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## LIGHT ION ACCELERATION: BULK VS. SURFACE ACCELERATION AND ROLE OF TARGET THICKNESS AND RESISTIVITY

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Laser driven light-ion acceleration is being investigated for the optimization of ion cut-off energy and ion current using the ILIL laser at an intensity of  $2E19$  W/cm<sup>2</sup>. Here we focus our attention to the identification of the role of surface and target thickness and resistivity in the fast electron transport and in the acceleration process. We will show experimental results which clearly show a limited, but non negligible role of bulk ions in the acceleration process. We will also show that cold target resistivity has a non-detectable effect on the final acceleration process.

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