the metal used. For smooth or rough surfaces, cooling curves are the same under the use of full jet nozzle and do not affect the cooling rate.

It concluded that a full jet nozzle had used to extract more heat for both surfaces of metals compared to the spray nozzle. Cooling started at the beginning by using a full jet nozzle rather than the spray nozzle. Similarly, quality of water only effects on cooling rate when using a spray nozzle while cooling rate remained constant under the full jet nozzle.

It is recommended to analyze the effect of salt addition on the spray cooling process and it is also recommended to check the effect of different type of artificial surface roughness on the spray cooling process in the future study.

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NOMENCLATURE

C_p	Specific heat (J/kg·K)
H	Space between nozzle and plate (mm)
h_c	Convective coefficient of heat transfer($W/m^2 \cdot K$)
LDT	Leidenfrost temperature
$\dot{q}_{min}$	Minimum heat flux (MW/m^2)
$\dot{q}_{max}$	Maximum heat flux (MW/m^2)
s	Material thickness (mm)
θ_w	Temperature of water (ºC)
θ_o	Temperature of hot material (ºC)