

Fatigue Strength of AM Aluminum Alloy

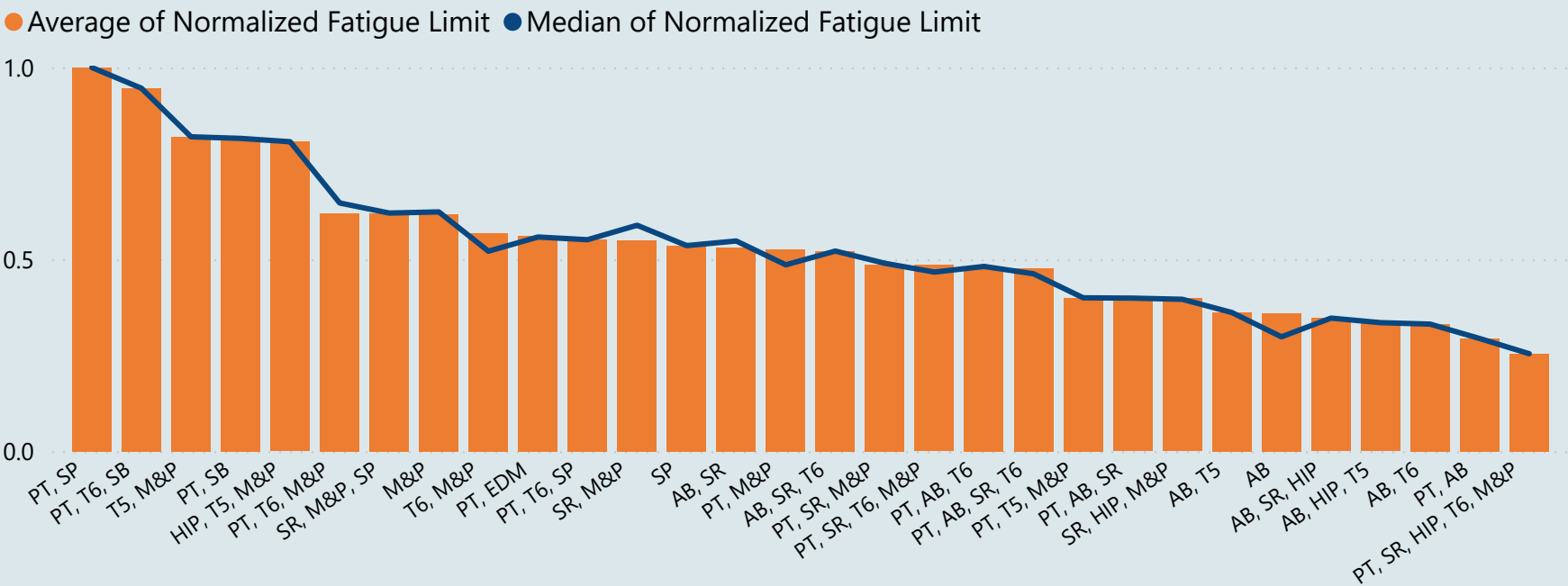
Stress ratio

All

Platform

Multiple selections

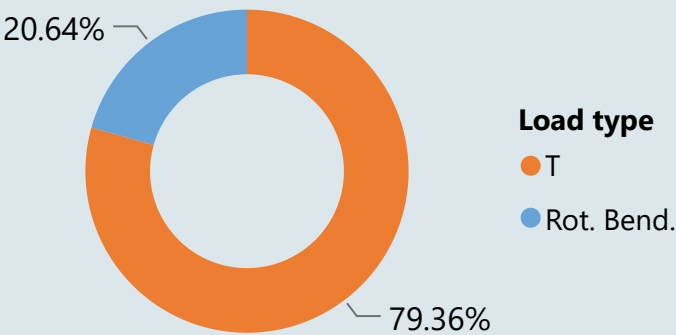
Average and Median Values of Normalized Fatigue Limit by Postprocess Type



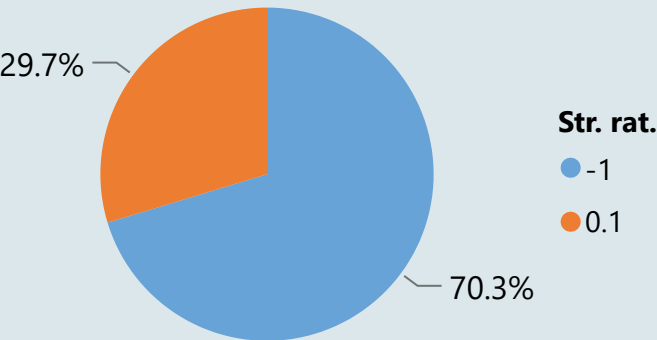
Fatigue Limit

0.54

Proportion of Load Types



Proportion of Stress Ratios



Heat Treatment	Quantity
no	80
SR	58
T6	28
SR, T6	10
SR, HIP	8
T5	6

Postprocess	Quantity
M&P	116
AB	41
P	15
M&P, SP	11
EDM	4
SB	4

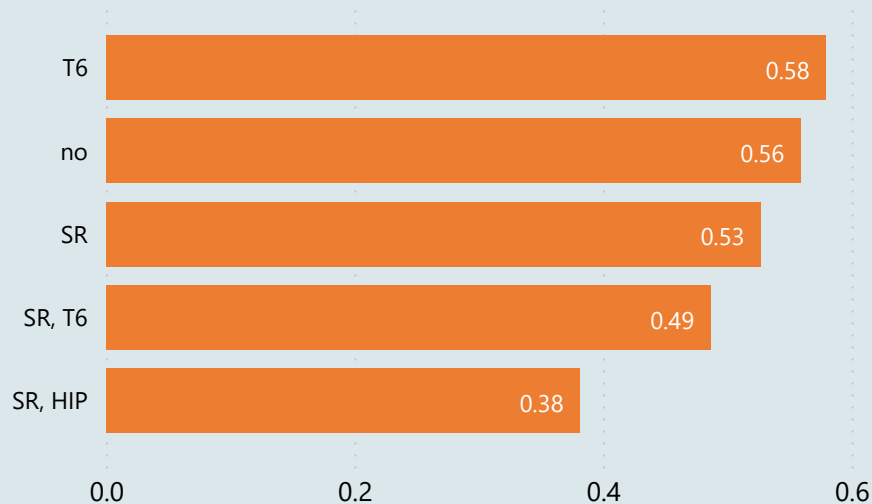
AM System	Quantity
Sharon Tuvia (1982), Ltd.	22
SLM 500	20
Renishaw AM400	19
EOS M400	18
Trumpf TrumaForm LF130	18

Fatigue Strength of AM Aluminum Alloy: Treatment

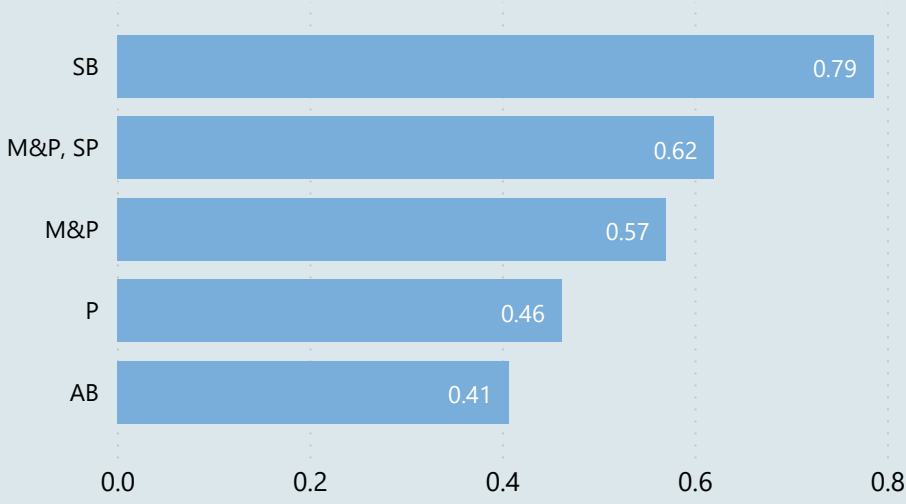
Fatigue Limit

0.54

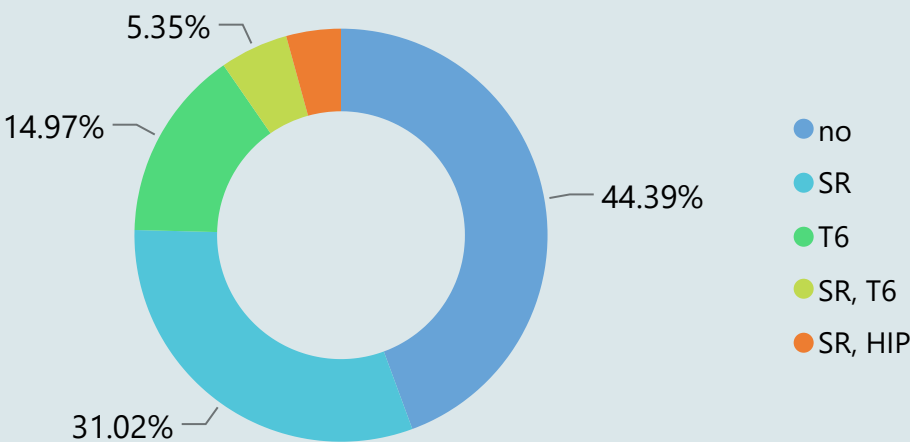
Normalized Fatigue Limit by Heat Treatment Type



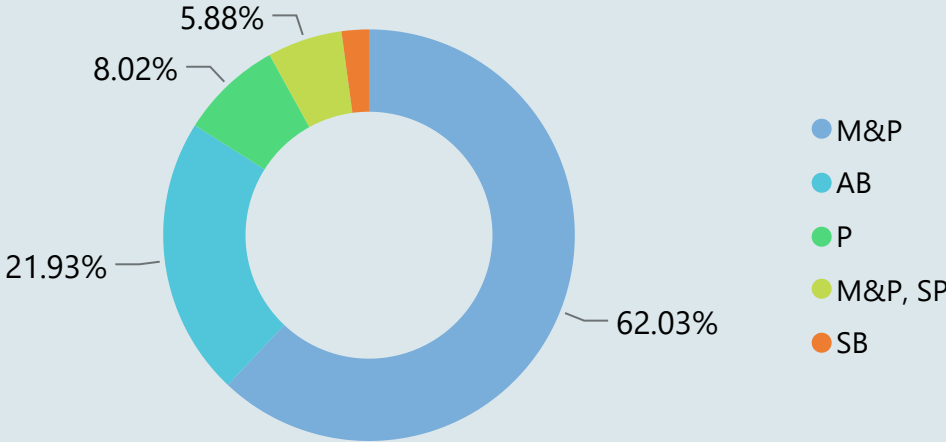
Normalized Fatigue Limit by Surface Treatment Type



Proportion of Heat Treatment Types



Proportion of Surface Treatment Types



Str. ratio

All

Load type

All

AM Syst...

All

Postproc...

All

Platform

All

Build. dir.

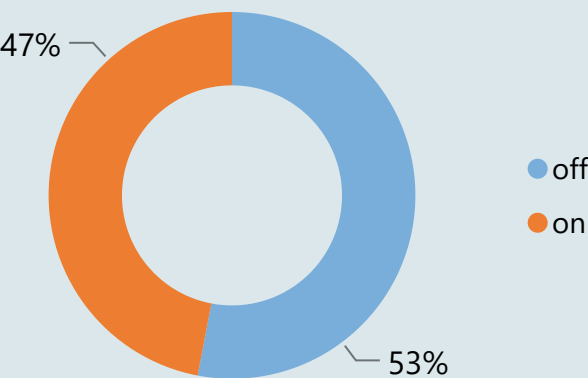
All

Fatigue Strength of AM Aluminum Alloy: Processing

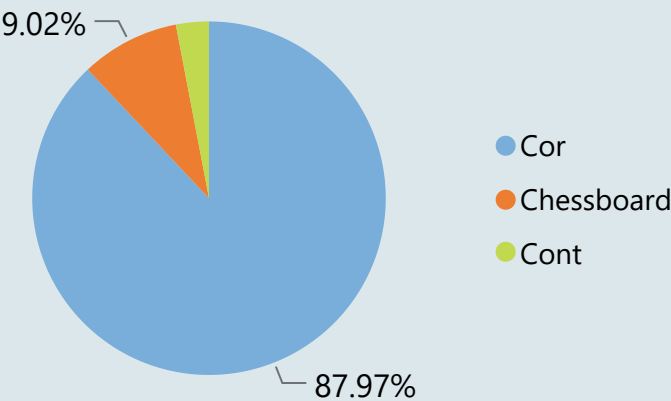
Fatigue
Limit

0.54

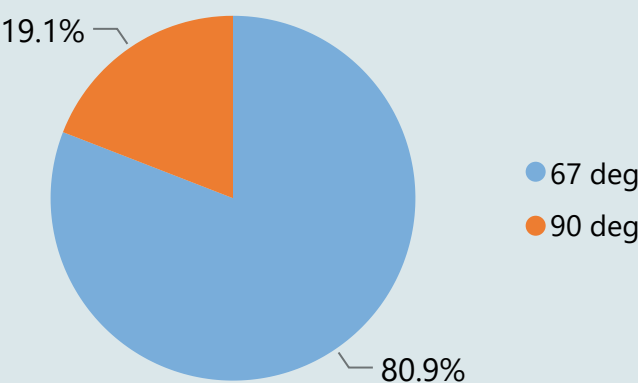
Proportion of Printing with Platform
Switched Off/On



Proportion of Scan Strategies



Proportion of Scan Angles



Str. ratio

All

Load type

All

Process ...

All

Platform

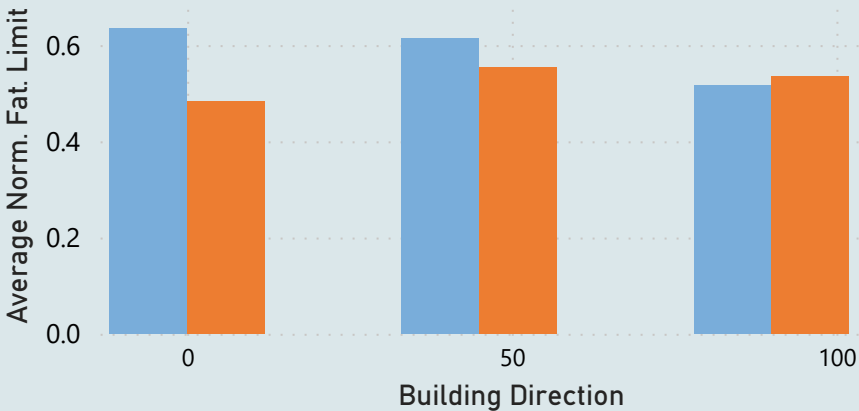
All

Build. dir.

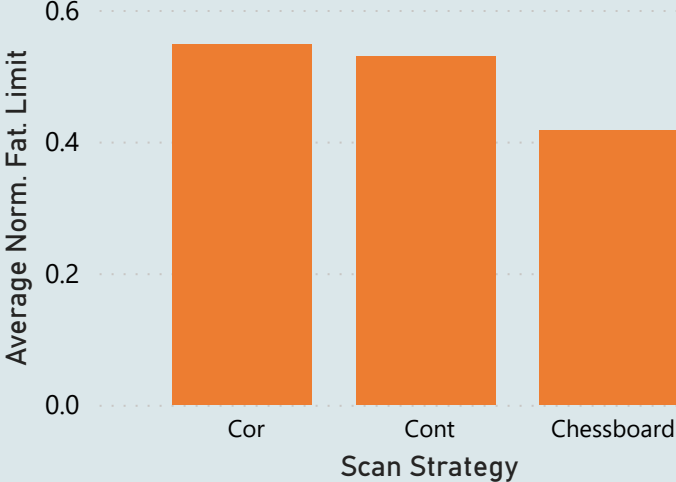
All

Normalized Fatigue Limit by Building Direction

Platform



Normalized Fatigue Strength by Scan Strategy



Normalized Fatigue Limit by Scan Angle

