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Collection Overview

Repository:	Smithsonian Institution Archives, Washington, D.C., osiaref@si.edu
Title:	Scientific Records
Identifier:	Accession 04-192
Date:	circa 1959-1986
Extent:	1.25 cu. ft. (1 record storage box) (1 half document box)
Creator::	Smithsonian Astrophysical Observatory. Atomic and Molecular Physics Division
Language:	English

Administrative Information

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Atomic and Molecular Physics Division, Scientific Records

Descriptive Entry

This accession consists of manuscript files documenting the writings and research of Harrison E. Radford. Radford joined the Smithsonian Astrophysical Observatory (SAO) in 1969, as a physicist in the Radio and Geoastronomy Division, after nearly a decade with the National Bureau of Standards. His work with the Bureau included measurements by microwave spectroscopy of the OH radical at 18 cm that led to its detection at radio wavelengths in the interstellar medium. At SAO, Radford became internationally known for his pioneering laboratory experiments that led to the discovery of complex hydrocarbon molecules in space.

Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

Astrophysics
Hydrocarbons
Microwave spectroscopy

Types of Materials:

Manuscripts

Names:

National Bureau of Standards

Radford, Harrison E.

Smithsonian Astrophysical Observatory. Radio and Geoastronomy Division

Container Listing

Box 1

Box 1 of 2	CO Pressure Broadening
Box 1 of 2	O3 Pressure Broadening
Box 1 of 2	CLSO, FSO
Box 1 of 2	OH FAR IR
Box 1 of 2	Intracavity ABS
Box 1 of 2	CH ₂ OH LMR
Box 1 of 2	OH LMR
Box 1 of 2	Oxygen
Box 1 of 2	CH ₂ OH +O ₂
Box 1 of 2	DO ₂ LMR
Box 1 of 2	Ozone Pressure Broadening
Box 1 of 2	CH ₃ O Analysis
Box 1 of 2	NH ₂ Proceedings of Royal Society
Box 1 of 2	NH ₂ Chem. Phys. Lett.
Box 1 of 2	NH Molecular Physics
Box 1 of 2	CD ₃ O
Box 1 of 2	CH ₃ O
Box 1 of 2	Mesospheric Water Vapor
Box 1 of 2	Laser Frequencies

Box 1 of 2	NH Chem. Phys. Lett.
Box 1 of 2	Waveguide Laser
Box 1 of 2	HO ₂
Box 1 of 2	HCO
Box 1 of 2	Methanol, Lab
Box 1 of 2	Acetaldehyde
Box 1 of 2	Search for H ₂ O ¹⁸
Box 1 of 2	Formic Acid
Box 1 of 2	CH
Box 1 of 2	Methyl Alcohol
Box 1 of 2	Search for OH in W ₃
Box 1 of 2	HCN Stark Voltmeter
Box 1 of 2	IR Resonance, OH and H ₂ O
Box 1 of 2	3.8 cm Spectrum of OH
Box 1 of 2	Echo Box Spectrometer
Box 1 of 2	Electrical Breakdown in Ammonia
Box 1 of 2	L-Uncoupling Effects on the EPR Spectrum of NO
Box 1 of 2	Paramagnetic Resonance of Metastable N
Box 1 of 2	Free Radical Microwave Absorption Meter
Box 1 of 2	Hyperfine Structure of CN
Box 1 of 2	18 cm Spectrum of OH
Box 1 of 2	Synthesis of Diatomic Radicals

Box 1 of 2 10 kc Pound-Type Klystron Stabilizer

Box 1 of 2 Radiofrequency and Microwave Spectroscopy

Box 1 of 2 Radio Spectrum of SH

Box 1 of 2 Chemical and Magnetic Enhancement...CN

Box 1 of 2 Optical Detection of Microwave Transitions in Excited CN

Box 1 of 2 Rotational Perturbations in CN

Box 1 of 2 Microwave Zeeman Effect of Free OH

Box 1 of 2 Microwave Zeeman Effect of Free OH

Box 2

Box 2 of 2 Paramagnetic Resonance Phenomena

Box 2 of 2 Paramagnetic Resonance in Free OH

Box 2 of 2 Green and Purple Sulfur: ESR Studies

Box 2 of 2 Microwave Zeeman Spectrum of Atomic F

Box 2 of 2 Microwave Zeeman Spectrum of Atomic O

Box 2 of 2 Electron g Value in the Ground State of D

Box 2 of 2 Unpublished Manuscripts