Tuesday, March 20, 2018 **[T328]**
POSTER SESSION I: DIFFERENTIATED METEORITES III: HEDS
6:00 p.m. Town Center Exhibit Area

Tian Z. Chen H. Fegley B. Jr. Lodders K. Barrat J. A. et al. ***POSTER LOCATION #418***
Potassium Isotope Differences Among Chondrites, Earth, Moon, Mars, and 4-Vesta — Implication on the Planet Accretion Mechanisms **[#1276]**
The δ41K of HEDs and martian meteorites are first reported. HEDs are extremely enriched in heavy K, whereas martian meteorites resemble the BSE δ41K value.

Dey S. Sanborn M. E. Yin Q.-Z. Tarduno J. A. ***POSTER LOCATION #419***
Constraining the Timing of the Vestan Dynamo Using Diogenite Northwest Africa 5480 **[#1785]**
Crystallization age of unique magnetized diogenite NWA 5480 is obtained to constrain the timing of core dynamo and mantle convection in asteroid 4 Vesta.

van Westrenen W. Steenstra E. S. Dankers D. Berndt J.
Matveev S. et al. ***POSTER LOCATION #420***
The Vestan Core as a Major Reservoir for Volatile Elements **[#1197]**
Metal- and sulfide-silicate partitioning of volatile siderophile elements suggest the Vestan core is a significant reservoir for volatile elements.

Castle N. Herd C. D. K. ***POSTER LOCATION #421***
An Alternative Model for the Origin of the Stannern Trend Eucrites: Incompatible Element Depletion **[#1601]**
Stannern trend eucrite / Riddle of their formation / Depletion theory.

Kagami S. Haba M. K. Yokoyama T. Usui T. Greenwood R. C. ***POSTER LOCATION #422***
Geochemistry, Petrology, and Sm–Nd Dating of a Stannern Group Eucrite, Northwest Africa 7188 **[#1958]**
We studied geochemistry, petrology, and Sm-Nd chronology of NWA 7188 to better understand the origin of this meteorite and the thermal history of Vesta's crust.

Kanemaru R. Akira Y. Hirotsugu H. ***POSTER LOCATION #423***
Petrology of the Juvinas Eucrite: Implications for Evolution of Vestan Crust **[#1854]**
On the basis of our petrologic study, we found that the Juvinas eucrite experienced metamorphism, impact event, and metasomatism after initial crystallization.

Hill P. J. A. Osinski G. R. Banerjee N. R. Nasir S. ***POSTER LOCATION #424***
Petrography and Geochemistry of HED Meteorite Dhofar 2092 **[#2039]**
Overview of the petrography and geochemistry of a recently classified eucrite, Dhofar 2092.

Anderkin C. J. ***POSTER LOCATION #425***
Homogenization of Eucritic Oxides and Implications for the Magmatic History of 4 Vesta **[#1204]**
Here, pyroxene and plagioclase phases within HEDs were assessed to determine oxide molar percentages. This data was then used to posture past magmatic events.

Mittlefehldt D. W. Barrett T. J. Le L. Peng Z. X. Berger E. L. et al. ***POSTER LOCATION #426***
Fine-Scale Variations in Eucritic Pyroxene FeO/MnO: Process vs. Provenance **[#2700]**
Magmatic rocks rule! / Asteroids with them are cool! / How many are there?

Ono H. Takenouchi A. Koike M. Iizuka T. Mikouchi T. et al. ***POSTER LOCATION #427***
Silica Minerals in Non-Cumulate Eucrites with High Thermal Metamorphism **[#1796]**
Monoclinic tridymite is the only silica phase in Agoult and Ibitira that have experienced high thermal metamorphism, suggesting slow cooling below 400°C.

Irving A. J. Kuehner S. M. Bunch T. E. Wittke J. H. Ziegler K. et al. ***POSTER LOCATION #428***
Anomalous Eucrites Northwest Africa 2824 and Northwest Africa 8671: More Evidence for Multiple Eucrite Parent Bodies **[#2247]**
We revisit a shock-melted eucrite related to Ibitira and describe another unique melted eucrite. There must have been numerous eucrite parent bodies.

Funderburg R. L. Mayne R. G. Lunning N. G. Singletary S. ***POSTER LOCATION #429***
Metasomatic Features in Eucrites **[#2585]**
Samples not in the metasomatism literature will be analyzed and differences in alteration between the eucrite geochemical groups will be assessed.

Fisher E. A. Milliken R. E. Robertson K. Li S. ***POSTER LOCATION #430***
Determining the Modal Mineralogy of Howardites and Brecciated Eucrites: A Combined XRD-VNIR Study and Implications for Vesta **[#1650]**
Integrated VNIR and XRD study suggests that expanding spectral libraries will allow Hapke modeling to estimate the modal mineralogy of brecciated HED meteorites.

Hahn T. M. Jr. Korotev R. L. Jolliff B. L. ***POSTER LOCATION #431***
Geochemical Characterization of the Dominion Range 2010 Howardites: Towards Identifying Trace Element Signatures of Vesta's Unique Lithologies **[#2945]**
We use INAA to identify geochemical signatures of rare vestan lithologies (i.e., dacite) in howardites, and infer abundances in the regolith on Vesta.