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**RS 11/12/52**

**Karl A. Gschneidner (1930- )**

**Papers, 1946-2011, undated**

**Descriptive summary**

creator: Gschneider, Karl A. (1930- )  
title: Papers  
dates: 1946-2011, undated  
extent: 3.78 linear feet (9 document boxes)  
collection number: RS 11/12/52  
repository: University Archives, Special Collections Department, Iowa State University.

**Administrative information**

access: Open for research  
publication rights: Consult Head, Special Collections Department  
preferred citation: Karl A. Gschneider Papers, RS 11/12/52, Special Collections Department, Iowa State University Library.

### **Biographical note**

Karl A. Gschneidner, Jr. was born on November 16, 1930 in Detroit, Michigan. He received a B.S. (1952) in chemistry with minors in physics and mathematics from the University of Detroit. He earned a Ph.D. (1957) in physical chemistry with minors in physics and metallurgy from Iowa State University. Gschneidner focused his dissertation on rare earth-carbon systems.

Gschneidner worked as an undergraduate teaching assistant (1952) in chemistry at the University of Detroit. While at Iowa State University, he accepted a position as a graduate research assistant (1952-1956) in physical chemistry (metallurgy) at the Ames Laboratory. He became a graduate teaching assistant (1956-1957) in physical metallurgy with the Engineering Department, where he spent a quarter of his time teaching and another quarter researching for the Ames Laboratory. Gschneidner accepted a position as a staff member (1957-1961) with the Chemistry and Metallurgy Division, Los Alamos National Laboratory in Los Alamos, New Mexico, and was promoted to section leader (1961-1963). For a short period of time, he was an Assistant Professor (1962-1963) at the University of Illinois, Urbana, Illinois, in the Department of Physics. Gschneidner returned to Iowa State University as an Associate Professor of Metallurgy (1963-1967) and Group Leader at the Ames Laboratory, and was promoted to Professor of Metallurgy (1967-present). He became a Distinguished Professor of Science and Humanities (1979). He currently is a Senior Metallurgist and Group Leader at the Ames Laboratory. He was also a Visiting Professor (1979-1980) at the Institute for Pure and Applied Physical Science at the University of California-San Diego in LaJolla, California.

Gschneidner belongs to numerous professional societies, including the American Chemical Society; American Society for Materials International (Fellow); American Crystallographic Association; Minerals, Metals, and Materials Society (Fellow); American Association for the Advancement of Science; Iowa Academy of Sciences; and Materials Research Society. He has also received many awards such as the William Hume-Rothery Award (1978) from the Metallurgical Society of AIME (American Institute of Mining, Metallurgy, and Petroleum Engineers) in recognition of outstanding scholarly contributions to the science of alloys. He also received the Frank H. Spedding Award (1991) for distinguished contributions in the field of rare earth science by the Rare Earth Research Conference, Inc. The "Karl A. Gschneidner, Jr. Symposium," a special symposium named after him and dedicated to him in recognition for his "meritorious service to rare earth science and industry" at the International Conference on Rare Earths (1992).

Gschneidner's research interests include alloy theory of metallic systems and the physical metallurgy of the rare-earth elements. He wrote or co-wrote over 300 journal articles, 7 books, 123 chapters in books and has given over 230 invited talks, seminars

and papers. Gschneidner holds 11 patents and several others have been filed for review.

### Collection description

The collection (1946-2011, undated) consists of Gschneidner's biographical information and publications. The biographical information includes copies of Gschneidner's curriculum vitas and documents regarding awards and honors he has received. His research publications focus on the physical metallurgy of rare-earth metals, alloy theory, phase formation studies, thermal and electrical behavior of rare-earth materials, and magnetic refrigeration.

The collection also includes information on the Industrial Applications of Rare Earth Elements Symposium sponsored by the Division of Industrial and Engineering Chemistry of the American Chemical Society. The symposium was held in San Francisco, California.

### Organization

This collection is arranged into three series:

[Series 1: Biographical information, 1969-2011, undated \(alphabetical\)](#)

[Series 2: Symposia, 1980 \(alphabetical\)](#)

[Series 3: Publications, 1946-2005, undated \(chronological\)](#)

### Description of series

<b>Series 1</b>	<b>Biographical Information</b>	<b>1969-2011, undated</b>
extent:	16 folders	
description:	The series consists of Gschneidner's curriculum vitas and documents regarding awards and honors he has received. The series is arranged alphabetically.	

### Container List

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
1	1	Biographical information	1969-2011
7	56	Vita	undated

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
7	57	Vita	1983
7	58	Vita	1984
8	1	Vita	1985
8	2	Vita	1986
8	3	Vita	1988
8	4	Vita	1993
8	5	Vita	1992
8	6	Vita	1994
8	7	Vita	1995
8	8	Vita	1996
8	9	Vita	1997
8	10	Vita	1999
8	11	Vita	2000
8	12	Vita	2002
8	12	Vita	2004
9	28	Vita	2006
9	29	Vita	2007

### Description of series

**Series 2      Symposia      1980**

extent:      4 folders

description: The series contains information regarding symposia in which Gschneidner has participated. Gschneidner's lectures include correspondence for the symposium on Industrial Applications of Rare Earth Elements sponsored by the Division of Industrial and Engineering Chemistry of the American Chemical Society which was held in San Francisco, California. The series is arranged alphabetically.

**Container list**

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
1	2	Correspondence with McEvoy and Novis Smith	1980
1	3	"Industrial Applications of Rare Earth Elements"	1980
1	4	"Industrial Applications of Rare Earth Elements" correspondence with authors (invitations and abstracts)	1980
1	5	Shift to Las Vegas	1980

**Description of series**

**Series 3      Publications      1946-2005,  
undated**

extent: 3.36 linear ft. (8 document boxes)

description: The series consists of articles written by Gschneidner. Many of the publications focus on physical metallurgy of rare-earths, alloy theory and phase formation studies, thermal and electrical behavior of rare-earth materials, and magnetic refrigeration. Gschneidner also wrote several definitions for the Encyclopedia of Materials Science and Engineering and Encyclopedia of Science and Technology. The series also contains correspondence with other authors. The series lists correspondence and newspaper articles first and published articles are listed chronologically thereafter.

**Container list**

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
2	1	Correspondence, authors who did not write chapters	1980-1981
2	3	Correspondence with author T. Nakano, "Ways of Improving the Hot Workability of High-alloy Steels"	1981-1982
2	4-6	Correspondence with authors	1980-1981
5	4	Newspaper articles	1979-2002
6	11	"Reviews on Rare Earths" Bibliographies	1946-1968

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
2	12	"The Crystal Structures of Some of the Rare Earth Carbides"	1958
7	1	"The Structure of Lanthanum Dicarbide and Sesquicarbide by X-Ray and Neutron Diffraction"	1958
3	23	"Extractive and Physical Metallurgy of Plutonium and its Alloys"	1959
4	5	"The Lanthanum-Carbon System"	1959
1	9	"Alloying Theory- Principles of the Alloying Behavior of Plutonium. Part II – Quasi-Thermodynamic Approaches"	1960
1	21	"An Automatic Recording Low-Temperature Dilatometer"	1960
5	21	"Physical Factors Influencing the Stabilities of Plutonium Phases, Part 1. Delta Plutonium"	1960
7	21	"Thermal Expansion of Delta and Epsilon Zirconium Hydrides"	1960
7	23	"Thermal Expansion of Some Delta Plutonium Solid Solution Alloys"	1960
2	26	"Effects of Alloying Additions of Sc, La, Pr, Gd, Lu, Th and Pu on the $\gamma$ - $\alpha$ Transformation of Ce <sup>a</sup> "	1961
3	10	"Electrical and Magnetic Properties of the Rare Earth Metals and Their Alloys and Compounds"	1961
3	77	"Influence of Spin on Electronic Transformations"	1961
2	19	"Departures from Vegard's Law"	1962
2	28	"Effects of Alloying Additions on the $\gamma \rightleftharpoons \alpha$ Transformation of Cerium Part I: Pure Cerium"	1962
2	27	"Effect of Alloying Additions on the $\alpha \rightleftharpoons \gamma$ Transformation of Cerium Part II: Effects of Scandium, Thorium and Plutonium Additions; Part III: Effects of Yttrium and Rare Earth Additions"	1962
4	10	"The Lattice Spacing of Some Cerium-Rich, Cerium-Rare Earth Alloys"	1962
5	9	"Nuclear Coherent Scattering Amplitudes for Thorium, Uranium and Plutonium"	1962

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
6	29	"Some Comments on the Ytterbium-thorium System"	1962
1	47	"Concerning the Evidence for the Existence of the High-Temperature $\gamma'$ Phase of Cerium"	1963
1	48	"Concerning the Valences of the Cerium Allotropes"	1963
3	63	"Influence of Alloying on the Negative Thermal Expansion of Delta Plutonium"	1963
4	74	"Melting Points of $\text{LaRu}_2$ , $\text{CeRu}_2$ , and $\text{PrRu}_2$ "	1963
5	28	"Prediction of Solid Solubility in Metallic Alloys"	1963
3	75	"Influence of Magnesium on Some of the Physical Properties of Cerium"	1964
5	58	"Rare Earth Intermetallic Compounds"	1964
5	63	"Rare Earth Oxides"	1964
2	11	"Crystal Structures of Some Equi-atomic Gadolinium Compounds"	1965
3	21	"An Experimental Approach to a Simplified Band Structure of the Rare Earth Metals"	1965
3	37	"Gold-Rich Rare-Earth-Gold Solid Solutions"	1965
6	24	"Solid Solubility of Magnesium in Some Lanthanide Metals"	1965
7	18	"A Tabulation of the Specific Heat Contribution Due to Thermal Excitation (Schittky Effect) of the 4f Electrons of Some Di- and Tri-Valent Lanthanides"	1965
7	22	"Thermal Expansion of $\text{LaRu}_2$ , $\text{CeRu}_2$ and $\text{PrRu}_2$ from 20° to 900°C"	1965
7	52	"Ytterbium-Magnesium System"	1965
1	19	"The Application of Vacuum Metallurgy in the Purification of Rare-Earth Metals"	1966
6	4	"Rare Earths – The Fraternal Fifteen"	1966
6	27	"The Solubility of Tantalum and Tungsten in Liquid Rare-Earth Metals"	1966



<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
6	28	"The Solubility of Tantalum in Eight Liquid Rare-Earth Metals"	1966
9	1	"Compilation of Rare-Earth Products Available from Commercial Suppliers"	1967
3	20	"The Europium-Lead System"	1967
7	51	"Ytterbium-Lead System"	1967
1	32	"Cerium" Encyclopedia of the Chemical Elements	1968
1	46	"Concerning the Crystal Structure Sequence in the Lanthanide Metals and Alloys; Evidence for 4f Contribution to the Bonding"	1968
2	17	"The Debye Temperature and Radius Ratio of Larves Parses"	1968
2	25	"Dysprosium Lead System"	1968
4	6	"Lanthanum-Lead System"	1968
5	14	"On the Stacking Sequence in Lanthanide Metals and Alloys Adopting Families of Polymorphic Structures: Possible Influence of 4f Elements"	1968
6	1	"Rare Earths Publication Bibliography"	1968
7	49	"Ytterbium" Encyclopedia of the Chemical Elements	1968
1	36	Comments on "Experimental Multivalent Ionic Radii"	1969
3	32	"Gadolinium-Lead System"	1969
4	34	"The Lutetium-Lead System"	1969
5	12	"On the Interrelationship of the Physical Properties of Lanthanide Compounds: The Melting Point, Heat of Formation and Lattice Parameter(s)"	1969
5	15	"On the Valences of Europium and Ytterbium in Compounds"	1969
1	8	"Alloy Theory of the Rare-Earth Metals"	1970
1	39	Comments on "Relative Stability of Various Stacking Orders in Close-Packed Metal Structures"	1970

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
2	15	"Crystallography of the Silver-Rich Rare-Earth-Silver Intermetallic Compounds"	1970
3	24	"Factors Influencing the Formation of Silver-Rich Solid Solutions in Rare-Earth-Silver Alloy Systems"	1970
3	47	"Heat Capacity of $\alpha$ -Cerium Between 2.5 and 20°K"	1970
5	61	"Rare-Earth Metals in Steels"	1970
3	6	"Effect of the Sixth Period Elements on the Melting and Transforming Temperatures of Praseodymium: Part I. Experimental"	1971
3	7	"Effect of the Sixth Period Elements on the Melting and Transforming Temperatures of Praseodymium: Part II. Thermodynamic Analysis"	1971
3	9	"Elastic Moduli and Thermal Expansion of Lutetium Single Crystals from 4.2 to 300K"	1971
4	30	"Low-Temperature Magnetic Behavior of Several Oxides of Gadolinium"	1971
5	13	"On the Nature of 4f Bonding in the Lanthanide Elements and Their Compounds"	1971
5	40	"Preparation of Lanthanide Single Crystals; Praseodymium, Neodymium, and Lutetium"	1971
6	38	"Stoichiometry, Crystal Structures and Some Melting Points of the Lanthanide-Gold Alloys"	1971
7	16	"Systematics of the Rare Earth-Lead Alloys"	1971
7	24	"Thermochemistry of the Rare Earth Carbides, Nitrides and Sulfides for Steelmaking"	1971
7	50	"Ytterbium-Indium System"	1971
4	18	"Low-Temperature Heat Capacity of $\beta$ -Cerium and $\beta$ Cerium-Yttrium Alloys"	1972
4	21	"Low-Temperature Heat Capacity of LaPt <sub>2</sub> and CePt <sub>2</sub> and the Magnetic Susceptibility of CePt <sub>2</sub> "	1972
4	22	"Low-Temperature Heat Capacity of LaRu <sub>2</sub> , CeRu <sub>2</sub> , and CeRu <sub>2-x</sub> Pt <sub>x</sub> "	1972

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
4	31	"Low Temperature Heat Capacity of Some Rare Earth Aluminum Laves Phase Compounds $YAl_2$ , $LaAl_2$ and $LuAl_2$ "	1972
1	10	"Analysis and Application of Rare Earth Materials"	1973
3	29	"Fundamental Properties of RE Elements and Their Implications on the Analytical Chemistry of RE Materials"	1973
4	33	"Lutetium"	1973
4	77	"Miscellaneous Uses of RE Materials (Ceramics, Glasses, Nuclear Applications, etc.)"	1973
5	49	"The Production, Quality Control, and Application of Pure RE Metals and Alloys"	1973
6	14	"Samarium-Gold and Dysprosium-Gold Alloy Systems"	1973
7	25	"Thermochemistry of the Rare Earths: Part I: Rare Earth Oxides; Part II: Rare Earth Oxysulfides; Part III: Rare Earth Compounds with B, Sn, Pb, P, As, Sb, Si, Cu, and Ag"	1973
1	31	"Cerium"	1974
1	45	"Concerning 'Another Indicated Phase Transformation in Ytterbium'"	1974
3	48	"The Heat Capacity of $\beta$ -Cerium Between 1.5 and 23K"	1974
3	59	"High-Temperature Enthalpies and Standard Gibbs Free Energies of Formation of the Europium Chalcogenides: $EuO$ , $EuS$ , $EuSe$ and $EuTe$ "	1974
4	7	"The Lanthanum-Indium System"	1974
5	42	"Preparation of Single Phase $\beta$ and $\alpha$ Cerium Samples for Low Temperature Measurements"	1974
5	56	"Rare-Earth Information Center (RIC)"	1974
6	20	"Selected Cerium Phase Diagrams"	1974
7	32	"Transition into a Magnetic State without Magnetic Scattering in a Rare Earth System: $CeAl_3$ "	1974
7	48	"Ytterbium"	1974

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
3	19	"Entropies of Transformation and Fusion of the Metallic Elements"	1975
3	42	"Heat Capacity and Magnetic Susceptibility of Single-phase $\alpha$ -Cerium"	1975
4	40	"Magnetic Excitations and Magnetic Ordering in Praseodymium"	1975
5	1	"Neutron Scattering and Magnetization Measurements on the Kondo Compound $CeAl_3$ "	1975
5	57	"The Rare Earth Industry – The 1976-77 Outlook"	1975
6	15	"Scandium: Its Occurrence, Chemistry, Physics, Metallurgy, Biology and Technology." Chapter 4 – Derivation, Extraction and Preparation	1975
6	16	"Scandium: Its Occurrence, Chemistry, Physics, Metallurgy, Biology and Technology." Chapter 8 – Inorganic Compounds	1975
6	17	"Scandium: Its Occurrence, Chemistry, Physics, Metallurgy, Biology and Technology." Chapter 9 – Alloys and Intermetallic Compounds	1975
7	5	"Sulfide Inclusions in Steel"	1975
1	41	"Commercial Rare Earth Metals and Alloys Covered by the Unified Numbering Systems (UNS)"	1976
3	8	"Elastic Constants of Neodymium Single Crystals in the Temperature Range 4.2-300K"	1976
3	12	"Electrical Resistivity and Magnetic Susceptibility of $\beta$ -Cerium from 2 to 300K"	1976
4	1	"Kondo Scattering in a Pure Metal- $\beta$ Cerium: I. Experimental"	1976
4	2	"Kondo Scattering in a Pure Metal- $\beta$ Cerium: II. Theoretical"	1976
4	15	"Low Temperature Heat Capacities and Thermal Properties of $DyAl_2$ , $ErAl_2$ and $LuAl_2$ "	1976
4	20	"Low Temperature Heat Capacity of Electrotransported Scandium"	1976

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
4	66	"Magneto-Resistivity of Beta-Cerium"	1976
5	18	"Phase Boundaries and Thermodynamic Analysis of the Rare-Earth-Rich Alloys in the La-Tl and Pr-In Systems"	1976
5	27	"The Praseodymium-Lead System"	1976
5	39	"The Preparation of Gadolinium Metal for Thermoelectric Devices"	1976
6	8	"Redetermination of the Heat Capacity of Single Phase $\beta$ -Cerium"	1976
1	28	"Central Peaks and Soft Modes in Praseodymium"	1977
3	14	"Electrical Resistivity of La"	1977
3	66	"Influence of Crystal Field Interaction on the Thermal Behavior of $\text{ErAl}_2$ "	1977
3	73	"Influence of Hydrogen on the Low-Temperature Heat Capacity of Lutetium-Rich Lutetium-Hydrogen Alloys"	1977
4	28	"Low Temperature Magnetic and Electrical Properties of DHCP Ce-La Alloys"	1977
5	24	"Physical Properties and Behavior of Allotropically Pure $\alpha$ -, $\beta$ -, $\gamma$ -Ce"	1977
5	53	"Purification of the Rare Earth Metals IV: Solid State Electrotransport Processing of Neodymium"	1977
6	12	"RIC In Phase with Rare-Earth Constitutional Diagrams"	1977
7	39	"U.S. Navy Journal of Underwater Acoustics"	1977
3	2	"The Effect of Oxygen and Hydrogen on the Transition and Melting Temperatures of Samarium"	1978
3	22	"Explanation for the Schottky-Like Anomaly in the Low Temperature Heat Capacity of Lu-H Alloys"	1978
3	26	"The Fascinating World of Rare-Earth Research"	1978
3	27	"Field Induced Magnetic Form Factor of $\gamma$ -Ce"	1978
3	30	"Fused Salt Electrorefining of Gadolinium: An Evaluation of Three Electrolytes"	1978

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
3	38	"Handbook on the Physics and Chemistry of Rare Earths" Chapter 4	1978
3	39	"Handbook on the Physics and Chemistry of Rare Earths- Volume 1- Metals"	1978
3	51	"The Heat Capacity of Rare Earth Sesquisulfides"	1978
3	64	"Influence of Alloying on the Superconducting Transition Temperature of La <sub>3</sub> In"	1978
4	45	"Magnetic Ordering in Ce-La and Nd-La Alloys"	1978
5	52	"Purification of Gadolinium by Electrorefining"	1978
6	18	"The Scandium Puzzle: What Are its Intrinsic Properties?"	1978
6	22	"Single Crystal Growth by Horizontal Levitation Zone Melting Method"	1978
1	12	"Anisotropic Fast Solute Diffusion of <sup>198</sup> Au in Eubium Single Crystals"	1979
1	44	"Compton Profiles of Lutetium and Lutetium Dihydride"	1979
3	52	"Heat Capacity studies of RFe <sub>2</sub> Intermetallic Compounds (R = Ho, Er, and Lu) <sup>a</sup> "	1979
3	53	"Heat Capacity Studies of RFe <sub>2</sub> Intermetallic Compounds Over the Temperature Region 1.5-10K (R = Gd, Tb, Dy, Ho, Er, Tm and Lu) <sup>a</sup> "	1979
4	8	"Lattice and Spin Dynamics of γ-Ce"	1979
4	25	"Low Temperature Heat Capacity Studies on Intermetallic and Semimetallic Rare Earth Compounds"	1979
4	73	"Measurements of the Heat Capacity of Neodymium in the Range 2-10K and Zero Magnetic Field"	1979
7	6	"Superconductivity in a New High-Pressure Phase of Scandium"	1979
7	27	"Thermoelectric Power of Nd <sub>1-x</sub> La <sub>x</sub> and Ce <sub>1-x</sub> La <sub>x</sub> Alloys"	1979
1	11	"Anger Analysis of the Passivation of Gadolinium by Electropolishing"	1980
2	2	Correspondence in Publication Proceedings for the American Chemical Society	1980

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
2	30	"Effect of High Magnetic Fields of the Electronic Specific Heat in the Strongly Pauli-Paragnetic Compound $\text{LuCo}_2$ "	1980
3	17	"Electrorefining and Electrowinning of Gadolinium in a Molten Fluoride Electrolyte Purified by Pre-electrolysis"	1980
3	18	"Electrowinning of Gadolinium Metal Below $1000^\circ\text{C}$ and Introductory Investigation"	1980
3	28	"From Infinity to Zero and Back Again to Infinity (From Mixed Rare Earths to Ultrapure Metals to Pseudo-Lanthanides"	1980
3	74	"Influence of Lattice Instability on the Superconducting Properties of ' $\text{La}_3\text{S}_4$ '"	1980
3	80	"Influence of the Lattice and Electronic Factors on the Hydrogenation Properties of the $\text{RNi}_5$ Base (R is a rare earth) Haucke Compounds: Results of Low Temperature Heat Capacity Measurements"	1980
4	23	"Low-Temperature Heat Capacity of Se-Zr and Sc-Mg Alloys"	1980
4	24	"Low Temperature Heat Capacity Studies on Hydrogen Absorbing Intermetallic Compounds"	1980
4	26	"Low-Temperature Heat-Capacity Study of Haucke Compounds $\text{CaNi}_5$ , $\text{Yni}_5$ , $\text{LaNi}_5$ , and $\text{ThNi}_5$ "	1980
4	39	"Magnetic Domain Structures in High Purity Single Crystal Terbium"	1980
5	20	"Phase Relationships in Rare-Earth Metal Alloy Systems – Contributions to the Theory of Alloy Formation"	1980
5	30	"Preparation and Purification of $\text{GdCl}_3$ "	1980
5	31	"Preparation and Purification of Rare Earth Metals and Effect of Impurities on Their Properties"	1980
5	38	"Preparation of Gadolinium Metal by the Electrolysis of $\text{Gd}_2\text{O}_3$ "	1980
7	55	"Zone Refining of High Purity Ce and Gd Metals"	1980
2	20	"Diffusion of $^{198}\text{Au}$ in Praseodymium Single Crystals"	1981

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
2	22	"Disappearance of the Heat Capacity Peak of Sc <sub>3</sub> In Around the Curie Temperature in High Magnetic Fields"	1981
3	31	"Fused Salt Electrorefining of Gadolinium: An Evaluation of Three Electrolytes II: Deposition Characteristics on LiCl-LiF-GdF <sub>3</sub> , LiF-BaF <sub>2</sub> -GdF <sub>3</sub> and LiF-GdF <sub>3</sub> "	1981
3	43	"Heat Capacity and Solubility of Iron in Scandium"	1981
3	44	"Heat Capacity and Thermodynamic Functions of the RFe <sub>2</sub> Compounds (R = Gd, Tb, Dy, Ho, Er, Tm, Lu) Over the Temperature Region 8-300K"	1981
3	56	"High Pressure Hydrogen Absorption Study on Yni <sub>5</sub> , LaPt <sub>5</sub> and ThNi <sub>5</sub> "	1981
4	16	"Low Temperature Heat Capacities of Yttrium, Lanthanum, and Lutetium Sesquisulfides"	1981
4	78	"Mixed Valent Properties of CeSn <sub>3</sub> "	1981
6	2	"Rare Earth Specialty Inorganic Chemicals"	1981
6	31	"Some Thermoelectric Properties of the Light Rare Earth Sesquiselenides (R <sub>2</sub> Se <sub>3-x</sub> )"	1981
6	33	"Specific Heat of LuH <sub>x</sub> below 2 K"	1981
7	54	"Zone Refining of Rare Earth Metals: Lanthanum, Cerium and Gadolinium"	1981
2	16	"Current/Voltage Relationship in Molten LiF-GdF <sub>3</sub> -Gd <sub>2</sub> O <sub>3</sub> Electrolyte with Graphite Anode"	1982
3	15	"Electrical-resistivity Studies in the LaS <sub>x</sub> (1.333 ≤ x ≤ 1.500) System"	1982
3	16	"Electronic Structure and Surface Oxidation of the Haucke Compounds CaNi <sub>5</sub> , Yni <sub>5</sub> , LaNi <sub>5</sub> and ThNi <sub>5</sub> "	1982
3	40	"Heat Capacities of LaD <sub>x</sub> (2.5 ≤ x ≤ 3) From 1-3000K"	1982
3	41	"Heat Capacity and Magnetic Ordering of Two Cerium Sulfides, CeS <sub>1.393</sub> and CeS <sub>1.457</sub> "	1982
3	45	"Heat Capacity in Superconducting and Normal-state LaS <sub>x</sub> (1.33 ≤ x ≤ 1.500) compounds"	1982



<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
3	69	"Influence of Electron Concentration on the Hydrogen Absorption by $RM_5$ Haucke Compounds"	1982
4	9	"Lattice Instability (BCC-Tetragonal Transition) and Superconductivity in 'La <sub>3</sub> X <sub>4</sub> ' Base Materials (X = S or Se)"	1982
4	27	"Low Temperature-High Magnetic Field Heat Capacity Studies of Weakly and Nearly Ferromagnetic and Mixed Valence Rare Earth Materials"	1982
5	26	"Positron Lifetimes on $\alpha$ -, $\beta$ -, and $\gamma$ -Cerium"	1982
5	32	"The Preparation and Some Properties of Pure Misch Metal"	1982
5	33	"Preparation and Thermoelectric Properties of Some Rare Earth Chalcogenides"	1982
6	3	"The Rare Earth Sulfides $R_2R_{3-x}$ (R = Se, Er, and Lu) as High Temperature Thermoelectric Elements"	1982
7	41	"Quenching of Spin Fluctuations by High Magnetic Fields in the Heat Capacity of $CeGn_3$ "	1982
7	44	"Quenching of Spin Fluctuations in Scandium"	1982
7	46	"Wonderful World of Rare Earths – It's Science, Technology and Industry"	1982
2	32	"Effect of High Magnetic Fields on the Heat Capacity of Strongly Pauli-Pragmatic Pd-Ni Alloys"	1983
3	71	"Influence of High Magnetic Fields on the Low Temperature Heat Capacity of the Itinerant Electron Ferromagnet $Sc_3In$ "	1983
6	21	"Silver Rare-Earth Systems"	1983
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7	30	"Thermoelectric Properties of Ytterbium Sulfides"	1983
7	38	"Use of Systematics for the Evaluation of Rare-Earth Phase Diagrams and Crystallographic Data"	1983
7	42	"Quenching of Spin Fluctuations in Highly Enhanced and Itinerant Magnetic Materials"	1983

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5	16	"Past, Present and Future of Rare Earth Metallurgy"	1984
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2	31	"Effect of High Magnetic Fields on the Heat Capacity of Single-Crystal Terbium"	1985
3	65	"Influence of Composition on Some Physical Properties of the Narrow Band Material CeSn <sub>3</sub> "	1985
3	70	"Influence of High Magnetic Fields (IOT) on Paramagnons in Rare-Earth Intermetallic Compounds"	1985
4	19	"Low-Temperature Heat Capacity of Electrotransport-Purified Scandium, Yttrium, Gadolinium, and Lutetium"	1985
5	8	"Normal and Superconducting State Properties of U <sub>6</sub> Fe at Low Temperatures and High Magnetic Fields"	1985
5	43	"Preparation of γ-LaSy (1.33 < y < 1.50) Alloys by the Pressure-assisted Reaction Sintering Method and Their Thermoelectric Properties"	1985
5	44	"Pressure Dependence of the Intra Rare Earth Generalized Binary Phase Diagram"	1985
5	54	"Rare Earth Chemical and Physical Metallurgy"	1985
7	7	"Superconductivity in Cubic and Tetragonal Phases of (La <sub>1-y</sub> M <sub>y</sub> ) <sub>3</sub> S <sub>4</sub> with M=Vacancy, Sc, Y, Ce, Lu, Th"	1985
7	9	"Superconductivity in Metastable bcc γ-La"	1985

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1	20	"The Arsenic-Rare Earth Systems"	1986
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1	40	"Commercial Oxide Paints as Coatings for SiGe Thermoelectric Materials"	1986
2	7	"Crystal Chemistry of Rare Earth-Noble Metal Ternary Intermetallic Compounds"	1986
2	18	"Dedication of the 17 <sup>th</sup> Rare Earth Research Conference to the Memory of Frank H. Spedding, Sam Legvold and Wallace C. Koehler"	1986
3	35	"GdMg <sub>5</sub> : A Complex Structure with a Large Cubic Cell"	1986
3	55	"High Field Low Temperature Heat Capacity of CePd <sub>3</sub> B <sub>0.3</sub> "	1986
3	61	"High-Temperature Thermodynamic Properties of Alpha and Gamma Lanthanum Sesquisulfides and Related Compounds"	1986
3	76	"Influence of Martenitic Transformation on the Carrier Concentration and Mobility in the Superconductor La <sub>3</sub> S <sub>4</sub> "	1986
3	81	"Investigation of the Anisotropic Deuterium Ordering in $\alpha$ -LuD Single Crystals by Resistivity and Heat-Capacity Measurements"	1986
4	52	"Magnetic Susceptibility and Heat Capacity of Ce <sub>2</sub> Sn <sub>5</sub> "	1986
4	72	"Mean Square Amplitudes of Vibration and Associated Debye Temperatures of Dysprosium, Gadolinium, Lutetium and Yttrium"	1986
5	19	"Phase Equilibrium in the La-Mg (0-65 at.%Mg)"	1986
5	62	"Rare-Earth Metals Resources," Encyclopedia of Materials Science and Engineering	1986
6	19	"The Seebeck Coefficient and Electrical Resistivity of Some Rare Earth Ternary Sulfides La <sub>3-x</sub> M <sub>x</sub> S <sub>4</sub> (M = Sm, Eu, Yb)"	1986

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6	37	"Stability of $\gamma$ Phase $\text{La}_2\text{S}_{3-x}$ "	1986
7	13	"Systematics of Binary Rare Earth-Silver and Gold Systems"	1986
1	6	"1787-1987: Two Hundred Years of Rare Earths"	1987
1	13	"Anisotropic Magnetization in Single Crystal $\text{YBa}_2\text{Cu}_3\text{O}_7$ "	1987
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3	4	"The Effect of Sm, Eu and Yb on the Thermoelectric Properties of $\text{Th}_3\text{P}_4$ -Type Lanthanum Sulfide"	1987
3	50	"The Heat Capacity of High-Purity Gadolinium from 0.5 to 4K and the Effects of Interstitial Impurities"	1987
3	54	"High-Field Superconductivity in $\text{U}_6\text{Fe}$ and $\text{U}_6\text{Co}$ "	1987
4	4	"Lanthanide Refractory Semiconductors Based on the $\text{Th}_3\text{P}_4$ Structure"	1987
4	54	"Magnetic Susceptibility to $\text{U}_6\text{M}$ (M = Fe, Co and Ni)"	1987
4	65	"Magnetoresistive Effects in the Upper Critical Fields of Heavy Fermion Superconductors"	1987
4	76	"Microstructure and Superconductivity in High Tc Materials"	1987
5	41	"Preparation of Single Crystals of Superconducting $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ from CuO Melts"	1987
6	13	"Scandium," McGraw-Hill Encyclopedia of Science and Technology	1987
6	34	"Spin Fluctuation Effects in $\text{CeSi}_x$ Alloys: High-Field Heat-Capacity, Magnetic Susceptibility, and Electrical Resistivity Studies, and a Comment on $\text{TiBe}_2$ "	1987

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7	34	"The Ultrapurification of Rare Earth Metals: Gadolinium and Neodymium"	1987
1	24	"The Cadmium-Rare Earth Systems"	1988
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3	67	"The Influence of Crystalline Electric Field on the Low Temperature Properties of CeCd <sub>11</sub> "	1988
5	22	"Physical Metallurgy"	1988
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6	7	"Recent Developments in Rare Earth Physical Metallurgy"	1988
6	23	"Single Crystal HoBa <sub>2</sub> Cu <sub>3</sub> O <sub>x</sub> Break Junctions"	1988
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6	39	"Structure of LaNi <sub>2.286</sub> and the La-Ni System from LaNi <sub>1.75</sub> to LaNi <sub>2.50</sub> "	1988
7	4	"A Study of the Thermoelectric properties of Ca, Sr and Hg Substituted Lanthanum Sulfides"	1988
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1	17	"Anomalous Behavior of the Weak Itinerant Ferromagnet Sc <sub>3</sub> In Under Hydrostatic Pressure"	1989
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1	42	"Commercial ZrO <sub>2</sub> Paints as Coatings for SiGe Thermoelectric Materials"	1989
3	5	"Effects of Some Rare Earth Oxides and/or SiO <sub>2</sub> Additions to a Commercial ZrO <sub>2</sub> Paint for Coating SiGe Thermoelectric Materials"	1989
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3	25	"False Heavy Fermions"	1990
3	57	"High Pressure Phase Stability of U <sub>6</sub> X (X = Mn, Fe, Co, Ni) Compounds"	1990
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4	29	"Low Temperature Magnetic Behavior in CePtGa <sub>3</sub> "	1990
5	25	"Physical Properties of the Rare Earth Metals"	1990
5	50	"Properties of the Rare Earth Metals"	1990
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1	26	"CeCo <sub>0.89</sub> Ge <sub>2</sub> – A Heavy-Fermion System"	1991
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2	10	"The Crystal Structure Heat Capacity (1.5-80k) and Magnetic Susceptibility (1.6-300k) of LaAgGe and CeAgGe"	1991
4	17	"Low Temperature Heat Capacity and Magnetic Properties of the RNiX <sub>2</sub> Compounds (R = La, Ce; X = Si, Ge, Sn)"	1991
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5	37	"Preparation of a Metastable High Temperature Phase (γ-Dy <sub>2</sub> S <sub>3</sub> ) and a Metastable High Pressure Phase (γ-Y <sub>2</sub> S <sub>3</sub> ) by Mechanical Alloying and Mechanical Milling"	1991
5	64	"Rare Earths," Encyclopedia of Physics	1991
5	66	"Rare Earths in the Electronics Industry"	1991

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2	13	"Crystalline Electric Field Effects in CeCd <sub>11</sub> and PrCd <sub>11</sub> "	1992
3	33	"Gas Atomized Er <sub>3</sub> Ni Powder for Cryocooler Applications"	1992
5	11	"An Odyssey Through the Rare Earths. A Quest for Knowledge"	1992
5	36	"Preparation of the Metastable High Pressure $\gamma$ -R <sub>2</sub> S <sub>3</sub> Phase (R = Er, Tm, Yb and Lu) by Mechanical Milling"	1992
7	3	"A Study of the Magnetic Properties of Gd <sub>3</sub> Pd <sub>4</sub> in Applied Magnetic Fields"	1992
1	30	"Centrifugal Atomization of Rare Earth Metal and Intermetallic Compounds"	1993
2	24	"(Dy <sub>0.5</sub> Er <sub>0.5</sub> )Al <sub>2</sub> : A Large Magnetocaloric Effect Material for Low-Temperature Magnetic Refrigeration"	1993
4	75	"Metals, Alloys and Compounds – High Purities Do Make a Difference!"	1993
5	10	"Observation of Superconductivity in LaRhSb"	1993
7	11	"Systematics and Anomalies"	1993
7	36	"Unusual Magnetic Properties of the Heavy-Fermion Compound CeCoGe <sub>3</sub> "	1993
7	47	"YbNiSb – A Possible Heavy-Fermion Compound"	1993
7	53	"Zero-Field and Magnetic-Field Low Temperature Heat Capacity of Solid-State Electrotransport-Purified Erbium"	1993
1	29	"Centrifugal Atomization of Neodymium and Er <sub>3</sub> Ni Regenerator Particulate"	1994
3	82	"Kondo and Crystal-Field Effects in the Compound YbPtGa"	1994
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4	50	"Magnetic-Susceptibility and Heat-Capacity Measurements on PrRhSb"	1994
5	2	"New Magnetic Refrigeration Materials for the Liquefaction of Hydrogen"	1994
5	6	"New Type of Magnetocaloric Effect: Implications of Low-Temperature Magnetic Refrigeration Using an Ericsson Cycle"	1994
5	51	"Pure Rare Earth Metals for Today's and Tomorrow's Advanced Technologies"	1994
7	8	"Superconductivity in LaCd <sub>2</sub> "	1994
7	20	"The Taming of Palladium: The Influence of Cerium Additions on the Magnetic and Transport Properties of Palladium in the Composition Range of 5 to 16.7 at. % Ce"	1994
7	28	"Thermoelectric Properties of Cu-doped Dysprosium Sesquisulfide"	1994
1	27	"Ce <sub>5</sub> Ni <sub>6</sub> In <sub>4</sub> : An Intermediate Heavy Fermion System"	1995
2	8	"Crystal Structures and Low-Temperature Behaviors of the Heavy-Fermion Compounds CeRuGe <sub>3</sub> and Ce <sub>3</sub> Ru <sub>4</sub> Ge <sub>13</sub> Containing Both Trivalent and Tetravalent Cerium"	1995
3	78	"Influence of Temperature and Magnetic Field on Ferrimagnetic CePtGe <sub>2</sub> "	1995
5	5	"New Ternary Magnetic Lanthanide Regenerator Materials for the Low-Temperature Stage of a Gifford-McMahon (G-M) Cryocooler"	1995
5	23	"Physical Metallurgy and Magnetic Behavior of Cd-stabilized b.c.c. β-Gd Alloys"	1995
5	47	"The Production and Characterization of High Purity Materials Produced at the Ames Laboratory"	1995
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1	22	"The $\beta$ to $\gamma$ Transformation in Cerium – A Twenty Year Study"	1996
3	60	"High Temperature Heat Contents and Related Thermodynamic Functions of Eight Rare-Earth Metals Sc, Gd, Tb, Dy, Ho, Er, Tm, and Lu"	1996
7	15	"Systematics of the RAg Phases"	1996
9	30	"Experimental Device for Studying the Magnetocaloric Effect in Pulse Magnetic Fields"	1997
9	31	"Giant Magnetocaloric Effect in Gd <sub>5</sub> (Si <sub>2</sub> Ge <sub>2</sub> )"	1997
3	62	"Influence of Alloying on the Behavior and Properties of Er <sub>3</sub> Ni"	1997
9	32	"Novel Thermal Effects at the First Order Magnetic Phase Transition in Erbium, and a Comparison with Dysprosium"	1997
5	45	"Processing and Testing of Low-Temperature Stage Er <sub>6</sub> Ni <sub>2</sub> Sn Cryogenic Regenerator Alloy"	1997
9	33	"Tunable Magnetic Regenerator Alloys with a Giant Magnetocaloric Effect for Magnetic Refrigeration from ~20 to ~290K"	1997
1	16	"Anomalous Behavior of the Magnetic Entropy in PrNi <sub>5</sub> "	1998
1	49	"The Correlation of the Magnetic Properties and the Magnetocaloric Effect in (Gd <sub>1-x</sub> Er <sub>x</sub> )NiAl Alloys"	1998
2	9	"Crystal Structure and Magnetic Properties of the New Ternary Compound Ce <sub>3</sub> MnBi <sub>5</sub> "	1998
3	79	"Influence of the Crystalline Electrical Field on the Magnetocaloric Effect of DyAl <sub>2</sub> , ErAl <sub>2</sub> , and DyNi <sub>2</sub> "	1998
4	61	"Magnetocaloric Refrigeration"	1998
1	7	<i>Advanced Materials and Processes</i> "Letters" Section – Cerium Transformations	1999

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4	37	"Magnetic Cooling of Appliances"	1999
4	41	"Magnetic-Field and Temperature Dependencies of the Electrical Resistance Near the Magnetic and Crystallographic First-Order Phase Transition of Gd <sub>3</sub> (Si <sub>2</sub> Ge <sub>2</sub> )"	1999
4	42	"Magnetic Field and Temperature-Induced First Order Transition in Gd <sub>5</sub> (Si <sub>1.5</sub> Ge <sub>2.5</sub> ): A Study of the Electrical Resistance Behavior"	1999
4	55	"Magnetocaloric Effect and Heat Capacity in the Phase-Transition Region"	1999
4	56	"Magnetocaloric Effect and Magnetic Refrigeration"	1999
4	57	"Magnetocaloric Effect from Indirect Measurements: Magnetization and Heat Capacity"	1999
4	60	"Magnetocaloric Properties of Gd <sub>3</sub> Al <sub>2</sub> "	1999
4	63	"Magneto-Optical Properties of RMn <sub>6</sub> Sn <sub>6</sub> (R = Gd, Tb, Dy, Ho, Er, Tm, Lu) Single Crystals"	1999
6	6	"Recent Developments in Magnetic Refrigeration"	1999
1	33	Comment on "Direct Measurement of the 'Giant' Adiabatic Temperature Change in Gd <sub>5</sub> Si <sub>2</sub> Ge <sub>2</sub> "	2000
3	72	"The Influence of Magnetic Field on the Thermal Properties of Solids"	2000
4	58	"Magnetocaloric Effect in GdAl <sub>2</sub> and Nd <sub>2</sub> Fe <sub>17</sub> "	2000
4	59	"Magnetocaloric Materials"	2000
4	67	"Magnetothermal Properties of Dy <sub>5</sub> (Si <sub>x</sub> Ge <sub>1-x</sub> ) <sub>4</sub> Alloys"	2000
4	70	"Making and Breaking Covalent Bonds Across the Magnetic Transition in the Giant Magnetocaloric Material Gd <sub>5</sub> (Si <sub>2</sub> Ge <sub>2</sub> )"	2000

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7	35	"Unusual Magnetic Behavior in $Gd_5(Si_{1.5}Ge_{2.5})$ and $Gd_5(Si_2Ge_2)$ "	2000
7	37	"The Use of Alloy Theory for the Development of Active and Passive Magnetic Refrigerant Materials"	2000
2	14	"Crystallography, Magnetic Properties and Magnetocaloric Effect in $Gd_4(Bi_xSb_{1-x})_3$ Alloys"	2001
2	23	"Ductile, High Heat Capacity, Magnetic Regenerator Alloys for the 10 to 80K Temperature Range"	2001
3	13	"Electrical Resistivity, Electronic Heat Capacity, and Electronic Structure of $Gd_5Ge_4$ "	2001
3	34	" $Gd_5(Si_xGe_{1-x})_4$ : An Extremum Material"	2001
4	46	"Magnetic Properties of $Gd_5(Si_{1.5}Ge_{2.5})$ Near the Temperature and Magnetic Field Induced First Order Phase Transition"	2001
4	49	"Magnetic Refrigerators/Freezers and Air Conditioners"	2001
4	68	"Magnetothermal Properties of Poly Crystalline $Gd_2In$ "	2001
4	71	"Manufacturing Considerations for Rare Earth Powders Used in Cryocooler and Magnetic Refrigerator Applications"	2001
5	3	"New Regenerator Materials for Use in Pulse Tube Coolers"	2001
5	35	"Preparation, Crystal Structure, Magnetic and Magnetothermal Properties of $(Gd_xR_{5-x})Si_4$ , Where R = Pr and Tb, Alloys"	2001
6	5	"Real and Imaginary Components of the Alternating Current Magnet Susceptibility of $RAI_2$ (R = Gd, Dy, and Er) in the Ferromagnetic Region"	2001
6	30	"Some Common Misconceptions Concerning Magnetic Refrigerant Materials"	2001

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7	31	"Transformations in the $Gd_5(Si_{1.95}Ge_{2.05})$ Alloy Induced by the Temperature and Magnetic-Field Cycling Through the First-Order Magnetic-Martensitic Phase Transition"	2001
3	3	"Effects of Praseodymium Additions on the Magnetothermal Properties of Erbium"	2002
4	38	"Magnetic Correlations Induced by Magnetic Fields and Temperature in $Gd_5Ge_4$ "	2002
4	43	"Magnetic, Magnetothermal, and Magnetoelastic Properties of $Gd_5(Si_{1.95}Ge_{2.05})$ Near the Magnetostructural Phase Transition"	2002
4	44	"Magnetic Materials for the Conversion of Magnetic Energy to Cooling and Heating"	2002
4	47	"Magnetic Refrigeration"	2002
4	69	"Magnetothermal Properties of Single Crystal Dysprosium"	2002
5	17	"Performance of a New Regenerator Material in a Pulse Tube Cooler"	2002
5	34	"Preparation, Crystal Structure and Magnetocaloric Properties of $Tb_5(Si_xGe_{4-x})$ "	2002
8	14	"Decoupling of the Magnetic and Structural Transformations in $Er_5Si_4$ "	2003
8	15	"Disappearance and Reappearance of Magnetic Ordering upon Lanthanide Subsolutions in $(Er_{1-x}Dy_x)Al_2$ "	2003
8	16	"The Giant Magnetocaloric Effect Between 190 and 300K in the $Gd_5Si_xGe_{4-x}$ Alloys for $1.4 \leq x \leq 2.2$ "	2003
8	17	"Inelastic Neutron Scattering Study of the Extra-Lanthanide Alloys $Er_xPr_{1-x}$ ( $x = 0.6, 0.8$ )"	2003
8	19	"Massive Magnetic-Field-Induced Structural Transformations in $Gd_5Ge_4$ and Nature of the Giant Magnetocaloric Effect"	2003

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8	21	"Preparation, Crystal Structure, Heat Capacity, Magnetism, and the Magnetocaloric Effect of Pr <sub>5</sub> Ni <sub>1.9</sub> Si <sub>3</sub> and PrNi"	2003
9	2	"Ab Initio Calculation of Bulk and Defect Properties of Ductile Rare-Earth Intermetallic Compounds"	2004
9	3	"Anisotropic Materials: A Way to Increase the Efficiency of Magnetic Refrigeration"	2004
9	4	"Dynamic Magnetic Susceptibility of Gd <sub>5</sub> Si <sub>2</sub> Ge <sub>2</sub> and Gd <sub>4</sub> YSi <sub>1.9</sub> Ge <sub>2.1</sub> "	2004
8	18	"Interplay Between Reversible and Irreversible Magnetic Phase Transitions in Polycrystalline Gd <sub>5</sub> Ge <sub>4</sub> "	2004
9	5	"Low Temperature Properties of Some Er-Rich Intermetallic Compounds"	2004
9	6	"Mechanical Properties of Single Crystal YAg"	2004
9	7	Reversible Spin-Flop and Irreversible Magneticlike Transitions Induced by a Magnetic Field in the Layered Gd <sub>5</sub> Ge <sub>4</sub> Antiferromagnet"	2004
9	8	"Tracking and Understanding the First-Order Structural Transition in Er <sub>5</sub> Si <sub>4</sub> "	2004
9	9	"X-ray Powder Diffractometer for <i>in situ</i> Structural Studies in Magnetic Fields From 0 to 35 kOe Between 2.2 and 315 K"	2004
9	10	"Evidence for a Coupled Magnetic-Crystallographic Transformation in Nd <sub>5</sub> (Si <sub>0.6</sub> Ge <sub>0.4</sub> ) <sub>4</sub> "	2004
9	11	"Metastable Magnetic Response Across the Antiferromagnetic to Ferromagnetic Transition in Gd <sub>5</sub> Ge <sub>4</sub> "	2004
9	12	"Neutron Diffraction Studies of the Magnetoelastic Compounds Tb <sub>5</sub> Si <sub>x</sub> Ge <sub>4-x</sub> (x = 2.2 and 2.5)"	2004
9	13	"Phase Relationships and Structural, Magnetic, and Thermodynamic Properties of Alloys in the Pseudobinary Er <sub>5</sub> Si <sub>4</sub> -Er <sub>5</sub> Ge <sub>4</sub> System"	2004

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9	15	"Development of New Cryocooler Regenerator Materials – Ductile Intermetallic Compounds"	2005
9	16	"Fracture Toughness of Polycrystalline YCu, DyCu, and YAg"	2005
9	17	"Hydrostatic Pressure Control of the Magnetostructural Phase Transition in Gd <sub>5</sub> Si <sub>2</sub> Ge <sub>2</sub> Single Crystals"	2005
9	18	"Influence of Oxygen on the Giant Magnetocaloric Effect of Gd <sub>5</sub> Si <sub>1.95</sub> Ge <sub>2.05</sub> "	2005
9	19	"Magnetic and Magnetocaloric Properties and the Magnetic Phase Diagram of Single-Crystal Dysprosium"	2005
9	20	"Magnetic Cooling"	2005
9	21	"Magnetic Properties of Single-Crystal DyAl <sub>2</sub> "	2005
9	22	"Magnetic Structure of Gd <sub>5</sub> Ge <sub>4</sub> "	2005
9	23	"Magnetocaloric Effect"	2005
9	24	"Mechanical Properties of Single Crystal YCu and (Tb <sub>0.88</sub> Dy <sub>0.12</sub> )Zn B2 Intermetallic Compounds"	2005
9	25	"Polymorphism of Gd <sub>5</sub> Si <sub>2</sub> Ge <sub>2</sub> : the Equivalence of Temperature, Magnetic Field, and Chemical and Hydrostatic Pressures"	2005
9	26	"Preparation, Heat Capacity, Magnetic Properties, and Magnetocaloric Effect of EuO"	2005
9	27	"Recent Development in Magnetocaloric Materials"	2005
1	35	Comments on "Effect of Sample Preparation on the Magnetic and Magnetocaloric Properties of Amorphous Gd <sub>70</sub> Ni <sub>30</sub> "	undated
2	33	"The Effect of Long Term Heat Treatment on the Electrical Properties of RSe <sub>1.47</sub> (R = La and Nd) and LaSe <sub>1.48</sub> "	undated
3	1	"Effect of Magnetic Fields on the Kondo Insulator, CeRhSb: Magnetoresistance and High Field Heat Capacity Measurements"	undated

<b>Box</b>	<b>Folder</b>	<b>Title</b>	<b>Dates</b>
3	11	"Electrical Properties of Yttrium Sesquisulfide ( $Y_2S_3$ ) mechanically alloyed with Copper, Boron, and Aluminum"	undated
3	68	"The Influence of the Crystalline Electrical Field on the Magnetocaloric Effect of $DyAl_2$ , $ErAl_2$ and $DyNi_2$ "	undated
4	3	"L.S. (Larry) Darken's Contributions to the Theory of Alloy Formation and Where We Are Today"	undated
4	12	"Long-Range Magnetic Order in $Ce(Cu_{1-x}Ag_x)_6$ "	undated
4	13	"Low Temperature and Magnetic Field Behaviors of an Antiferromagnet – High Field Superparamagnet: $CePtGe_2$ "	undated
5	29	"Preparation and Processing of Rare Earth Chalcogenides"	undated
5	60	"The Rare Earth Metals – Sc, Y and the Lanthanides"	undated
5	65	"Rare Earths (Including) Yttrium and Scandium – Chapter 6"	undated
7	10	"Superheating and Other Unusual Observations Regarding the First Order Phase Transition in Dy"	undated