



**SDI Review Form 1.6**

**PART 1:**

Journal Name:	<a href="#">Physical Review &amp; Research International</a>
Manuscript Number:	MS: 2012_PRR1_2965
Title of the Manuscript:	Diagnostic of laser induced Li II plasma

**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 9 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 (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)
<b>Compulsory</b> REVISION comments	<p>In fig1 page 1 from ref, Daria et al .2006 that is true the cooling process are very close to the target surface and far from the surface due to plasma expansion and cooling surface proceeses , the line width broadening in fig2,3, 4,5, 6, 7 proof that temperature increase to maximum value at d= 1.53 logically the FWHM should be increased but in Fig.9 pag 109 the FWHM at d= .5 mm have maximum value .5nm at low temperature while the line width at d = 1.5 decreased to .3nm at higher temperature i think need much explain why that differ than Doppler broadening i think many processs is complicated near the surface target affect on the plasma target motion as plasma sheath and preathe than bulke plasma adding to that the microelectric field but still my question how FWHM is decreased while Temperature increased in fig 9 at d= 1.53 mm It need much complicated causes.</p>	<p>Doria et al. has measured the time and spatially resolved spectra. It is very simple, one should not forget the most important parameter is the free electron density, where the width is proportional to ne, and less sensitive to T. However, if one is familiar with this subject should see the famous book of Griem "<b>Griem, H.R. (1974). Spectral Line Broadening by Plasmas</b>" in his table the electronic width is given at <math>n_e=10^{17} / \text{cm}^3</math> for T= 5000K, 10000K, 20000K, and 40000K, the width is decreases with increasing T. Our T is around 2-3 eV, in this case the width decreases slightly!!</p>
<b>Minor</b> REVISION comments	<p>Some few errors in page 101 the pressure in vacuum 5x 10-5 mbar i,e the order of 10 is negative because that in vacuum instead of 5 x105 mbar. Other wise speling</p>	<p>The minus is written and the two times "by" is removed.</p>



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	error in other page repeating by by it should one by	
<b><u>Optional/General</u></b> comments	If the error par and stander deviation for results are associated that will show the agreement better between experimental results and theoretical because stark broadening is homogenous distribution while Doppler broadening is inhomogenous distribution.	Standard Deviation Error Bars is included. Thanks for the hint and the comments.