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## Collection Overview

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## Administrative Information

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## Descriptive Entry

This accession consists of correspondence, memoranda, budget records, manuscripts, and publications documenting the operations and programs of the Smithsonian Astrophysical Observatory (SAO) Optical and Infrared Astronomy Division.

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## Names and Subject Terms

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

### Subjects:

- Astronomy
- Astrophysics
- Observatories
- Research
- Research institutes

### Types of Materials:

- Books
- Manuscripts

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## Container Listing

### Box 1

- Box 1 of 4      Detection of High-Energy Gamma Rays from the Crab Nebula by G. G. Fazio, H. F. Helmken, E. O'Mongain, and T. C. Weekes, 1972; Gamma Radiation from the Region of the Crab Nebula, by E. M. Hafner, 1961
- Box 1 of 4      Letters, Memoranda, and Articles: High Energy Gamma Rays from the Galactic Centre, *Nature*, 1972; Observing Program for 1973-1974 memorandum; Monthly Reports, Gamma Ray Group, November-December 1970; Budget for FY1973 and FY1974; *SAO News*, Spring 1971 and Spring 1972; Chart: Multiplication Factor for Eth and S away from the Zenith; Periodic Progress Report, Gamma Ray Group, May-June 1971; Longitudinal Distribution of Cerenkov Light from Extensive Air Showers, by W. N. Charman and E. O'Mongain, *Lettere al Nuovo Cimento*, 1970; Correlation between Optical and Radio Emission from Extensive Air Showers at Large Zenith Angles, by B. McBreen, E. O'Mongain, N. A. Porter, and P. J. Slevin, *Physics Letters*, 1966; Calculation of Total Cross Section for Double Compton Scattering, by M. Ram and P. Y. Wang, *Physical Review Letters*, 1971; FY1972 Budget and Expenditures memorandum; Gamma Ray Program memorandum, 1973; Miscellaneous correspondence
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- Box 1 of 4 High-energy Gamma-ray Astronomy, by G. G. Fazio, *Nature*, volume 225, March 7, 1970
- Box 1 of 4 Semiannual Progress Report No. 3 - A Study of Gamma Rays, Grant No. 4994, May 1970
- Box 1 of 4 Proposal to Study the Properties of Atmospheric Cerenkov Radiation, March 1970
- Box 1 of 4 Proposal to NASA for a Large-Area Gas-Cerenkov Detector for High-Energy Gamma-Ray Astronomy to Be Flown on the High-Energy Astronomy Observatory (HEAO) Spacecraft, Parts I and II, May 1970
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- Box 1 of 4 A Survey of Gamma-Ray Sources in the Galactic Plane at Energies of 1011 to 1012 eV, by T. C. Weekes, May 1973
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- Box 1 of 4 Letters and Memoranda Written by G. G. Fazio, 1963-1968 (3 folders)
- Box 1 of 4 Project Management: Designing the Matrix - A two day seminar that provides managers with modern design methods for planning, controlling, and implementing projects, sponsored by The Wharton School, University of Pennsylvania, 1976

- Box 1 of 4 Notes on United States Civil Service Commission calendar of training courses, 1976-1977
- Box 1 of 4 Reprints of articles: Spatial Spectra of IRC+10216 from 2.2 to 20 microns: Deviations from Spherical Symmetry, by D. W. McCarthy, R. Howell, and F. J. Low; Observations of Circumstellar Clouds, by P. G. Wannier, R. O. Redman, T. G. Phillips, R. B. Leighton, G. R. Knapp, P. J. Huggins; Near-Infrared Spectra of NML Cygni and IRC+10216, by G. H. Herbig and R. R. Zappala, August 1970; The Far-Infrared Size of IRC+10216, by G. G. Fazio, B. McBreen, and M. T. Stier; Interferometric Measurements of Flattened Circumstellar Envelopes, by D. W. McCarthy; The Brightness Distribution of the IRC+10216 at 11 Microns, by E. C. Sutton, A. L. Betz, J. W. V. Storey, and D. L. Spears; Far-Infrared Observations of IRC+10216, by M. F. Campbell, J. H. Elias, D. Y. Gezari, P. M. Harvey, W. F. Hoffmann, H. S. Hudson, G. Neugebauer, B. T. Soiffer, M. W. Werner, and W. E. Westbrook, January 1976; High Resolution Observations of CO in IRC+10216 and Three Related Objects, A Preprint from the Owens Valley Radio Observatory, 1978; Isotope Abundance Anomalies in IRC+10216, by P. G. Wannier and R. A. Linke, A Preprint from the Owens Valley Radio Observatory, 1978; Scanner Observations of the Leo Infrared Object IRC+10216, by J. S. Miller, 1970; Near-Infrared Photometry of Two Extremely Red Objects, by G. W. Lockwood, 1970; Angular Diameter of IRC+10216, Mira, R Cas and GL 2591 in the Near Infrared, by R. Foy, A. Chelli, F. Sibille, and P. Lena, *Astronomy and Astrophysics*, 1979; Spatial Spectra of IRC+10216 from 2.2 to 20 Microns Deviations From Spherical Symmetry, by D. W. McCarthy, R. Howell, and F. J. Low, *The Astrophysical Journal*; Polarization of IRC+10216, by S. J. Shawl and B. Zellner, *The Astrophysical Journal*
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- Box 2 of 4 Proposal to NASA, backup information and rough drafts of HEAO-B Guest Investigation: Search for X-rays Associated with the Variable Far-Infrared Source in NGC 6334, by J. C. Wheeler and G. G. Fazio
- Box 2 of 4 Various papers and backup material for information concerning the observations of the H II Region W3
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- Box 2 of 4 Information on Optics for Industry - company used for manufacture of reflectors in 1966
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- Box 2 of 4 Information concerning the recommended Southwest Observatory Site Location on Mt. Hopkins and relevant discussions, 1966
- Box 2 of 4 Request for Quotation for Large Optical Reflector (LOR) from T. Hoffmann, 1966
- Box 2 of 4 History of Air Cerenkov Detector for X-Ray Astronomy, by G. Fazio, 1966
- Box 2 of 4 Papers and Articles (folder 1): A Three-Year Search for Periodic Gamma-Ray Emission in the 1011-1012-eV Energy Region from NP 0532, by H. F. Helmken, G. G. Fazio, E. O'Mongain, and T. C. Weekes, 1973; Field of View of Cherenkov Detectors for Gamma Ray Astronomy; Revised 1012 eV Gamma Ray Effect for NP 0531, by J. E. Grindlay, 1973; A Possible Indirect Method for the Detection of Gamma-Ray Flashes from Supernovae, by N. A. Porter, 1973; Observations of High Energy Gamma-Rays, by G. G. Fazio; Detection of Pulsed Gamma Rays of 1012 eV from the Pulsar in the Crab Nebula, by J. E. Grindlay, *The Astrophysical Journal*, volume 174, 1972; Compton-Synchrotron Spectrum of the Crab Nebula with the Pulsar Magnetic Field, by J. E. Grindlay and J. A. Hoffman, *Astrophysical Letters*, volume 8, 1971; Evidence for Time-Dependent Flux of 1011-1013 eV Gamma Rays from NP 0532, by H. F. Helmken, J. E. Grindlay, and T. C. Weekes, Center for Astrophysics Preprint Series No. 355, 1975

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- Box 2 of 4      Mount Hopkins Observatory: Draft write-up of activities for the proposed Mt. Hopkins Observatory; Report of Discussions on Site Selection in the North American Continent - Namely the Southwest, by F. L. Whipple, 1965; Mount Hopkins Site Survey - Trip Report, by C. Tougas and C. Hagge; Trip Report: Site Survey for Astronomical Observatory in Arizona, by F. Franklin, J. Rolff, and D. Tingle, 1965; Miscellaneous memoranda, papers, maps and notes generated about placing the Observatory at Mt. Hopkins, Arizona
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- Box 2 of 4 High-Energy Gamma-Ray Astronomy Experiment for High-Altitude Balloons
- Box 2 of 4 Miscellaneous Correspondence, Memoranda, and Notes, c. 1964-1966, 1970
- Box 2 of 4 A Proposal for a High-Energy Gamma-Ray Astronomy Experiment for the Orbiting Astronomical Observatory, by F. L. Whipple and G. G. Fazio, 1963
- Box 2 of 4 Miscellaneous information concerning the Agenda for Gamma Ray Explorer Design Review, 1966
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- Box 2 of 4 The Space-Optics System, brochure from The Perkin-Elmer Corporation
- Box 2 of 4 Memorandum from T. E. Hoffmann to J. Burke on the review of Quotation for Large Optical Reflector Mount, 1966

Box 3

- Box 3 of 4 Mirror for Laser Radiation Detector
- Box 3 of 4 Research in Space Science Special Report No. 190R: Use of a Laser for Satellite-Range Measurements, by P. H. Anderson, C. G. Lehr, and L. A. Maestre, 1965

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- Box 3 of 4 Study 2 Floor Plan, 1967
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- Box 3 of 4 SAO Proposal for Data Reduction and Analysis of High-Altitude Balloon Experiment to Verify the Detection of High-Energy Neutrons from the Sun, March 1967

- Box 3 of 4      A Proposal for a Design Study of an Explorer Satellite for Gamma Ray Astronomy, by AVCO Missiles, Space and Electronics Group, 1966
- Box 3 of 4      Experimental Studies of Low Energy Celestial Gamma Radiation, Proposal to the National Science Foundation (NSF), 1967
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- Box 3 of 4      Proposal for an HCO-SAO Astronomical Instrument Laboratory, 1967
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- Box 4 of 4                    10-Meter Reflector, Mt. Hopkins, volume III (2 folders)
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