tography, resolved into glycerol diether lipid moieties (GDEM) of *Rf* 0.2, which is not seen in the eubacterial cultures such as *Escherichia coli*. The presence of GDEM, which is absent in the eubacterial counterparts, and the presence of bacterioruberin type of pigments are the key chemotaxonomic markers for ascribing the isolates to haloarchaea.

The demonstration and isolation of archaea from coastal waters and sediments having salinity of 3–7%, an econiche in which they are not expected to survive, is a significant finding that reflects the physiological and ecological complexities of halophilic archaea. It further suggests that the extreme halophiles can survive at low salinities for long periods of time in a viable state.

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Visibility score for countries using SCOPUS Affiliation Identifier and the *h*-threshold approach

The *h*-index was first proposed by Hirsch[1] to quantify the impact of the academic research output (i.e. as seen from papers published rather than from say, patents registered or products or processes transferred to industry). 'A scientist has index *h* if *h* of his/her *N* papers have at least *h* citations each, and the other $(N - h)$ papers have fewer than *h* citations each', where *N* is the number of papers published over *n* years[1].

All such reductionist measures have their limitations, but it has been this writer's impression that of all such measures the *h*-index is the simplest but the most robust method of evaluating performance of an academic scientist. Indeed, this is now a feature of both the Web of Science and SCOPUS.

An interesting possibility that emerged from the definition of the *h*-index is that of using this to derive successive[2] or higher order indices[3]. The concept of meta *h*-indices also appears on the net (http://www.scopus.com/), where it has been suggested that 'a department has meta-*h*-index at least *h* iff at least *h* of its researchers have *h*-index at least *h*. Then a university has meta-meta-*h*-index at least *h* iff at least *h* of its departments have meta-*h*-index at least *h*, and a state has meta-meta-meta-*h* index *h* iff at least *h* of its universities have meta-meta-*h*-index at least *h*.' Recently, Egghe and Rao[4] recognized the possibility of applying the *h*-index methodology to non-citation data and using three indices based on papers (h_p), citations (h_c) and the successive *h*-index (h_2), and with the help of two-by-two Spearman rank correlation coefficients, demonstrated that these rankings are significantly related.

The SCOPUS Affiliation Identifier is arguably the world's first on-line tool to help identify and aggregate the research output portfolio of any organization or entity. Here I report a systematic study of the output of some leading countries doing science in terms of the number of institutions that have a *h*-type threshold of output, measured using the number of papers in the SCOPUS database (queried on 12 July 2008). The studies show that the leading country is the United States, having 1044 institutions with more than 1044 papers. The *h*-threshold is therefore 1044.

Table 1. Countries ranked according to the number of core institutions crossing the *h*-threshold

Serial no.	Country	Total number of institutions	Core institutions crossing the *h*-threshold
1	The United States	12,936	1044
2	Japan	1851	519
3	France	1203	478
4	United Kingdom	1285	471
5	China	1170	422
6	Germany	1974	356
7	India	1421	316
8	Canada	931	298
9	Spain	726	280
10	Russian Federation	639	235
11	Australia	660	223
12	The Netherlands	580	192
13	Brazil	548	188
14	South Korea	388	185
15	Taiwan	337	184
16	Switzerland	560	177
17	Sweden	429	176
18	Mexico	282	136
19	Turkey	245	134
20	Belgium	325	123
21	Denmark	272	122
22	Argentina	369	119
23	Greece	295	119
24	Austria	251	112
25	Poland	220	111
26	Finland	214	108
27	Portugal	210	108
28	Czech Republic	194	107
29	Israel	175	106
30	Hungary	229	105

The present analysis is based on data from the SCOPUS database (www.scopus.com), an Elsevier product which is arguably the single largest scientometric database. The SCOPUS database was interrogated using the Scopus Affiliation Identifier for all records of papers published by various leading countries. For each search, an ordered list of institutions ranked according to their number of papers was obtained. For example, the leading country in research has 12936 institutions. Using the *h*-index concept, one can easily establish that 1044 of these institutions have published more than the *h*-threshold of 1044 papers each. We call these the core institutions.

Table 1 shows the ranking of countries according to the number of core institutions. Note that size effect is not taken into account. Because of this, small countries like Singapore disappear from this list. In this sense, China and India still have a long way to go to count as scientific superpowers.

Here I have used non-citation data from the SCOPUS Affiliation Identifier to rank various countries for their research performance using a *h*-threshold approach. The *h*-threshold for a country (or any larger aggregation of institutions) is the number of institutions *h* which have *h* or more papers in the SCOPUS database. Such approaches can be valuable to decision makers at the highest level to evaluate the performance of research institutions in their country. One can easily think of extending this feature to use citations instead of papers, or as a meta-index based on *h*-indices[4].

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