plant facilities, products, processes, corporate and government activities, and people within the chemical industry. A sample extract is shown in Figure 4.

Of course, while new topics will continue to be added to the *CA Selects* series, some topics will become of less and less interest to most chemists and subscriptions will decline as a result. Such topics will be deleted from the series when they are no longer able to maintain sufficient subscribers to be economically viable. All new topics will be published for a minimum of one year; thereafter, each one will stand on its own merits.

CAS actively solicits reader suggestions for improving present topics, and especially welcomes ideas concerning new topics for addition to the *CA Selects* series.

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The Literature of Noble Gas Compounds

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Some bibliometric characteristics of the literature on noble gas compounds have been studied. The period considered is from the initial discovery of $XePtF_6$ in 1962, through early 1977. A total of 1192 papers were published on noble gas compounds, 1127 of them since 1962. There was a spurt of interest following the initial discovery, resulting in a large number of publications. In 1963, 139 publications (12% of the total) appeared. The annual number of papers has been substantially lower ever since. The growth of papers on Xe compounds follows this general pattern, but the growth pattern for Kr compounds shows a sharp increase in 1975 and 1976. The literature on noble gas compounds follows Bradford's law, with the "core" comprising ten journals containing 40% of the literature; 33 journals contributed more than five papers each. A total of 1123 authors published in this field; over 60% of them contributed only one paper. The 22 most prolific authors (2% of the total) contributed a total of 497 papers (42% of the total). Most authors remained active in this field for only a short time, with only 5% active for 10 years or more. These findings are discussed in terms of an epidemic model.

INTRODUCTION

Noble gas chemistry burst upon the chemical world in 1962, when Bartlett reported the synthesis of $XePtF_6$.[1] A surge of interest rapidly followed, with the preparation of many compounds of the noble gases, particularly Xe. A long-established chemical principle, the inertness of the noble gases, was overturned, so that noble gas chemistry is a well-recognized subfield today, and interest in these compounds remains high. We have already observed its influence on other areas of chemistry.[2]

The preparation of a comprehensive bibliography[3] on noble gas compounds provides a convenient opportunity to study some of the bibliometric characteristics of the literature on noble gas chemistry. In contrast to many areas, the field of noble gas chemistry has a clearly defined beginning with Bartlett's discovery in 1962. Although there were some unsuccessful attempts to prepare noble gas compounds before 1962, interest in these substances was not high before then, and few papers appeared. In this paper, therefore, we will usually ignore the literature prior to Bartlett's paper.

DATA

The data for this paper were obtained from the recently compiled comprehensive bibliography on noble gas compounds.[3] The 1192 references in the bibliography were keyboarded into machine-readable form. The Bell Laboratories BELDEX indexing system was used to manipulate them and to prepare indexes.[4]

The bibliography is organized into chapters on a substance basis. References pertinent to more than one chapter are listed in all relevant chapters. In this paper, these additional listings are referred to as "cross references". Although there are 1192 unique references in the bibliography, the cross references accounted for an additional 441 entries. Of the 1192 references listed in the bibliography, 65 of them were published before 1962. Of the 441 cross references, 27 were published before 1962. Throughout the remainder of this paper, "references" will refer to the 1127 unique references published after 1962, and "entries" will refer to the total of 1541 references plus cross references published after 1962. Table I lists the chapter titles and the numbers of references and cross references in each.

LITERATURE GROWTH

Figure 1 shows the number of references published in each year from 1962 to 1977. (Data for 1977, and possibly 1976, are incomplete because of the time lag in indexing and abstracting services.) After Bartlett's paper, there was an almost immediate surge of interest in noble gas chemistry. In 1963, 139 papers (12% of the total) were published—more than in any year since. The number of papers decreased to 97 in 1964 and then remained nearly constant at 65 (±6) papers per year from 1965 to 1973. There was an increase in 1974 to 86

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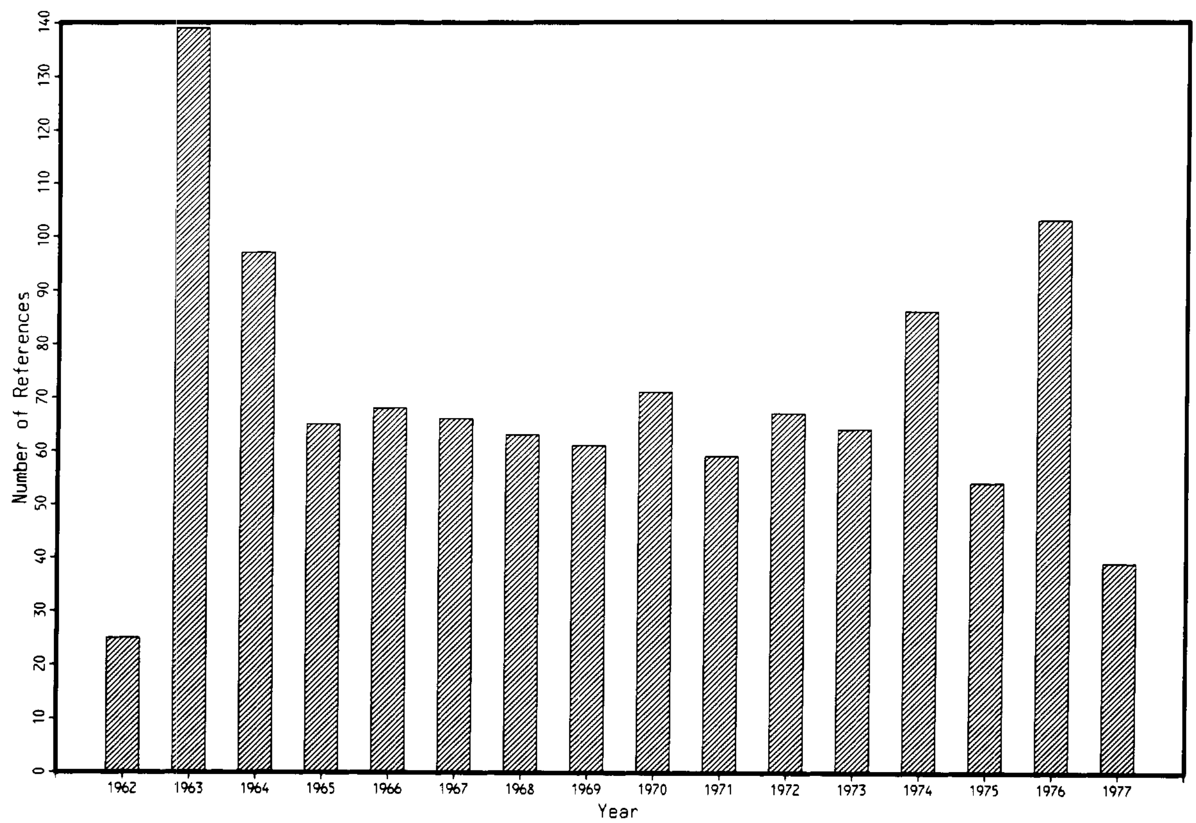

Figure 1. Growth of the literature on noble gas compounds.

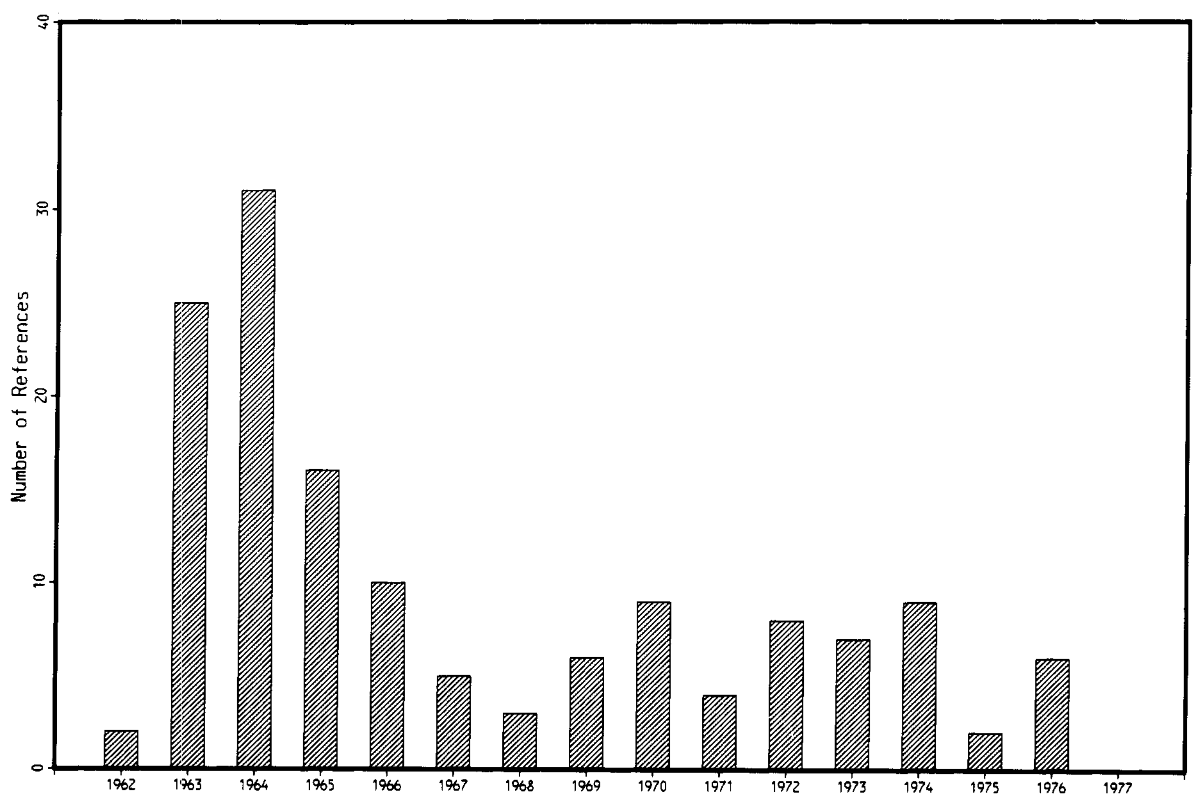

Figure 2. Growth of theoretical papers and reviews on noble gas compounds (ref 3, Chapter 1).

papers, a decrease to 59 in 1975, and an increase to 103 in 1976. It appears that interest in noble gas chemistry is again increasing.

The pattern observed in Figure 1 is unusual. It is rare that an area of interest has such a sharp beginning, followed by a sudden surge of interest as we observe here. More often, growth is more gradual and steady, rising to a maximum growth rate and then tapering off.[5]

In order to attempt to understand the unusual pattern of the growth of the noble gas compound literature, plots similar to Figure 1 were made for some of the chapters in the bibliography. Table II shows the numbers of entries in each of

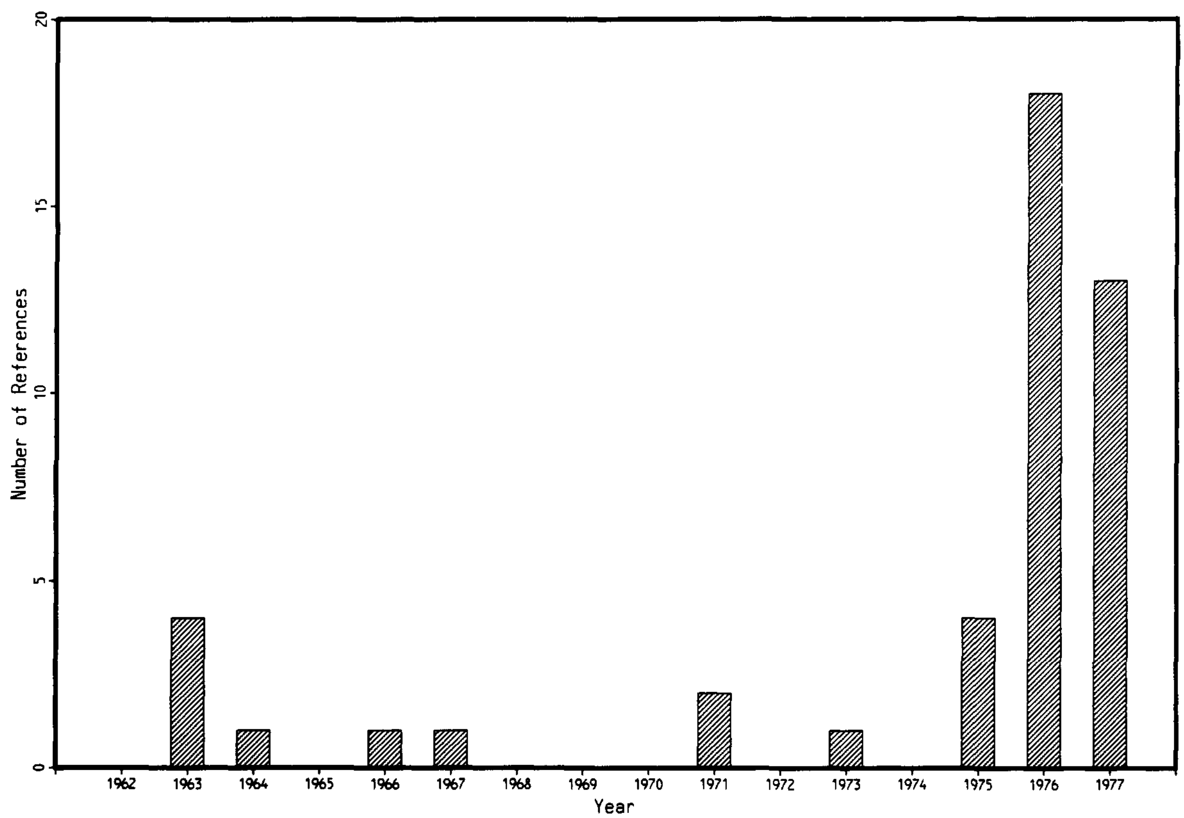

Figure 3. Growth of the literature on XeF (ref 3, Chapter 14).

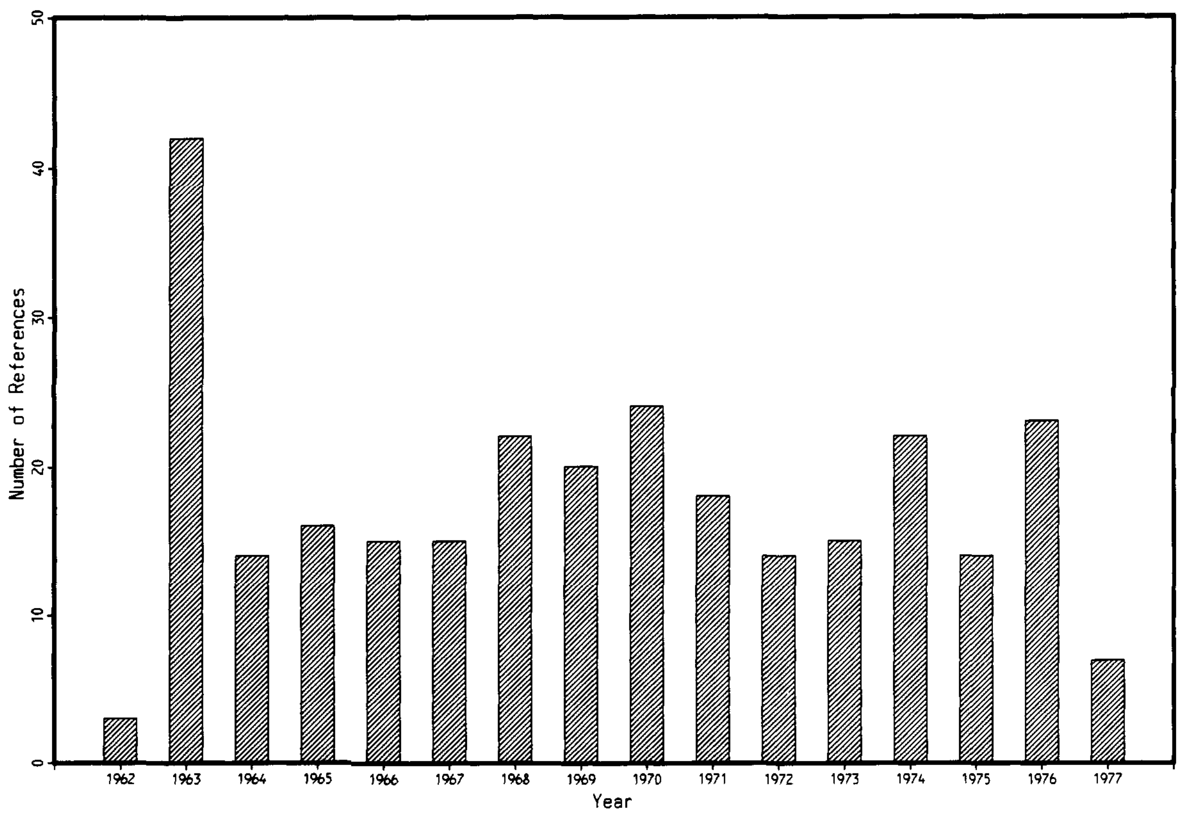

Figure 4. Growth of the literature on XeF_2 (ref 3, Chapter 15).

the chapters of the bibliography, broken down by year. Figures 2–8 are plots of these data for Chapters 1, 14–17, 20, and 21. (These chapters were chosen because they each contain more than only a few entries.)

The data on Reviews, Theory, and Miscellaneous (Chapter 1, Figure 2) show a rapid increase, with 25 entries in 1963 and 31 in 1964, followed by a decrease to an average of 6 entries per year for 1966–76. A large number of "review" or "theoretical" papers appeared early in the history of these substances, before a great deal of knowledge had accumulated. This observation shows the great impact that Bartlett's discovery had on chemists. Interest in noble gas compounds was

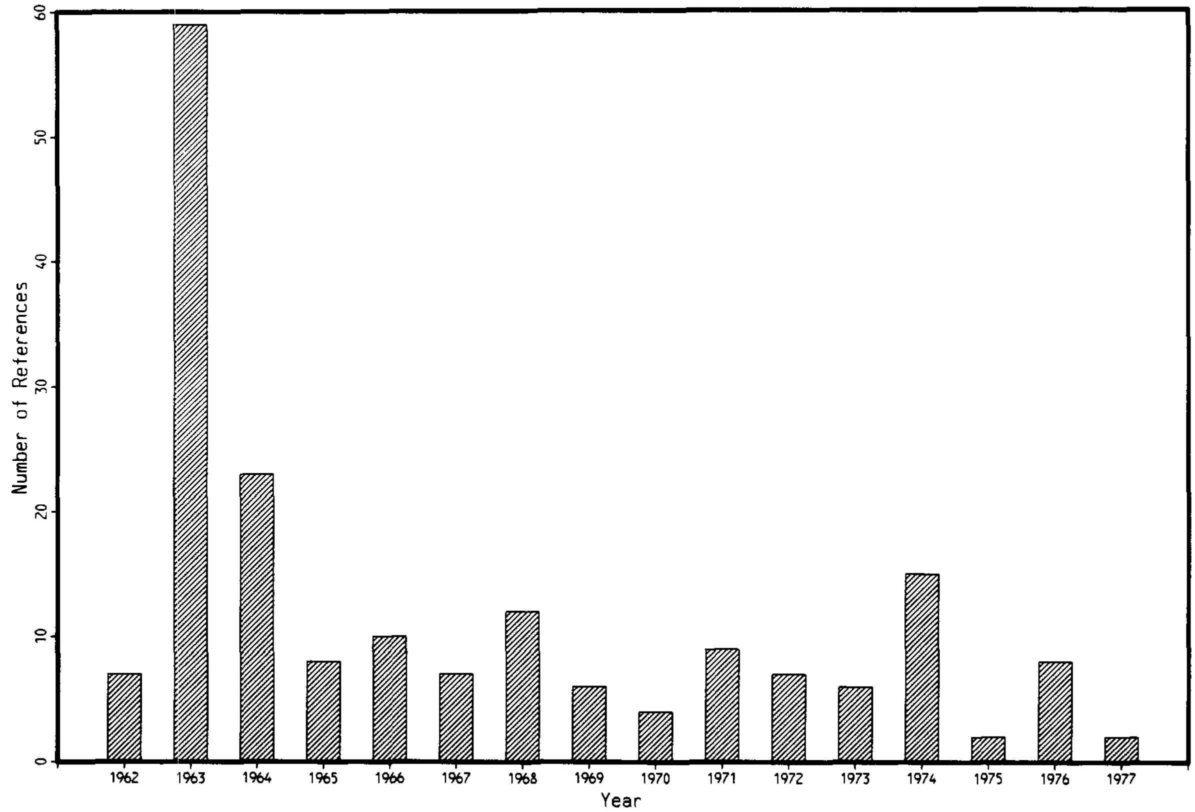

Figure 5. Growth of the literature on XeF_4 (ref 3, Chapter 16).

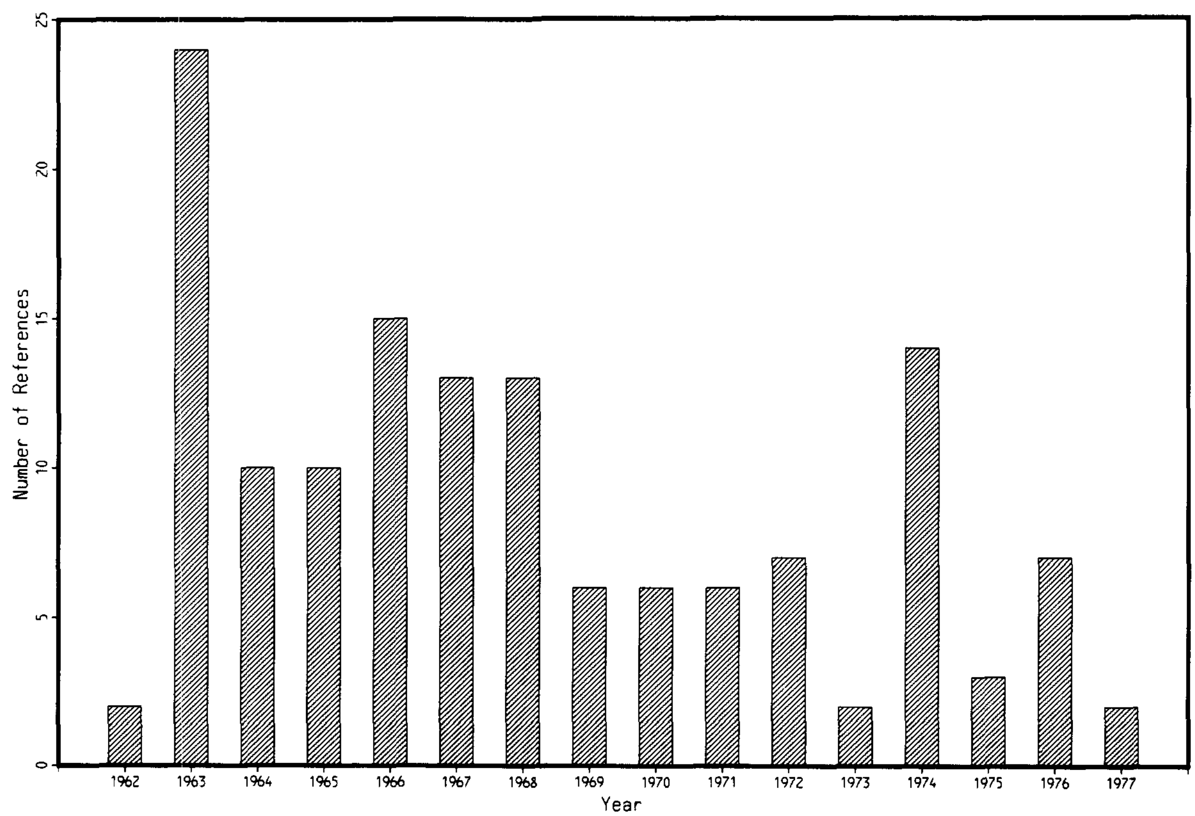

Figure 6. Growth of the literature on XeF_6 (ref 3, Chapter 17).

high immediately after their discovery because of the radical departure from what many chemists had come to believe, i.e., that the noble gases were inert and did not enter into chemical bonding.

Figure 3, showing data on XeF (from Chapter 14), shows a low level of interest from 1962 to 1975, followed by a sudden and large increase in the number of entries. The average number of entries for 1962–1975 is 1; the range is 0 to 4. In 1976, there are 18 entries, and in 1977 (for which data are incomplete) there are 13. The sudden interest in XeF is no doubt due to its use in lasers.

Figures 4–7 (from Chapters 15–17 and 20, respectively) all

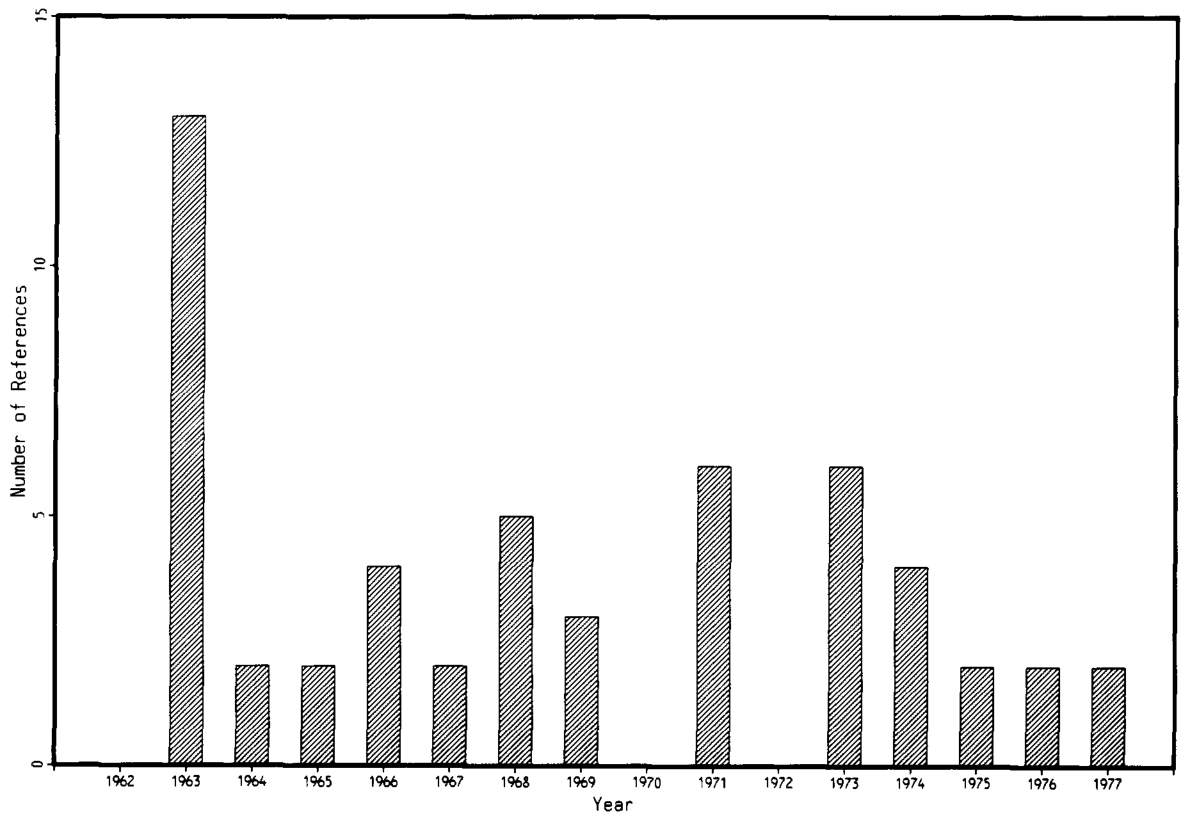

Figure 7. Growth of the literature on Xe oxide fluorides (ref 3, Chapter 20).

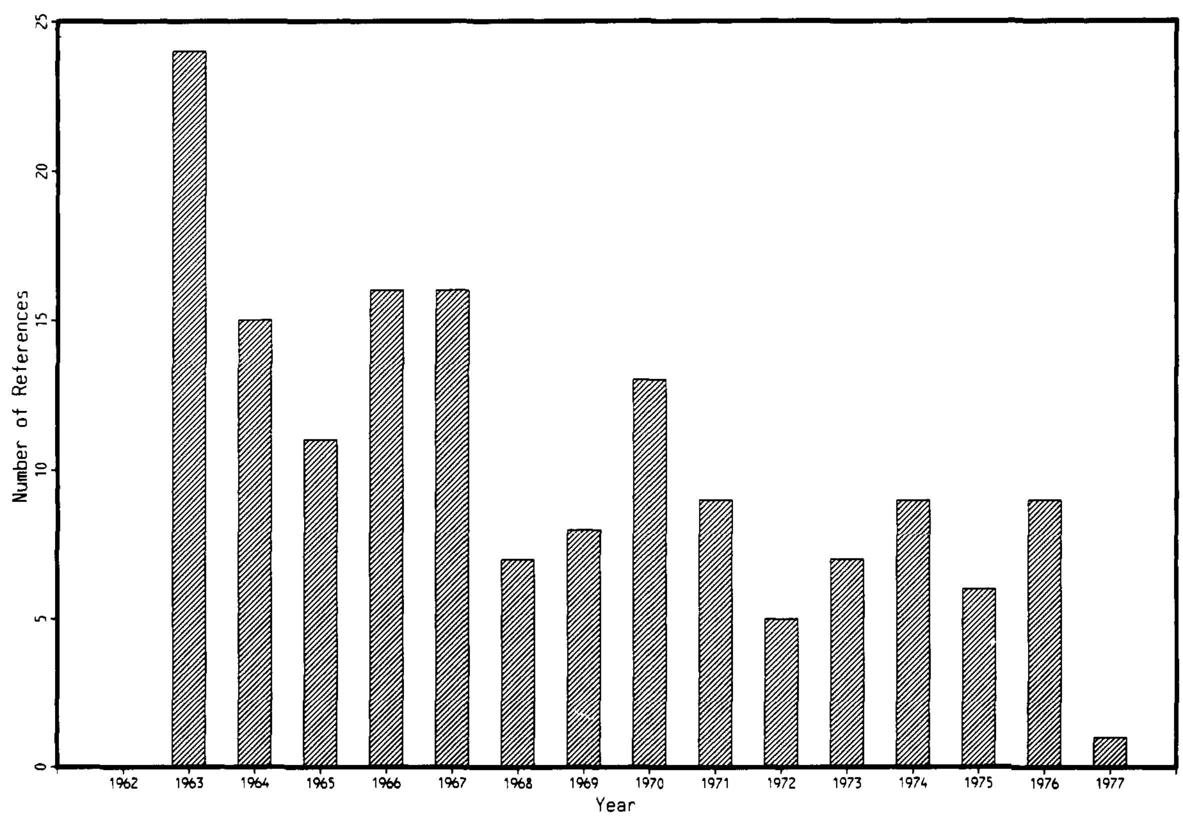

Figure 8. Growth of the literature on Xe oxides (ref 3, Chapter 21).

show the same general pattern: a surge of interest in 1963, followed by a nearly constant number of entries for 1964–1976. There is no large increase in the number of entries for 1976 or 1977 in any of these chapters. Figure 8, from Chapter 21 on Xe oxides and oxide salts, is similar to Figures 4–7 except that the decrease in the number of entries is more gradual. There appear to be three distinct time intervals: 24 entries in 1963, an average of 14 entries per year for 1964–1967, and an average of 9 for 1968–1976.

Figures 9 and 10 present the total number of entries for all Kr and Xe chapters, respectively. Xe shows the same pattern seen in Figures 4–7, but Kr is like XeF (Figure 3). The reason

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Table I. Organization of Noble Gas Compounds Bibliography

chapter	title	no. of refs[a]	no. of cross refs[a]	total
1	Reviews, Theory, Miscellaneous	145 (143)	0 (0)	145 (143)
2	Historical Works	44 (0)	1 (1)	45 (1)
3	Clathrates	47 (35)	2 (0)	49 (35)
4	Gaseous Ions	45 (40)	1 (0)	46 (40)
5	Weakly Bound Molecules	25 (24)	4 (3)	29 (27)
6	He Compounds	14 (14)	37 (25)	51 (39)
7	Ne Compounds	2 (2)	7 (6)	9 (8)
8	Ar Compounds	21 (21)	29 (24)	50 (45)
9	KrF	29 (29)	6 (6)	35 (35)
10	KrF_2	45 (45)	3 (3)	48 (48)
11	Kr Fluoride Salts	10 (10)	1 (1)	11 (11)
12	Kr Fluoride Complexes	3 (3)	1 (1)	4 (4)
13	Other Kr Compounds	20 (19)	11 (10)	31 (29)
14	XeF	29 (29)	16 (16)	45 (45)
15	XeF_2	265 (265)	19 (19)	284 (284)
16	XeF_4	70 (70)	115 (115)	185 (185)
17	XeF_6	72 (72)	69 (68)	141 (140)
18	XeF_8	2 (2)	2 (2)	4 (4)
19	Other Xe Halides	20 (20)	16 (16)	36 (36)
20	Xe Oxide Fluorides	31 (31)	22 (22)	53 (53)
21	Xe Oxides and Oxide Salts	131 (131)	27 (25)	158 (156)
22	Xe(I) Complexes	11 (11)	7 (7)	18 (18)
23	Substituted Xe Fluorides	31 (31)	6 (6)	37 (37)
24	Xe Fluoride Salts	36 (36)	9 (9)	45 (45)
25	Xe Molecular Adducts	31 (31)	22 (22)	53 (53)
26	Rn Compounds	13 (13)	8 (7)	21 (20)
	total	1192 (1127)	441 (414)	1633 (1541)

[a] Figures in parentheses indicate number of references published in 1962 or later.

is probably the same: the use of Kr and Xe monofluorides in lasers.

Finally, we note that the bulk of the work on noble gas compounds has been done on Xe and its compounds, particularly the fluorides. However, interest in Kr is growing because of laser applications.

LITERATURE SOURCES

We now turn to a discussion of the sources of the literature on noble gas compounds. Table III lists the number of references occurring in books, conference proceedings, reports, theses, patents, and journals. Not surprisingly, most of the references—999 (83.8%)—came from journals. Of the nonjournal sources, 92 (7.7%) were conference proceedings. Many of these came from an early conference on noble gas compounds held at Argonne National Laboratory in 1963.

The journal literature is further subdivided according to the number of references on noble gas compounds appearing in each journal. A total of 211 journals are represented (journals which appear in several sections have been counted as one); 33 journals (16.1% of the 211) contributed 701 papers (58.8% of the total), and 110 journals (52.1% of the 211) contributed only one paper each.

Table IV lists, in rank order, the 33 journals contributing more than five papers each. The list is headed by *J. Chem. Phys.*, *J. Amer. Chem. Soc.*, *J. Chem. Soc.*, and *Inorg. Chem.*, with 116, 74, 56, and 54 papers, respectively. Together, these four journals account for 293 papers, 41.8% of the 701 papers in Table IV, and 24.6% of the 1192 papers on noble gas compounds.

Figure 11 is a Bradford's law plot of the journal data in Tables III and IV. For each journal in Table IV, its rank and the cumulative number of citations are plotted (the rank is plotted on a logarithmic scale). Points are also shown for the groups of journals in Table III which contributed five papers each, four papers each, and so on. Bradford[6] observed that a collection of articles on a given subject, when ranked in order of productivity, could be partitioned into "zones". In a graphical representation of Bradford's law, the cumulative number of items for each journal is plotted against the logarithm of the rank of the journal. If Bradford's law is followed, the resulting plot should take the form of a rising curve becoming a straight line. The core of journals is defined by the point at which the curve becomes linear. For noble gas

Table II. Yearly Publication of Papers on Noble Gas Compounds

	year																
chapter	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	total
1	2	25	31	16	10	5	3	6	9	4	8	7	9	2	6	0	143
2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3	4	3	4	5	2	3	5	0	0	0	3	1	4	0	1	0	35
4	1	3	2	0	1	2	1	0	7	3	8	4	4	1	3	0	40
5	0	2	1	1	0	1	1	1	1	2	3	4	7	1	2	0	27
6	0	3	1	2	1	2	1	0	8	3	4	3	8	1	1	1	39
7	0	1	0	0	1	0	0	0	2	1	1	1	0	0	1	0	8
8	0	2	2	0	2	0	0	1	3	1	6	6	6	0	10	6	45
9	0	0	1	0	1	0	0	0	0	1	0	0	0	5	21	6	35
10	0	5	1	5	7	3	1	1	2	4	5	1	4	3	1	5	48
11	0	1	0	0	0	0	0	0	0	0	0	3	3	1	2	1	11
12	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	1	4
13	1	7	3	0	0	1	1	0	1	1	1	0	4	1	7	1	29
14	0	4	1	0	1	1	0	0	0	2	0	1	0	4	18	13	45
15	3	42	14	16	15	15	22	20	24	18	14	15	22	14	23	7	284
16	7	59	23	8	10	7	12	6	4	9	7	6	15	2	8	2	185
17	2	24	10	10	15	13	13	6	6	6	7	2	14	3	7	2	140
18	1	2	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4
19	0	0	2	1	2	1	2	4	1	2	1	2	2	6	8	2	36
20	0	13	2	2	4	2	5	3	0	6	0	6	4	2	2	2	53
21	0	24	15	11	16	16	7	8	13	9	5	7	9	6	9	1	156
22	4	2	1	0	0	1	3	0	1	1	0	3	1	0	1	0	18
23	1	2	1	0	0	0	1	4	7	4	5	1	5	2	4	0	37
24	0	0	2	0	1	3	2	3	2	2	6	7	7	3	7	0	45
25	0	2	2	1	4	2	2	6	4	7	6	7	5	3	2	0	53
26	2	2	0	1	0	2	2	1	2	1	1	2	2	2	0	0	20
total	28	228	121	79	93	80	84	70	97	87	91	90	135	63	144	50	1541

Table III. Sources of Literature on Noble Gas Compounds

type	no. of ref
books	7
conference proceedings	92
reports	37
theses	29
patents	28
	193
journal articles:	
1 each (110 journals)	110
2 each (32 journals)	64
3 each (22 journals)	66
4 each (7 journals)	28
5 each (6 journals)	30
more than 5 each (33 journals)	701
	999
total	1192

Table IV. Journals with More Than Five References Each

journal	no. of ref
J. Chem. Phys.	116
J. Am. Chem. Soc.	74
J. Chem. Soc.	56
Inorg. Chem.	54
Science	39
Appl. Phys. Lett.	35
Radiokhimiya	26
J. Inorg. Nucl. Chem.	24
Dokl. Akad. Nauk SSSR	19
Chem. Phys. Lett.	19
Z. Chem.	18
Russ. J. Inorg. Chem.	16
Nature (London)	15
J. Fluorine Chem.	15
J. Gen. Chem. USSR	14
J. Phys. Chem.	13
Inorg. Nucl. Chem. Lett.	13
C. R. Acad. Sci.	13
Russ. J. Phys. Chem.	12
Khim. Vys. Energ.	10
J. Org. Chem.	10
Angew. Chem., Int. Ed. Engl.	10
Z. Anorg. Allg. Chem.	9
J. Chem. Educ.	9
Croat. Chem. Acta	9
Z. Naturforsch.	8
Opt. Commun.	7
Mol. Phys.	7
Izv. Akad. Nauk SSSR, Ser. Khim.	7
Phys. Rev.	6
Naturwissenschaften	6
J. Struct. Chem.	6
J. Mol. Spectrosc.	6
total	701

compounds, the core comprises the top ten journals listed in Table IV. These ten journals contain 455 papers—40% of the total number of unique references (both those published before 1962 and after) in the bibliography. These data follow Bradford's law. The smallness of the falloff at the upper end of the curve indicates that the bibliography is virtually complete.

It is of interest to note that the top journals publishing papers on noble gas compounds, a relatively new area of inorganic chemistry, encompass several disciplines. Pinski[7] and Carpenter and Narin[8] have classified journals by subject. Using their classifications whenever possible, we observe that the top 33 journals fall into the subject classes shown in Table V. The presence of six multidisciplinary and four physics journals is to be noted.

AUTHOR DISTRIBUTION

Data on authors were obtained from the author index to the bibliography. Each author's name generated an entry in the index. A total of 1123 unique author's names appeared in the 1192 papers in the bibliography, and there were 2773 entries in the author index. There is, therefore, an average of 1.06 papers per author, and each paper has an average of 2.33 authors' names associated with it. The distribution of the number of papers per author is shown in Table VI; 679 (60.5%) of the authors contributed only one paper, while 22 (2.0%) of the authors contributed 15 or more papers each. These 22 very active authors are listed in Table VII, along with the number of papers each contributed. Together, these authors contributed 497 (41.7%) of the papers on noble gas compounds.

The distribution of author's papers by years was also studied. The population of authors working in a given field is constantly

Table V. Subject Classification of Top 33 Journals

subject	no. of journals
general chemistry	8
inorganic and nuclear chemistry	7
physical chemistry	6
multidisciplinary	6
physics	4
organic chemistry	1
applied chemistry	1
total	33

Table VI. Author Distribution

no. of papers, P	no. of authors contributing P papers
1	679
2	170
3	98
4	38
5	42
6	23
7	16
8	7
9	11
10	6
11	4
12	2
13	2
14	3
15	4
16	3
17	3
⩾20	12
total	1123

Table VII. Authors Contributing 15 or More Papers

author	no. of papers
Slivnik, J.	39
Bartlett, N.	36
Selig, H.	33
Holloway, J. H.	30
Kirin, I. S.	30
Malm, J. G.	30
Zemva, B.	27
Chernick, C. L.	24
Claassen, H. H.	24
Gusev, Yu. K.	23
Hyman, H. H.	21
Legasov, V. A.	21
Appelman, E. H.	17
Frlec, B.	17
Sladky, F. C.	17
Chaivanov, B. B.	16
Gillespie, P. J.	16
Meinert, H.	16
Falconer, W. E.	15
Huston, J. L.	15
Jaselskis, B.	15
Nefedov, V. D.	15
total	497

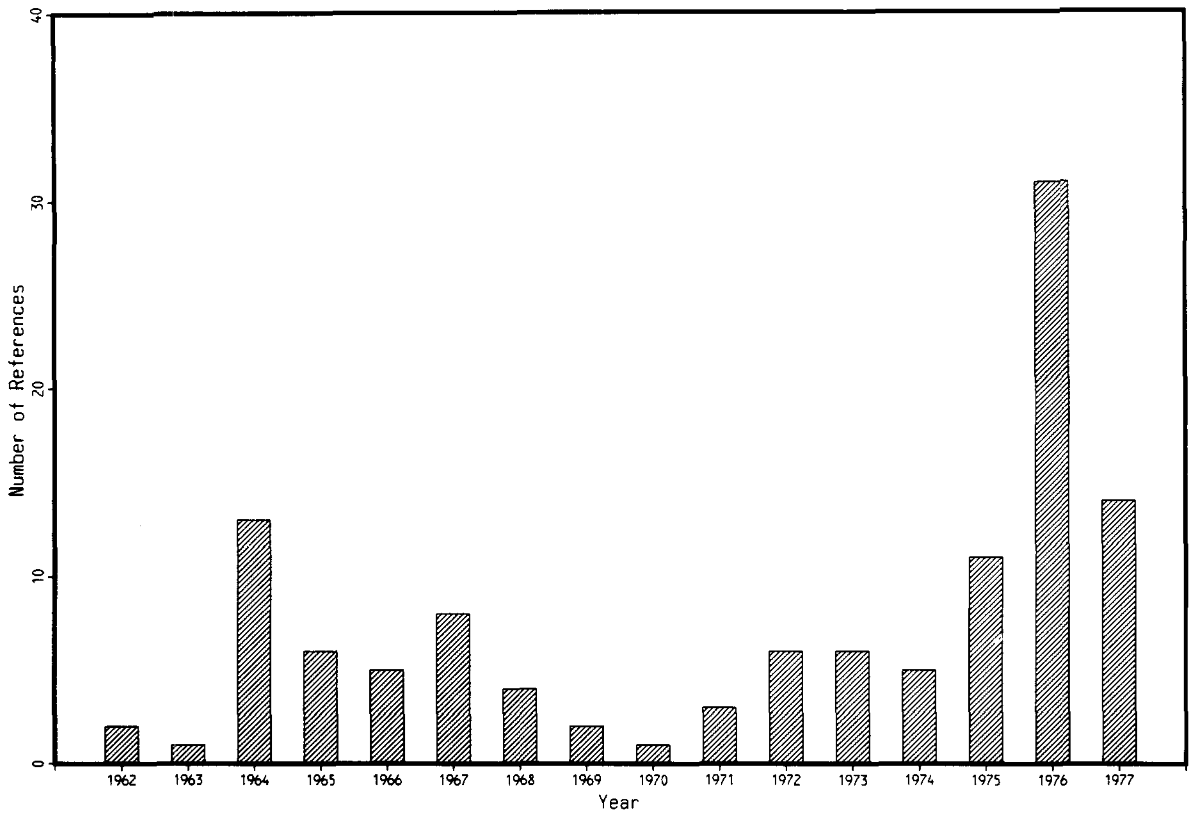

Figure 9. Growth of the literature on Kr compounds.

Table VIII. Activity Time of Authors

no. of years active	no. of authors	%
1	703	66.4
2	93	8.8
3	57	5.4
4	40	3.8
5	41	3.9
6	19	1.8
7	23	2.2
8	14	1.3
9	15	1.4
10	8	0.7
11	14	1.3
12	7	0.7
13	11	1.0
14	4	0.4
15	6	0.6
16	3	0.3

changing. Goffman and others[9,10] have likened it to the propagation of an epidemic. At any time, individuals are entering the field, remaining active, or leaving. Some individuals enter a field early and remain in it throughout their careers; others contribute to it for only a short period of time. The field of noble gas compounds is particularly well suited to an epidemiological study because of its well-defined beginning and because of the relative ease of defining its scope.

In order to apply the epidemic model to the field of noble gas compounds, an index was made listing each author's name and the publication dates of his papers. An author was considered to have become active in the year of publication of his first paper, and to have ceased to be active in the year following the publication of his last paper. Authors publishing papers in 1976 and 1977 were considered to be still active. The maximum time an author could be active in studying noble gas compounds is therefore 16 years, from 1962 to 1977. Table VIII shows the number of authors active for one year, two years, and so on, up to 16 years. A large number of authors

Table IX. Authors Active in Noble Gas Compounds for 15 or More Years

Bartlett, N.	Peacock, R. D.
Falconer, W. E.	Selig, H.
Frlec, B.	Slivnik, J.
Holloway, J. H.	Smalc, A.
Michaels, H. H.	

Table X. Numbers of Authors Active in Noble Gas Compounds

year	authors entering	authors leaving	active authors
1962	55		55
1963	112	18	149
1964	71	62	158
1965	75	72	161
1966	40	56	145
1967	53	40	158
1968	66	49	175
1969	46	71	150
1970	60	41	169
1971	45	55	159
1972	60	46	173
1973	53	67	159
1974	86	58	187
1975	61	115	133
1976	116		
1977	50		

— 703 (66.4%) — were active for only one year, and a relatively small number (53, 5%) were active for 10 years or more. Only nine authors have been active in the field of noble gas compounds for its entire existence of 15 or 16 years. These nine authors are listed in Table IX. Six of them also appear in Table VII. The relatively large number of authors active for only one year is noteworthy and shows that many persons were intrigued by the new discovery, did some research, and published a paper, but (according to the published record) relatively few remained active and did further research. As we have already observed, a surge of interest in noble gas

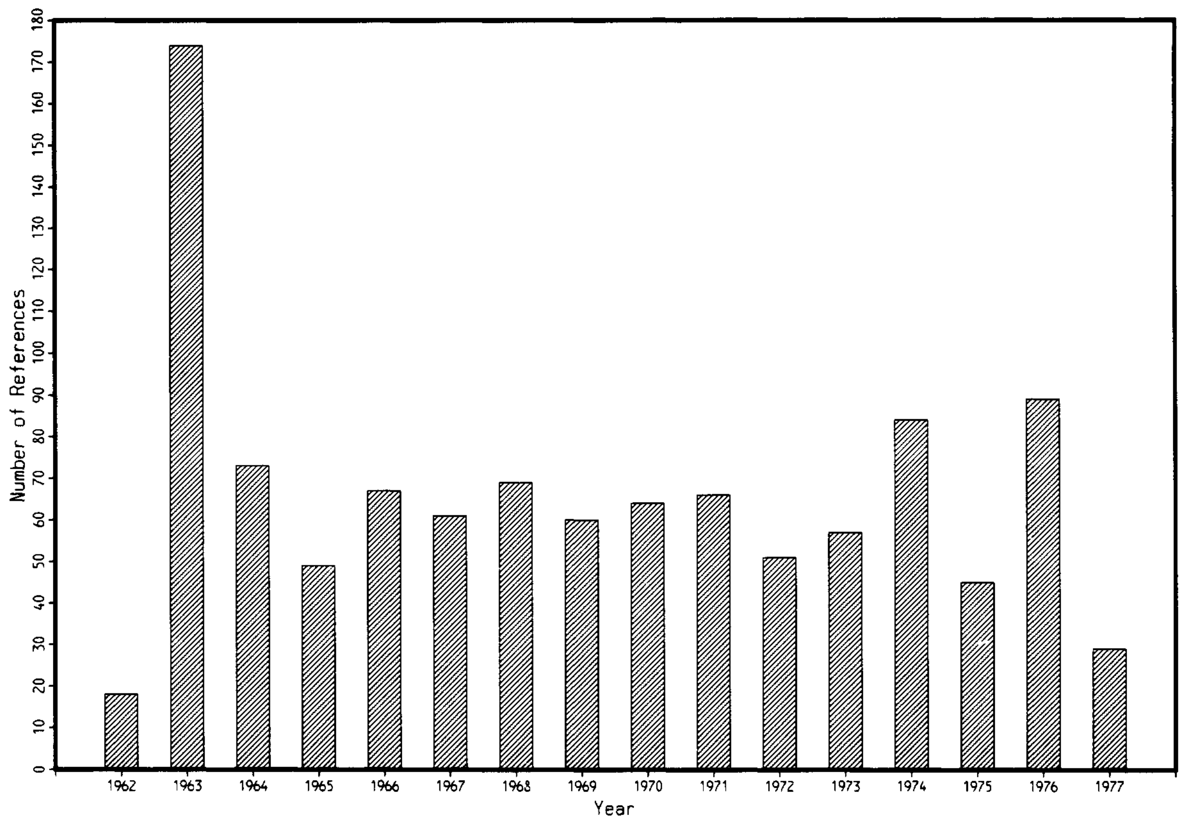

Figure 10. Growth of the literature on Xe compounds.

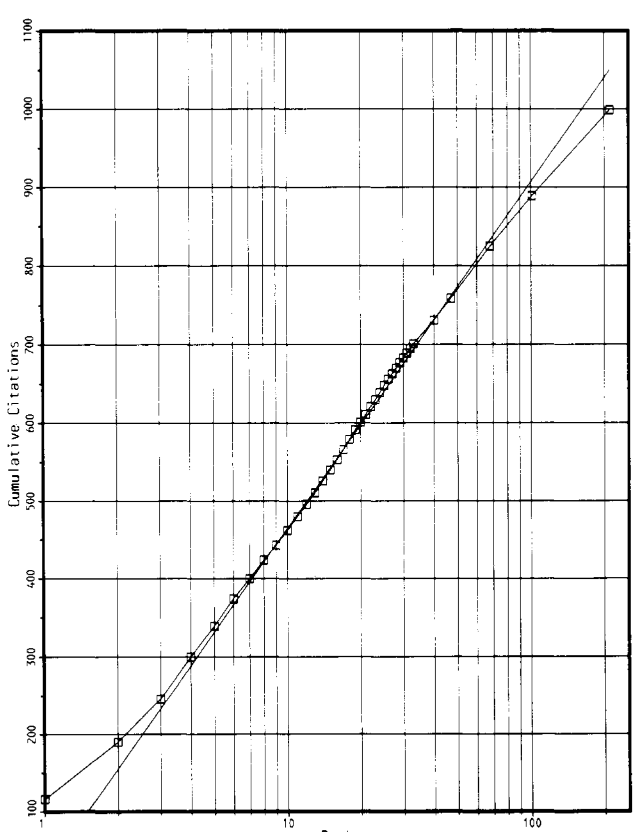

Figure 11. Bradford plot for noble gas compounds.

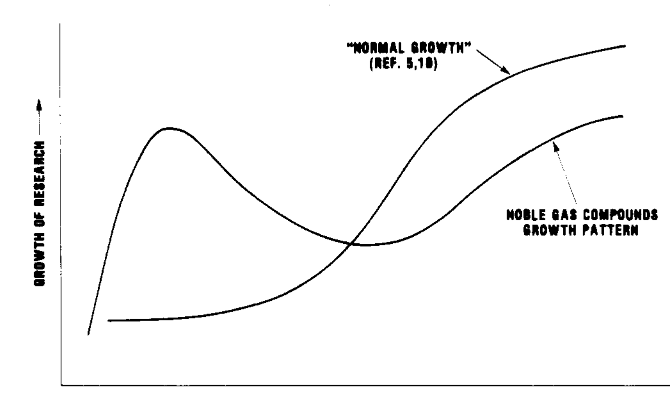

Figure 12. Patterns of growth of research.

compounds followed Bartlett's discovery, and the concept caught the fancy of many chemists. Once the novelty passed, however, the number of papers (and hence active authors) dropped. Table X shows the number of authors becoming active in the field and the number leaving each year. Even in the years immediately following 1962, many authors ceased to be active, and in recent years others have become active for the first time. The number of authors active in any year can be found by taking the sum of the authors entering the field and subtracting those departing. The results of this computation are also shown in Table X for each year. (No data are given for 1976 and 1977 because we do not yet know the number of authors ceasing to publish in those years.) The 55 authors first publishing in 1962 were joined by 112 others in 1963; 18 authors did not publish after 1962. There were therefore 149 active authors in 1963. After a large jump from 1962 to 1963, the number of active authors has remained more or less constant at 160 (±20). In terms of the epidemic theory, the infection started in 1962 was highly contagious at first, but the population reached a steady state quite rapidly and has remained fairly steady since then.

CONCLUSION

We have examined some of the characteristics of the literature of the noble gas compounds. In many respects it is little different from the literature of many different subfields of chemistry and other disciplines. The adherence to Bradford's law, the large number of authors contributing a single paper, and the large fraction of journal articles have been observed in many previous studies of the scientific literature. The unusual features of the noble gas compound literature are its sudden start, rapid growth, and great interest to a large number of investigators. Most of these chemists remained active in this field for only a short time. Only a relatively few (5%) remained active for 10 years or more. The same observation can be made for the overall rate of growth of this literature — a sudden spurt of interest following the initial discovery, followed by a decline and then a moderate growth. This pattern is shown in Figure 12, contrasted with the more usually observed pattern.[5,10] The past 15 years have indeed been exciting ones for chemists working on noble gas compounds.

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A Readable Chemical Notation

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A notation system is described which can be easily read as systematic names resembling IUPAC nomenclature or can be converted directly to connectivity matrices.

In the following a chemical notation system with a corresponding nomenclature and connectivity matrix is described which permits direct conversion between any of the four entities—name, notation, connectivity matrix, and structural formula. The notation is readable in the sense that no matter how complex the structure, the reader may read it either verbatim as a group of symbols or as the name represented by the symbols as easily as one would with a simple inorganic salt. The nomenclature system used is similar in many ways to the familiar IUPAC nomenclature system, but it has been drastically modified to obtain a one-to-one correspondence between each symbol or group of symbols in the notation and each word of the name in order to make possible the direct reading of the notation.

BASIC SYMBOLS OF THE NOTATION

Rule 1. Numerals. As in IUPAC nomenclature, arabic numerals are used as locants. In the names these are separated by commas, but in the notations the commas are omitted to save space. If it is necessary to indicate a number greater than nine in a notation, an asterisk is used to connect the digits. This is in accordance with a general convention of the notation system: adjacent symbols are independent of each other unless they are coupled by a connectivity symbol (in this case an asterisk).

If the numbers three, five and ten appear as a set of locants, they would be written as 351* 0 in the notation, but as 3,5,10 in the name. Note that zero can never be confused with the letter O in a notation, because a zero will always be coupled with another digit by an asterisk.

Rule 2. Atomic Symbols. Atomic symbols used in the notation are the usual symbols except that double letter symbols are represented by two capital letters connected by a dash. However, the symbols for eight elements have been changed as follows:

boron	B-N	tungsten	W-F
bromine	R	uranium	U-R
chlorine	L	vanadium	V-N
potassium	K-A	yttrium	Y-T

The symbols for bromine and chlorine have been shortened in order to save space. The other six symbols have been changed in order to reserve the letters B, K, U, V, and Y for other uses. Adjacent atomic symbols are not bonded to each other unless they are in a group of symbols enclosed in nondirectional single quotes.

Rule 3. Carbon Chains. In addition to arabic numbers, a system of alphabetic numbers is used in the notation to indicate the lengths of carbon chains. In the corresponding names the usual names of the carbon chains are used for chains shorter than eleven. The single letter symbols used to represent these names are usually the initial letter of the name, or, if this is not feasible, a letter that is a mnenomic aid. These group names and symbols along with mnenomic explanations are shown in Table I. These letters are treated as decimal digits, and, as with arabic numbers, multi-digit numbers are created

Table I

alkane or alkyl group	notation symbol	mnenomic aid
methane, methyl	M	
ethane, ethyl	E	
propane, propyl	T	triple
butane, butyl	B	
pentane, pentyl	V	valeric, Roman five
hexane, hexyl	X	heXane
heptane, heptyl	K	seven-day weeK
octane, octyl	A	ate, *acht*
nonane, nonyl	G	greatest diGit

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