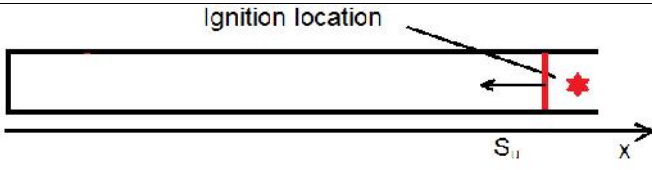


*SUpport to SAfety ANalysis of Hydrogen and Fuel Cell Technologies*

<b>Verification type</b>	Analytical Solutions
<b>Database reference</b>	ANA-8
<b>Topic / Application</b>	Combustion 1-D
<b>Physics</b>	Combustion Flame Front Propagation
<b>Summary</b>	This provides an analytical solution to solving the 1-D flame propagation speed in 1-D.
<b>Description</b>	This analytical solution is for the flame front in a 1-D tube where the flame curvature can be assumed small. The tube is filled with premixed hydrogen/air mixture. Ignition is at one end. The reference provides the solution for the flame front.
<b>Case Title</b>	Premixed flame propagation velocity
<b>Authors</b>	University of Ulster
<b>Year</b>	Dmitriy Makarov, University of Ulster
<b>Online reference</b>	Susana deliverable 4.1
<b>Case image</b>	
<b>Governing equations</b>	Available in source reference
<b>Results</b>	Verification is not undertaken in this paper, rather it presents the analytical solution that could be used for verification.