
ARIZONA HISTORICAL SOCIETY

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MS 1306
Charles R. Kuzell Collection
1902 - 1971

DESCRIPTION

This collection consists of technical reports, manuscripts, and patents associated with copper smelting operations collected or written by Charles Kuzell. Many papers focus on improvement of smelting operations and reduction of hazardous byproducts including dust and fumes. Some copper production facilities highlighted in the collection include operations at the Copper Queen Mine, Inspiration Consolidated Copper Company, International Smelting Company, and Calumet & Arizona Mining Company.

4 Boxes, 2 linear ft.

BIOGRAPHICAL NOTE

Charles R. Kuzell was general manager for Phelps Dodge Corp. Douglas, AZ. Kuzell was a graduate of Casa School of Applied Science and worked for eight years as a metallurgist with Anaconda Copper Mining Co. before coming to work with United Verde Copper Company in 1918. He moved to Arizona in 1944 and was promoted to general manager in 1946 and served until 1968. Kuzell died on June 22, 1971.

ACQUISITION

Donated by Stewart W. Towle in 2006.

ACCESS

There are no restrictions on access to this collection.

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PROCESSING

The collection was processed by Dave Tackenberg in December 2006.

Box and Folder Listing

Box 1

Series 1: Smelters and Companies Producing Copper Ores

Folder 1	Summary of Metallurgical Plants	1916
f.2	Inspection of Smelters	1916
f.3	Calumet & Arizona Mining Co. Smelters	1916
f.4	Copper Queen Roasting Plant	1927
f.4A	International Smelting Co. Miami, AZ	1916
f.5	Inspiration Consolidated Copper Co.	1970
f.6	Douglas Smelter of Copper Queen Mine	1938
f.7	Noranda Smelter, Canada	1939
f.8	White Pine Copper Co. Michigan	1956
f.9	Pamphlet: Notes on the Metallurgy of Montana	1903
f.10	Cerro de Pasco Corp. Peru	
f.11	Proposal to Smelt Kennecott Concentrates	1950

Series 2: Papers and Manuscripts Related to Smelting Operations

f.12-14	Articles on Smelting Operations	1960 - 1969
f.15	Recovery Copper Operations	1969 – 1971
f.16	Copper Smelting Operations	1963 – 1970
f.17	Smelter Furnace Operations	1932 – 1960

Box 2

f.18	Metallurgy Data Notebook	1938 – 1968
f.19	Production of Sulphur	1932
f.20-21	Sulfur Oxide Control at Copper Smelters	1966 – 1971
f.22	Sulphur Dioxide Fumigation of Wheat	1945
f.23-24	Report: Experimental Work on Influence of Sulphur Dioxide	1937 – 1939
f.25	Heat Capacity of Gases	1902/1914
f.26-29	Injurious Ingredients from Dust and Fumes (Reports, Memos & Articles)	1914 - 1933

Box 3

f.30	Natural Gas Burners in Smelters	1947
f.31	Smelter Furnace Operations	1948 – 1949
f.32	Gas Fired Furnace Drawings	1915/1920/1932
f.33	Top-Fired Open Hearth Furnace	1935
f.34	Report: Experimental Procedure at Hereford Fumigation Area During 1946	1946
f.35	Report: Bee Investigation in Verde Valley and Surrounding Districts	
f.36	Address: Elimination of Sulfur Dioxide From Smelter Emissions	1968
f.37	Magnetite in Mattes	1931
f.38	Oxygen in Copper Mattes	1925
f.39	Smelter Furnace Construction	1956
f.40	Smelter Converters Operations	1923

f.41	Insulation of Smelter Converters	1912/1913/1938
f.42	Smelter Furnace Construction and Operations	1920 – 1949
f.43	Magnetite in Copper Slag	1931
f.44	Convection and Radiation of Heat on Ore	1911 – 1922
f.45	Loss of Copper In Slag	
f.46	Paper: CMCR Rod at Inspiration Consolidated Copper Co.	1969
f.47	Report: Reaction Between Magnetite and Ferrous Sulphide	1928
f.48	Increasing the Capacity of a Small Copper Smelter	1956
f.49	Pamphlets on Titanium	1946/1959
f.50	Pamphlets on Uranium	1949 – 1954

Box 4

f.51	Smelter Patents (Misc.)	1909/1912
f.52-55	Patents of United Verde Copper Co.	1920 - 1935