

ORIGINAL RESEARCH ARTICLE

# Additive manufacturing: A machine learning model of process-structure-property linkages for machining behavior of Ti-6Al-4V

Supplementary File

Table S1. Schmid factor and Taylor factor

	Basal (Schmid)	Prismatic (Schmid)	Pyramidal (Schmid)	$\epsilon=0.5$ (Taylor)	$\epsilon=1$ (Taylor)	$\epsilon=1.5$ (Taylor)
LPBF XY HT 1	0.2828	0.4070	0.1134	2.0849	3.6696	5.1212
LPBF XY HT 2	0.2888	0.3851	0.1146	2.1662	3.6271	5.2868
LPBF XY HT 3	0.2990	0.3861	0.1171	2.1354	3.6445	5.0797
LPBF XZ HT 1	0.2930	0.3977	0.1164	2.1503	3.7771	5.1551
LPBF XZ HT 2	0.2845	0.3799	0.1164	2.0412	3.5833	5.0858
LPBF XZ HT 3	0.2843	0.4170	0.1181	2.1502	3.7465	5.235
LPBF XY NHT 1	0.2904	0.3901	0.1158	2.1594	3.6794	5.1693
LPBF XY NHT 2	0.3034	0.3785	0.1139	2.1656	3.6526	5.0581
LPBF XY NHT 3	0.3076	0.3788	0.1146	2.2519	3.8121	5.2984
LPBF XZ NHT 1	0.2869	0.4106	0.1134	2.1952	3.7472	5.1471
LPBF XZ NHT 2	0.2683	0.4069	0.1180	2.026	3.4807	4.7369
LPBF XZ NHT 3	0.2834	0.4157	0.1268	2.1177	3.6769	5.2559
EB-PBF XY 1	0.2803	0.4070	0.1149	2.0092	3.1474	4.8236
EB-PBF XY 2	0.3168	0.4089	0.1211	2.1884	3.8379	5.4314
EB-PBF XY 3	0.3010	0.3730	0.1141	1.8879	3.5887	4.4317
EB-PBF XZ 1	0.3113	0.3637	0.1203	2.0794	3.4724	5.0412
EB-PBF XZ 2	0.2959	0.3966	0.1093	2.1252	3.6443	5.406
EB-PBF XZ 3	0.2732	0.3951	0.1218	2.0723	3.5505	4.9382