Electronic Supplementary Information (ESI) for

**Thickness-controllable coating of SiO2 on Co microspheres with tunable electromagnetic properties and enhanced oxidation resistance**

Na Chen¹, Jiang-Tang Jiang¹.*, Cheng-Yan Xu¹, ², Yong Yuan³, Liang Zhen¹, ².*

¹ School of Materials Science and Engineering, Harbin Institute of Technology, Harbin, 150001, China

² MOE Key Laboratory of Micro-system and Micro-structures Manufacturing, Harbin Institute of Technology, Harbin 150080, China

³ Precision Machinery Research Institutes of Shanghai Space Flight Academy, Shanghai 201600, China

*Corresponding authors, Tel: 86-451-8641-2133; Fax: 86-451-8641-3921; E-mail: jjtcy@hit.edu.cn; lzhen@hit.edu.cn.
Fig. S1 (a) SEM images, (b-d) elemental maps of Co, Si and O, and (e) line scanning of a single broken Co@SiO$_2$ composite microsphere coated for three times. (f) SEM image of Co@SiO$_2$ composite microsphere coated for five times.