

Abstract Submitted  
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**Visible emission from exploding wire in water**<sup>1</sup> MILAN SIMEK, VA-  
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MENT OF PULSE PLASMA SYSTEMS TEAM — Exploding wire in water gener-  
ates non-ideal strongly coupled plasma, which can model some phenomena appearing  
in interior of stars, in inertial confinement fusion, in plasma physical-chemistry, in  
rocket engines, etc. This complicated 2-phase transitions process can be hardly  
modeled numerically because of missing material data at extremely high pressures.  
Therefore, the basic question relevant for radial energy transport estimates – when  
between wire and water a water-vapor-layer is created (if any) – has to be an-  
swered experimentally. For this purpose the waveforms of the driving current and  
the H-alpha line emission were measured simultaneously. First spectrometric results  
obtained by means of photon-counting technique will be discussed. Other spectro-  
scopic data in visible range can yield valuable information about plasma periphery  
and about layer between plasma and surrounding liquid water.

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