



SDI Review Form 1.6

Journal Name:	Chemical Science International Journal
Manuscript Number:	Ms_CSIJ_30995
Title of the Manuscript:	Evaluation of Pozzolanic Activity of Illitic and Lateritic Raw Materials from Burkina Faso
Type of the Article	<u>Original Research Article</u>

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This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	- Fig.11- a. This graph shows the endothermic effect at ~680 °C, which is attributing to C-S-H. Which of calcium silicate hydrates decomposes at this temperature? - Line 342. Authors explained the decrease of compressive strength values for 28 days of samples with 25wt. % additive by „<i>the significant quartz content of the MK studied</i>“. In my opinion in both investigated raw materials amount of quartz are about 10 wt.%, which is not „<i>significant content</i>“. Usually, the pozzolanic reaction proceeds slowly and occurs more intensively at a later period of hardening (up to 3 or more months), therefore the decrease of compressive strength is more affected by pozzolanic reaction rate than the quartz content.	- The literature does not indicate clearly which of C-S-H decomposed at 680°C. We know only it is the decomposition of the second phase of C-S-H gel to gives $\beta\text{C}_2\text{S}$ - We are not agreed totally with this comment. The compressive strength is affected by chemical reaction (pozzolanic reaction, impurity) and physical (filler effect). However, the increase of quartz means the decrease of reactive phase and then the decrease of pozzolanic reactivity.
Minor REVISION comments	- Line 108. The sentence „<i>The mineralogical composition was assessed by Fourier Transformed Infra Red (FTIR) analysis</i> „is incorrect. Fourier Transform Infrared Spectroscopy (FTIR) identifies chemical bonds in a molecule. FTIR is used for detecting functional groups and characterizing covalent bonding but not for detecting <i>the mineralogical composition</i>. - Line 178. Correct formula of goethite is (FeO(OH)). - Line 228. The text „<i>The SEM images are given</i>	- The sentence has been corrected. - The formula of goethite has been corrected - Line 228 and line 291 -292, the different sentences are interjected. - The means of ML1, ML2, MR1 and



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	by Fig. 6. The characteristic forms of kaolinite are observable." interject between Fig 4. and name of this figure. The same in line 291-292 (Fig. 8) 4. Line 265. Fig. 7 legend is missing (ML1 etc.) 5. Line 319. Fig.10 must be improved, because intensity of portlandite peaks (at $\sim 17^\circ 2\theta$) are difficult to compared. In indexes of this figure presented index "A: Albite". Is it really Albite (clay mineral) or Alite (cement clinker mineral)?	MR2 are shown on the paragraph 2.2.3. 5. Line 319, Fig 10 has been improved The corrected form is A: Alite
<u>Optional/General</u> comments		