

## Supplementary Information

### Magnetic and optical property studies on cubic $\text{Gd}_3\text{Fe}_{5-x}\text{Co}_x\text{O}_{12}$ nano garnets for spintronics

**P. Ilanchezhiyan<sup>a</sup>, G. Mohan Kumar<sup>a\*</sup>, C. Siva<sup>b</sup>, A. Madhan Kumar<sup>c</sup>, Shavkat U. Yuldashev<sup>a</sup>,  
Y.H. Kwon<sup>d</sup>, T. W. Kang<sup>a</sup>**

<sup>a</sup>Nano-Information Technology Academy (NITA), Dongguk University, Seoul, Republic of Korea.

<sup>b</sup>Department of Physics and Nanotechnology, SRM University, Kattankulathur, India.

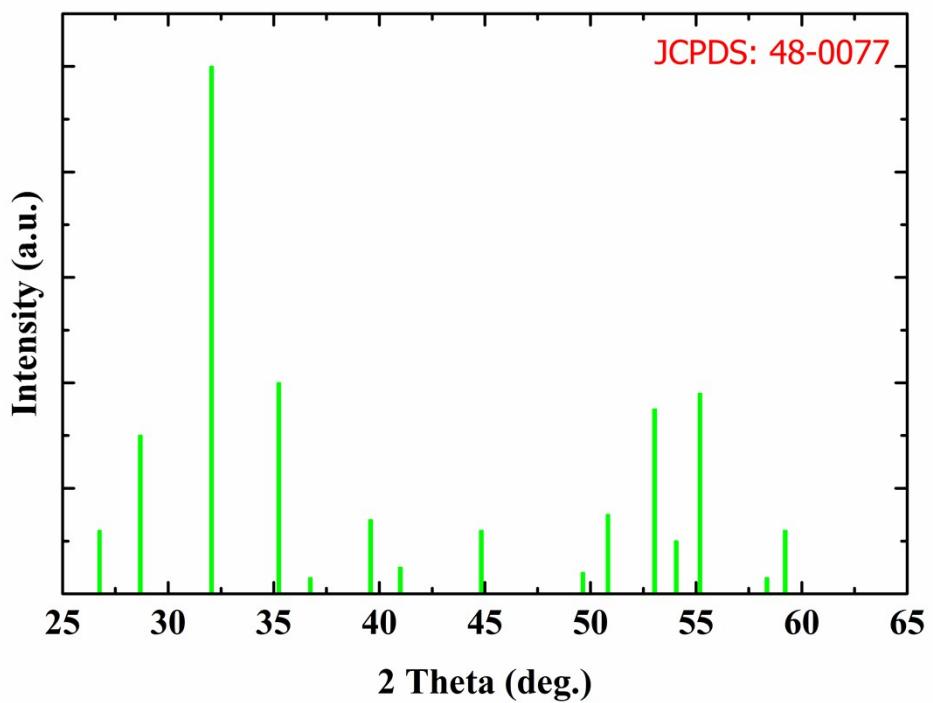
<sup>c</sup>Center of Research Excellence in Corrosion,

King Fahd University of Petroleum & Minerals, Kingdom of Saudi Arabia

<sup>d</sup>Quantum-Functional Semiconductor Research Center, Dongguk University, Seoul, Republic of Korea.

Fax: +82-2-2278-4519; Tel: +82-10-4896-1777

Email: selvi1382@gmail.com, gmohankumar@dongguk.edu



**Figure S1:** Standard X-ray diffraction patterns of  $\text{Gd}_3\text{Fe}_5\text{O}_{12}$  extracted from the JCPDS File No. 48-0077.