

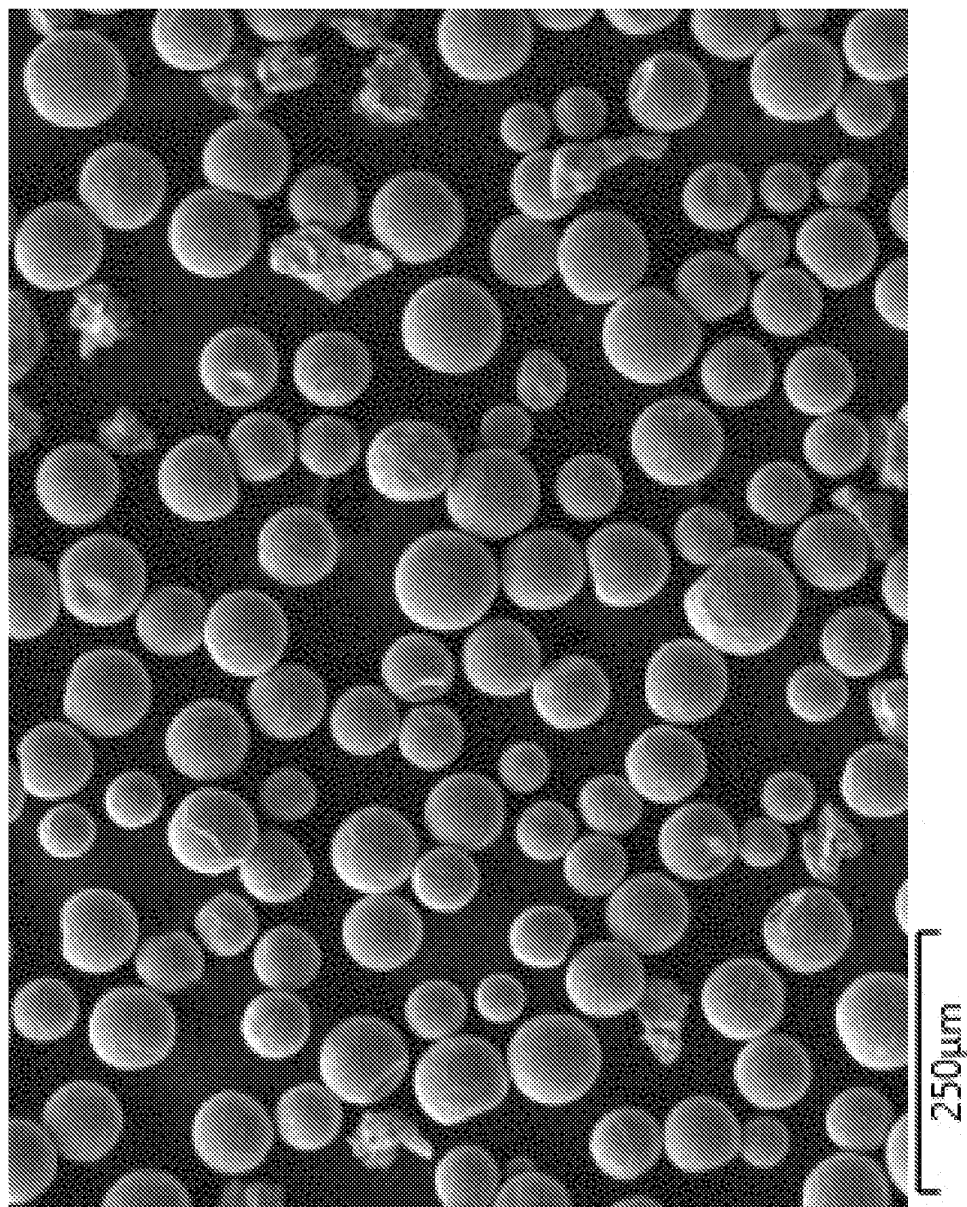


FIG. 1

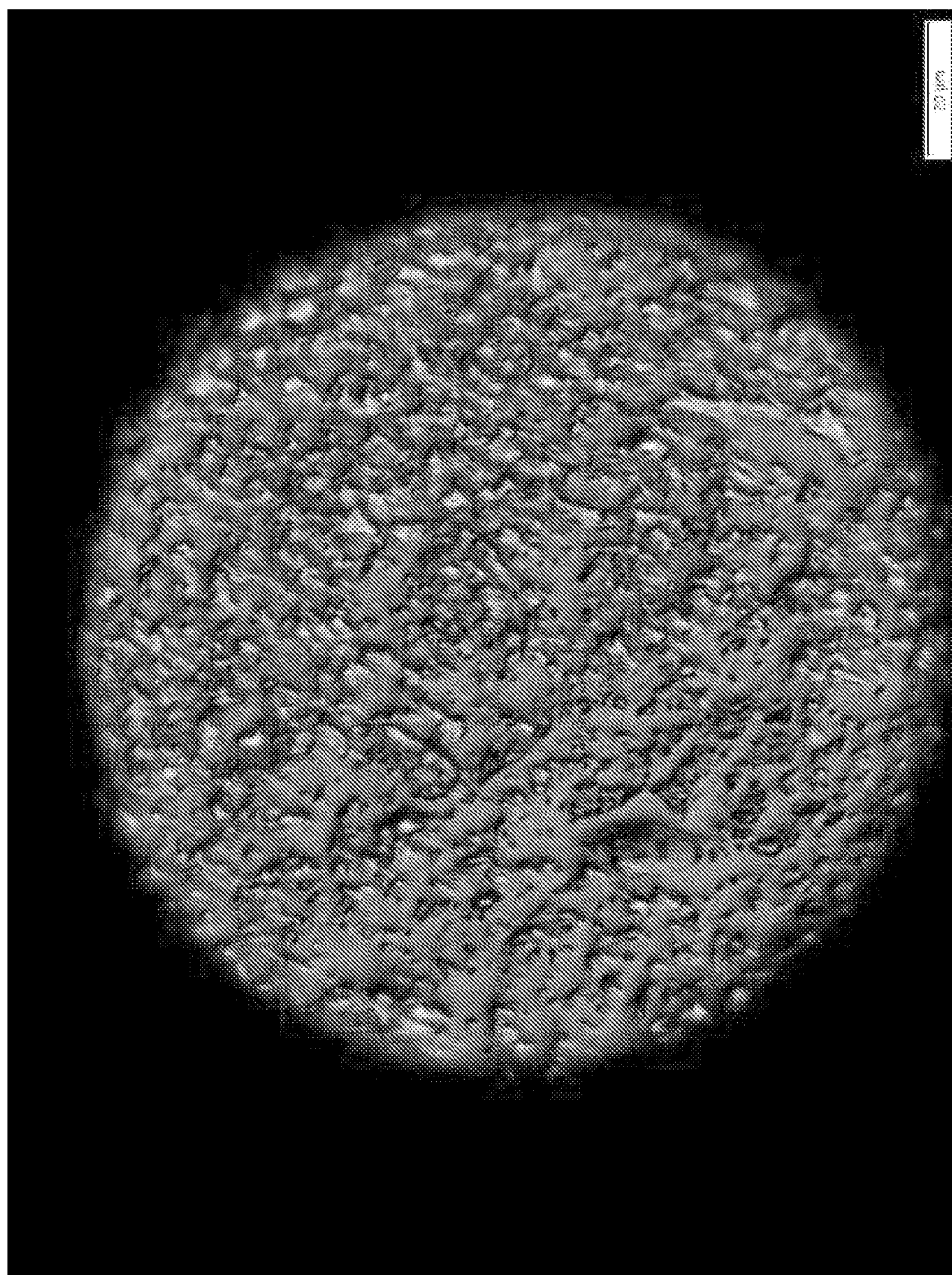


FIG. 2

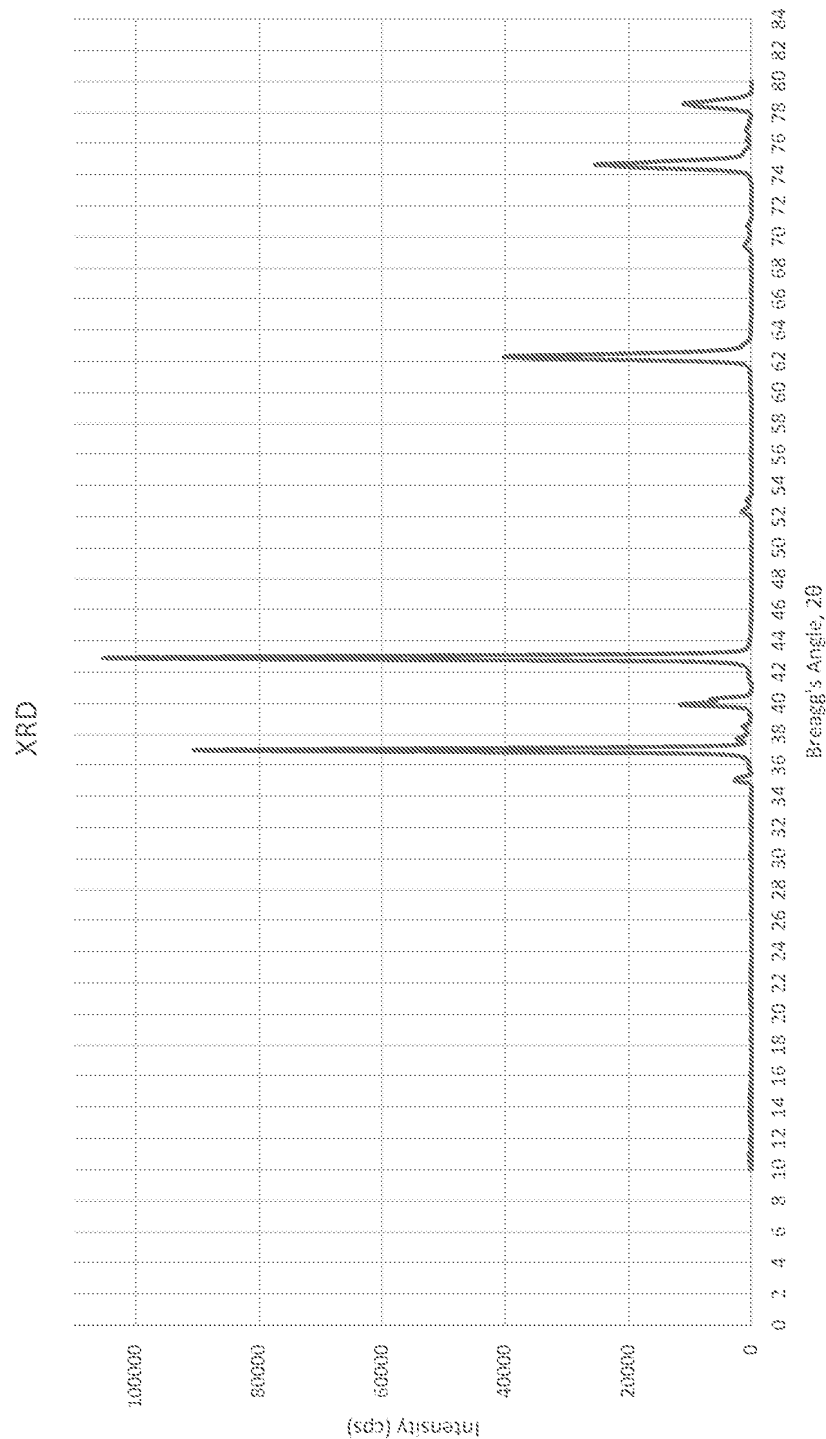


FIG. 3

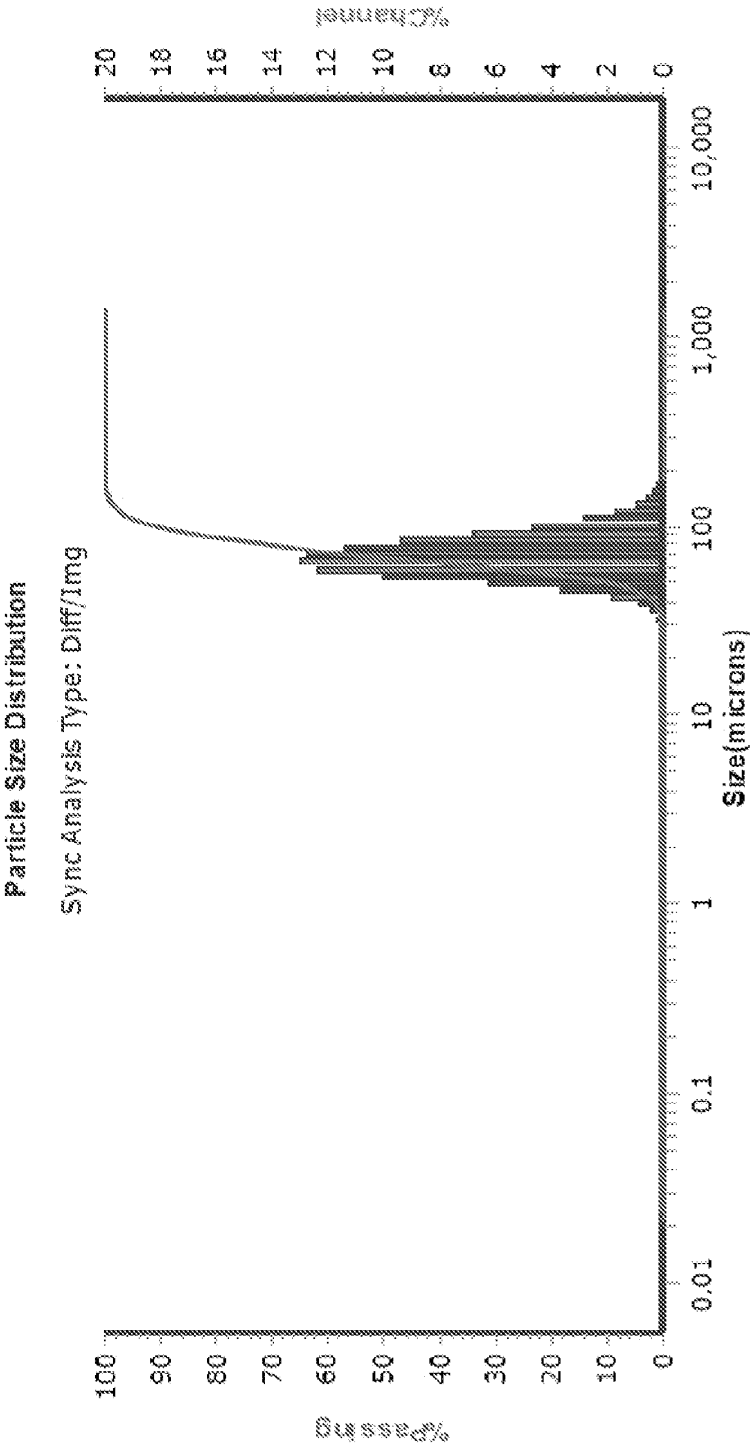


FIG. 4

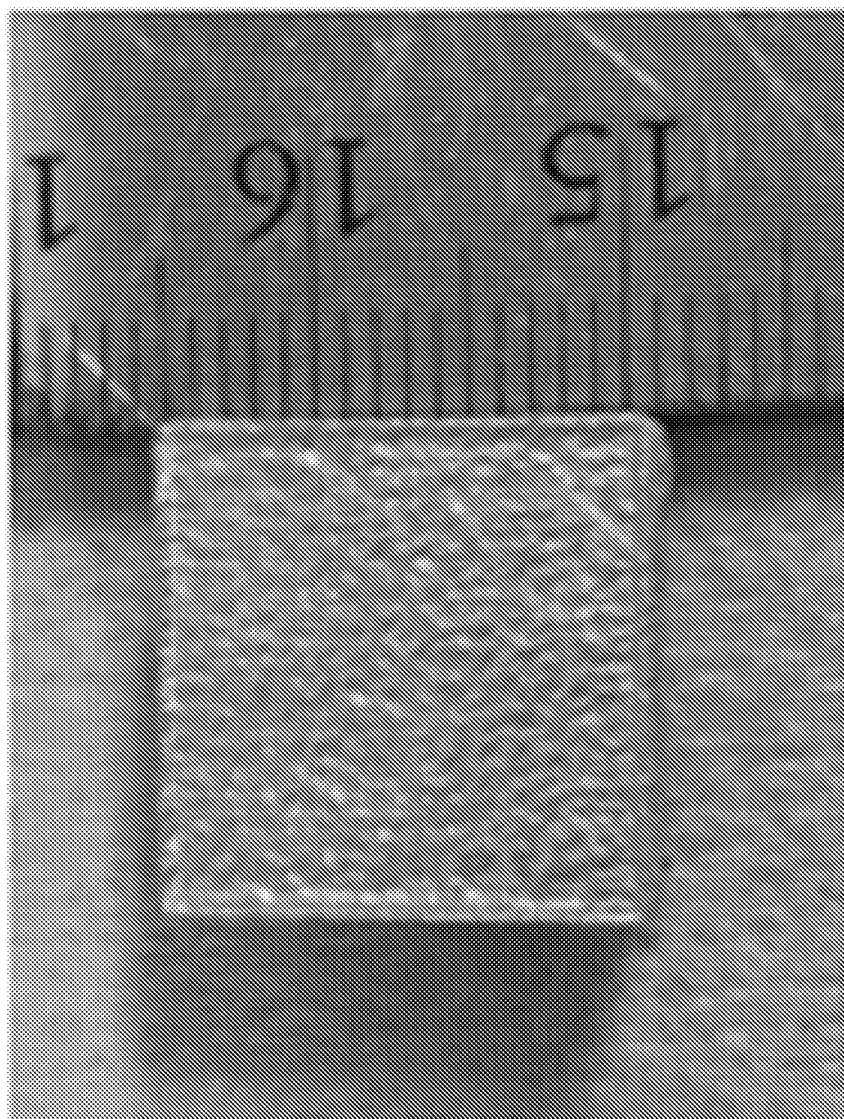


FIG. 5A

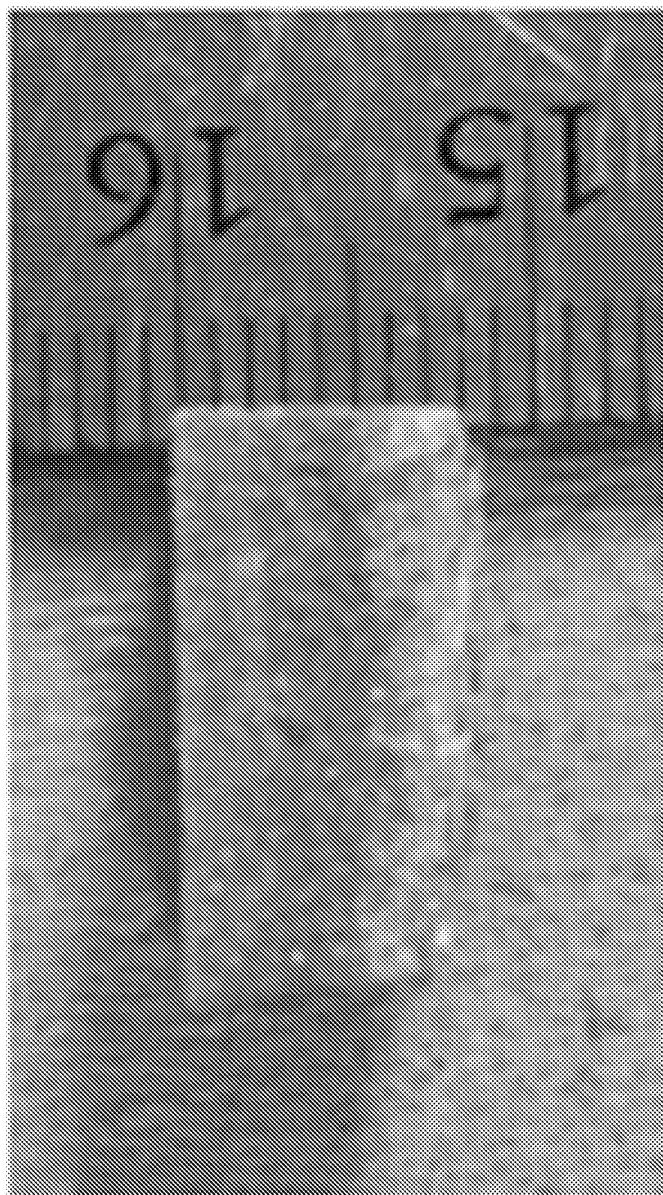


FIG. 5B

Form	Sample	Chemistry (Wt%)				%Phases			
		Ti	N	Fe	O	TiN	Ti ₂ N	α-Ti	
Powder	Reference Powder	79.8	19.5	0.102	0.518	99.2	0.1	0.64	
Powder	45-106 Micron Powder	86.1	14.2	0.059	0.314	87.7	9.49	2.8	
Printed Part	Intermediate Print	84	14.5	0.935	0.33	31.2	68.8	0.002	
Printed Part	Final Print	84.1	13.62	1.57	0.297	18.4	79.6	2	

FIG. 6

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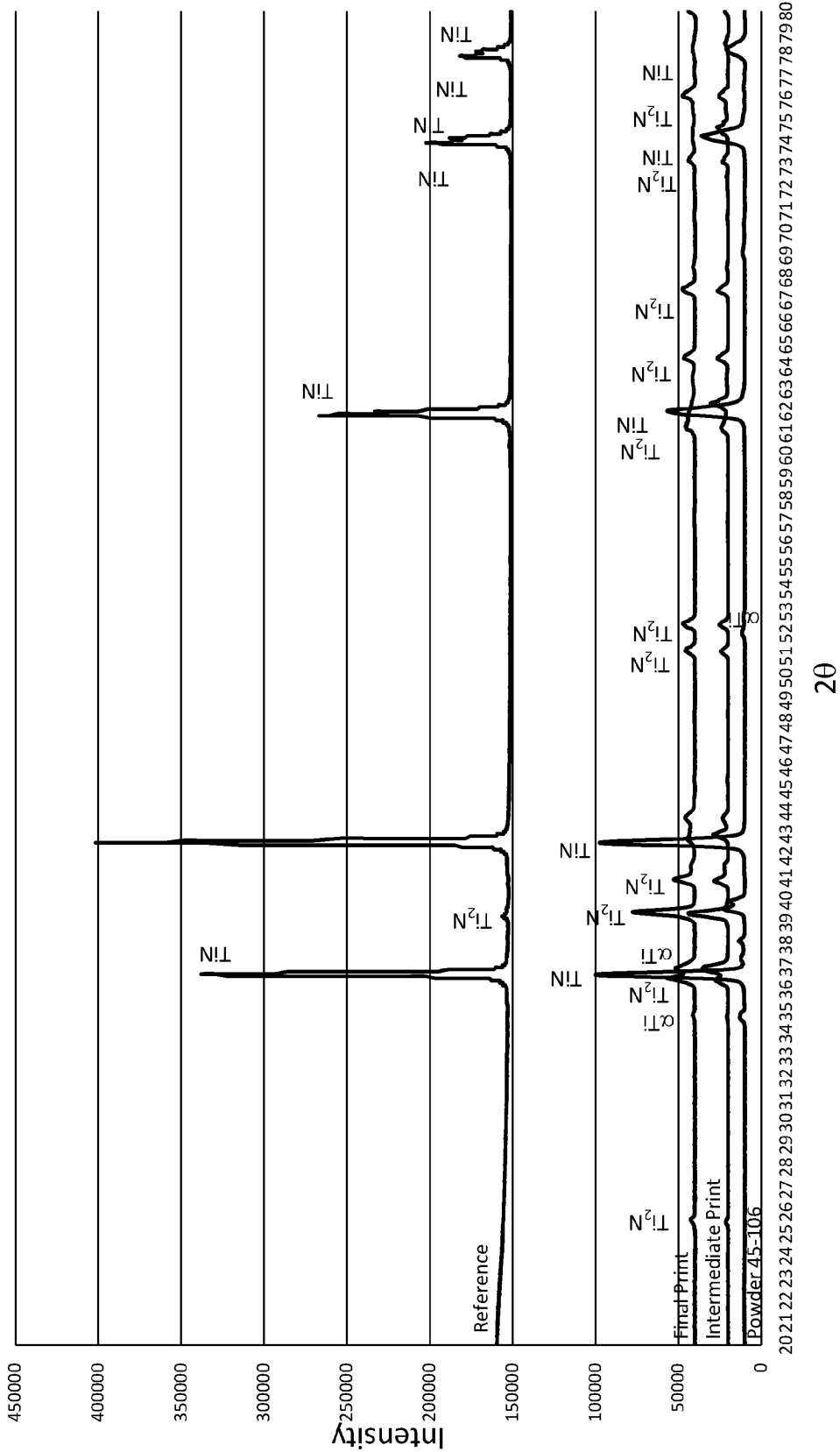


FIG. 7

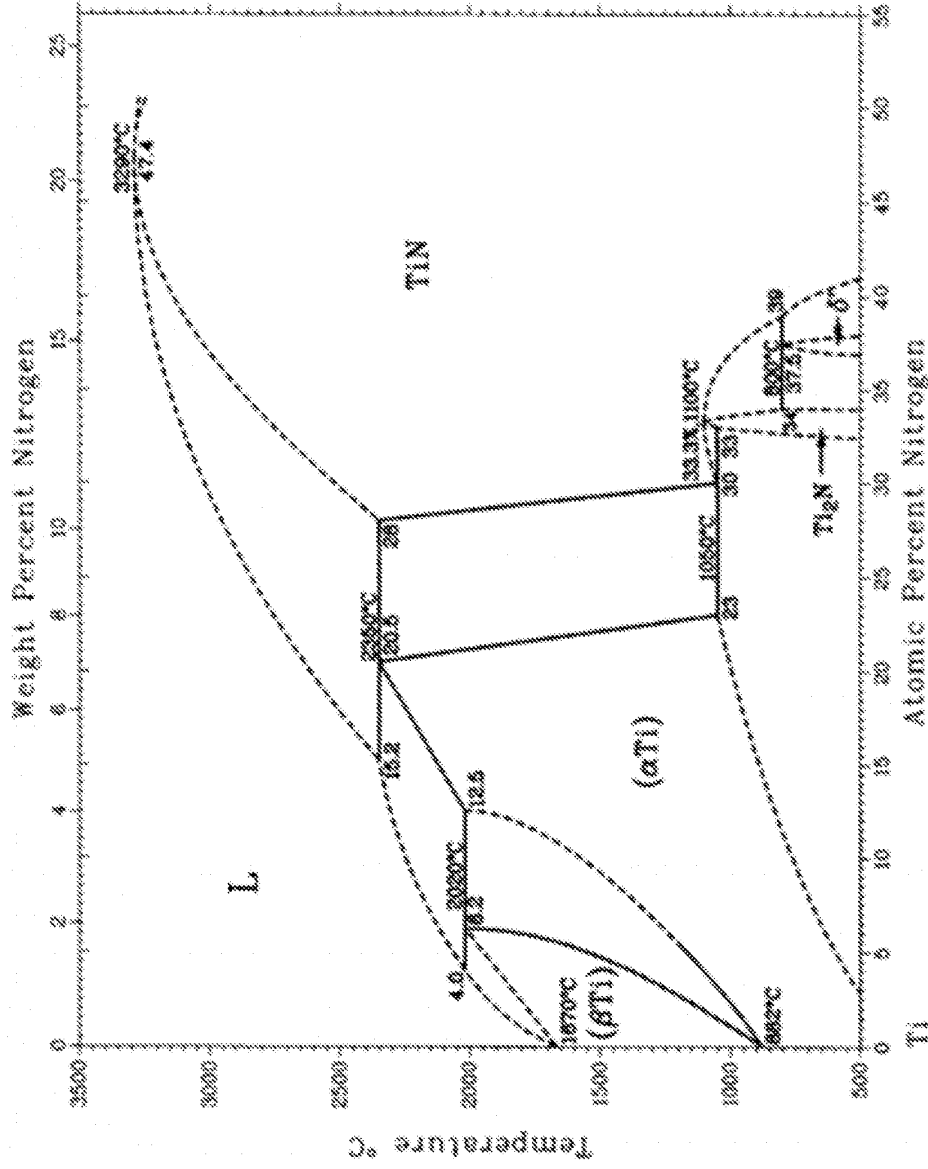


FIG. 8

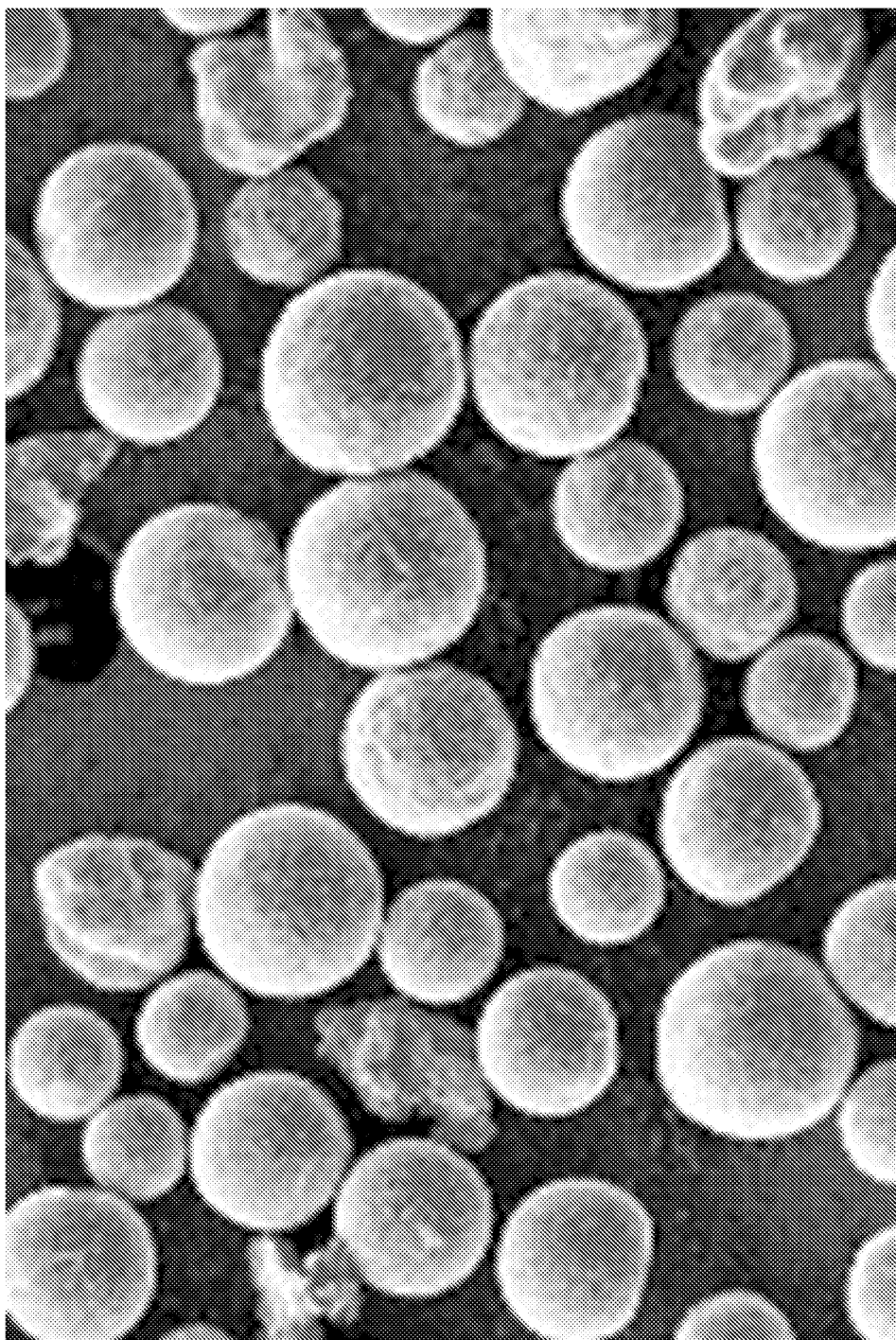


FIG. 9A

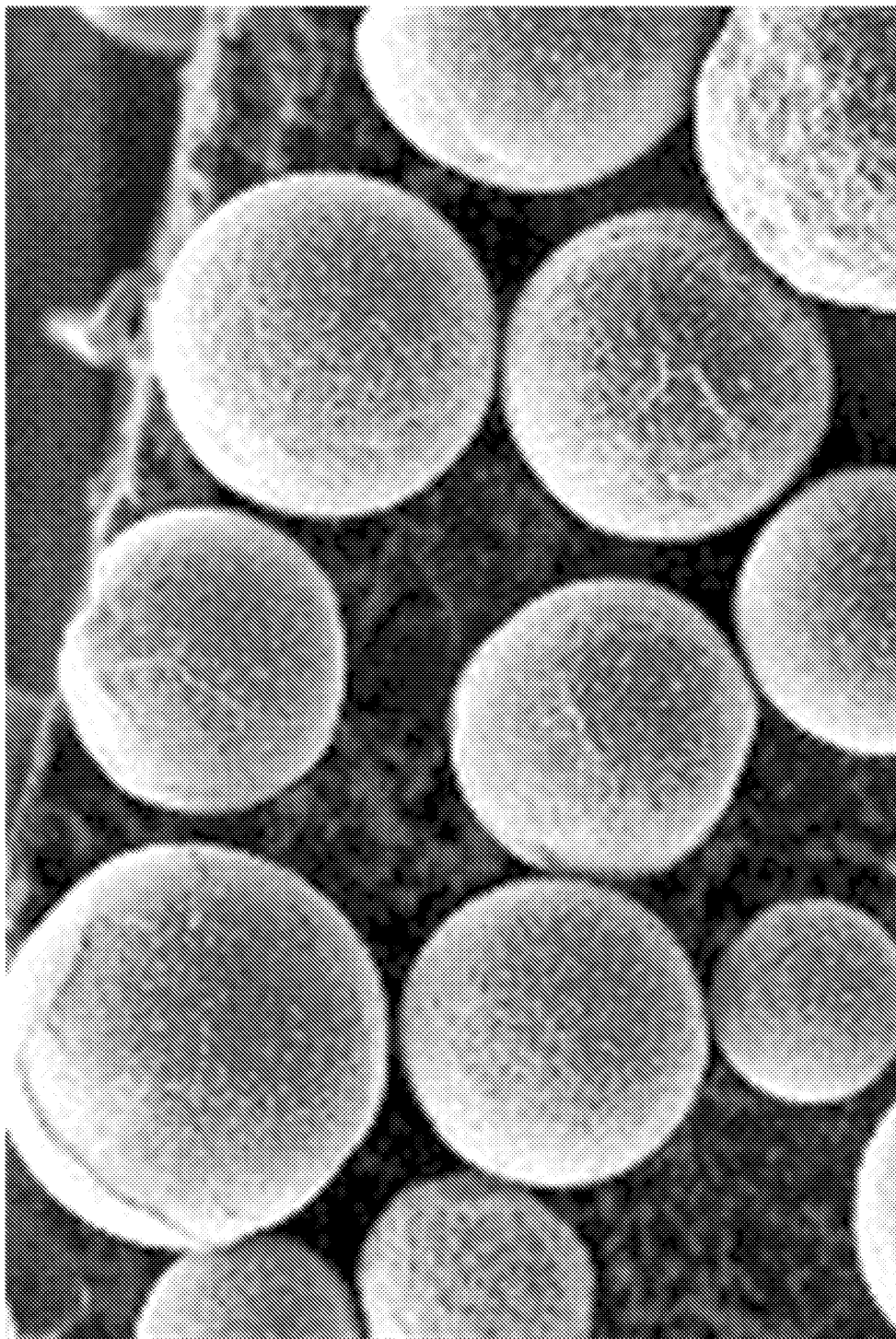


FIG. 9B

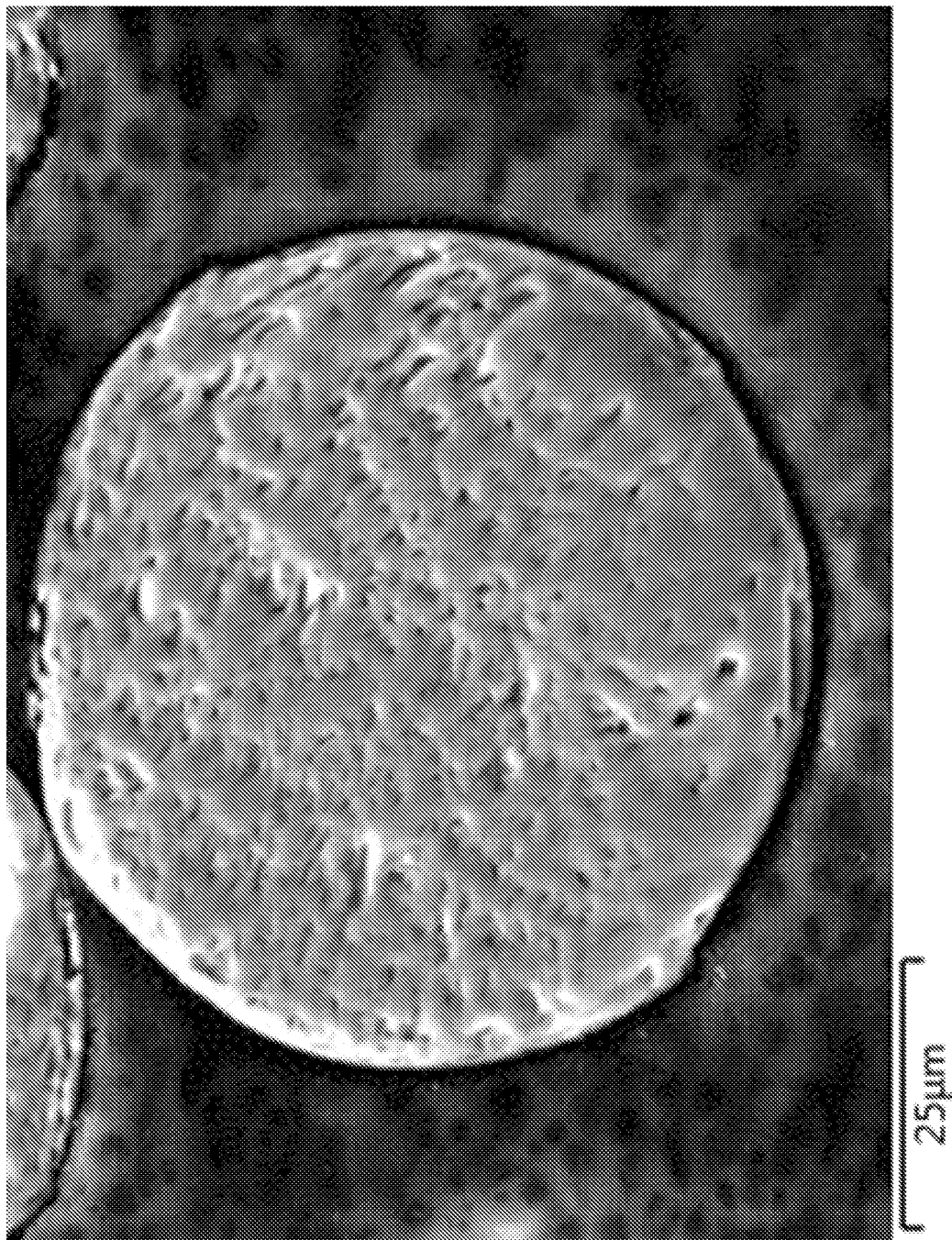


FIG. 9C

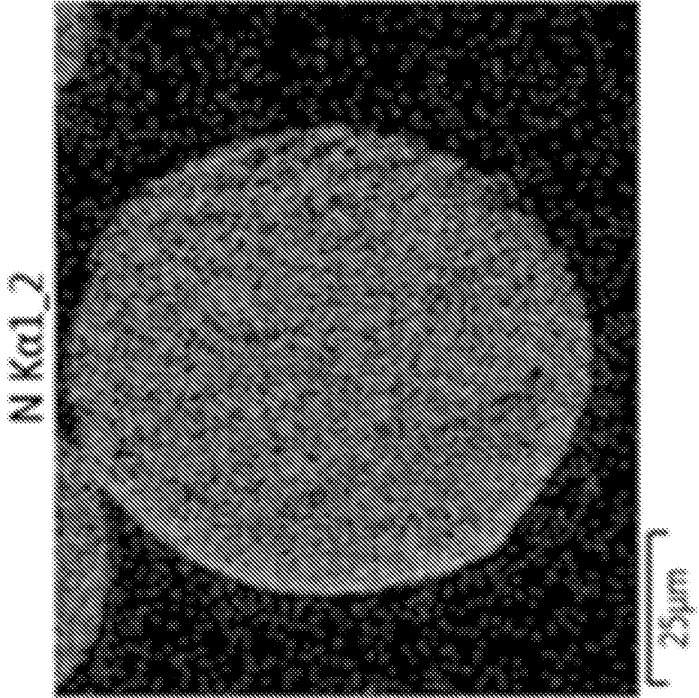


FIG. 9E

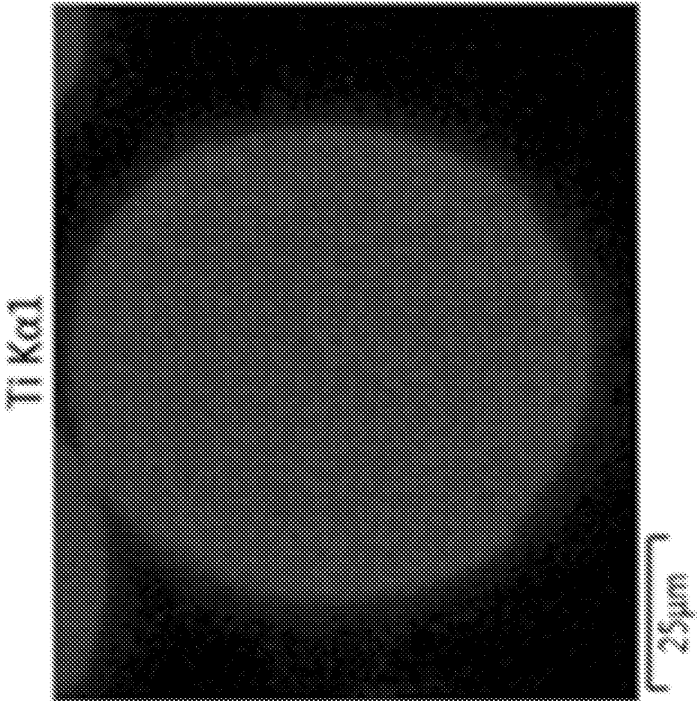


FIG. 9D

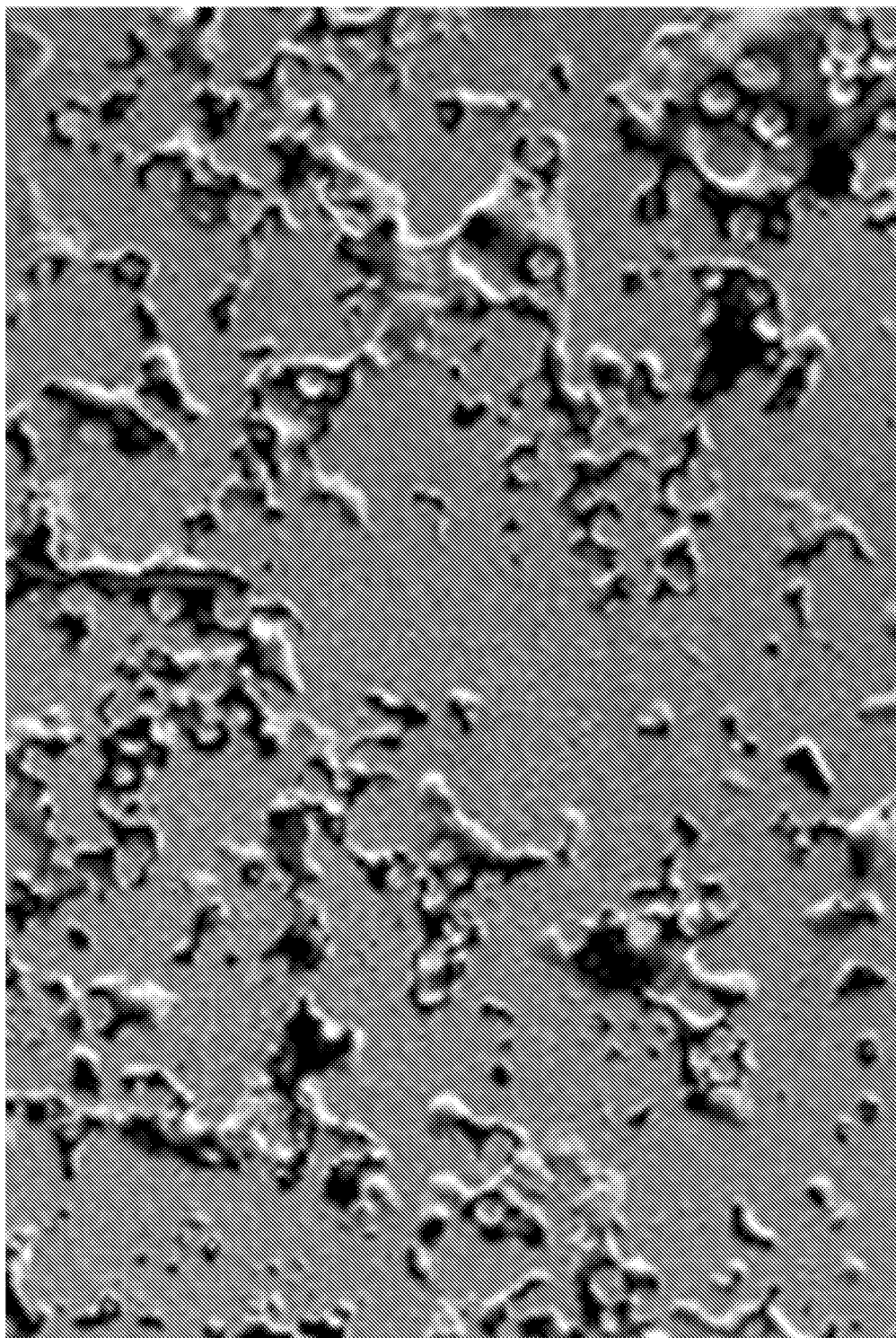


FIG. 10A

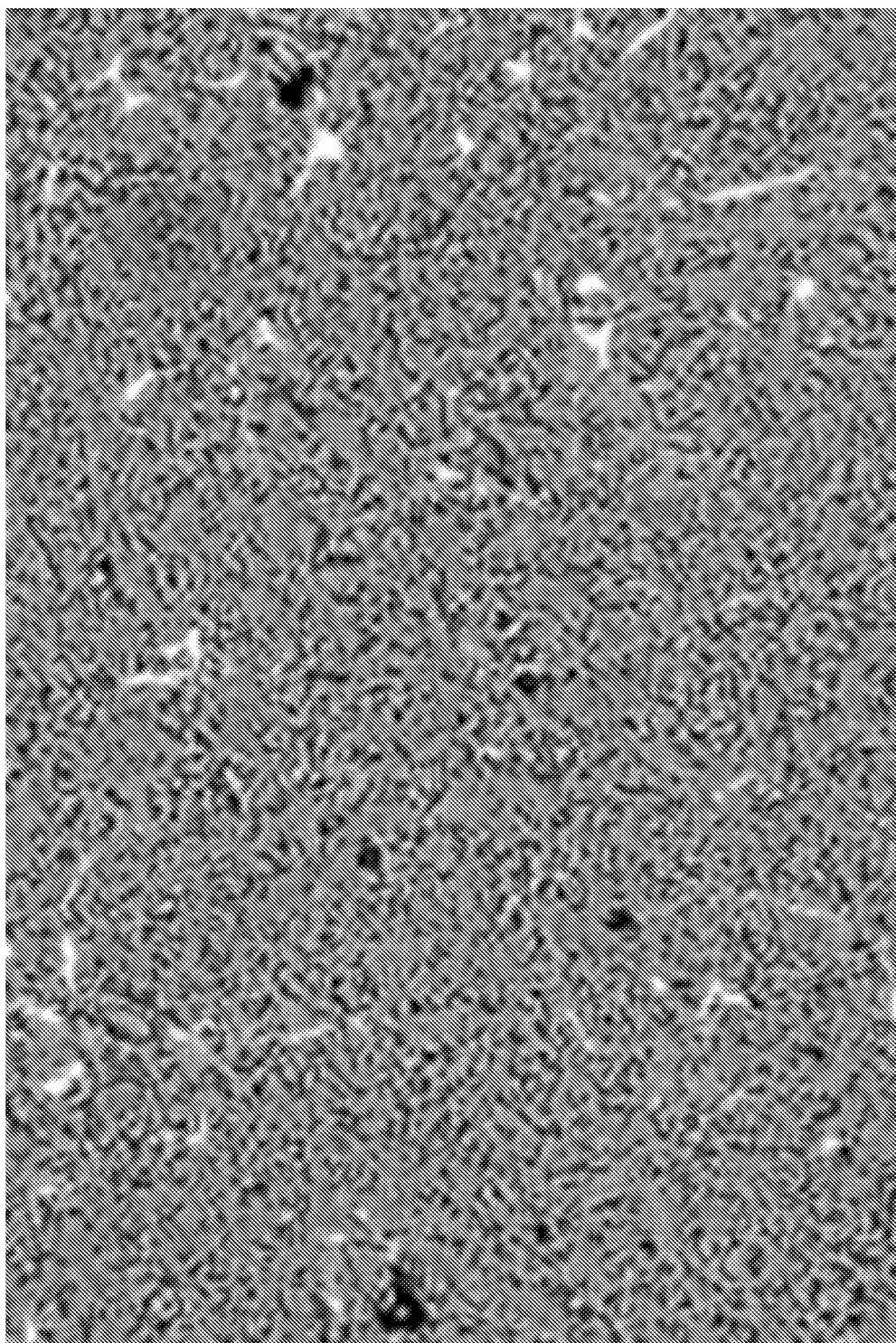


FIG. 10B

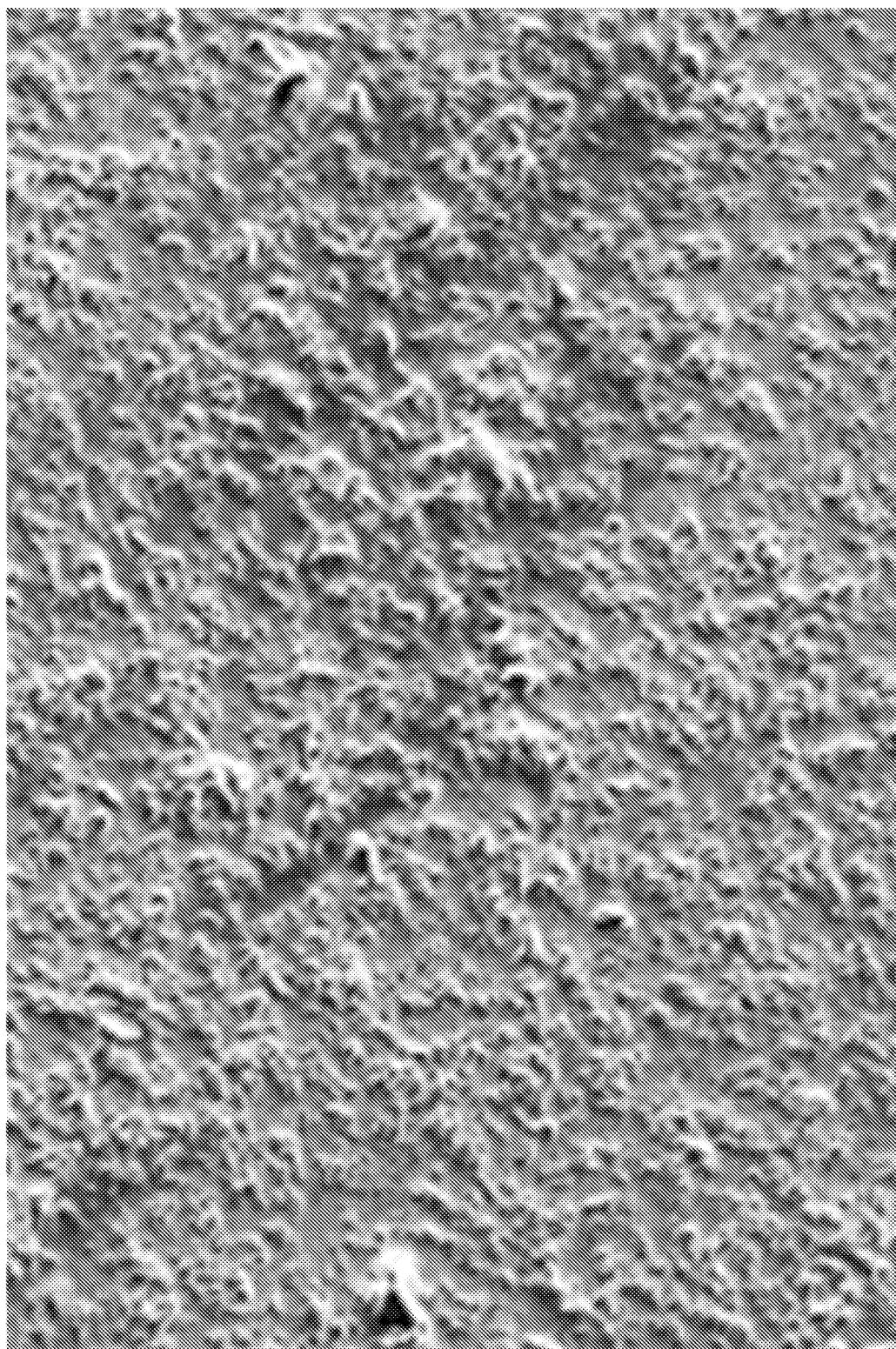


FIG. 10C

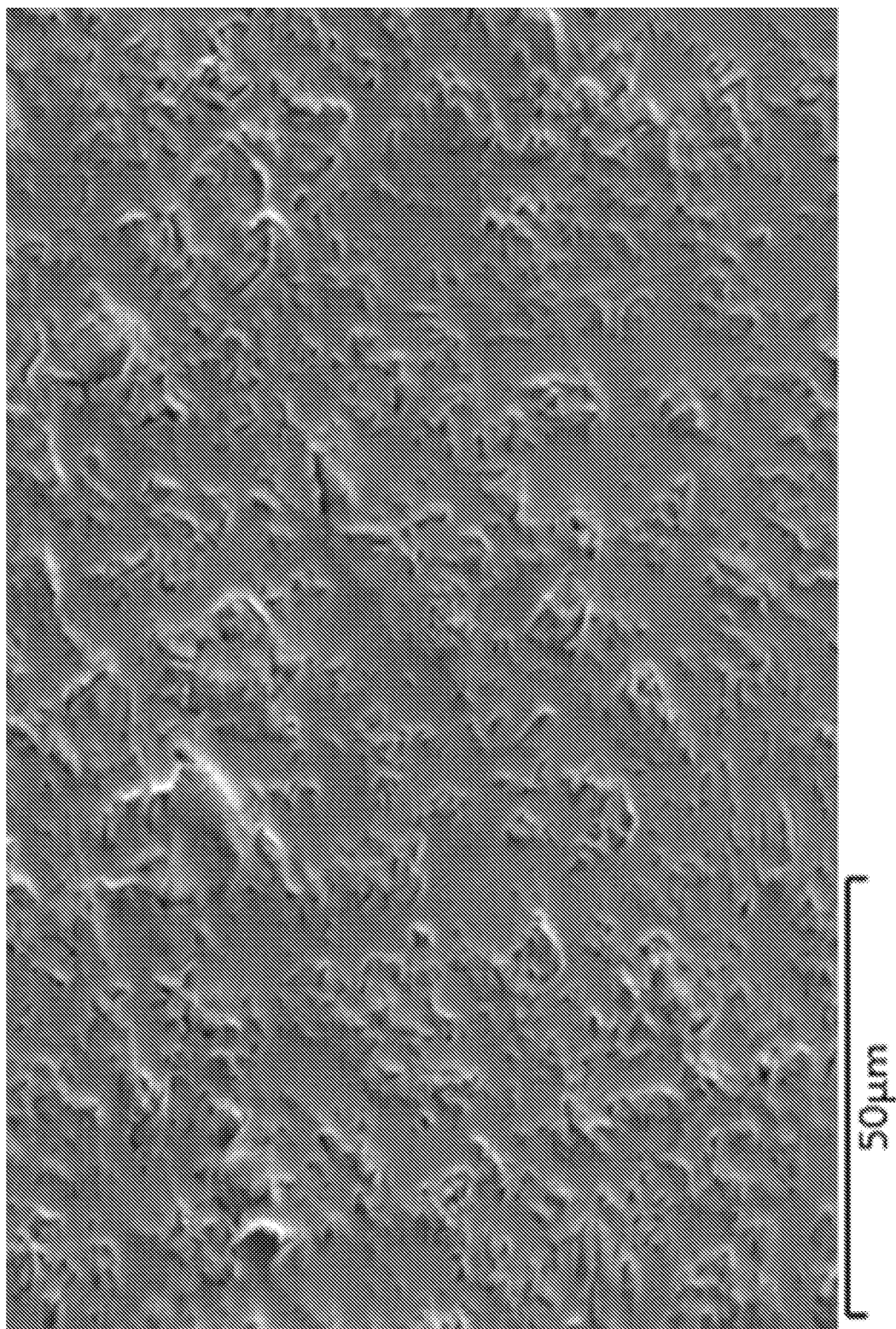


FIG. 10D

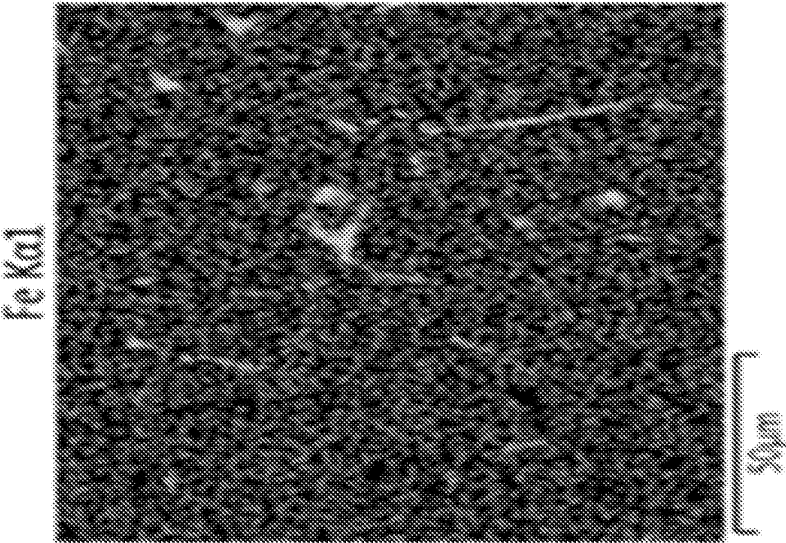


FIG. 10G

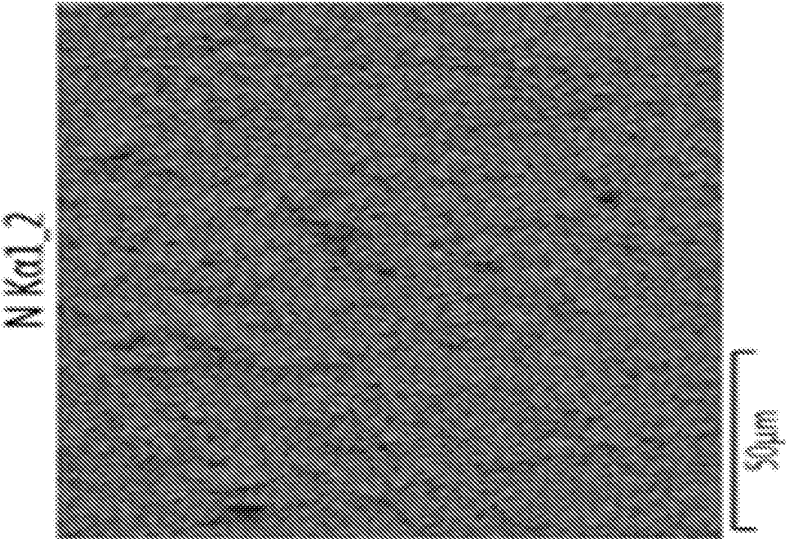
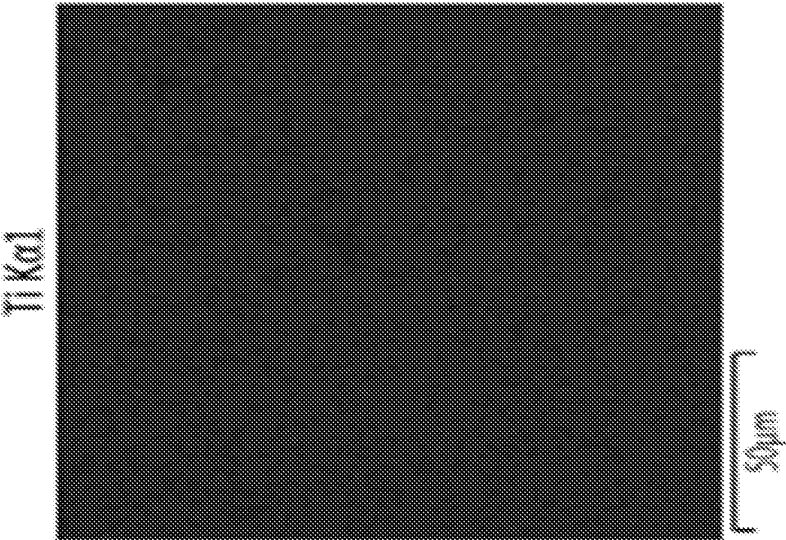


FIG. 10F



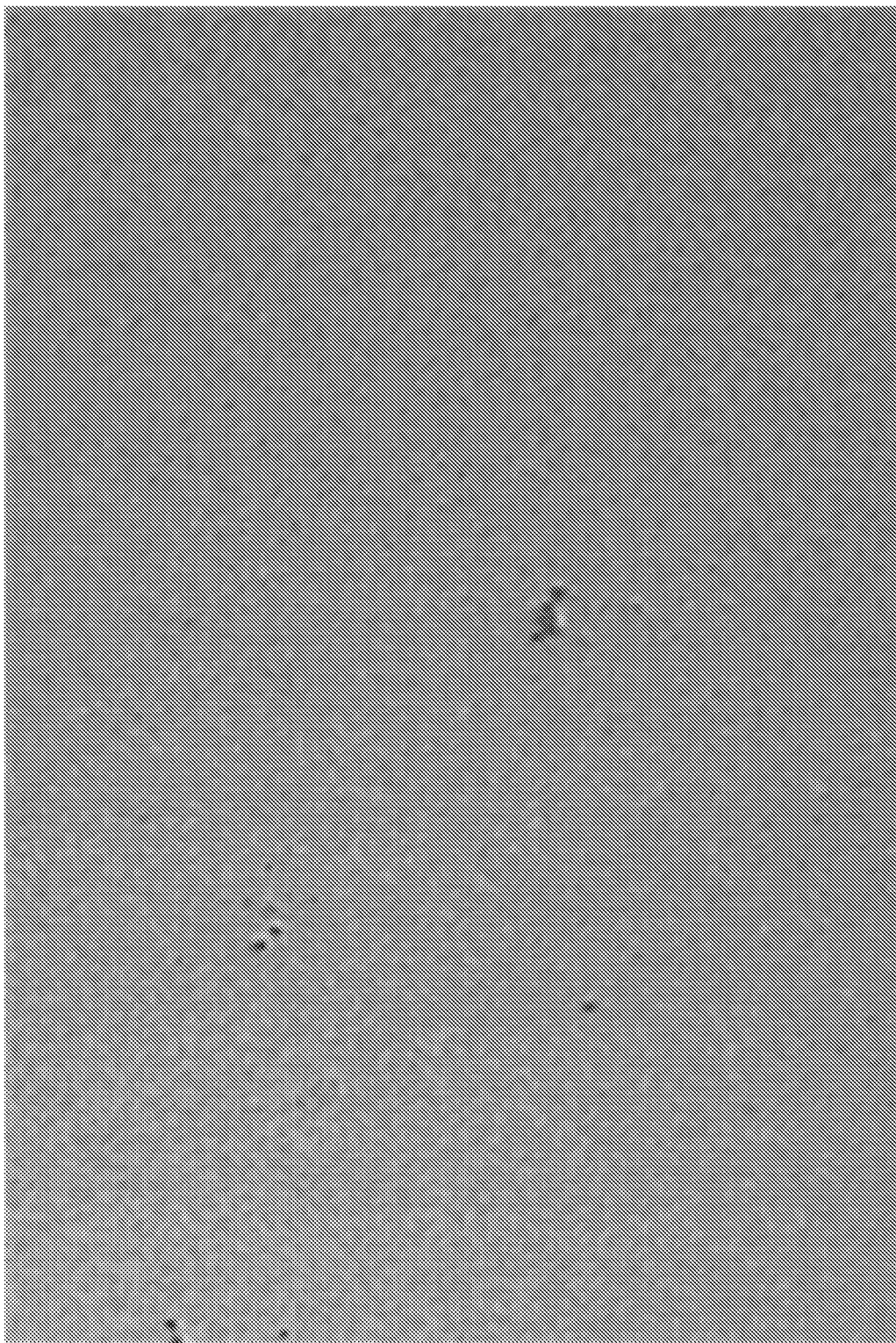


FIG. 11A

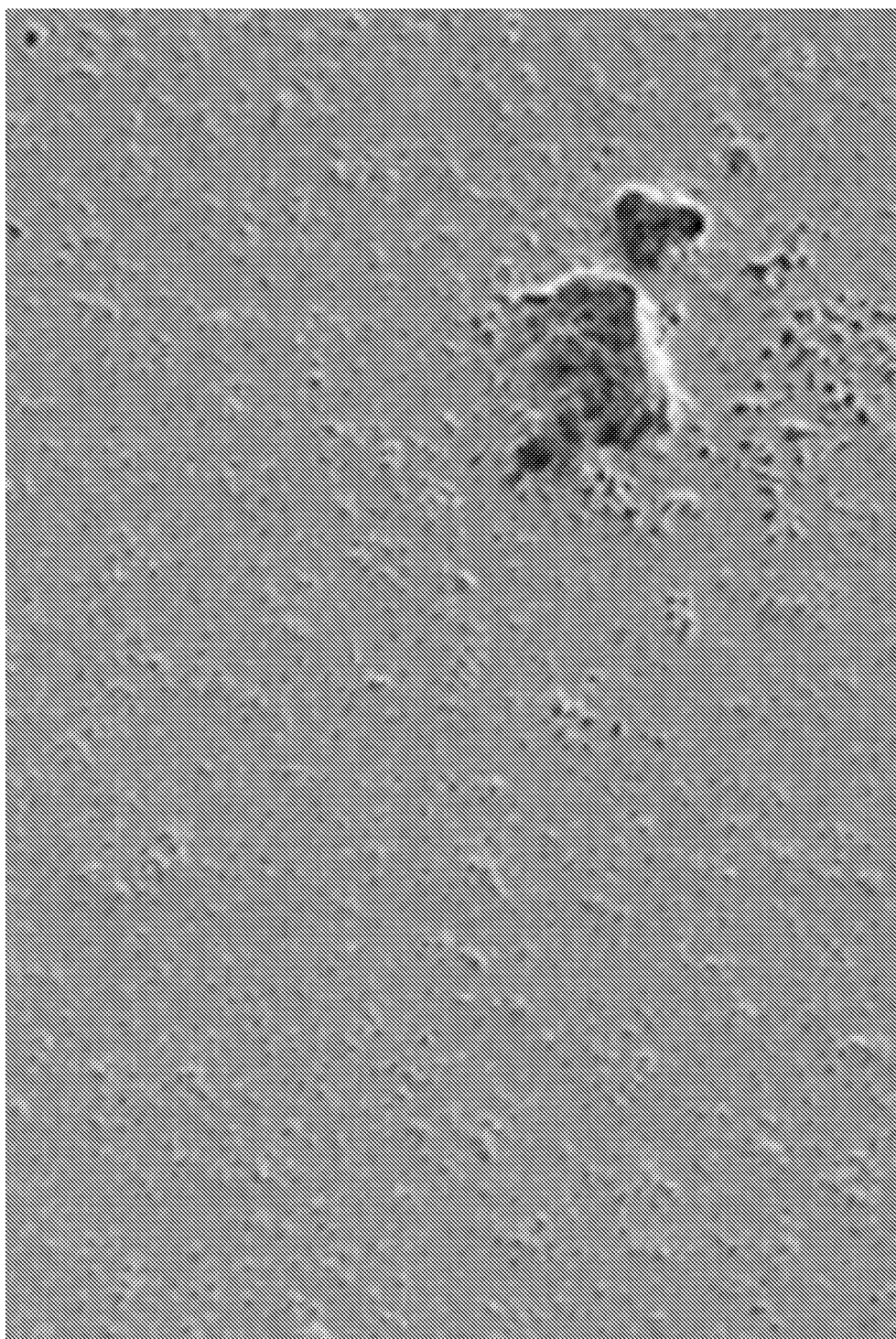


FIG. 11B

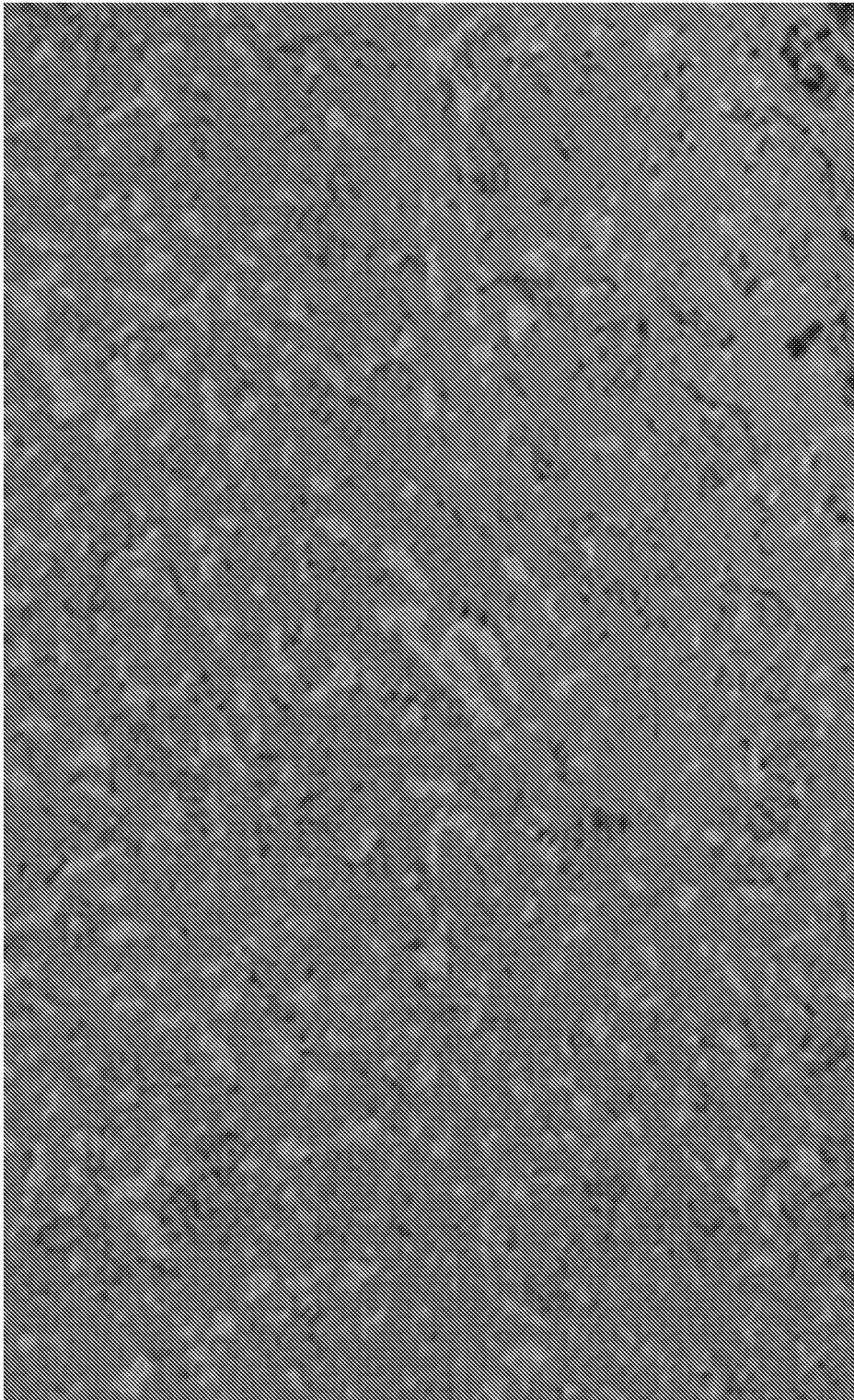


FIG. 11C

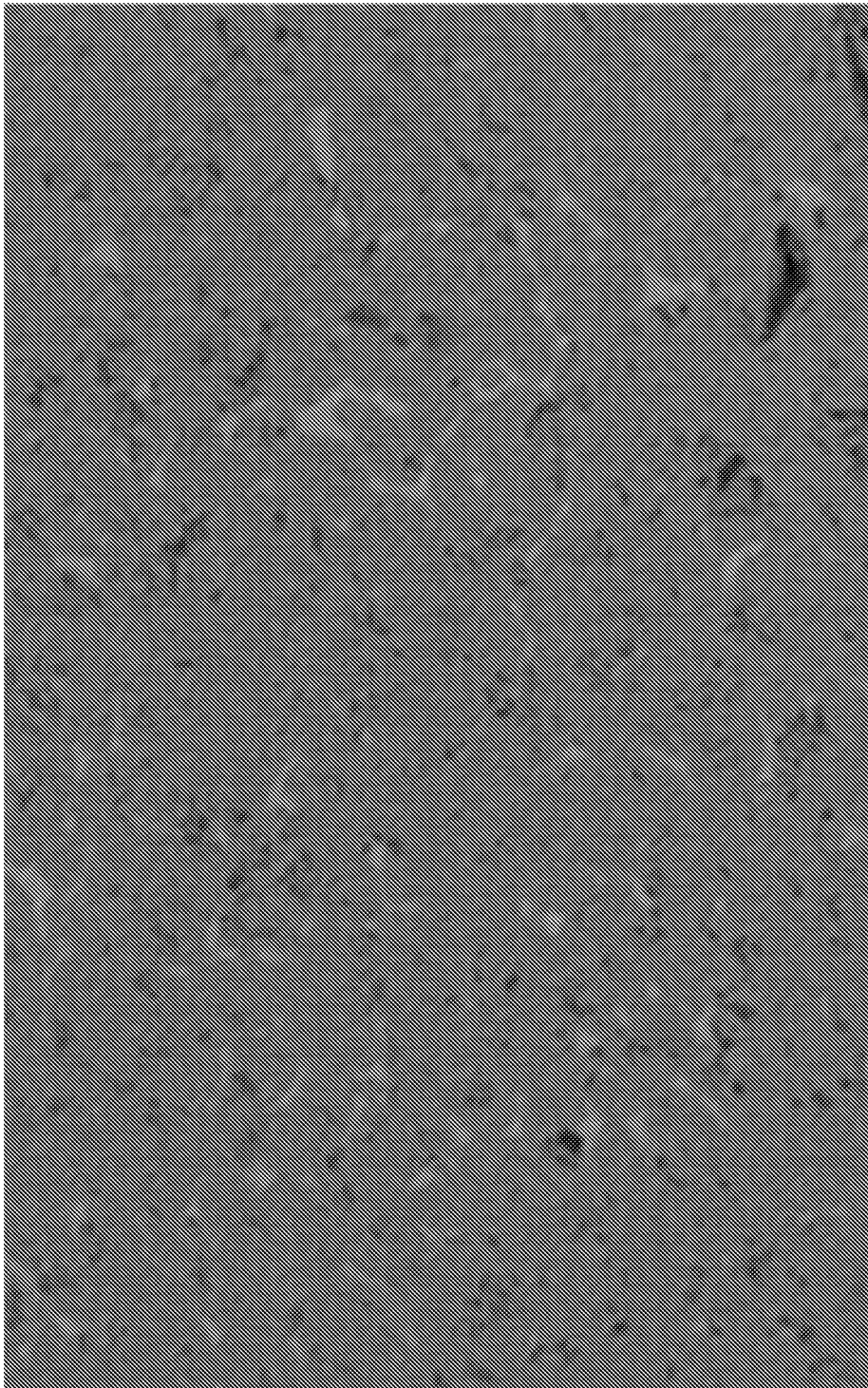


FIG. 11D

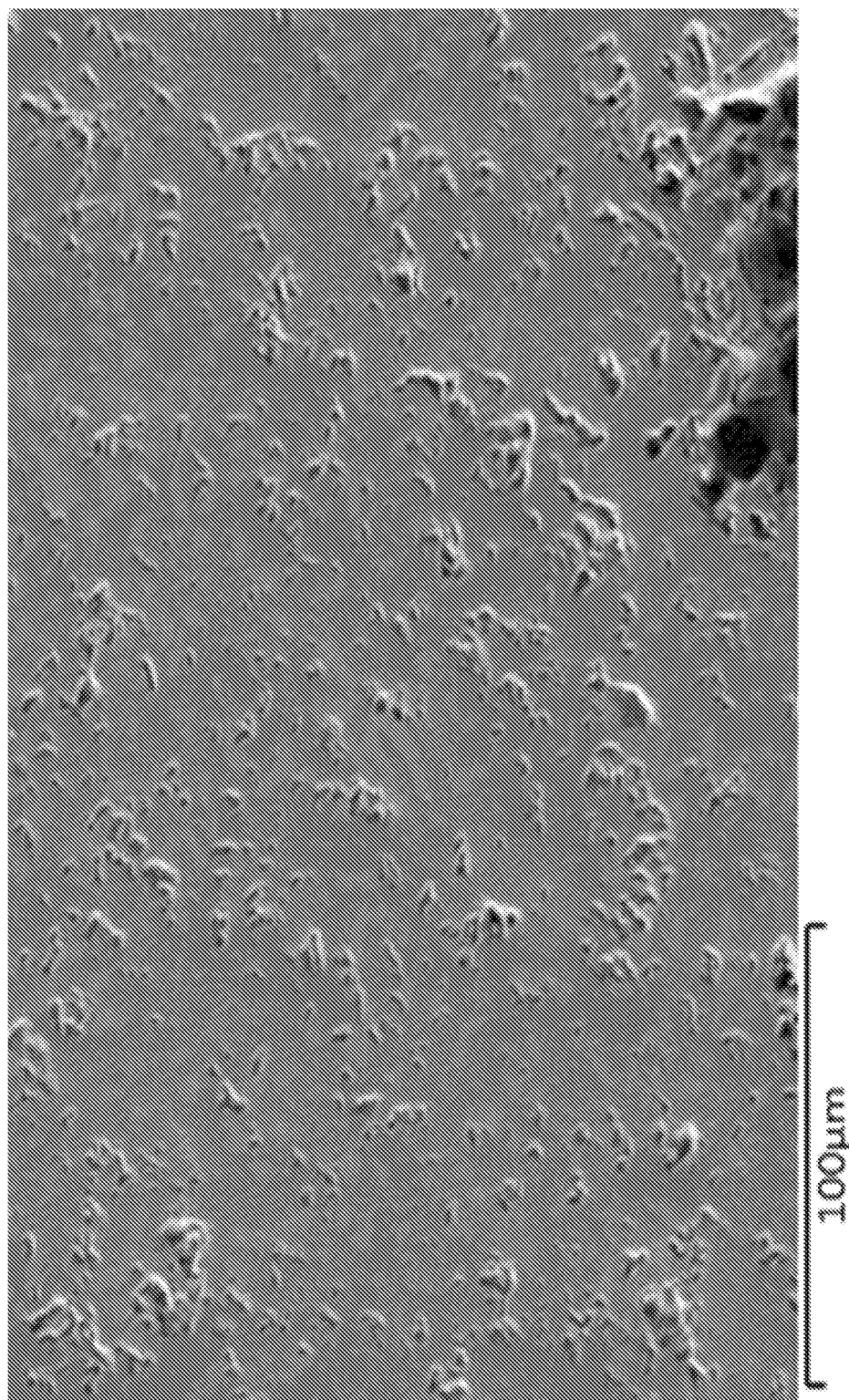


FIG. 11E

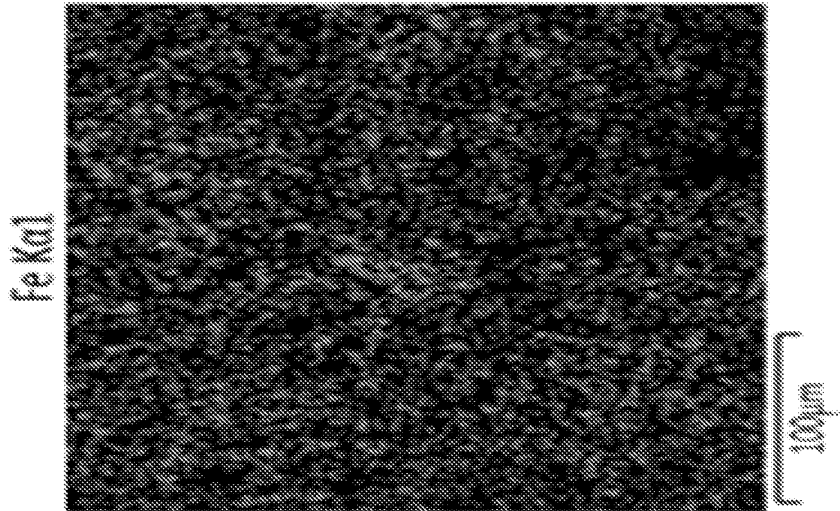


FIG. 11F

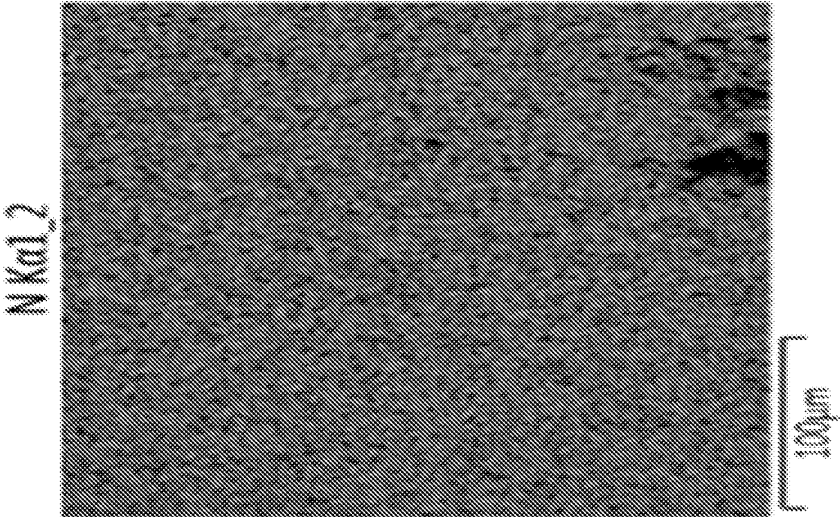


FIG. 11G

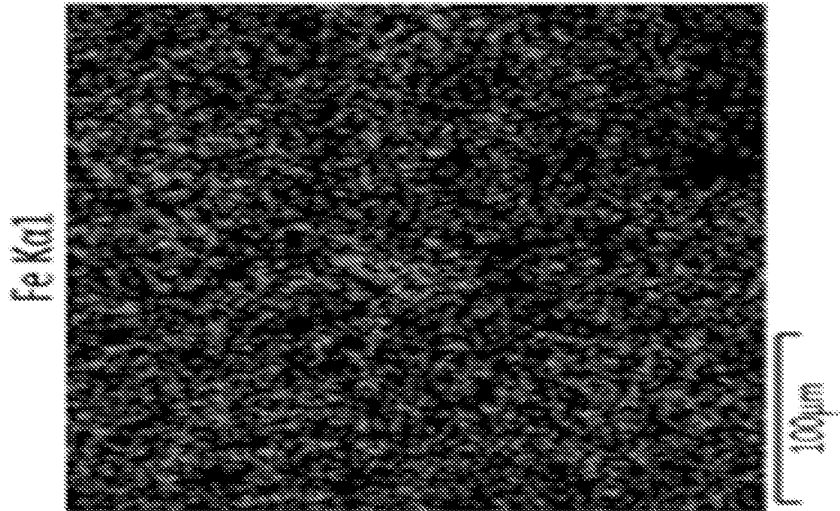


FIG. 11H

1200

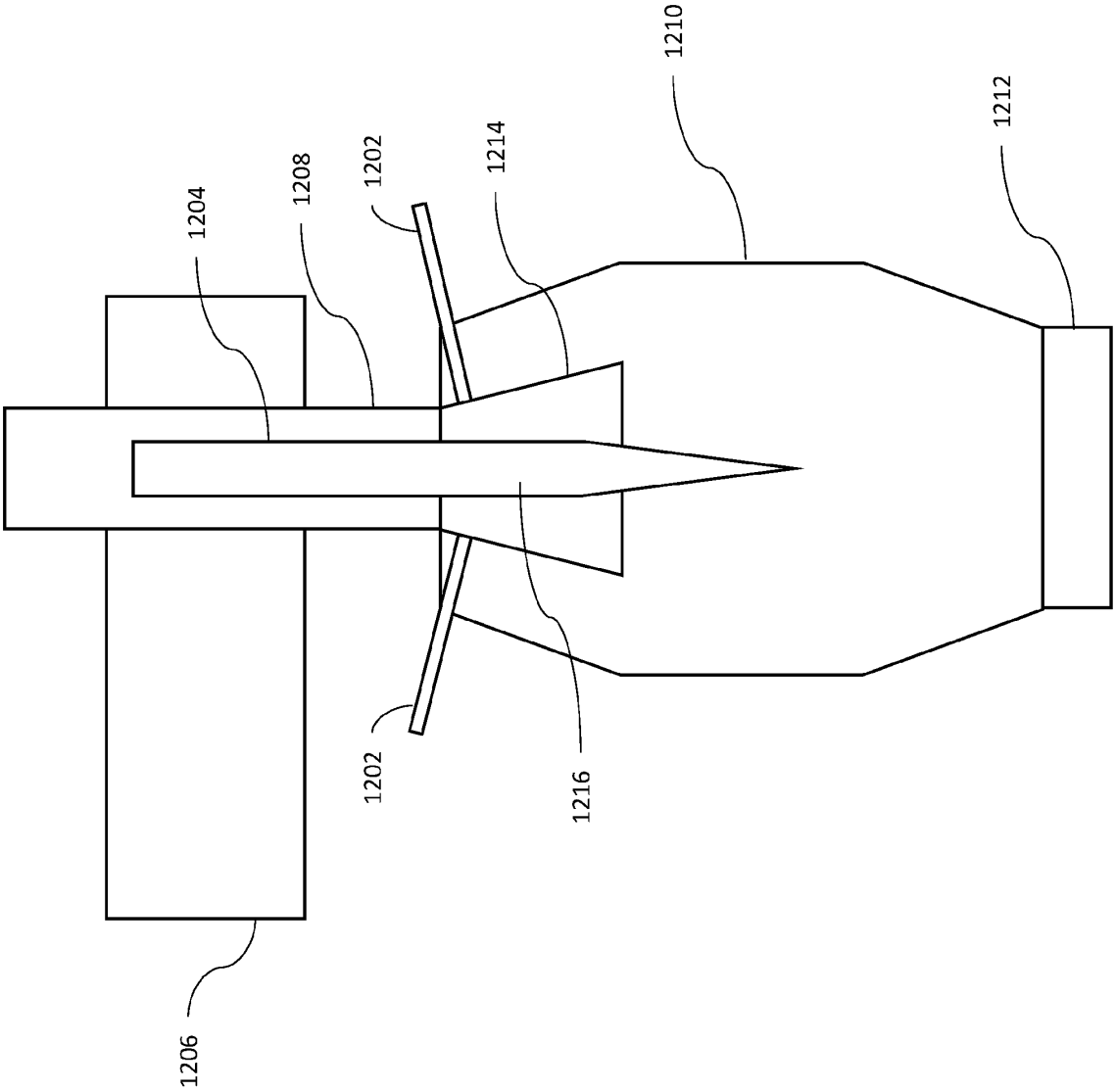


FIG. 12

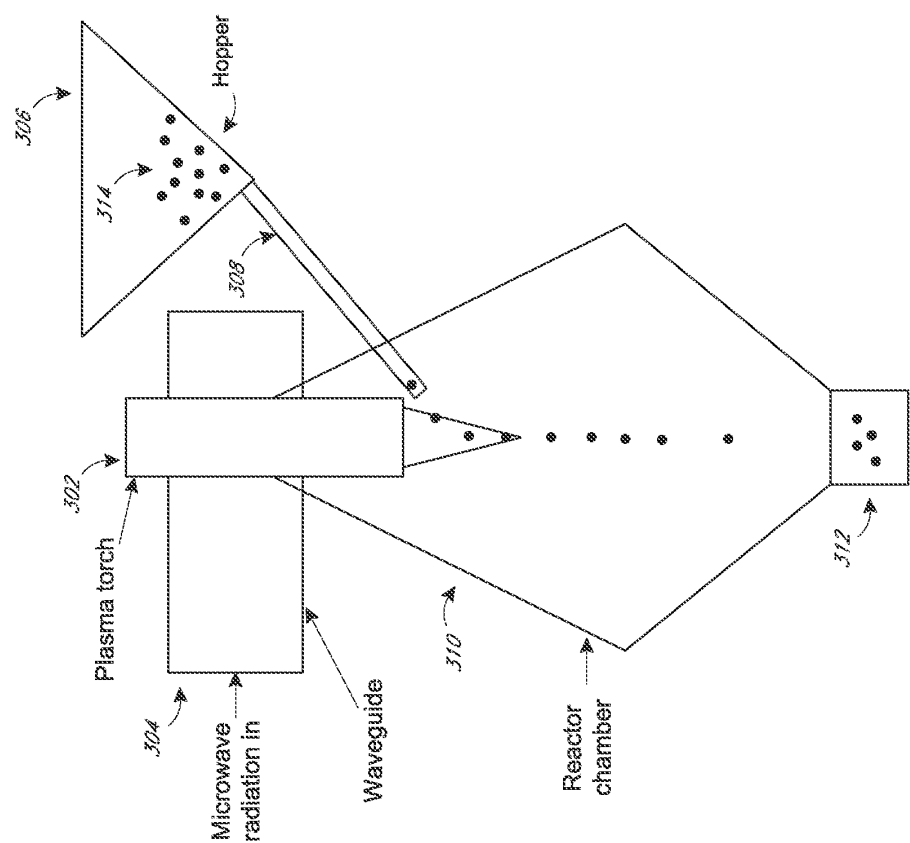


FIG. 13A

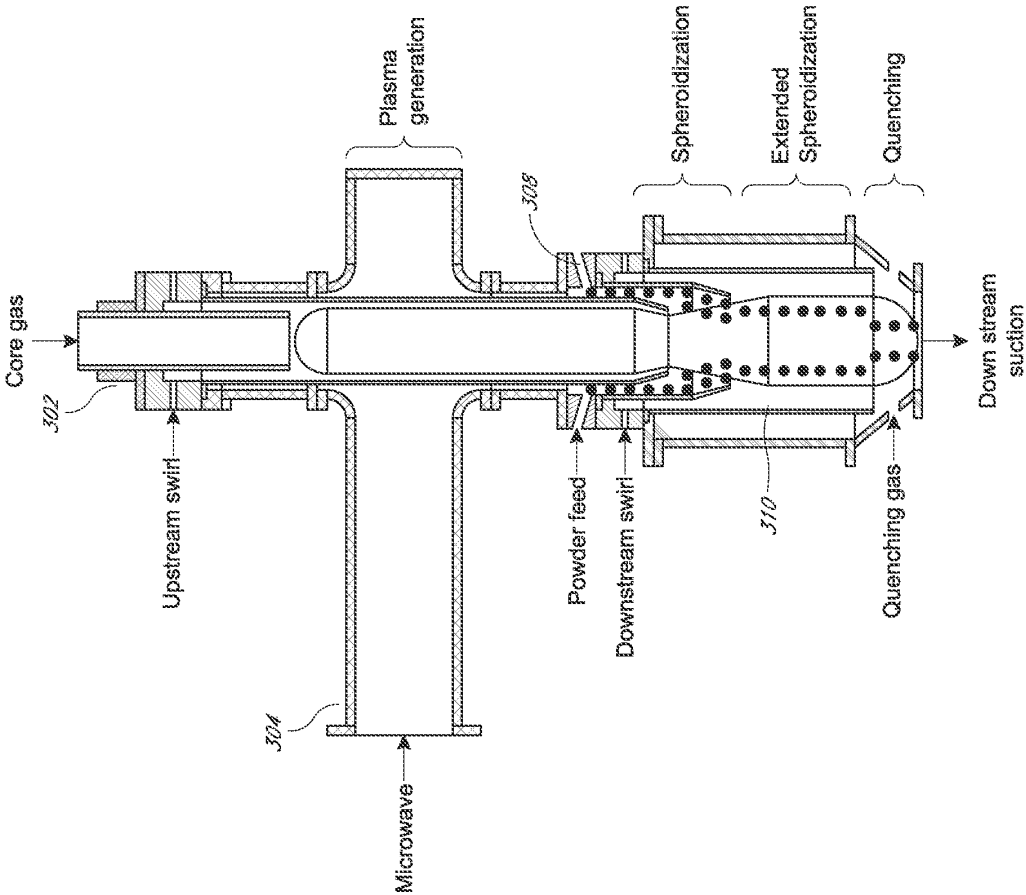


FIG. 13B