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## Additive manufacturing process creates local surface roughness modifications leading to variation in cell adhesion on multifaceted TiAl6V4 samples

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**Title:** Low dose Rituximab for Pre-emptive Treatment of Epstein Barr Virus Reactivation after Allogenic Hematopoietic Stem Cell Transplantation

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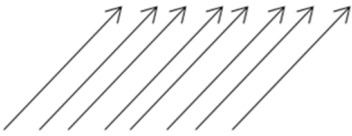
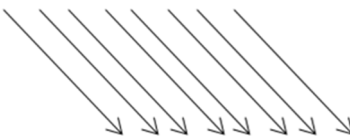
**Table 1:** Comparison between the chemical composition of Ti64 samples-as-SLM and Ti64 powders

<b>Composition of Ti64-ELI powders</b>									
<b>Al</b>	<b>C</b>	<b>Fe</b>	<b>H</b>	<b>N</b>	<b>O</b>	<b>Ti</b>	<b>V</b>	<b>Others</b>	<b>All Others</b>
6.2	0.01	0.14	0.002	0.01	0.07	Bal	4.1	<0.1	<0.01
<b>Composition of Ti64-ELI samples-as SLM in the surface</b>									
<b>Al</b>	<b>C</b>	<b>Fe</b>	<b>H</b>	<b>N</b>	<b>O</b>	<b>Ti</b>	<b>V</b>	<b>Others</b>	<b>All Others</b>
4,97 ± 0,26	-	0,19 ± 0,38	-	-	-	91,64 ± 1,26	2,74 ± 0,20	-	-

**Table 2:** Manufacturing parameters and stripes hatching strategy

	Puissance	Vitesse	Gaz de protection	Argon
Bulk filling	175 W	775 mm/s	Pattern type	stripes
Contour filling	100 W	525 mm/s	Hatch vector	120 μm
Border	100 W	525 mm/s	Distance inter ext. border /center	60 μm
			Layer width	30 μm

Stripes hatching strategy		
	Couche n	Couche n+1

**Table 3:** Measured roughness parameters on the different surfaces of the complex Ti6Al4V

	Zone 1	Zone 2	Zone 3	Zone 4	Laser grooves
<b>Number of partially melted powder/mm<sup>2</sup></b>	188,3 ± 35.9	412.7 ± 89.7	500.9 ± 81.0	1192.1 ± 89.4	NA
Average height: <b>Sa (μm)</b>	8,7 ± 0.6	9,9 ± 1.1	10,5 ± 0.2	19.2 ± 1.2	0.11 ± 0.03
Maximum height : <b>Sz (μm)</b>	125,8 ± 15.1	138,07 ± 6.8	161,3 ± 4.9	230.4 ± 2.5	0.87 ± 0.42
Root mean square : <b>Sq (μm)</b>	11,8 ± 0.6	12,8 ± 1.4	13,8 ± 0.6	24,1 ± 1.8	0.13 ± 0.3
core roughness depth : <b>Sk (μm)</b>	25,16 ± 3.7	29,48 ± 4.6	31,58 ± 1.6	61.8 ± 2.9	0.22 ± 0.3
reduced peak height : <b>SpK (μm)</b>	21,0 ± 0.7	18,2 ± 1.3	19,7 ± 2.9	18,2 ± 1.0	0,1 ± 0.01
reduced valley depth : <b>SvK (μm)</b>	8,2 ± 1.6	9,1 ± 0.8	10,2 ± 0.2	27,4 ± 5.2	0.11 ± 0.11
kurtosis : <b>Sku (no unit)</b>	6,1 ± 1.1	4,7 ± 0.8	5,4 ± 1.7	3,2 ± 0.3	2.73 ± 0.51
skewness : <b>SsK (no unit)</b>	1,2 ± 0.2	0,8 ± 0.1	0,8 ± 0.4	0,3 ± 0.1	-0.07 ± 0.4
developed interfacial area ratio : <b>Sdr (%)</b>	79,15 ± 20.6	79,3 ± 23.7	139,1 ± 38.3	351.3 ± 58.7	3.06 ± 3.18
root mean square gradient : <b>Sdq (no unit)</b>	1,9 ± 0.3	1,8 ± 0.3	2,5 ± 0.4	4,3 ± 0.3	0.28 ± 0.21
<b>Polar spectrum</b>					
Texture direction : <b>Std (°)</b>	