



SDI Review Form 1.6

Journal Name:	<u>British Journal of Applied Science & Technology</u>
Manuscript Number:	Ms_BJAST_20290
Title of the Manuscript:	Electron Microscopy Documents The Microorganisms' Biodestructive Action On Polyurethane And The Production, Internalization And Vesicular Trafficking Of Nanoparticles
Type of the 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	As far as experimental methods, it was difficult to tell what was done here. So, it will be difficult to reproduce by anyone other than the authors. Material and methods will need much more detail. The methods seem to indicate controls (i.e. a PU sample place in culture media without a S. aureus and S. aureus cells without PU) were prepared but no data from those controls was presented. Without data from those controls, the interpretation of nano-PU being generated and endocytotically engulfed is questionable. Manuscript does not provide sufficient data that leads to the conclusion that the PU nano-particles have higher electron density than the cell components. This is the basis for all other interpretation and needs be robustly supported, if not by data gathered and present here, then by references presenting those supportive data. Do not see any FIB data presented here. Needs eliminated.	The section "materials and methods" reports the passages of the samples preparation. We provided references useful to understand every passage, with special attention of microscopy techniques. Data required by the reviewer have been already published, therefore they do not appear in this paper. But we provided references where readers can find all the details about controls. We provided references that explain how PU NPs appear in electron microscopy images. Some of the figures' legends have been corrected. SEM images were acquired from a FIB/SEM machine.



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	Please clarify the plagiarism issue: It appears most of this manuscript has been published elsewhere. For example: Biodestruction of polyurethane by <i>Staphylococcus aureus</i> (an investigation by SEM, TEM and FIB) Didenko L.V.¹, Avtandilov G.A.², Shevlyagina N.V.¹, Smirnova T.A.¹, Lohedenko E.Y.², Tatti F.³, Savoia C.⁴, Evans G.⁴ and Milani M.² Beyond the biodestruction of polyurethane: <i>S. aureus</i> uptake of nanoparticles is a challenge for toxicology R. Curia^{1,2}, M. Milani¹, L.V. Didenko¹, G.A. Avtandilov¹, N.V. Shevlyagina¹ and T.A. Smirnova¹ If the authors for this manuscript are not some of the above, then this manuscript is a clear case of plagiarism.	There is no case of plagiarism as the authors of the previous published papers are the same of this article. This manuscript reports updates of the research in the same field.
Minor REVISION comments		
Optional/General comments	The manuscript presents an interesting idea regards secondary generation of nano-particles but needs supporting data.	As supporting data we present electron microscopy images and a long discussion in which we give interpretation of the images. In addition our work is supported by numerous references, useful to comprehend techniques and the bacterial behaviour.