**Crystal Data**: Orthorhombic. *Point Group*:  $2/m \ 2/m$ . As grains to  $8 \ \mu m$  and in linear arrays of grains within two masses of Fe-rich serpentine.

**Physical Properties**: Cleavage: n.d. Hardness = n.d. D(meas.) = n.d. D(calc.) = n.d.

**Optical Properties**: Opaque. *Color*: Creamy white in reflected light. *Streak*: n.d.

Luster: Metallic.
Optical Class: n.d.

**Cell Data**: *Space Group*: *Pnma*. a = 5.833(1) b = 3.569(1) c = 6.658(1) Z = 4 [synthetic FeCrP]

X-ray Powder Pattern: Calculated pattern.

2.247 (100), 2.139 (81), 2.258 (46), 1.785 (43), 1.885 (34), 2.074 (31), 1.866 (31)

## **Chemistry**:

	(1)	(2)
P	22.30	22.31
Ti	2.81	
V	3.99	
Cr	21.99	37.46
Fe	46.24	40.23
Co	0.11	
Ni	2.56	<u>.</u>
Total	100.00	100.00

(1) Kaidun meteorite; average electron microprobe analysis; after subtraction of contributions from matrix contamination corresponds to  $Fe(Cr_{0.587}Fe_{0.150}V_{0.109}Ti_{0.081}Ni_{0.060}Co_{0.002})P$ . (2) FeCrP.

**Occurrence**: In microbreccia containing an enormously varied assortment of extraterrestrial fragments of different chondritic and achondritic lithologies.

**Association**: Florenskyite, serpentine.

**Distribution**: From the Kaidun meteorite.

**Name**: Honors *Andrey Ivanov* (b. 1937), Russian geochemist and mineralogist, who was one of the principal investigators for the Luna missions.

**Type Material**: At the Curation Facility, NASA Johnson Space Center, Houston, Texas, USA (section 3.10j) and the Vernadski Institute, Moscow, Russia.

**References**: (1) Zolensky, M., M. Gounelle, T. Mikouchi, K. Ohsumi, L. Le, K. Hagiya, and O. Tachikawa (2008) Andreyivanovite: A second new phosphide from the Kaidun meteorite. Amer. Mineral., 93, 1295-1299.