STEPHEN E. HAGGERTY

US Citizen Florida International University. Miami, FL. 33155

JUNE 2019

EDUCATION: ARSM Royal School of Mines, Honors: "Geology of the Jussaro Iron Ore Mine, Finland" (1964); Diploma of Imperial College in Exploration Geology (1965); Ph.D. Geology & Geophysics, University of London: "Opaque Mineralogy & Magnetic Significance of Fe-Ti oxides in Iceland Basalt Lavas" (1968). Advisors: PMS Blackett, AP Millman, RL Wilson.

SYNOPTIC CV

POSITIONS: Leitch Gold Mining 1960 Exploration assistant N. Quebec & S James Bay; Lab. Assistant Geophysics Dept. Imperial College, London 1961-1964. University of Massachusetts, Asst., Assoc., & Prof. (1971-2002); Florida International University, Distinguished Research Professor (2002 - present).

Research SpecialTies: Diamond exploration & deep Earth studies with major emphasis on West Africa, South Africa, and India; Fe-Ti oxide minerals; Magmatic ore deposits; Lunar & meteoritic mineralogy & petrology; Rock & mineral magnetism.

RESEARCH FUNDING: ~ \$15 M. NASA, National Science Foundation & Industry.

Societies: American Association for the Advancement of Science; Geological Society of America; American Geophysical Union; Mineralogical Society of America; Sigma Xi

PUBLICATIONS: 140+ peer-reviewed articles; 6 in SCIENCE, 7 in NATURE; 14 Book Chapters; 5 Book Reviews; 16+ Open File Reports; ~250 abstracts to national & international meetings & conferences. Assoc. Ed. Lunar Science Conferences; Editor-in-Chief "MINERALS."

Honors: Cullis Medal, Royal School of Mines (1964); Judd Prize, University of London (1968); D.Sc. University of London (1988). Carnegie Fellow (1969); Fellow of the Mineralogical Society of America (1980); Chancellor's Medal (UMass 1988), Research Fellow (UMass 1988); Fellow of the American Geophysical Union (1992); Russian Mineralogical Society (1992); Daly Distinguished Lecturer-AGU (1997); Fulbright Fellow, India (2000); Fellow Geological Society of America (2008). Member: Lunar Sample Analysis Planning Team (1973-1976); Carbonado-diamond: voted 60th in top 100 scientific discoveries in 2007 by *DISCOVER* magazine. *"Laureate"* for major contributions to the study of Earth's deep interior (*Lithos,* v.112, 2009). *Haggertyite*: a new mineral from the diamondiferous Prairie Creek lamproite, Arkansas, discovered and named by D. Velde (France), I. Grey (Australia), A. Criddle (UK), and IMA-approved (1998).

ACHIEVEMENTS: Discovered & named six new minerals and lunar *armalcolite* (after the Apollo 11 astronauts <u>Armstrong</u>, <u>Aldrin & Collins</u>). Intrinsic redox variations in basalts. MINRAD for nuclear waste. Recognition of the deepest (>300km), majorite-bearing rocks to reach Earth's surface. Discovery of a diamond pipe in NW Liberia, and recognition of the first botanical indicator, *Pandanus candelabrum*, for kimberlites. First description of metallic Fe in lower crustal granulites and the Curie isotherm significance of metals in serpentines. Breakthrough in the origin and application of micro-diamonds in resource evaluations. Detailed review supported by spectroscopic data for the probable origin of carbonado-diamond as extraterrestrial.

INVITATIONS: National & international science committees, universities; keynote & invited speaker including the White House on *"Blood Diamonds";* interviews to national & international news media including NY Times, NOVA, History, Discovery, National Geographic, American Institute of Physics (Discoveries & Breakthroughs in Science), Wikipedia.

CONSULTANT: Governments of USA, Liberia, Sierra Leone, India and Syria. United Nations & Gemology Institute of America. *Mining companies:* De Beers; BHP; Selection Trust; Delta. *Board of Directors:* Archangel Diamonds; Ataqua Diamond Mining; Tri-North; NiCo Mining; Diamcor Mining; Jagersfontein Mining; Youssef Diamond Mining. *haggerty @ fiu.edu [Tel: 305-348-7338; cell; 305-987-6452]*