

The UCLA Cosmochemistry Database

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Introduction: The UCLA Cosmochemistry Database is a data-rescue and -storage project aiming to archive a variety of cosmochemical data acquired at University of California, Los Angeles (UCLA). The database is developed in collaboration with the Astromaterials Data System (AstroMat), a NASA-funded data infrastructure that provides access to and archiving of the database. The database is a project in progress. We will continue to make additions, updates, and improvements to the database.

Data Content: The database mainly includes elemental and isotopic compositions of various extraterrestrial materials analyzed by John Wasson, Paul Warren, Kevin McKeegan, Edward Young and their coworkers using atomic absorption spectrometry, neutron activation analysis (NAA), electron microprobe analysis, secondary ionization mass spectrometry, multi-collector inductively coupled plasma mass spectrometry and the Panorama mass spectrometer at UCLA over the last five decades. Microscopic and photographic images and scanned PDF files of laboratory notebooks will also be included.

Database Development: Currently, compositional data by NAA for iron meteorites and chondrites have been compiled from publications into datasets using AstroMat spreadsheet templates. Data from each publication was registered with DataCite to obtain a DOI. These data are being ingested into the AstroMat Synthesis Database. Users will be able to browse these data using interactive tables on the webpage.

Database Accessibility: The UCLA datasets are publicly accessible at the Astromat Repository. Users may search, filter, extract and download customized datasets via the user interface of the Astromat Synthesis Database (AstroSearch). Users now can access the UCLA Cosmochemistry Database directly via <https://www.astromat.org/collections/ucla-cosmochemistry-database/>.

Future Development: We will continue to upload data and files related to iron meteorites and chondrites. Data of historic and future publications by the UCLA meteorite team will further be digitized and incorporated into Astromat Synthesis Database. AstroMat is currently working to develop plotting tools for the interactive tables.

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