CALL FOR PAPERS

Journal of African Earth Sciences

Special Volume

1) Theme of the special issue :

Precambrian Geology of West African Craton for Sustainable Development

2) Deadlines :

(i) Deadline for submission of manuscripts: June 30th, 2017.
(ii) Reviews and revision: November-December 2017.
(iii) Production of the volume: March-April 2018.

3) Instructions for authors: **guide for authors**

Submission on the website of ***J. Afr. Earth Sci.*** at: https://ees.elsevier.com/aes/default.asp

Please select "***SI: WAC Mineralizations***" when you reach the "**Article Type**" step in the submission process.

TOPICS

The main topics are given on the webpage of **igcp638**

Brief aims of the volume: The characterization of ore deposits is specific to geological conditions (P, T, t) depending on the rheology of rocks, their emplacement mode and of their tectonic and metamorphic evolution. The West African Craton (WAC) and its surrounding areas are the best candidates to focus on such ore deposits, especially in the vicinity of shear zones, boundaries of terranes…
The WAC recorded several tectonic, magmatic and metamorphic events through its Precambrian evolution. Different tools may be used to investigate the periods and areas of production of ore deposits and their relationships with these events. Precambrian geodynamic evolution of the WAC is still debated in several of its remote regions, composed of terranes and large shear zones. What kind of geodynamic model is appropriate: subduction, sagduction ("pop-down"), or other tectonic models? Can we clearly distinguish between deformation styles in old orogenic belts? Do fluids circulations and their rock interaction conditions play a major role in these belts for ore concentrations? Even though some significant attempts were addressed, factors controlling the emplacement mechanisms of mineralizations as well as the associated tectono-metamorphic constraints still remain unpredictible. Several tectonic styles and ages related to Eburnean deformation phases within the WAC for instance were recorded, yet the emplacement mechanisms of mineralizations are not convincing. There is thus a challenge and a need to further model and predict potential ore deposits using multidisciplinary and derived techniques.

All papers dealing with the following topics are considered:

a- Precambrian sediments and their relationships with magmatism (ore deposits), Intrusives, their propagation, emplacement, behaviour regarding fabrics & alteration, and relationship with geodynamics (opening modes),
c- Geological and Geophysical modeling of structures with a special focus on mining exploration,
d- Hydrological research activities with special relation to hydrothermal ore deposits,
e- Hydrogeology and environmental research for water sustainability,
f- Tectono-structural constraints, Geologic events,
g- Mineralization, fluids and tectonic control (shears) & their correlations, new datings,
h- Earth mineral resources and sustainable development,
i- Heat flow control in mineralogical changes, Metallogenesis, Fluid inclusions,
j- Numerical methods of investigation, favourable structures for ore deposits (impacts),
k- Mobile belts, Geodynamics, Metamorphic and Tectonic relations to mineralizations,
l- Ore deposits, Ore processing, Mining in quarries, Geochemistry and Geochronology of Precambrian terranes,
m- Medical geology, Engineering Geology, Petroleum Geology, Sedimentary Basins, Chronostratigraphy, Sedimentology and Stratigraphy of Precambrian within WAC,
n- Earth Science Education & Policy, Geoparks, Geoheritage, Geotourism, Geoethics, Geodiversity,

Application of the following tools to Precambrian formations are also welcome: GIS & Signal processing, modeling, Remote sensing, Gravity & (Aero)Magnetism, Paleomagnetism & Rock magnetism, Electric & Electromagnetic methods for exploration, Radiometry and Spectrometry, Petrophysics, Geochemistry…

Feb. 28th, 2017