**Elgoresyite**

(Mg$_5$Si$_2$)O$_9$

**Crystal Data**: Monoclinic. *Point Group*: 2/m. As micron-size grains in ringwoodite. Almost indistinguishable from ringwoodite in SEM-back-scattered electron images.


**Cell Data**: *Space Group*: C$_2$/m. *a* = 9.397(2) *b* = 2.763(1) *c* = 11.088(3) *β* = 94.25(2)° *Z = 2*

**X-Ray Diffraction Pattern**: Calculated pattern. 2.801 (100), 2.460 (70), 1.968 (65), 1.845 (60), 2.017 (55), 2.308 (40), 2.563 (35)

**Chemistry**: Suizhou meteorite; electron microprobe analysis; corresponds to (Mg$_{3.38}$Si$_{1.95}$Fe$_{2+.16}$Al$_{0.05}$Na$_{0.03}$Ca$_{0.02}$)Σ = 7.03O$_9$.

**Polymorphism & Series**: ((Mg, Fe)O)$_{n=m}$Si$_2$O$_{9n}$ series at high pressure suggested.

**Occurrence**: In a shock-induced melt vein in a chondrite meteorite. Suggested to be a potential constituent mineral in rocky planets with relatively high MgO + FeO content.

**Distribution**: From the Suizhou meteorite (L6 chondrite), Xihe, Zengdu District, Suizhou, Hubei, China.

**Name**: Honors Dr. Ahmed El Goresy for his discoveries of shock-induced high-pressure phases in meteorites at terrestrial impact sites and contributions to our understanding of cosmochemical processes in the early parts of our solar system.

**Type Material**: Natural History Museum, University of Florence, Italy (3238/I).