



SDI Review Form 1.6

Journal Name:	<u>Physical Science International Journal</u>
Manuscript Number:	Ms_PSIJ_35279
Title of the Manuscript:	Temporal variations in ambient carbon monoxide concentrations between weekdays and weekends in Akure central business district, South West Nigeria.
Type of the Article	Original Research Article

General guideline for Peer Review process:

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.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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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	<p>Describe the quantification limits of the CO sensor and calibration procedure, as CO measured levels are too high for an open area.</p> <p>R Language is not a software nor a language. It is more correct to say: R Language environment.</p> <p>Open air is a R Language Library</p> <p>In Methodology section it is important to detail the sampling site, the topography, the presence nearby of stationary sources and mobile sources. Detail de vehicular fleet and the engine average emissions after-control technology used in the tailpipes. CO in mainly emitted by vehicular fleet and the levels depends on the engines technology as the use of three-ways catalysts and the fuel.</p> <p>Data was treated to remove days with rain?</p> <p>Page 5 line 181: the CO peak at Figure 2 is not at 9 AM. It is at 6 PM with a value around 12-13 ppm.</p> <p>Page 5 line 186: there is not a “strong” reduction on weekends, only a reduction.</p> <p>Figure 3 was not introduced in the text.</p> <p>It is necessary to explain that the higher peaks at 9 and 18 h are associated with emissions and also with mixing height that is lower in these hours.</p> <p>The sun expands the atmosphere in the middle of the day and dilutes the pollutants. The more</p>	OK



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	pronounced peak at 18 h is due to the accumulated emissions during the day and the mixing height lowering phenomena.	
<u>Minor</u> REVISION comments	There are no meteorological parameters monitoring near the sampling site? It is important to correlate CO with meteorology. Figure 2 can be associated with error levels, using Openair command timeVariation The authors could provide a boxplot for CO levels with hours of the day, with days of the week and with months, to understand the data variation. Why not group Figures 4a and 4b?	OK
<u>Optional/General</u> comments	The work is an important contribution, since the CO levels presented are very high for a city near 300k of inhabitants. Similar cities around the world has CO levels around 1-2 ppm Detail R Language version, credits and also for Openair in the references section	OK