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# Effect of SciELO Open Access on Brazilian Scientific Journals

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# Topics

1. Brazilian scientific journals.
2. Open access in Brazil: SciELO and Capes Portal.
3. Lost Science in the Third World.
4. SciELO numbers.
5. Journal numbers.
6. Ranking.

# Brazilian Scientific Journals

[www.scielo.br](http://www.scielo.br)

[www.scielo.org](http://www.scielo.org)

- ~1300 journals – traditional academic, institutional and professional in all areas.
- ~400 journals – functional.
- An agency for fomenting research spends USD\$ 6,700/year on 150 journals.
- Most copies donated to libraries, persons and are used for exchange.

# Scientific Electronic Library On Line = SciELO

## SciELO-Brazil is Open Access Since 1997

[www.scielo.br](http://www.scielo.br)

[www.scielo.org](http://www.scielo.org)

- Digital
- On-line
- 150 journals in 2006
- Peer-review
- No cost to reader or journal – Brazilian research agencies pay the bill – so far!

# SciELO International

[www.scielo.org](http://www.scielo.org)

- Software is made available to other countries who agree to use same entry criteria including peer-review.
- Chile, Cuba, Spain, Venezuela.
- In development: Argentina, Colombia, Costa Rica, Mexico, Peru, Portugal, Uruguay.
- Total with Brazil – 279 journals.

# Portal CAPES (PG Agency)

- Open access for Brazilian university professors and post-graduate students.
- 9,530 journals
- 105 databases
- 151 institutions with courses in post graduation
- 34 million dollars – paid by CAPES
- 27 million access per year to complete texts
- USD\$ 1.26 per access to complete text
- USD\$ 0.35 per access to data banks
- Complements SciELO by providing academic community open access to international literature

## Lost Science in the Third World

*Many researchers in the developing world feel trapped in a vicious circle of neglect and—some say—prejudice by publishing barriers they claim doom good science to oblivion*

by W. Wayt Gibbs, staff writer

Scientific American, August 1995, p 76-83

- Emphasis on ISI (JCR) indexing and citations.
- Diagnosis was correct.
- Remedy was not.

# Reality of Journals of Developing Country

Visibility



References

Abstracts

Indexing

Citation sources

**PubMed, WOS**

Availability



The paper

Reprint requests

Library

**[www.scielo.br](http://www.scielo.br)**

**[www.scielo.org](http://www.scielo.org)**

# Open Access Publishing SciELO

[www.scielo.br](http://www.scielo.br)

- The problem: how do you inform the scientific community that SciELO exists and where to find it? What areas are represented. What languages are used.
- Run adds in Nature and Science? The New York Times? It is not a trivial problem.

# Amplifying the SciELO Penetration

[www.scielo.br](http://www.scielo.br), [www.scielo.org](http://www.scielo.org)

- Links from PubMed (1999), the WOS (2000), DOAJ and Google connect directly to the title page of the paper in SciELO.
- These links permit about 35 Brazilian journals indexed by PubMed and WS to become truly international. And the other 115 journals in SciELO?

# How do You Measure the Effect of SciELO Open Access on Brazilian Scientific Journals?

1. Downloads – SciELO
2. Impact factor – ISI
3. Total cites – ISI
4. Cited half life – ISI
5. Immediacy data – ISI
6. Ranking – ISI

# Articles Downloaded from [www.scielo.br](http://www.scielo.br) (Includes Robots)

<b>year</b>	<b>Developed</b>		<b>Developing</b>		<b>Others</b>	
<b>2002</b>	27,853	1%	1,488,399	4%	203,391	1%
<b>2003</b>	167,638	5%	3,846,977	9%	939,02	4%
<b>2004</b>	1,021,904	32%	12,204,178	29%	9,237,110	35%
<b>2005</b>	1,958,149	62%	24,405,696	58%	15,706,242	60%

# Articles Downloaded by Country 2005 (www.scielo.br)

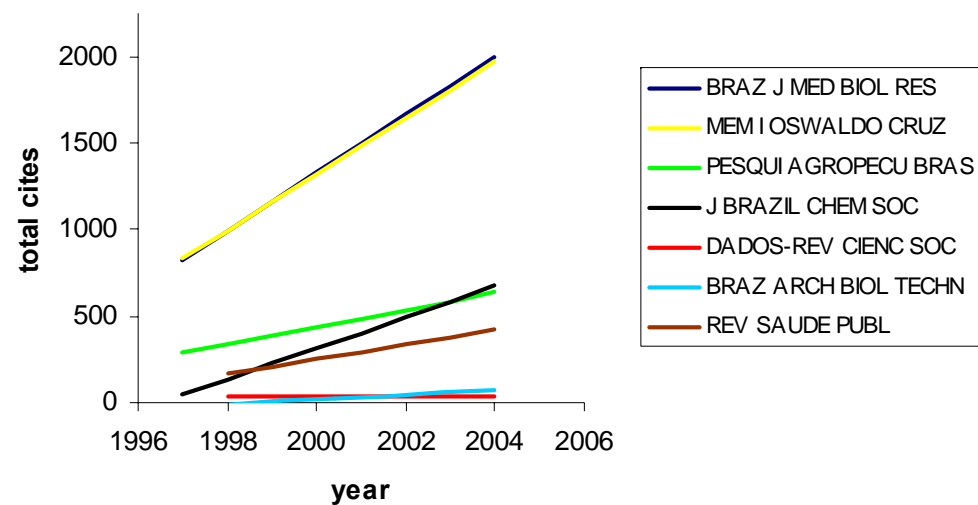
<b>Country</b>	<b>Articles downloaded</b>
ARGENTINA	83,244
CANADA	124,939
CHILE	78,984
COLOMBIA	95,032
DENMARK	9,103
FINLAND	10,021
FRANCE	98,054
GERMANY	68,659
SOUTH KOREA	23,551
SPAIN	159,514
SWEDEN	16,816
PHILIPPINES	31,026
PORTUGAL	877,094
RUSSIA	8,925
TURKEY	46,121
GREAT BRITAIN	182,686
VENEZUELA	63,172
VIETNAM	12,084
SOUTH AFRICA	20,975
BRAZIL	23,045,449

# Total Cites

Rank	title	total cites		$\Delta$	% increase
		1998	2004		
1	BRAZ J MED BIOL RES	1008	2043	1035	103
2	MEM I OSWALDO CRUZ	937	1928	991	106
3	J BRAZIL CHEM SOC	187	790	603	322
4	PESQUI AGROPECU BRAS	367	704	337	92
5	REV SAUDE PUBL	169	474	305	180
6	BRAZ ARCH BIOL TECHN	1	87	86	-
7	DADOS-REV CIENC SOC	36	44	8	22

# Total Cites

Rank	title	total cites (2004)	slope (b)	R <sup>2</sup>	N (years)
1	BRAZ J MED BIOL RES	2043	167,74	0,99	8
2	MEM I OSWALDO CRUZ	1928	163,10	0,98	8
3	J BRAZIL CHEM SOC	790	89,16	0,91	8
4	PESQUI AGROPECU BRAS	704	48,70	0,63	8
5	REV SAUDE PUBL	474	42,82	0,87	7
6	BRAZ ARCH BIOL TECHN	87	13,36	0,89	6
7	DADOS-REV CIENC SOC	44	1,86	0,27	7

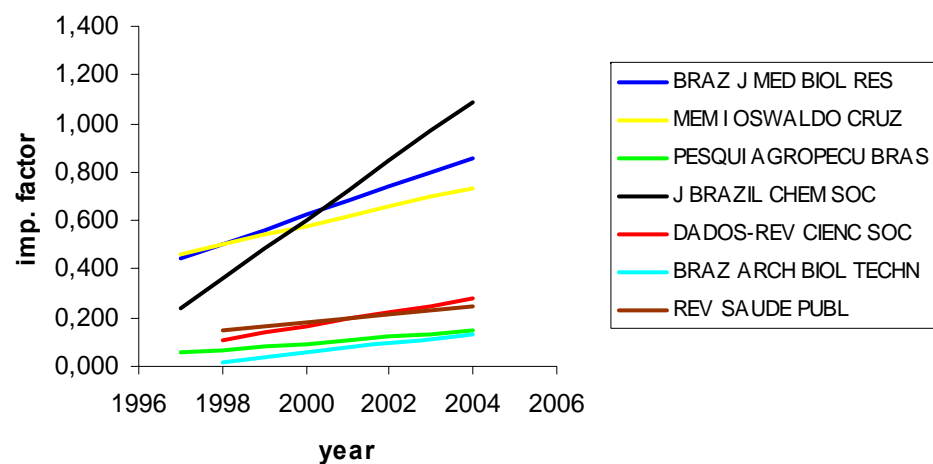


# Impact Factor

Rank	title	Impact Factor		$\Delta$	% Increase
		1998	2004		
1	J BRAZIL CHEM SOC	0,472	1,161	0,689	146
2	BRAZ J MED BIOL RES	0,439	0,824	0,385	88
3	MEM I OSWALDO CRUZ	0,474	0,740	0,266	56
4	DADOS-REV CIENC SOC	0,167	0,370	0,203	122
5	BRAZ ARCH BIOL TECHN	0,000	0,143	0,143	-
6	REV SAUDE PUBL	0,134	0,235	0,101	75
7	PESQUI AGROPECU BRAS	0,051	0,167	0,116	227

# Impact Factor

Rank	title	imp. Factor (2004)	slope (b)	R <sup>2</sup>	N (years)
1	J BRAZIL CHEM SOC	1,161	0,12	0,84	8
2	BRAZ J MED BIOL RES	0,824	0,06	0,86	8
3	MEM I OSWALDO CRUZ	0,740	0,04	0,83	8
4	DADOS-REV CIENC SOC	0,370	0,03	0,43	7
5	BRAZ ARCH BIOL TECHN	0,143	0,02	0,58	6
6	REV SAUDE PUBL	0,235	0,02	0,45	7
7	PESQUI AGROPECU BRAS	0,167	0,01	0,68	8

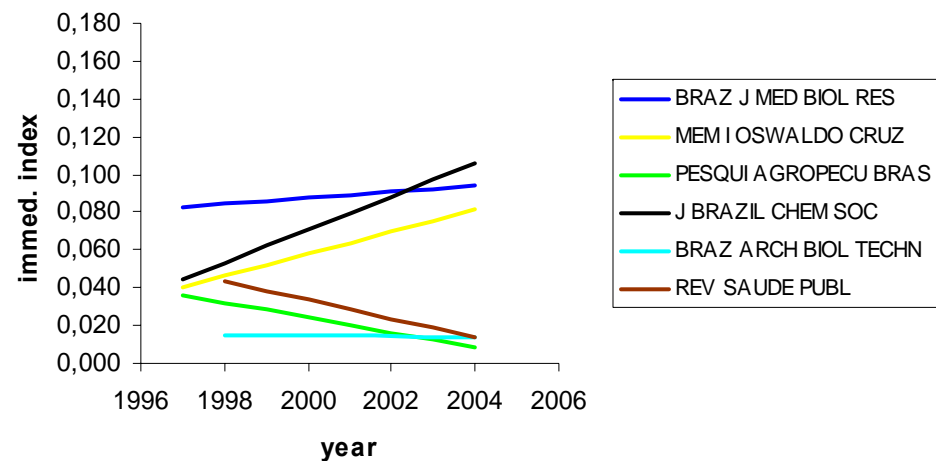


# Immediacy Index

Rank	title	Immed. Index		$\Delta$	% Change
		1998	2004		
1	J BRAZIL CHEM SOC	0,042	0,067	0,025	+60
2	MEM I OSWALDO CRUZ	0,027	0,057	0,030	+111
3	BRAZ J MED BIOL RES	0,090	0,103	0,013	+14
4	BRAZ ARCH BIOL TECHN	0,000	0,025	0,025	-
5	PESQUI AGROPECU BRAS	0,046	0,012	-0,034	-73
6	REV SAUDE PUBL	0,000	0,007	0,007	-
7	DADOS-REV CIENC SOC	0,000	0,000	0,000	-

# Immediacy Index

Rank	title	immed. Index (2004)	slope (b)	R <sup>2</sup>	N (years)
1	J BRAZIL CHEM SOC	0,067	0,0087	0,1782	8
2	MEM I OSWALDO CRUZ	0,057	0,0059	0,2107	8
3	BRAZ J MED BIOL RES	0,103	0,0016	0,0224	8
4	BRAZ ARCH BIOL TECHN	0,025	-0,0001	0,0003	6
5	PESQUI AGROPECU BRAS	0,012	-0,0040	0,4352	8
6	REV SAUDE PUBL	0,007	-0,0049	0,1535	7
7	DADOS-REV CIENC SOC	0,000	-	0	7

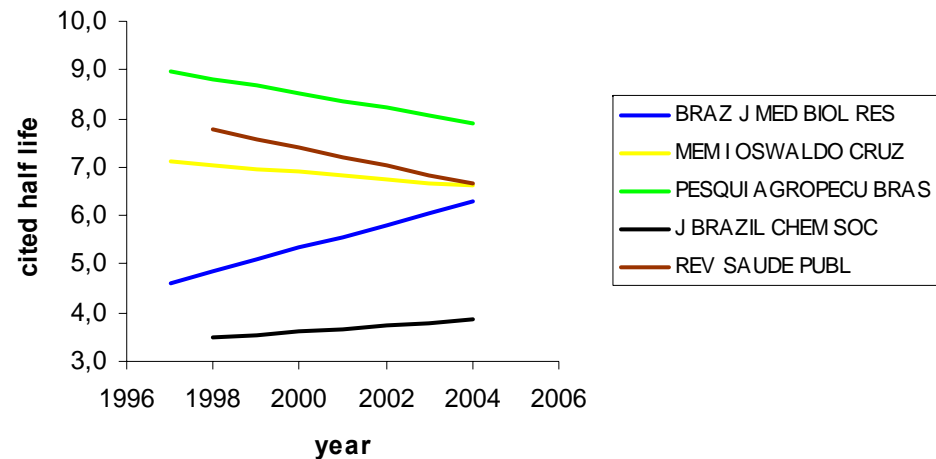


# Cited Half Life

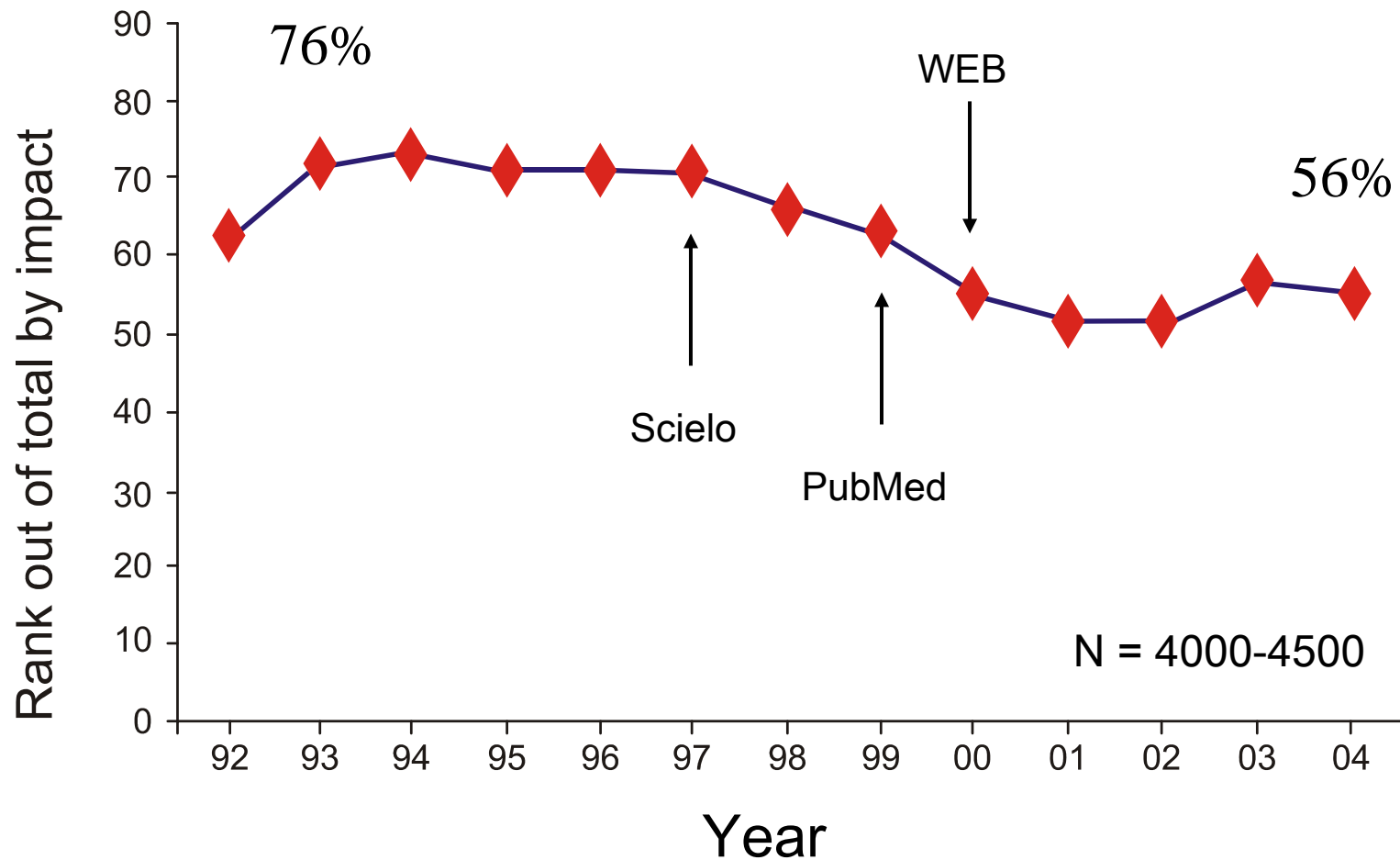
Rank	title	cited half life		$\Delta$	% Change
		1998	2004		
1	BRAZ J MED BIOL RES	4,9	6,1	1,200	+24
2	J BRAZIL CHEM SOC	3,2	3,8	0,600	+19
3	MEM I OSWALDO CRUZ	6,9	6,4	-0,500	-7
4	PESQUI AGROPECU BRAS	8,2	8,0	-0,200	-2
5	REV SAUDE PUBL	7,5	6,6	-0,900	-12
6	BRAZ ARCH BIOL TECHN	-	-	-	-
7	DADOS-REV CIENC SOC	-	-	-	-

# Cited Half Life

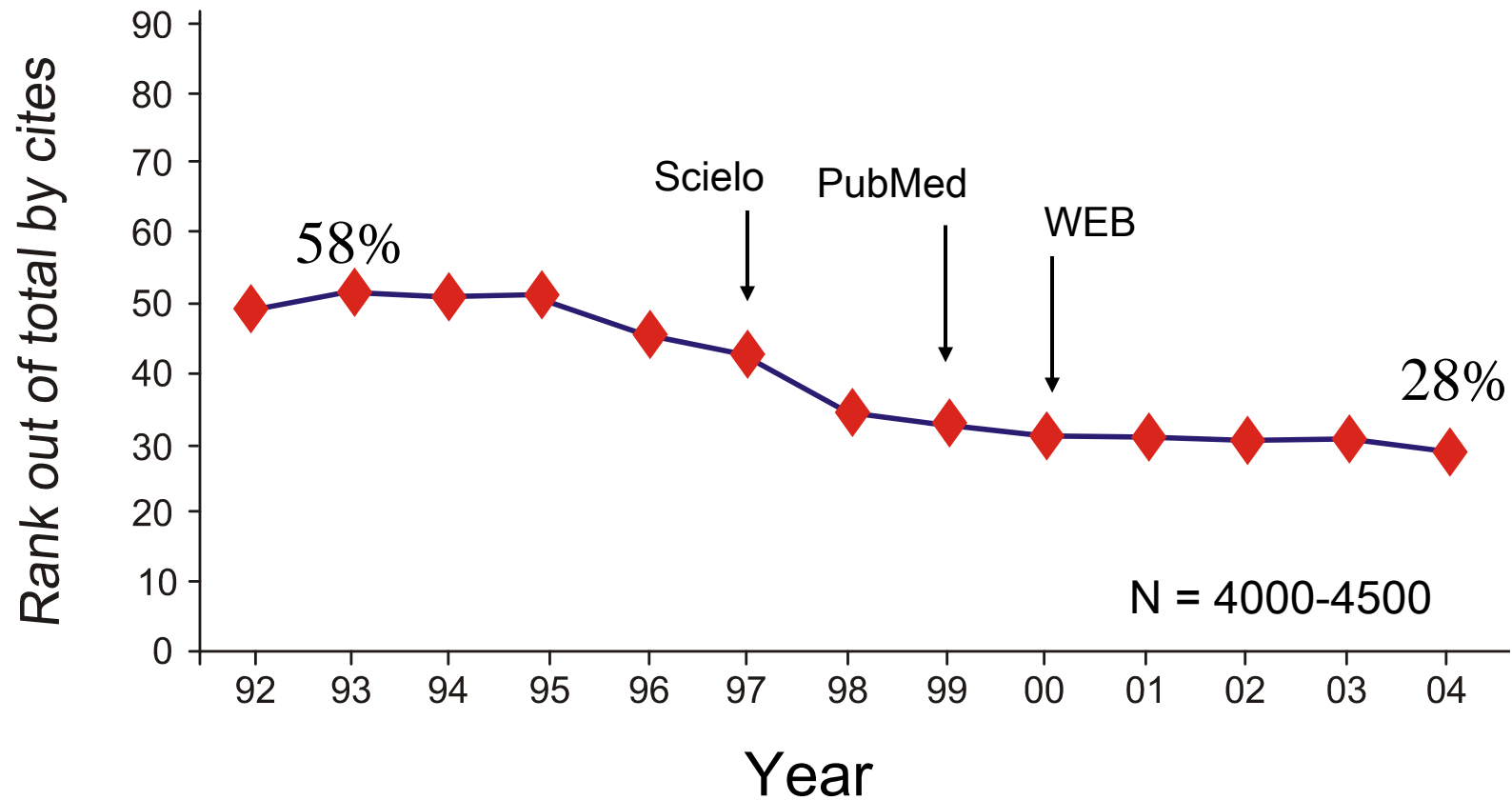
Rank	title	cited half life (2004)	slope (b)	R <sup>2</sup>	N (years)
1	BRAZ J MED BIOL RES	6,1	0,2452	0,9287	8
2	J BRAZIL CHEM SOC	3,8	0,0643	0,2664	7
3	MEM I OSWALDO CRUZ	6,4	-0,0726	0,1606	8
4	PESQUI AGROPECU BRAS	8,0	-0,1512	0,2744	8
5	REV SAUDE PUBL	6,6	-0,1821	0,624	7
6	BRAZ ARCH BIOL TECHN	-	-	-	0
7	DADOS-REV CIENC SOC	-	-	-	0



# Braz. J. Med. Biol. Res. - Impact Factor Rank in JCR Before and After SciELO. Source: ISI-Thomson



# Braz. J. Med. Biol. Res. - Total Citations Rank in JCR Before and After SciELO



# Conclusions

1. SciELO OPEN ACCESS increased the readership and citations to scientific journals published in Brazil.
2. Until now visits to and downloads from SciELO are to a large extent Brazilian and show a definite bias to countries who speak latin languages.
3. [www.scielo.org](http://www.scielo.org) is a international consortium of countries who speak latin languages and we would expect them to have the same experience as Brazil.
4. SciELO must increase its penetration of the international community and inform the rest of world that ~50% of the texts are in English.

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