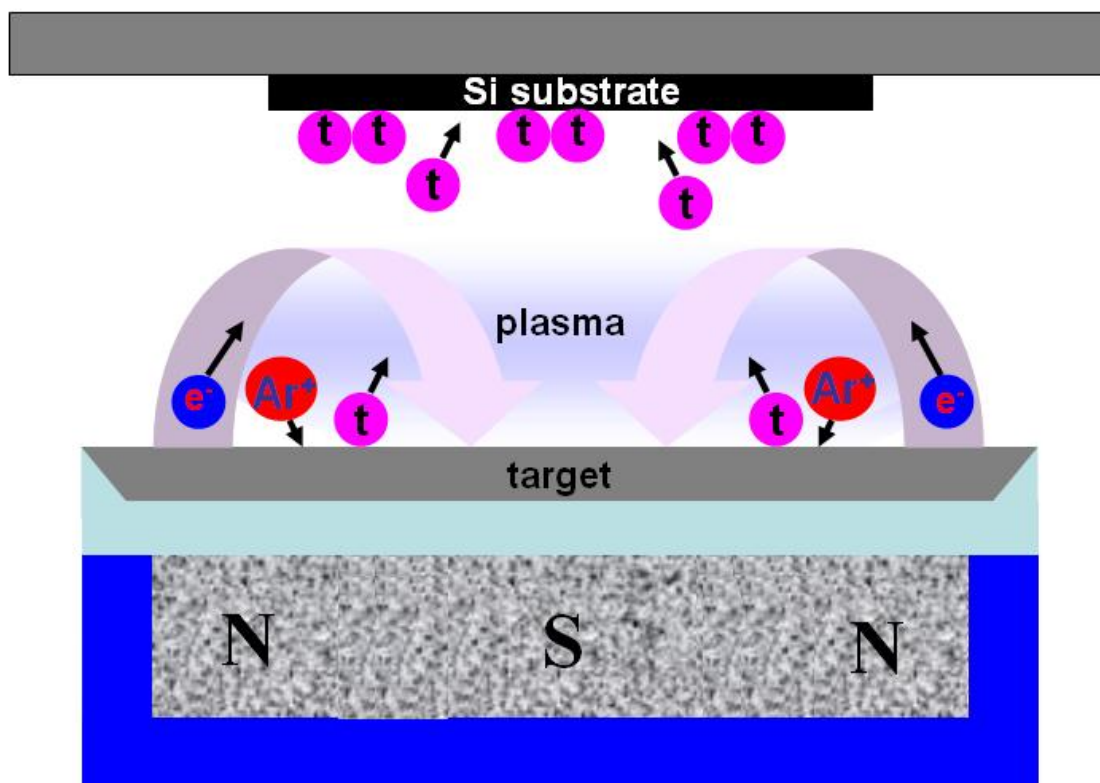
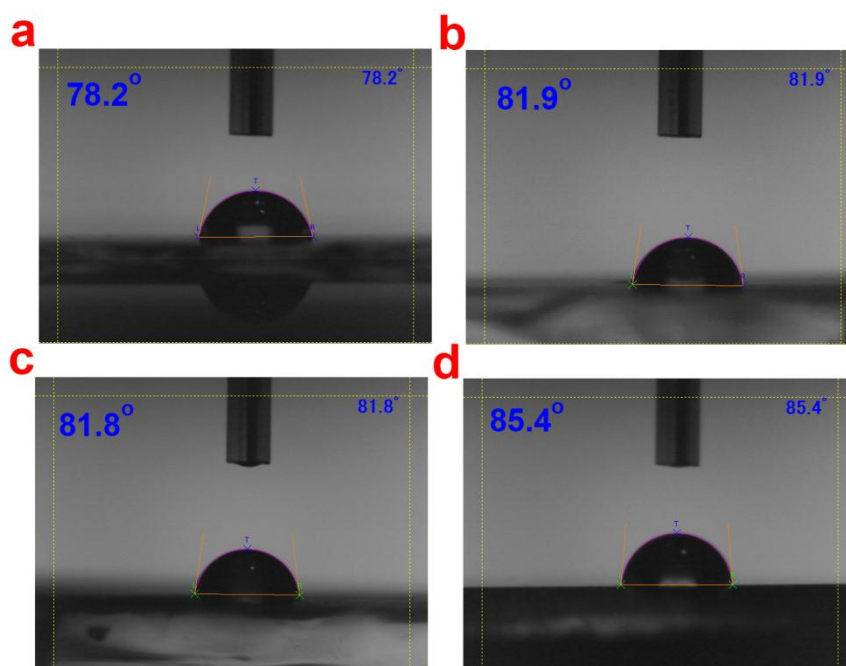


### Supplementary Information

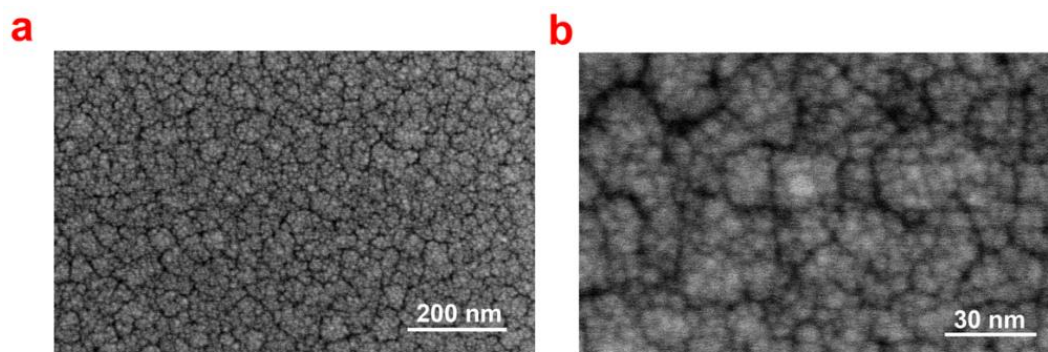


**Figure S1.** Schematic illustration for synthesis of the Ti-based nanoglass composite.



**Figure S2. Water contact angles of the samples: (a) NGC-1; (b) MGR; (c) MGS; (d)**

pure Ti.



**Figure S3.** SEM images of the NGC-2 sample.

**Table S1** Real time qRT-PCR primer sets

Gene	Direction	Sequence (5'-3')
$\beta$ -actin	Forward	CCTGGCACCCAGCACAAT
	Reverse	GGGCCGGACTCGTCATACT
Cbfa-1/Runx2	Forward	AGTGATTTAGGGCGCATTCTT
	Reverse	GGAGGGCGGGCGTGGGTTCT
Type I collagen	Forward	CCTGCGTGTACCCCACTCA
	Reverse	ACCAGACATGCCTCTTGTCCTT
Osteocalcin	Forward	AGCAAAGGTGCAGCCTTTGT
	Reverse	GCGCCTGGGTCTCTTCACT
Type II collagen	Forward	TGGCCTGAGACAGCATGAC
	Reverse	AGTGTTGGGAGCCAGATTGT
Sox9	Forward	CATCCCGCAGACCCACAG
	Reverse	TCCCCTCAAATGGTAATGAATC
Aggrecan	Forward	TCGAGGACAGCGAGGCC
	Reverse	TCGAGGGTGTAGCGTGTAGAGA