

Self-citations and impact factors of Croatian journals

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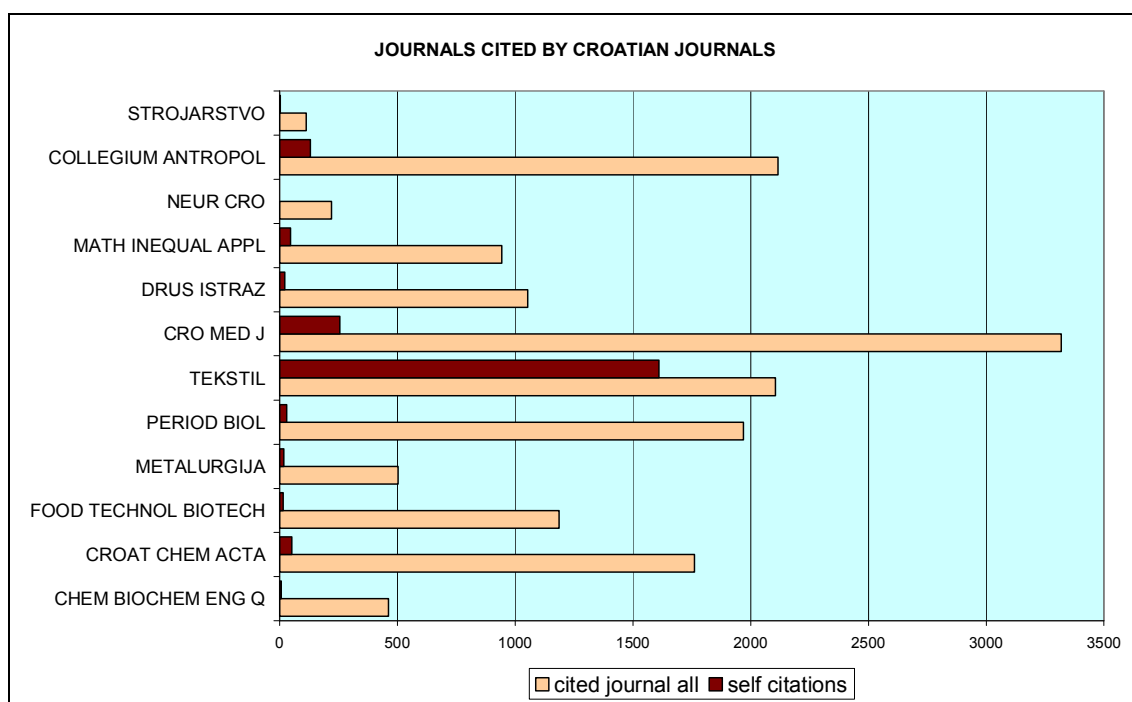
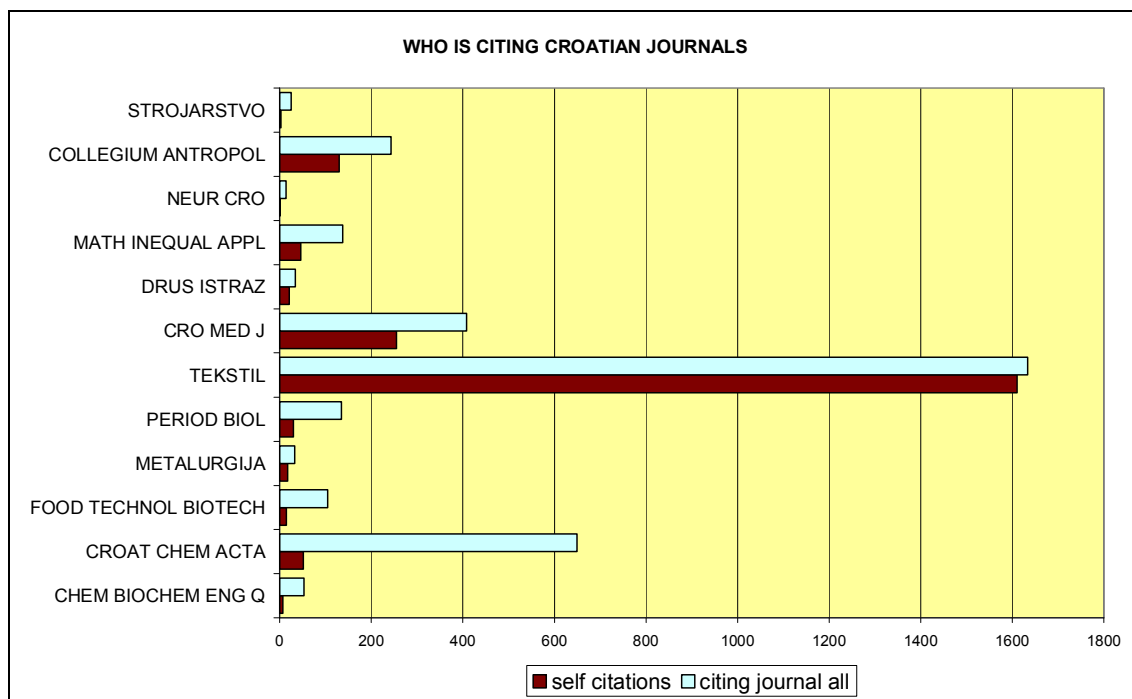
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Twelve Croatian periodicals as referred in the Journal Citation Reports (JCR) published by Institute for Scientific Information (ISI) were analyzed with the emphasis on self-citations. Although it is expected from author to mention his/her earlier research in the new articles, the extent of self-citation should be reasonable. Especially referring to the previous work published in the same journal could potentially influence impact factor of the journal. In order to determinate the amount of self-citations among all other citations journal's self-citing rate as the percentage of citations given by the journal to itself and a journal's self-cited rate as percentage of citations received by the journal from itself was calculated for each journal.

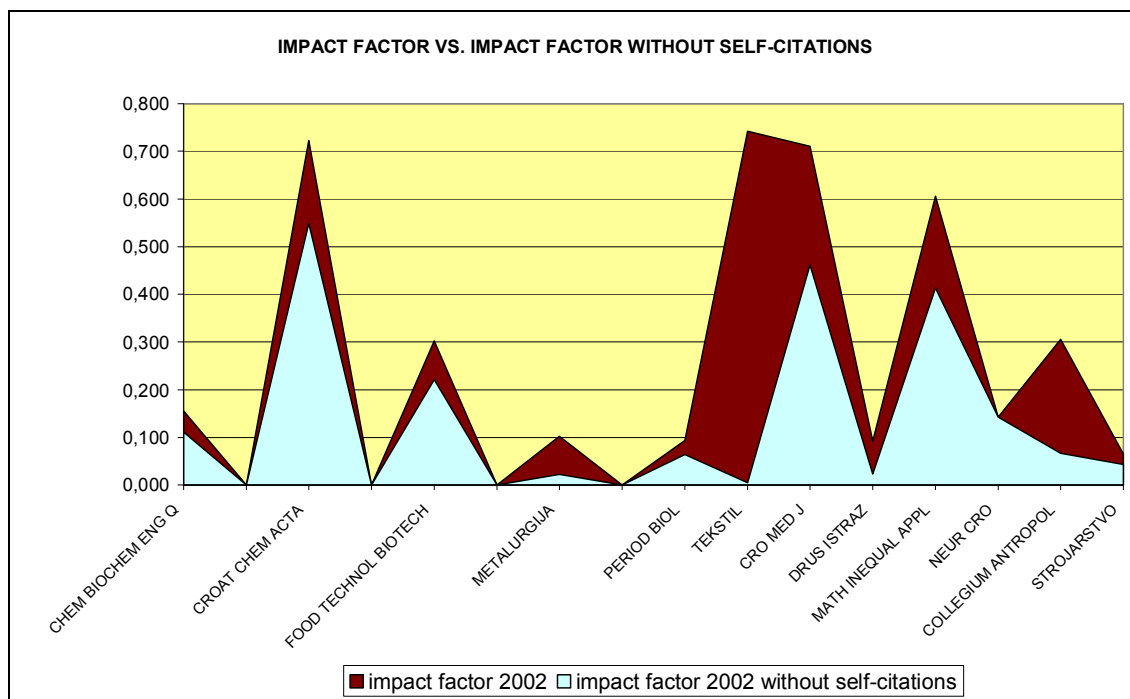
Journal title abbreviation	Self-cited rate (%)	Self-citing rate (%)
CHEM BIOCHEM ENG Q	1,5	13,2
CROAT CHEM ACTA	3,0	8,0
FOOD TECHNOL BIOTECH	1,3	14,3
METALURGIJA	3,6	54,5
PERIOD BIOL	1,5	22,2
TEKSTIL	76,5	98,6
CRO MED J	7,7	62,5
DRUS ISTRAZ	2,0	61,8
MATH INEQUAL APPL	4,9	33,3
NEUR CRO	0,5	7,1
COLLEGIUM ANTROPOL	6,1	53,5
STROJARSTVO	2,7	12,0

Beside Tekstil, which have obvious unreliable data in the JCR database, journals with highest self-citing rate are Croatian Medical Journal, Društvena Istraživanja, Metalurgija and Collegium Antropologicum. Garfield noted that on the average for scientific literature journals, the self-citation rates had an average of approximately 20%. Almost 50% of Croatian journals have self-citing rate bellow that level.



Some of the journals listed in the JCR are not citing journals, but are cited-only journals. This is significant when comparing journals, *because self-citations from cited-only journals are not included in the JCR data*. For that reason it can be useful to calculate an impact factor that does not include self-citations. Impact factors without self-citations are significantly lower for most of Croatian Journals. Most of the journal will have without self-citations 30% decrease in impact factor. The biggest decrease is for Collegium Antropologicum and Metalurgija (assuming again the data for Tekstil are wrong).

Journal abbreviation	ISSN	Number of articles published in 2000 and 2001	Number of cites in 2002 to articles published in 2000 and 2001	Impact factor 2002	Number of self-citations in 2002 to articles published in 2000 and 2001	Impact factor 2002 without self-citations
CHEM BIOCHEM ENG Q	0352-9568	45	7	0,156	2	0,111
CROAT CHEM ACTA	0011-1643	144	104	0,722	25	0,549
FOOD TECHNOL BIOTECH	1330-9862	86	26	0,302	7	0,221
METALURGIJA	0543-5846	88	9	0,102	7	0,023
PERIOD BIOL	0031-5362	203	19	0,094	6	0,064
TEKSTIL	0492-5882	213	158	0,742	157	0,005
CRO MED J	0353-9504	169	120	0,710	42	0,462
DRUS ISTRAZ	1330-0288	87	8	0,092	6	0,023
MATH INEQUAL APPL	1331-4343	109	66	0,606	21	0,413
NEUR CRO	0353-8842	14	2	0,143	0	0,143
COLLEGIUM ANTROPOL	0350-6134	180	55	0,306	43	0,067
STROJARSTVO	0562-1887	46	3	0,065	1	0,043



Literature:

Garfield, E. Essays of an Information Scientist, Vol. 2, p.192-194, 1974-76. Current Contents, #52, p.5-7, December 25, 197

Jones, A. W. Impact factors of forensic science and toxicology journals: what do the numbers really mean? Forensic Science International, 133 (2993) 1-8.

Vikery, S. Citation analysis of the Decision Science journal. Decision Line (2000) 4-8.