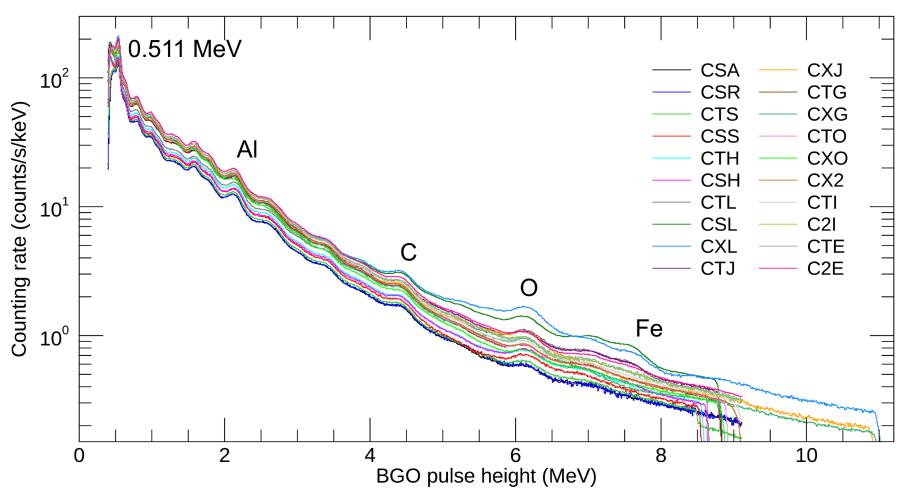
## Gamma-ray spectra by Ceres mission phase



Gamma-ray pulse height spectra (BGO) averaged over each sub-phase of Ceres encounter. For CXL, CXJ, and CXG, spectra acquired with the lower high-voltage configuration are shown. The prominent peaks in spectra include those from annihilation at 0.511 MeV, Al at 2.2 MeV, C at 4.4 MeV, and O at 6.1 MeV. The Fe neutron-capture peaks at 7.6 MeV are observed in spectra acquired in the vicinity of Ceres (e.g., CSL & C2E).

## Abbreviations:

RC3 Rotational Characterization 3HAMO High Altitude Mapping OrbitLAMO Low Altitude Mapping Orbit

GRaND Gamma Ray and Neutron Detector

X2 Extended mission 2

## Mission phase names:

CSA Ceres Science Approach
CSR Ceres ScienceRC3
CTS Ceres Transfer to Survey

CSS Ceres Science Survey
CTH Ceres Transfer to HAMO

CSH Ceres Science HAMO

CTL Ceres Transfer to LAMO

CSL Ceres Science LAMO

CXL Ceres Extended LAMO

CTJ Ceres Transfer to Juling

CXJ Ceres Extended Juling

CTG Ceres Transfer to GRaND

CXG Ceres Extended GRaND

CTO Ceres Transfer to Opposition

CXO Ceres Extended Opposition

CX2 Ceres X2 Holding

CTI Ceres X2 Transfer to Intermediate

C2I Ceres X2 Intermediate

CTE Ceres Transfer to X2 Elliptical

C2E Ceres X2 Elliptical