



**Comparing the
Indexing of Cited
Journals to Identify
the Premier
Database for a
Specific Discipline**

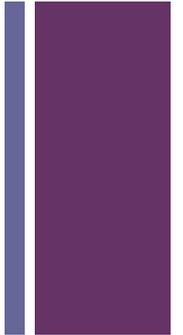
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+ Background

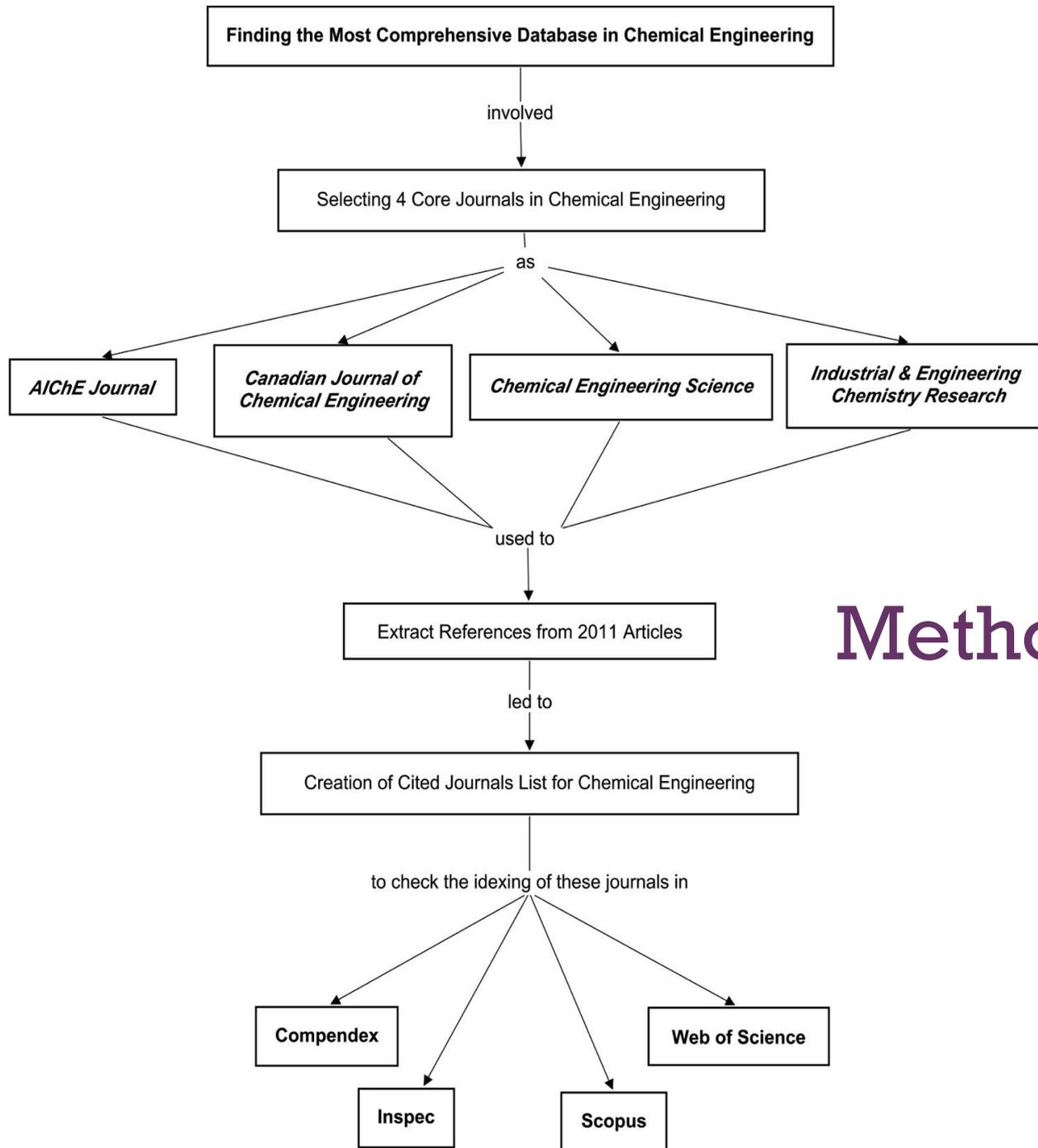
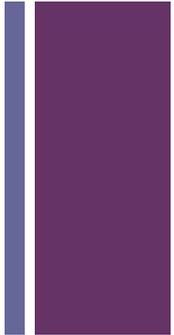


- Established in the literature:

using citation analysis to make collection development decisions

- New in the literature:

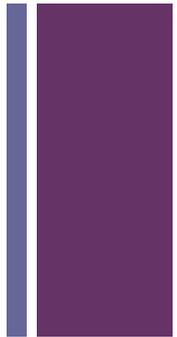
analyzing citation data to identify the most comprehensive database in a discipline



Methodology



Comparing database indexing



Home Layout Tables Charts SmartArt Formulas Data Review

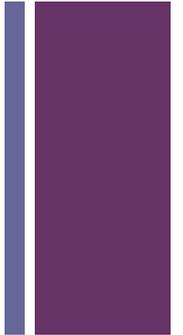
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JOURNAL COVERAGE BY DATABASE

Cited Journals	ISSN	# of Citations	% Total Citations	Web of Science	WoS Start	WoS End	Scopus	Scopus Start	Scopus End	Compendex	Comp. Start	Comp. End	Inspec	Inspec Start	Inspec End
A.I.Ch.E. Journal.	0001-1541	3207	4.52%	13213	1955	2012	9853	1966	2013	9443	1969	2013	187	1968	1994
AAPS Pharm. Sci. Technol.	1530-9932	15	0.02%	1233	2004	2012	1862	2000	2013	0			0		
Accounts of Chemical Research.	0001-4842	61	0.09%	4043	1968	2013	4002	1968	2013	0			7	1992	1992

+ The story in numbers



- Articles published in the year 2011 in the four core journals cited a total of **90,945** publications
- **90.5%** of these were references to journal articles
- **970** journal titles (from **86.3%** of the cited journal article references) constituted the list of cited journals that was used to check database coverage
- Journal titles that were cited four times or less were excluded from the list

+ Which database indexes the maximum number of cited journal titles?



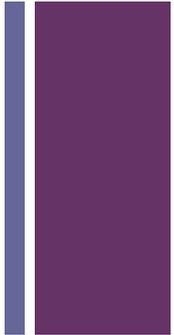
Database Name	Number of cited journals indexed	Percentage of 970 cited journals
<i>Compendex</i>	788	81.2%
<i>Inspec</i>	518	53.4%
<i>Scopus</i>	934	96.3%
<i>Web of Science</i>	927	95.6%



(0.7% difference between *Scopus* and *Web of Science*, z-score = 0.8041, p-value = 0.42372, result is not significant at $p < 0.01$)



Which database indexes the largest number of items from these journals?



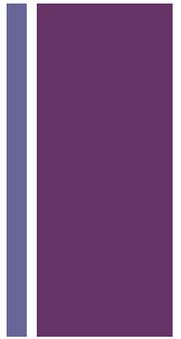
Database Name	Number of cited journals with the max. records	Percentage of 970 cited journals
<i>Compendex</i>	152	15.7%
<i>Inspec</i>	24	2.5%
<i>Scopus</i>	517	53.3%
<i>Web of Science</i>	603	62.2%



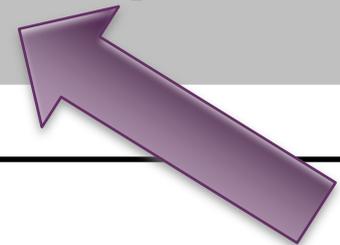
(8.9% difference between *Web of Science* and *Scopus*, z-score = 3.9526, p-value = 8E-05, result is significant at $p < 0.01$)



Which database goes back the furthest in time in the indexing of these journals?

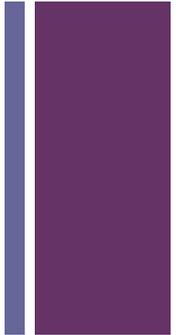


Database Name	Number of cited journals going back furthest	Percentage of 970 cited journals
<i>Compendex</i>	309	31.9%
<i>Inspec</i>	203	20.9%
<i>Scopus</i>	662	68.2%
	561 (uninterrupted time coverage)	57.8% (uninterrupted time coverage)
<i>Web of Science</i>	559	57.6%



(0.2% difference between *Scopus* and *Web of Science*, z-score = 0.0919, p-value = 0.92828, result is not significant at $p < 0.01$)

+ Which database currently indexes the greatest number of cited journals?

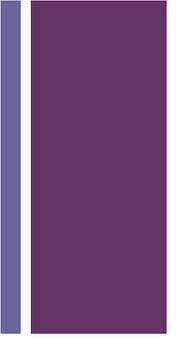


Database Name	Number of cited journals currently indexed	Percentage of 970 cited journals
<i>Compendex</i>	593	61.1%
<i>Inspec</i>	389	40.1%
<i>Scopus</i>	818	84.3%
<i>Web of Science</i>	795	82.0%



(2.3% difference between *Scopus* and *Web of Science*, z-score = 1.3949, p-value = 0.16452, result is not significant at $p < 0.01$)

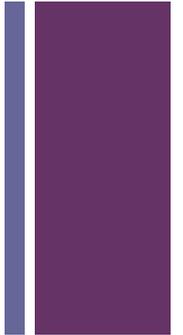
+ And the winner is ...



Web of Science

+ Using citation analysis to determine the premier database

- Can be labor-intensive
- Sort cited journals list in Excel from the most times cited to the least cited
- Check database coverage of the most frequently cited journals first
- Searching the top 200 frequently cited journals (20.6 %) on the author's list included 82.2% of the total number of citations on the list



+ Users' criteria for selecting their first choice database

- Access?
- Comprehensiveness of literature coverage?
- Ease of use?
- Specific database features?
(e.g., cited reference searching)



+ Thank you. Any questions?

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