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**MAG**

**AM**

1.

2022 8 1 9 1 , .

2.

AM

3.

7 31  
8 1 9 1 ,  
9 2

4.

(MTEC)

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: Dr. Nirut Naksuk

5.

5.1

1970 NC  
Additive Manufacturing (AM)  
3D AM CAD  
AM MAG AM

5.2

SS400, MAG ER70S-6  
Table 1 SS400 MAG  
AM Fig. 1 Fig.  
1 Fig. 2, Fig. 3

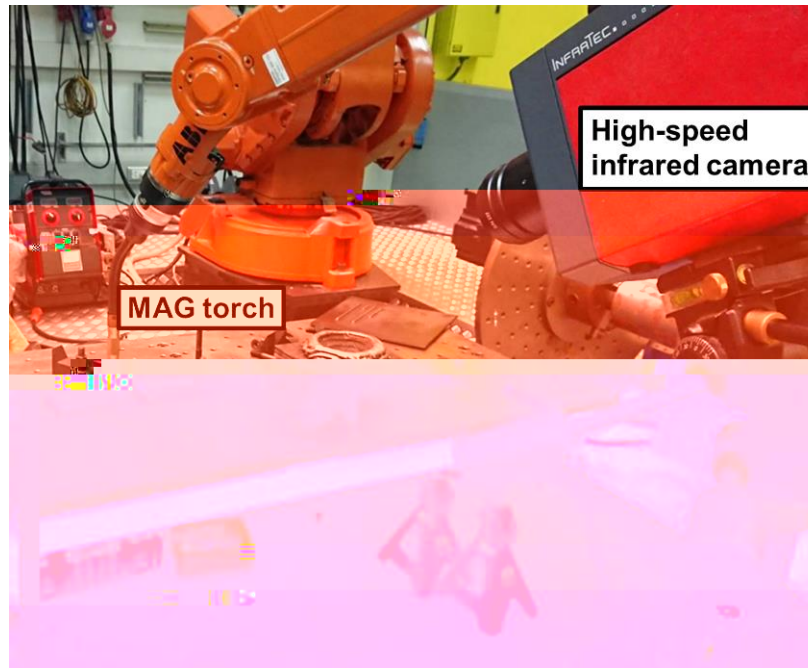
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1.5, 2.0, 2.5m/min

, 4

	Cu	Fe	ER-70S	C	Mn	Si	S	P
16	0.05	Bal.		0.07	1.48	0.87	0.012	0.0



Arc voltage, V	18.5
Welding speed, m/min	1.5, 2.0, 2.5
Wire feeding speed, m/min	2.4
Arc distance, mm	12
Welding length, mm	90
Shielding gas	Ar+CO <sub>2</sub>
Shielding gas flow rate, L/min	20

Fig. 2 Welding condition

camera	IR-Infrared camera
Field of view	640x512
shutter speed, sec	0.05

Fig. 3 Shooting

5.3

Fig. 4

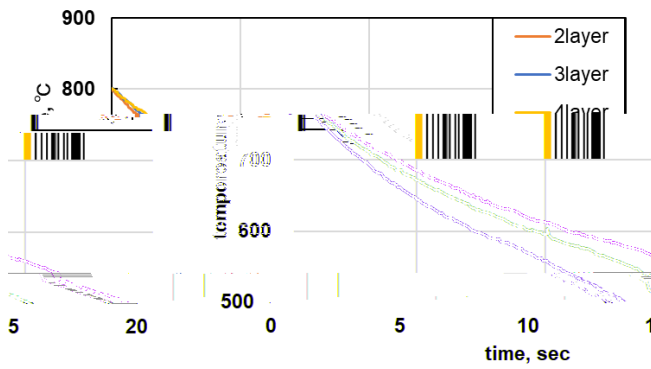
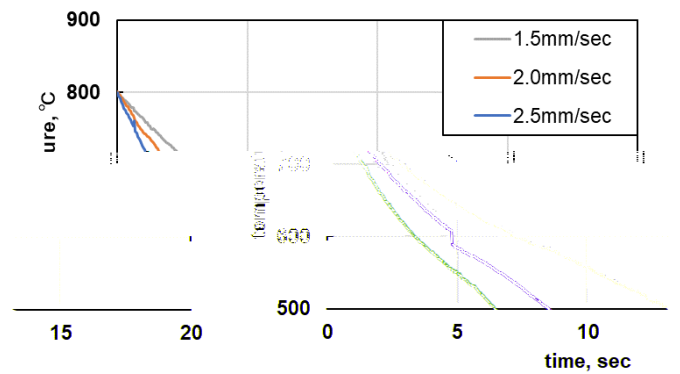
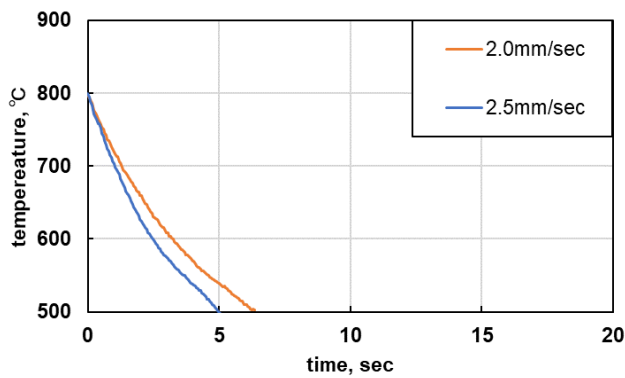
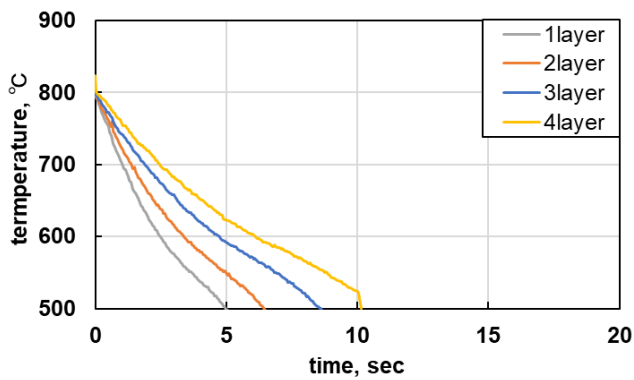
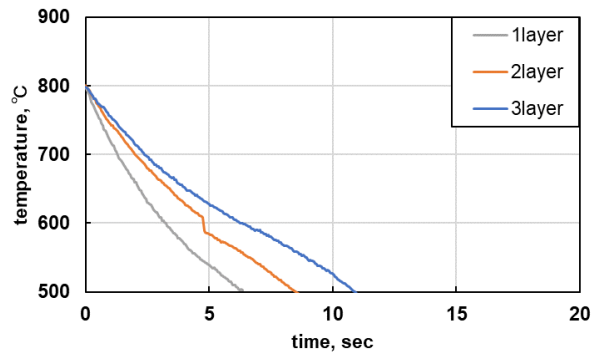
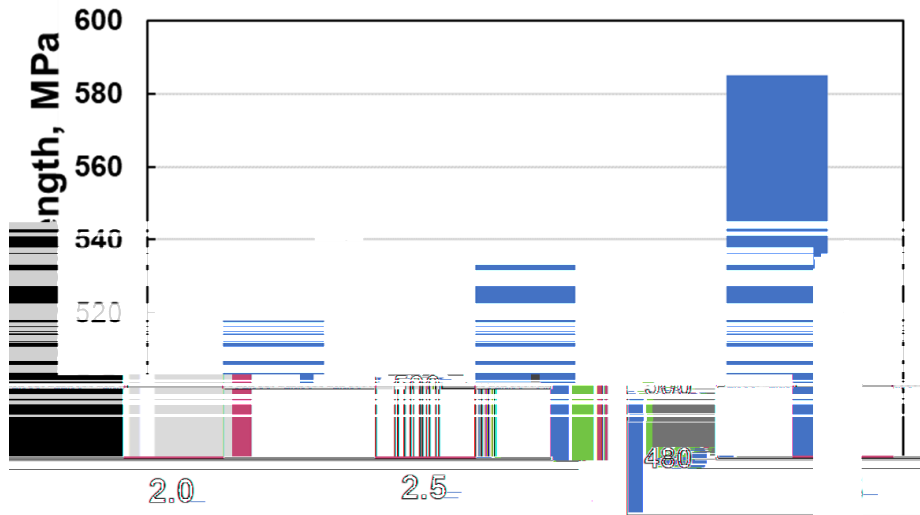
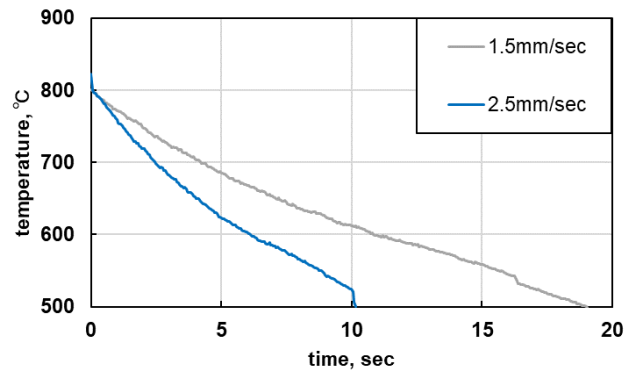
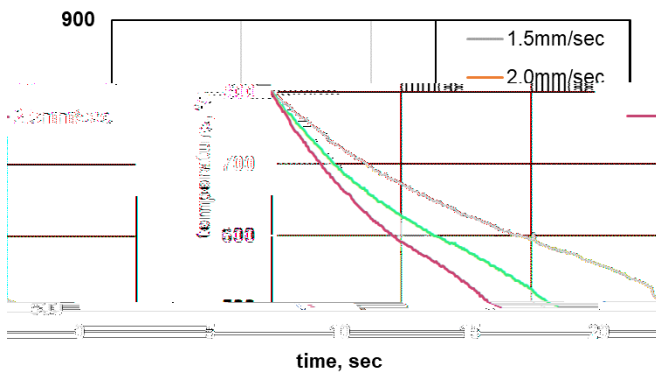


Fig. 4

Fig. 5

Fig. 6





6

1

7

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