

Enhanced microwave absorption performance of lightweight N-doped carbon nanoparticles

Jianxin Chen^{1,2,*}, Peng Miao¹, E Emily Lin², Ting Bai¹, Stoyan K. Smoukov² and Jie Kong^{1,*}

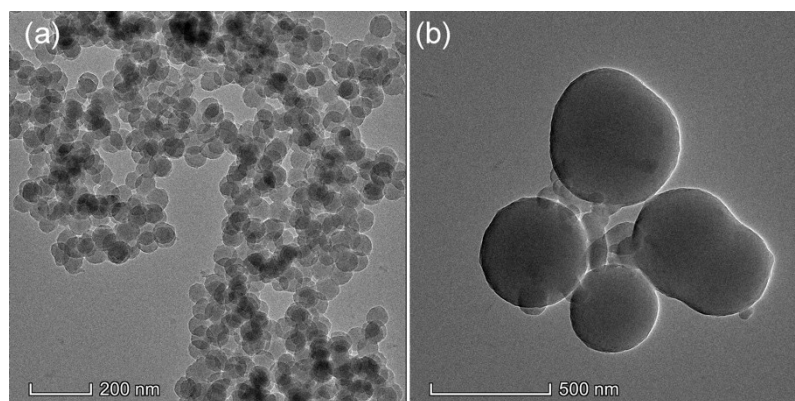


Figure S1 TEM graphs of polydopamine particle. (a) Sphere1, (b) Sphere3

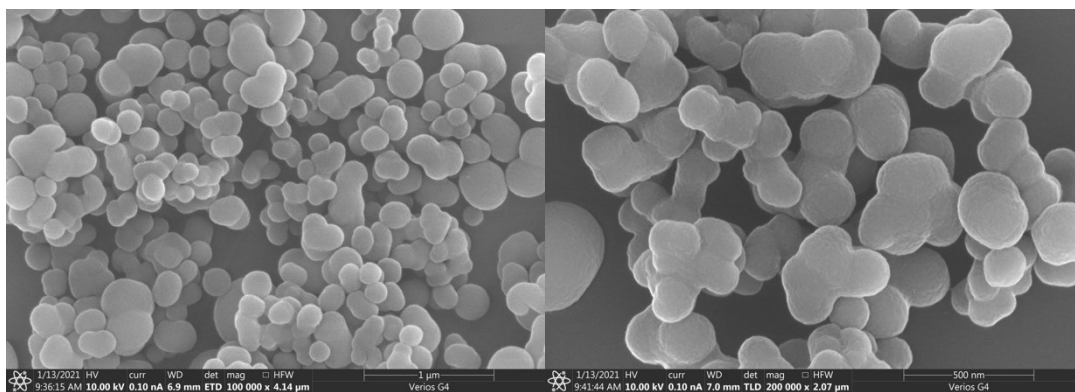


Figure S2 SEM graphs of N-doped carbon capsule.

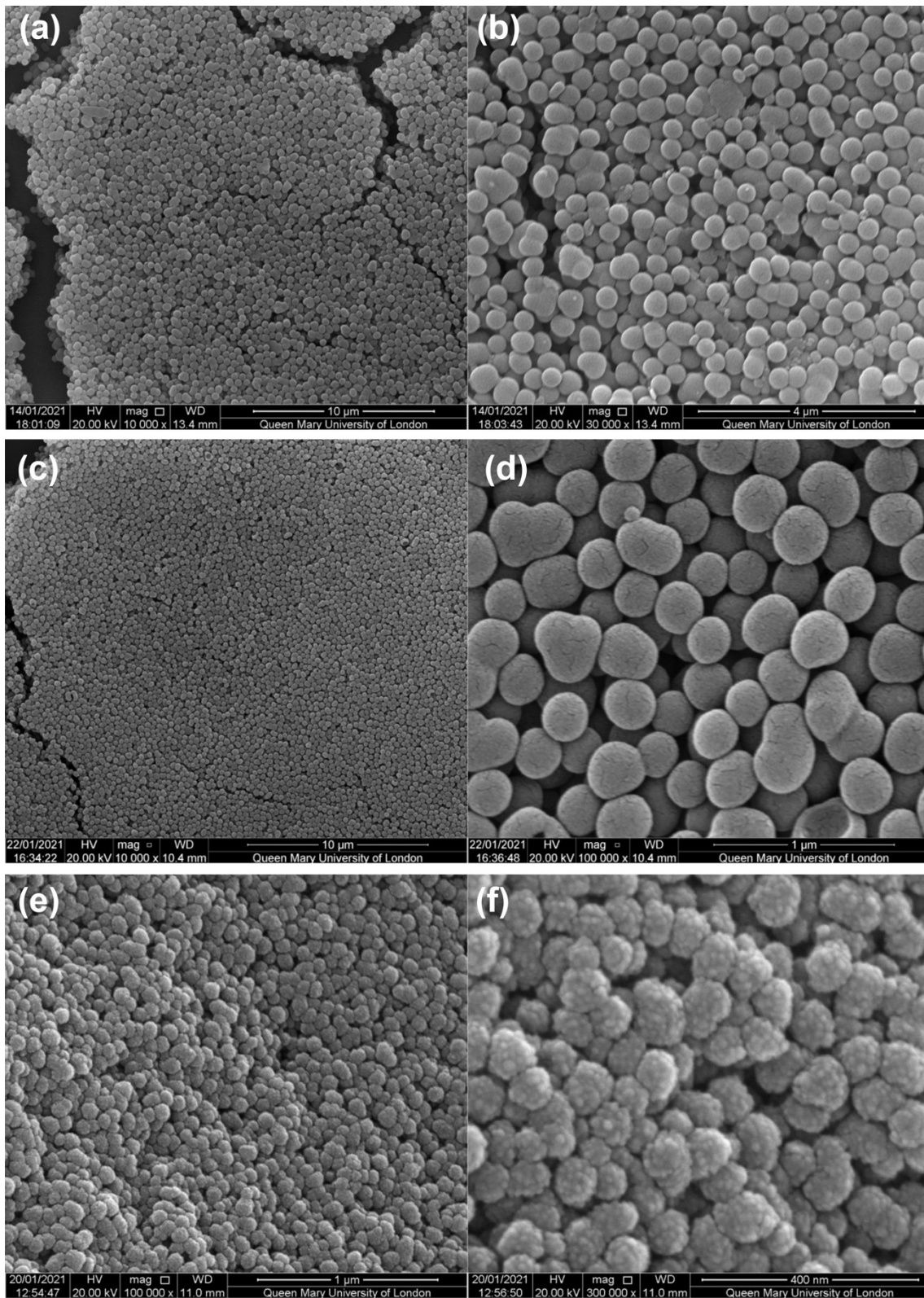


Figure S3 SEM graphs of N-doped carbon particle. (a, b) Sphere3, (c, d) Sphere2 (e, f)

Sphere1

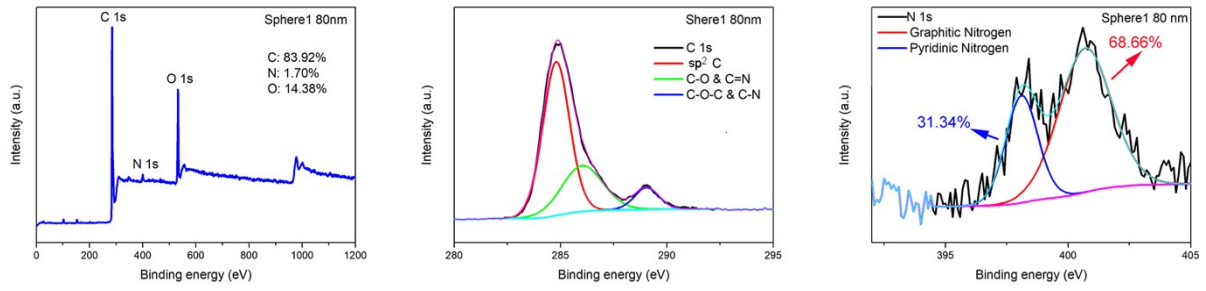


Figure S4 XPS spectrum of N-doped carbon particle (Sphere1).
(a) survey spectrum, (b) C 1s spectrum

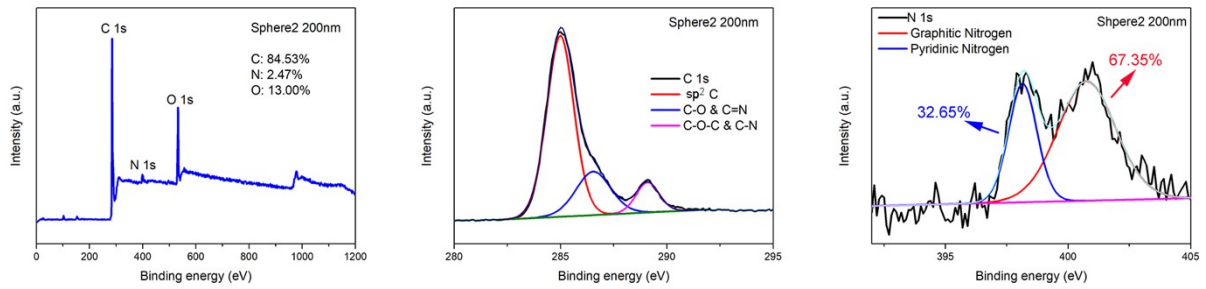


Figure S5 XPS spectrum of N-doped carbon particle (Sphere2).
(a) survey spectrum, (b) C 1s spectrum

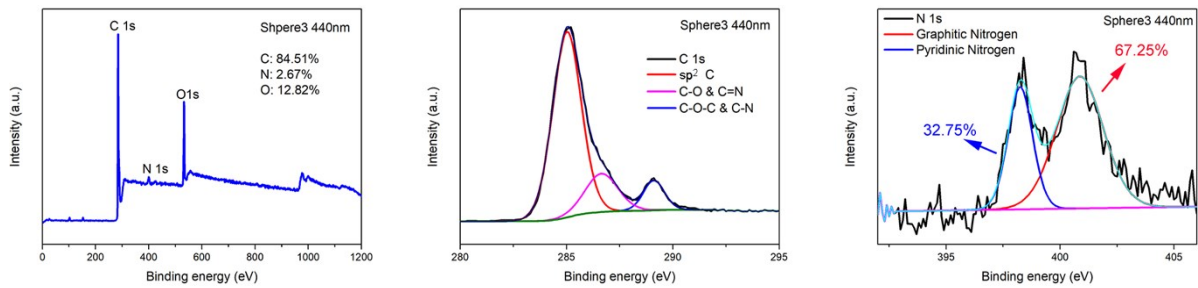


Figure S6 XPS spectrum of N-doped carbon particle (Sphere3).
(a) survey spectrum, (b) C 1s spectrum

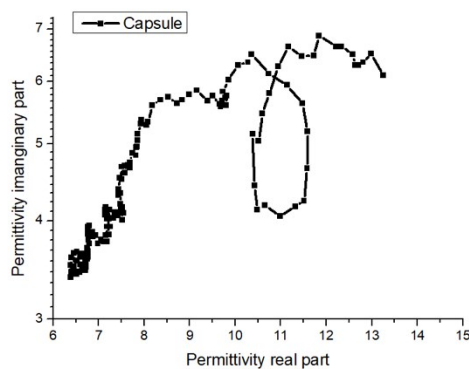
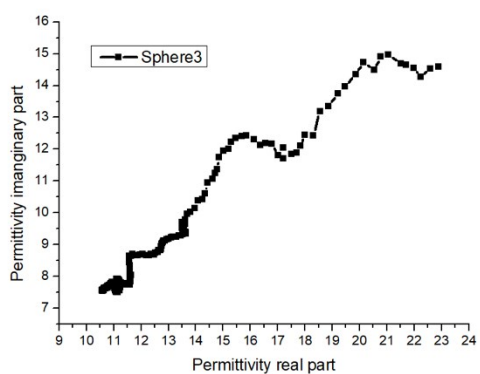
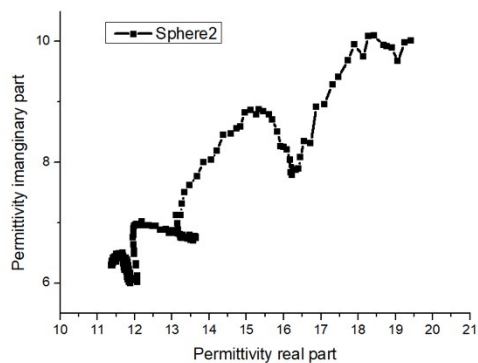
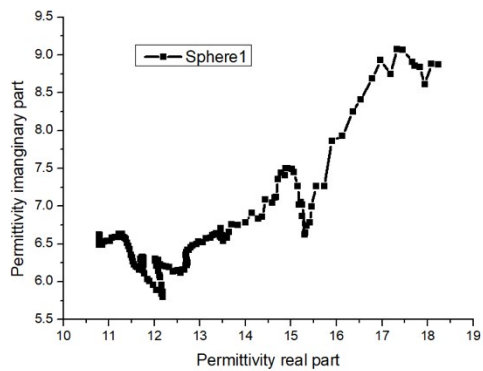


Figure S7 Cole-Cole semicircles of N-doped carbon particles.

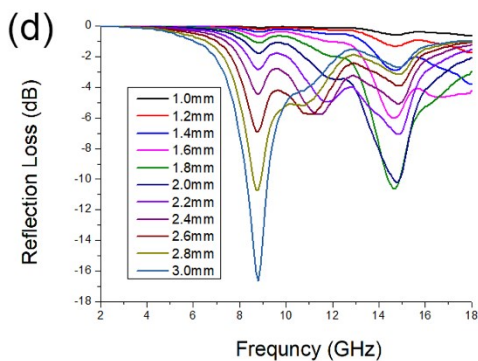
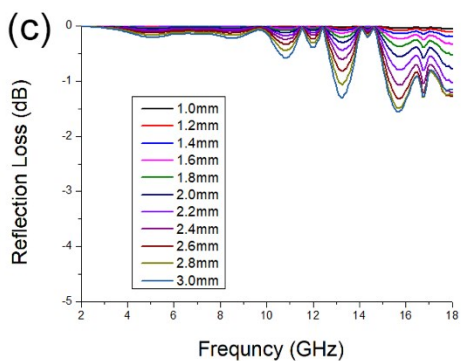
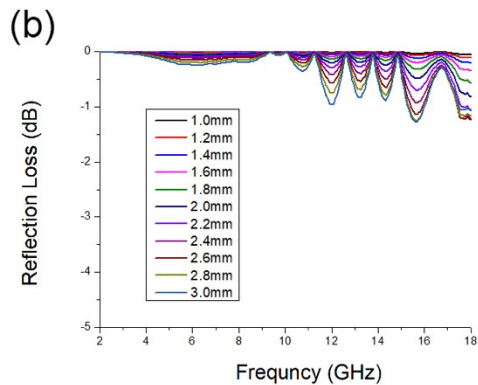
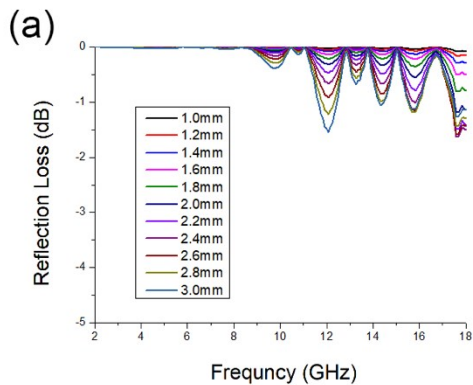


Figure S8 *RL* value of Polydopamine particles, (a) Sphere1, (b) Sphere2 (c) Sphere3 and (d) capsule.

Table S1 Elementary compositions of N-doped carbon spheres and capsules.

	Size	O(at%)	C(at%)	N(at%)	pyridinic N
Capsule	200-300nm	15.48	81.90	2.62	35.85%
Sphere1	80 nm	14.38	83.92	1.70	31.34%
Sphere2	200nm	13.00	84.53	2.47	34.67%
Sphere3	440nm	12.82	84.51	2.67	32.75%