



SDI Review Form 1.6

PART 1:

Journal Name:	<u>British Journal of Applied Science & Technology</u>
Manuscript Number:	2013_BJAST_5101
Title of the Manuscript:	Histological imaging of gastric tumors by scanning acoustic microscope
Type of the Article	Research paper

General guideline for Peer Review process is available in this link:

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

- This form has total 7 parts. Kindly note that you should use all the parts of this review form.



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PART 2: Review Comments

	Reviewer's comment	Author's comment <i>(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)</i>
<u>Compulsory</u> REVISION comments	The paper (Manuscript ID; 2013_BJAST_5101 at British Journal of Applied Science & Technology) titled as "Histological imaging of gastric tumors by scanning acoustic microscope" demonstrated a scanning acoustic microscope (SAM), which uses ultrasound to image an object from speed-of-sound (SOS) through tissues, and the authors investigated the utility of SAM in imaging gastrointestinal lesions. We visualized the digestive tract as a layered structure and discriminated tumors to a degree comparable with that observed by light microscopy. Areas with greater SOS corresponded to those with higher collagen or muscle fiber concentrations. Cell-poor areas or regions with degeneration demonstrated less SOS than surrounding tissues. And, SAM offered the following benefits over LM: (1) images are acquired in a few 23 minutes without special staining; (2) repeated observations of the same section are possible, even after staining; (3) high-resolution digital imaging from SOS is comparable to LM; (4) SAM analysis could be helpful in understanding endoscopic ultrasonography imaging; and (5) digitized SOS data could be statistically compared among different stomach lesions.	Thank you for your good comments.
<u>Minor</u> REVISION comments	<Minor point> SAM is ultrasound to image an object from SOS through tissues, and the authors investigated the utility of SAM in imaging gastrointestinal lesions. SAM gives (1) images are acquired in a few 23 minutes; (2) repeated observations of	Thank you for your appropriate question. If SAM can dramatically obtain more high-resolution imaging, we think the possible utilities of SAM can be as follows: 1) to discriminate cellular organelle; 2) to analyse the cellular or subcellular changes in physical property responding to some



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	the same section are possible; (3) high-resolution digital imaging from SOS is comparable to LM; (4) SAM analysis could be helpful in understanding endoscopic ultrasonography imaging; and (5) digitized SOS data could be statistically compared among different stomach lesions. Then, if SAM can dramatically obtain more high-resolution digital imaging from SOS, what is the authors' thought for the next proposal to utilize SAM?	stimuli; and 3) to become an ancillary tool for electron microscopy.
<u>Optional/General</u> comments	The study suggests that the paper would be interesting to be published in British Journal of Applied Science & Technology.	