

Continuous evaporation of the brine solution with increasing aridity results in precipitation of a variety of evaporitic minerals. It is noted that calcite forms at the early stage of the evaporation process, whereas halite and polyhalite form at a later stage and sylvite (KCl) and carnalite develop at the final stage of evaporation¹⁰. Salt precipitation in the Sambhar Lake containing 98–99% halite dominantly suggests its precipitation at an intermediate stage of salinity and aridity, and its maximum precipitation is during winter and summer. Further, pH conditions also govern the growth of the halite crystals, i.e. more the pH, higher is the growth of the halite crystals. Furthermore, growth of the salt crystals depends upon the evaporation process and residence time. Evaporation is the key process for the precipitation of salt deposits here and halite precipitates when the brine solution remains 10% of its original volume. In the Sambhar Lake, salt precipitation takes place at temperatures above 22°C. Crystals of 4–5 mm size grow in 15–20 days and crystals of 1–1.5 cm size grow within 6 months, and growth of the crystals depends upon the seasonal variation in evaporation.

Salinity and aridity are the chief factors that govern salt precipitation in

freshwater playa of Sambhar. The salt precipitated in this playa lake is mainly halite with purity up to 99%. Halite occurs in the form of chevron crystals and polygons. Petrographic study reveals that the halite crystals are present in the form of euhedral crystals (rectangles and cubes) and anhedral crystals with transformed boundaries, containing numerous inclusions, and the transformations in the euhedral crystals are related to changes in the environmental conditions such as flooding and desiccation.

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How important are the ‘Correspondence’ papers published in *Current Science*?

According to the ‘Information for Contributors’, the Correspondence section in *Current Science* contains ‘letters that are of general interest to scientists and technical comments, including those on articles or communications published in *Current Science* within the previous six months’. Many of these published letters are indeed short comments on the situation in the sciences and education mainly – but not only – in India. According to the *Web of Science* (as of 7 December 2012) around 90% of letters published during 2000–2012 were authored or co-authored by researchers in Indian locations.

Each issue of *Current Science* contains ‘Correspondence papers’. For example, the issues of volume 103 contained

respectively the following number of ‘Correspondence papers’: 9 (first issue), 8 (second), 6 (third), 9 (fourth), 7 (fifth), 9 (sixth), 9 (seventh), 10 (eighth), 10 (ninth), 9 (tenth), 10 (eleventh) and 8 (twelfth issue). For example, the eleventh issue of volume 103 contained one paper under ‘In Conversation’, three Scientific Correspondence, two General Articles, one Review Article, one Research Article, four Research Communications, two Book Reviews, one Personal News and one paper under ‘Historical Notes’. Thus we see that although the contribution of the ‘Correspondence papers’ to the overall length of the issue is never large, the number of such papers per issue is considerable, suggesting their

popularity among *Current Science* authors, and of course the openness of the journal editors to scientific discussion.

The question that we ask here is whether these contributions have an impact on science and scientific discourse. To do this we conducted a citation analysis of the ‘Correspondence papers’ published from 2000 to 2011. Our aim was to see whether or not any of these papers had received a noticeable number of citations, as well as to find out what types of ‘Correspondence papers’ gained most citations. We also looked to see what kind of knowledge these papers represented, and whether or not the contents and the discussions were of a local or a more global character.

Table 1. Highly cited 'Correspondence' papers published in *Current Science* between 2000 and 2011. Details of the citation rates courtesy the *Web of Science (WoS)*, *Scopus (Sco)* and *Google Scholar (GS)*; 5 December 2012)

	Author(s)	Title	Year, vol. and pp.	No. of citations			Comments (sources of citations are given according to WoS)
				WoS	Sco	GS	
1	G. Prathap ¹	Hirsch-type indices for ranking institutions' scientific research output	2006, 91 (11), 1439	37	48	62	The author suggests an extension of the Hirsch index for evaluating research institutions. Cited mainly in <i>Journal of Informetrics</i> (9), <i>Scientometrics</i> (6), <i>Current Science</i> (5), <i>JASIST</i> (5) and also in 10 other sources.
2	S. Arunachalam ²	Is science in India on the decline?	2002, 83 (2), 107–108	28	21	28	The author argues that India's contribution to science is declining, by comparing its publication results from WoS with some other countries. Cited mainly in <i>Current Science</i> (19), and also in seven other sources.
3	B. Patwardhan, A. Chopra and A. D. B. Vaidya ³	Herbal remedies and the bias against Ayurveda	2003, 84 (9), 1165–1166	14	14	14	The authors refer to three important works about herbal medicine, none of which makes any acknowledgement of the work by Ayurveda, which was largely based upon herbal remedies. Cited mainly in <i>Current Science</i> (6) and also in seven other sources.
4	A. T. Peterson ⁴	Predicting potential geographic distributions of invading species	2005, 89 (1), 9	14	12	16	The author comments on an earlier study, pointing out some flaws in reasoning. Cited in 13 various sources.
5	K. R. Sridhar ⁵	Mangrove fungi in India	2004, 86 (12), 1586–1587	12	15	20	A mini-review type of correspondence, dealing with mangrove fungi in India. Cited by 8 sources.
6	G. Agoramoorthy and M. J. Hsu ⁶	Biodiversity surveys are crucial for India	2002, 82 (3), 244–245	12	13	13	The authors support the importance of biodiversity research in India as suggested by a report by the Prime Minister of India. Cited in 10 sources.
7	D. Singh ⁷	Bioinsecticides from plants	2000, 78 (1), 7–8	11	3	2	The author supports a previous <i>Current Science</i> work on bioinsecticides, and claims they are very important for Indian agriculture. Cited mainly in <i>Carbohydrate Polymers</i> (4), and also in 7 other sources.
8	P. Sharma Om ⁸	Journal impact factor: An essential primary quality indicator	2007, 93 (1), 5	9	8	5*	The author supports the use of the journal impact factor, claiming it is the best tool for 'measuring quality of work of an individual, department, institution, or university is doing'. Cited mainly in <i>Current Science</i> (4), and also in 4 other sources.
9	R. L. Karandikar and V. S. Sunder ⁹	On the impact of impact factors	2003, 85 (3), 235	9	6	6	The authors present a case against overuse of bibliometrics and suggest using other tools to evaluate researchers. Cited mainly in <i>Current Science</i> (5), but also in 3 other sources.
10	K. L. Sahrawat ¹⁰	Importance of inorganic carbon in sequestering carbon in soils of the dry regions	2003, 84 (7), 864–865	9	13	19	The author describes various aspects of inorganic carbon in sequestering carbon in soils of the dry regions, referring to a rich literature for a Correspondence letter. Cited in 9 different sources.
11	B. M. Gupta and K. C. Garg ¹¹	Is science in India on the decline? A rejoinder	2002, 83 (12), 1431–1432	9	8	5	In this rejoinder to the second highest cited Correspondence included above, the authors suggest among others that one way to improve Indian research visibility would be to improve the quality of Indian journals. Cited mainly in <i>Current Science</i> (6), and also in 2 other sources.

*This paper is not referenced in *Google Scholar* and citations were found by searching the title and the author's name within the documents available in *GS*.

In the *Web of Science*, 'letters' published in *Current Science* are of two types: 'Correspondence' and 'Scientific Correspondence'. Given our particular aim, we considered only the 'Correspondence' letters.

We planned to analyse ten of the most highly cited 'Correspondence' letters from *Current Science* (according to the *Web of Science*) but, since the 8th, 9th, 10th and 11th papers shared the same number of citations, we included all of them. For all of the 11 papers we used three measures of citation rates – *Web of Science*, *Scopus* and *Google Scholar*.

Table 1 shows that these 11 papers received altogether 164 citations according to *Web of Science*, 161 according to *Scopus* and 190 according to *Google Scholar*. The most often cited paper was that by Prathap¹, and it gained 37 (*Web of Science*), 48 (*Scopus*) and 62 (*Google Scholar*) citations. These numbers indicate that this paper has been considered an important one. The second most-often cited paper² received 28 (*Web of Science*), 21 (*Scopus*) and 28 (*Google Scholar*) citations, still noticeable numbers, but the remaining papers^{3–11} were not cited as often. (These different citation rates from the three different sources replicate similar findings reported earlier, for example by Jacsó¹², and Amara and Landry¹³.)

We were able to group the 11 papers into two types: (1) Papers on Scientometrics and related issues: papers 1, 3, 8, 9

and 11 (Table 1). (2) Papers on agriculture, biology, ecology and related issues (mostly related to India): papers 3, 4, 5, 6, 7 and 10 (Table 1).

Correspondence letters in *Current Science* fall into four (sometimes overlapping) categories:

- Results of new research, but too short to be presented in the Scientific Correspondence section. Such research is sometimes provoked by articles published in *Current Science*.
- Critiques of research papers published in *Current Science*.
- Critiques of research issues in general.
- Critiques of previous letters.

The number of comments on diverse topics, together with the citation analyses presented in Table 1, show that the 'Correspondence' section is a useful adjunct to *Current Science* and to science in general. The citation analyses show that such papers seldom receive many citations, but that they can indeed do so, despite their short length. Publishing short papers that receive more than 20 citations in subsequent years is a noticeable result for any journal and any author.

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