

## Supplementary Material

# Energetic Electron-assisted Synthesis of Tailored Magnetite (Fe<sub>3</sub>O<sub>4</sub>) and Maghemite (-Fe<sub>2</sub>O<sub>3</sub>) Nanoparticles: Structure and Magnetic Properties

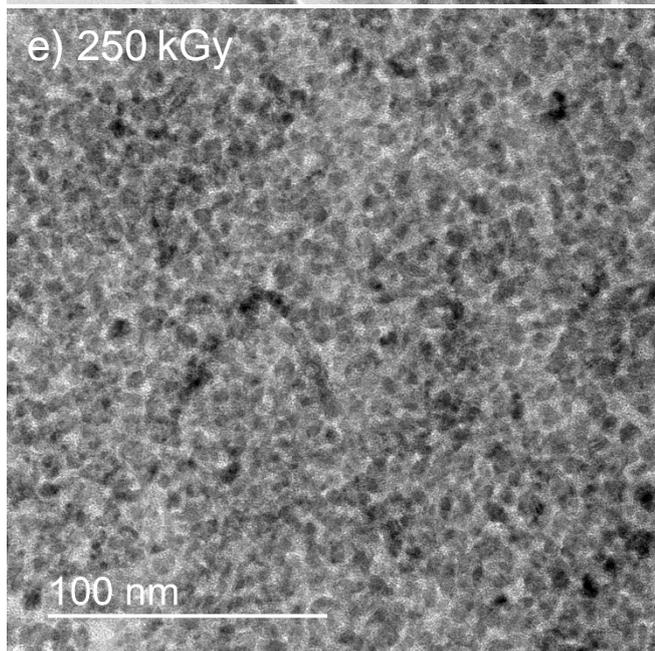
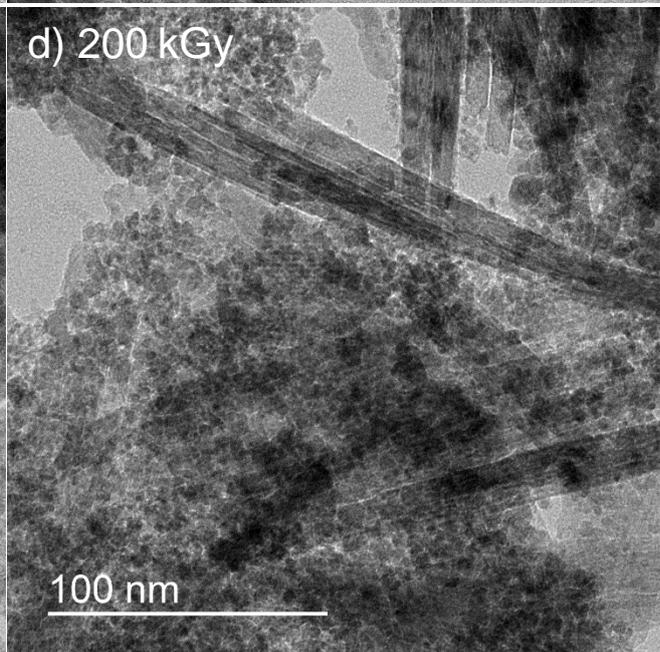
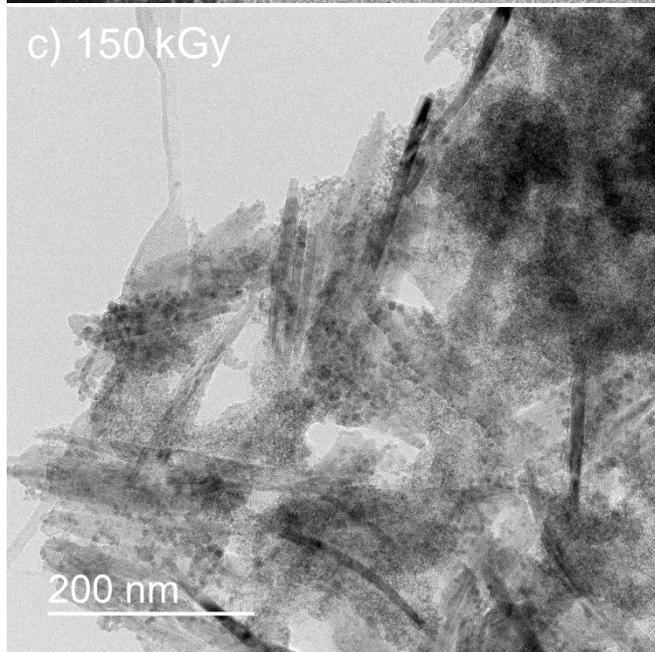
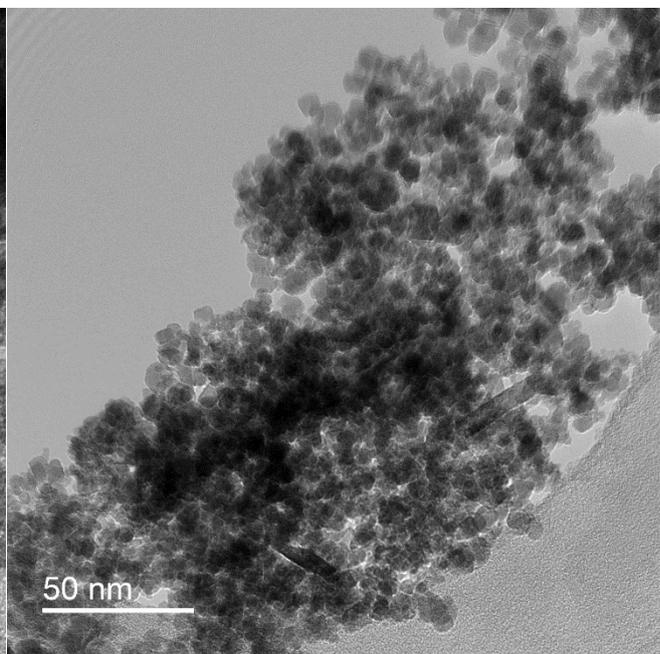
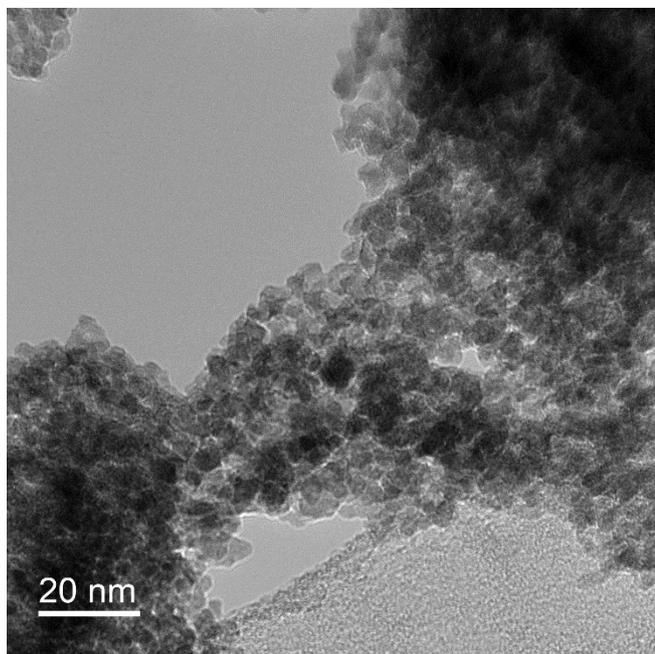
Johannes Dietrich <sup>1,2,\*</sup>, Alexius Enke <sup>1,2</sup>, NilsWilharm <sup>1,2</sup>, Robert Konieczny <sup>1</sup>, Andriy Lotnyk <sup>1</sup>, André Anders <sup>1,3</sup> and Stefan G. Mayr <sup>1,2,\*</sup>

<sup>1</sup> Leibniz Institute of Surface Engineering (IOM), Permoserstraße 15, 04318 Leipzig, Germany

<sup>2</sup> Division of Surface Physics, Faculty of Physics and Earth Science, Leipzig University, Linnéstraße 5, 04103 Leipzig, Germany

<sup>3</sup> Division of Applied Physics, Faculty of Physics and Earth Science, Leipzig University, Linnéstraße 5, 04103 Leipzig, Germany

\* Correspondence: johannes.dietrich@iom-leipzig.de (J.D.); stefan.mayr@iom-leipzig.de (S.G.M.)



**Figure S1.** HRTEM images of iron oxide nanoparticles and nanowires for irradiation doses from 50 kGy to 250 kGy