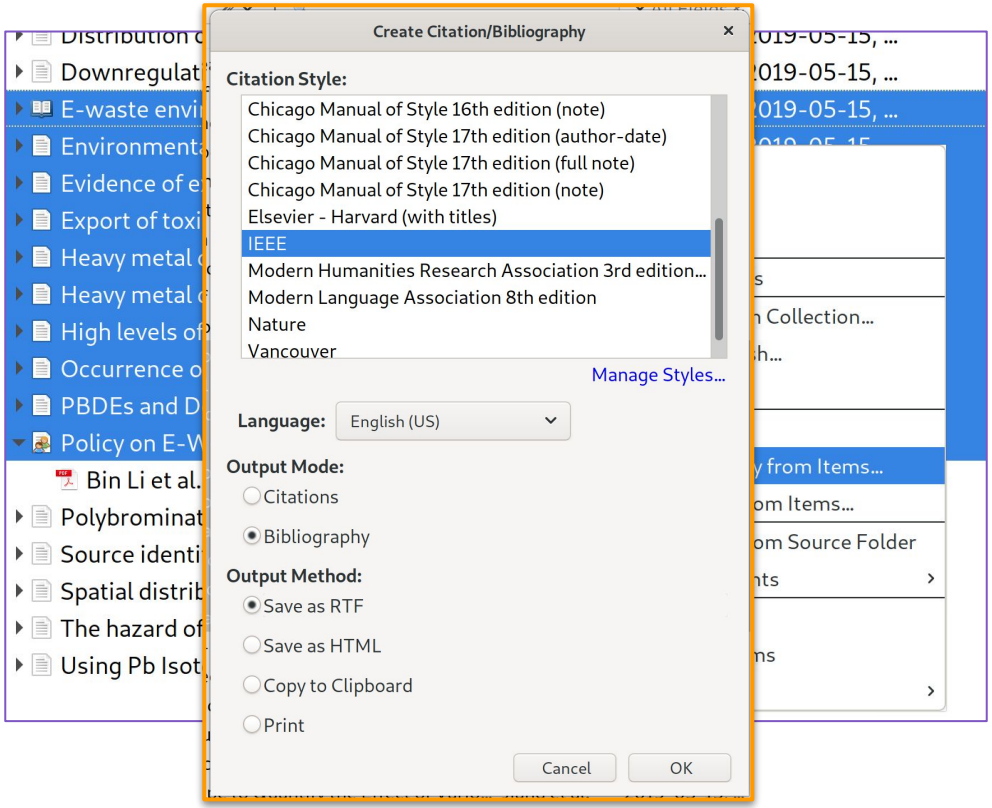
- It is always better to err on the side of caution and to **cite the source of any information** you use in your writing.
- **Use quotations** and include a citation whenever you use another author's exact words (even if it comes from the internet!)
- **Be careful when paraphrasing** - it is not enough to change only a few words here or there. Either rewrite an idea in your own words (and cite the source!) or use a direct quotation.

Guide: What is plagiarism?

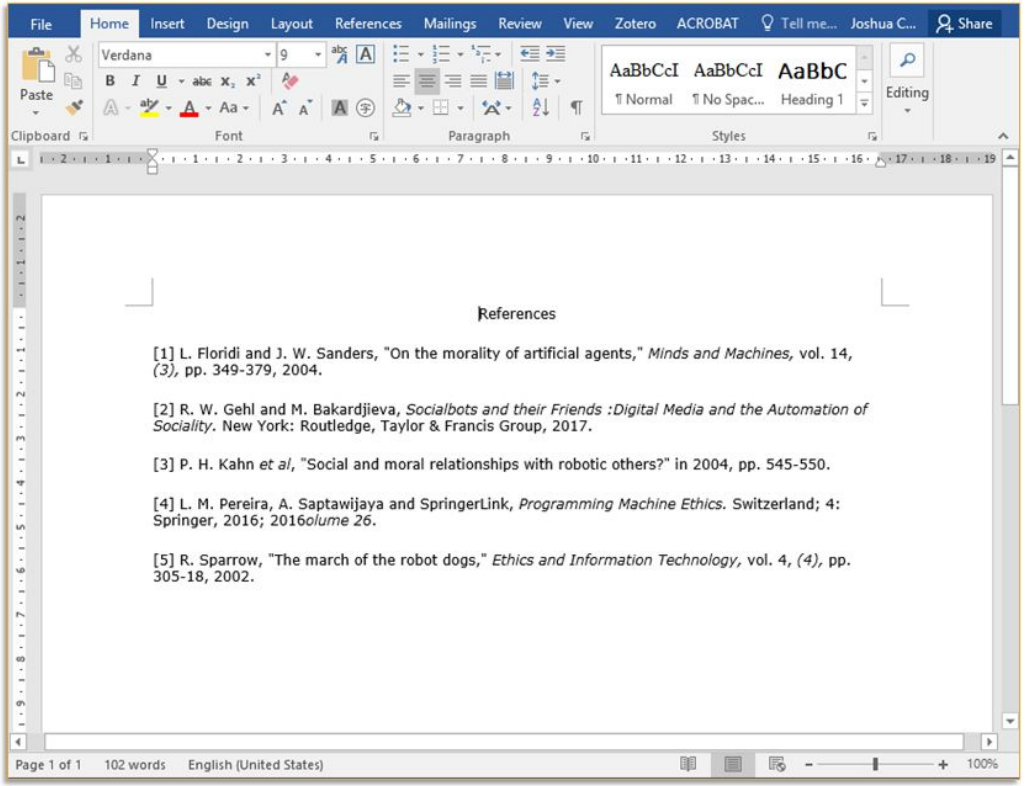
Citing: Creating a bibliography

zotero

- Zotero can help you keep track of your sources and will create your bibliographies for you in IEEE (or APA/Chicago/etc.) style



Zotero gives you this



Zotero setup

1) Register https://www.zotero.org

2) Start the desktop application & go to the **Tools** menu

3) Check that the Browser Connector for Chrome is installed

4) Check that the Add-on for Microsoft Word is installed

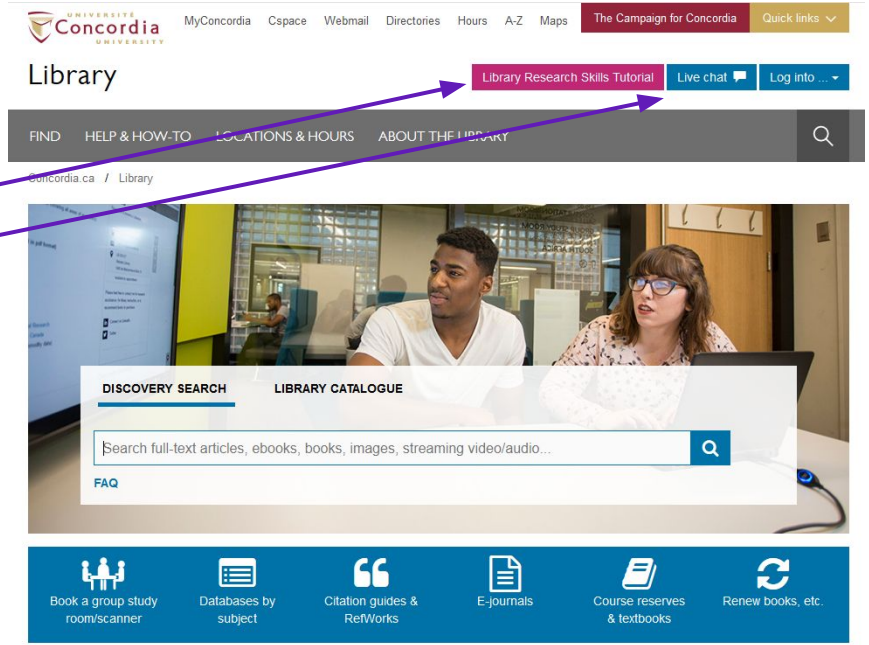
Help: lib-citation@concordia.ca

https://www.zotero.org/support/

Getting help

Getting help

- In person at the Ask Us! desk (Webster) or Reference desk (Vanier)
- Subject guides
- Library Research Skills Tutorial
- Online chat



Questions?

Created by Takao Umehara
from Noun Project

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