Supplementary material for

Hydrophobic magnetite nanoparticles for bioseparation: green synthesis, functionalization, and characterization

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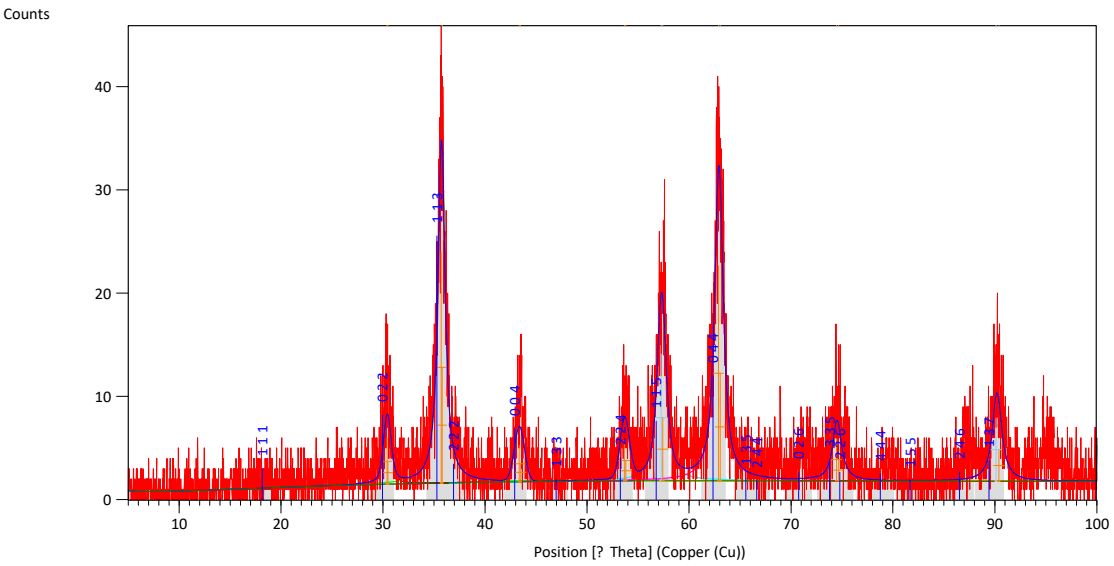
1- XRD analysis:

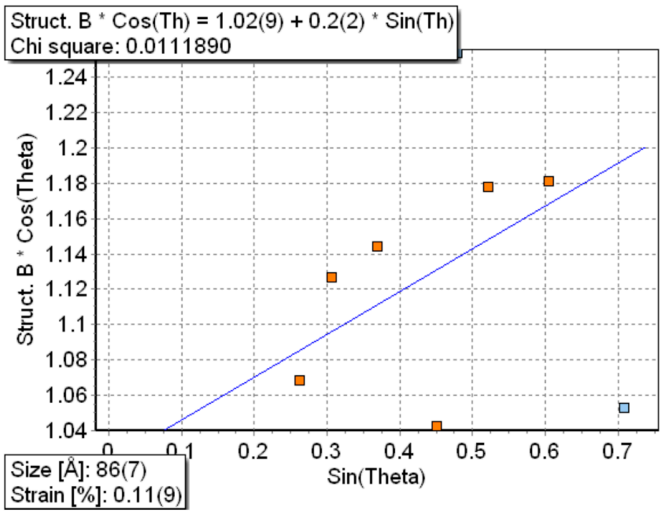
1-1- XRD analysis for Fe_3O_4 NPs:



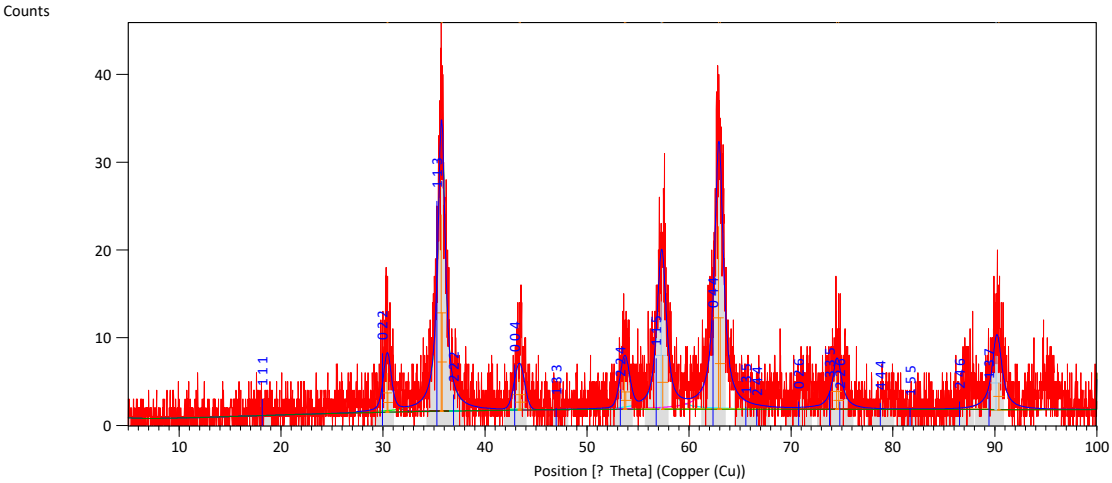
Size and strain:

Crystallite Size [nm] 8.6

Crystallite (rms) Strain [%] 0.11



1-2- XRD analysis for RMNPs:

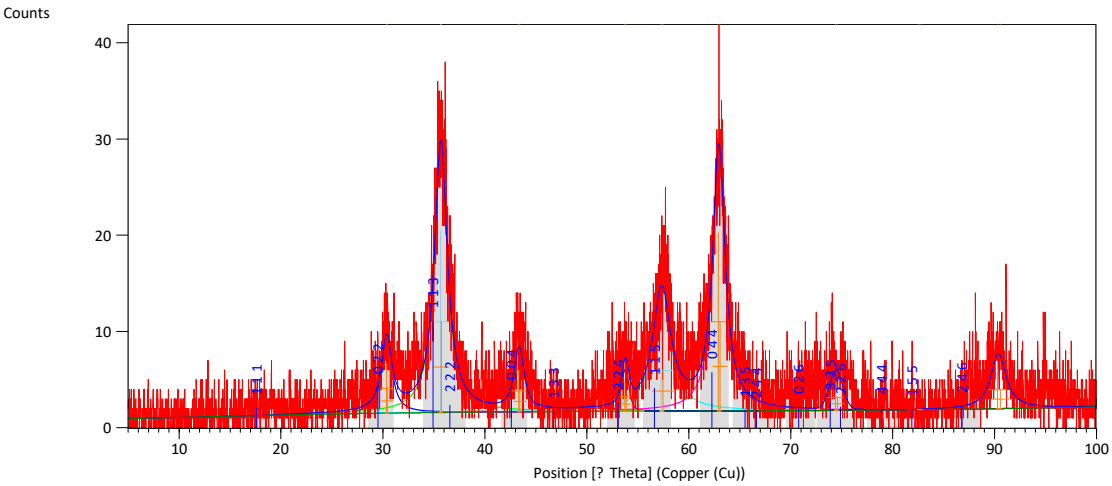


Size and strain:

Crystallite Size [nm] 5.9

Crystallite (rms) Strain [%] 0

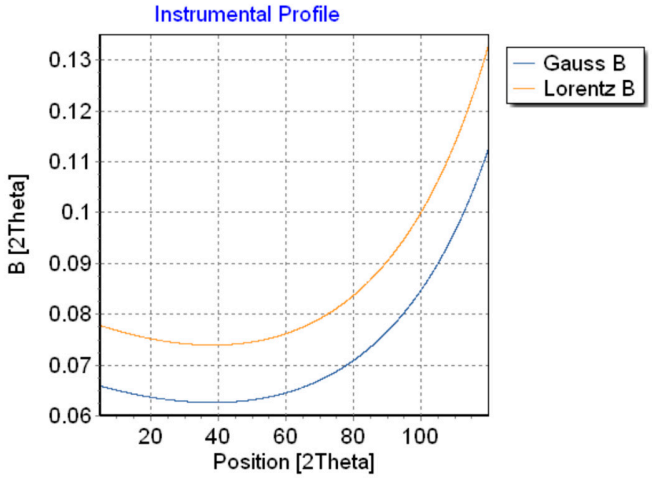
1-3- XRD analysis for SiMNPs:

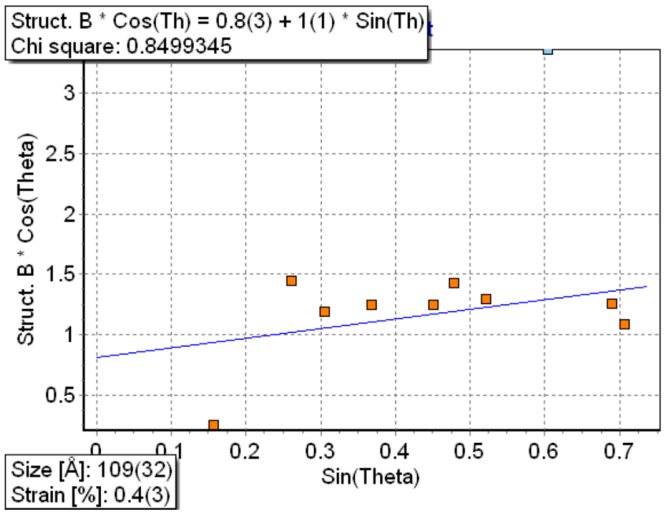


Crystallite Size [Å] 10.9

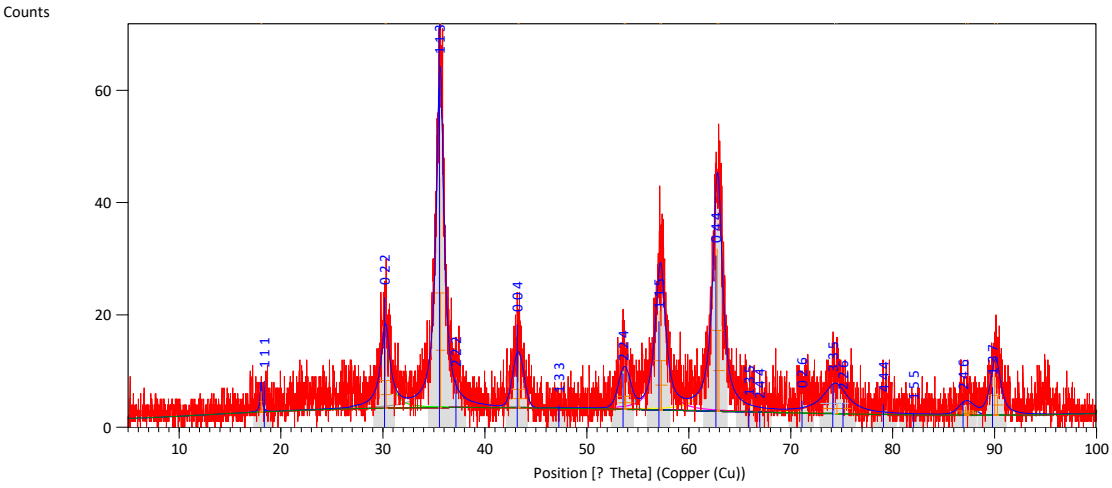
Crystallite (rms) Strain [%] 0.4

Crystal Shape Factor K 1.0000



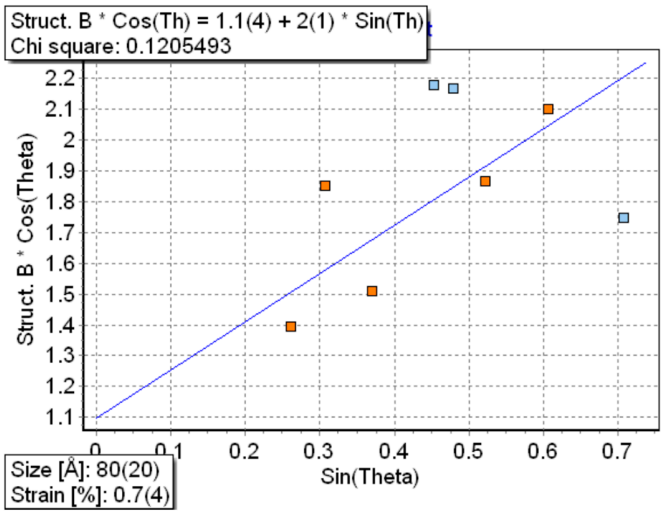


1-4- XRD analysis for A-RMNPs:

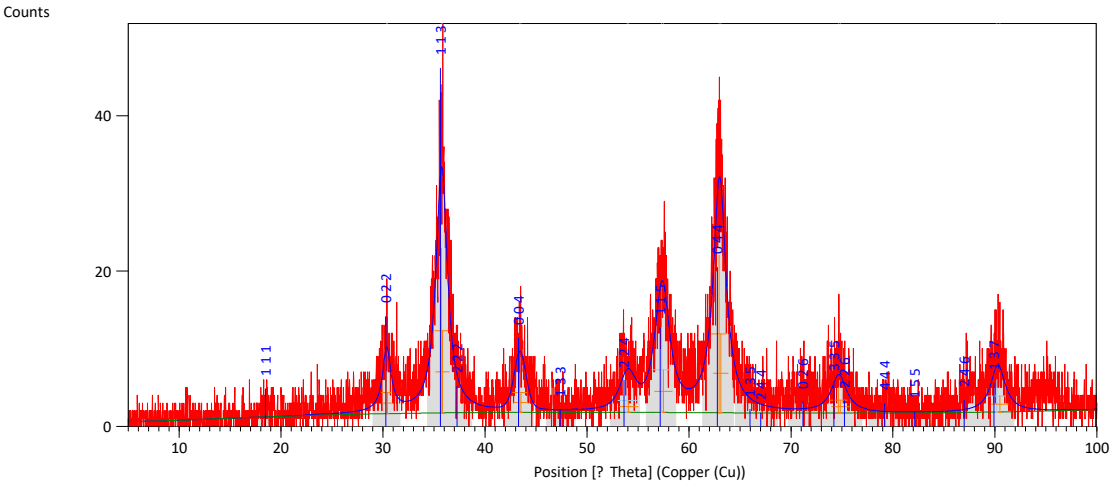


Crystallite Size [nm] 8

Crystallite (rms) Strain [%] 0.7



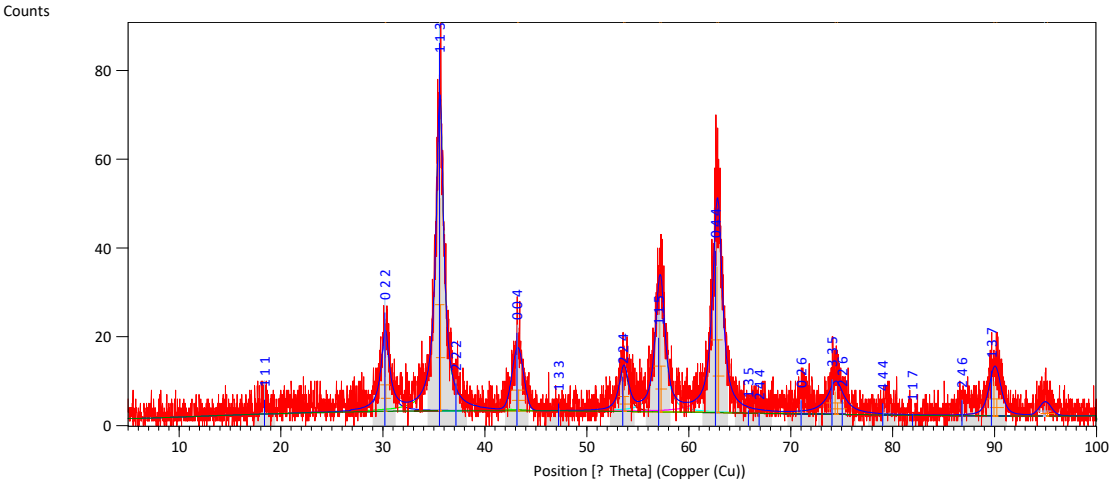
1-5- XRD analysis for A-SiMNPs:



Crystallite Size [nm] 8.4

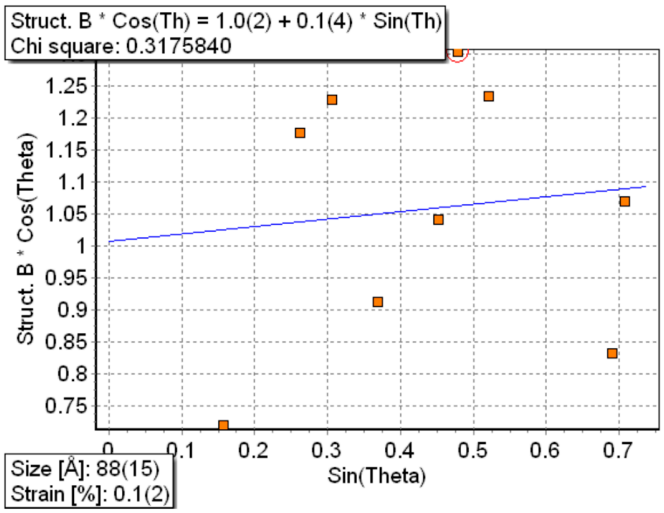
Crystallite (rms) Strain [%] 0.3

1-6- XRD analysis for A-MNPs:



Crystallite Size [nm] 8.8

Crystallite (rms) Strain [%] 0.1



2- TEM analysis:

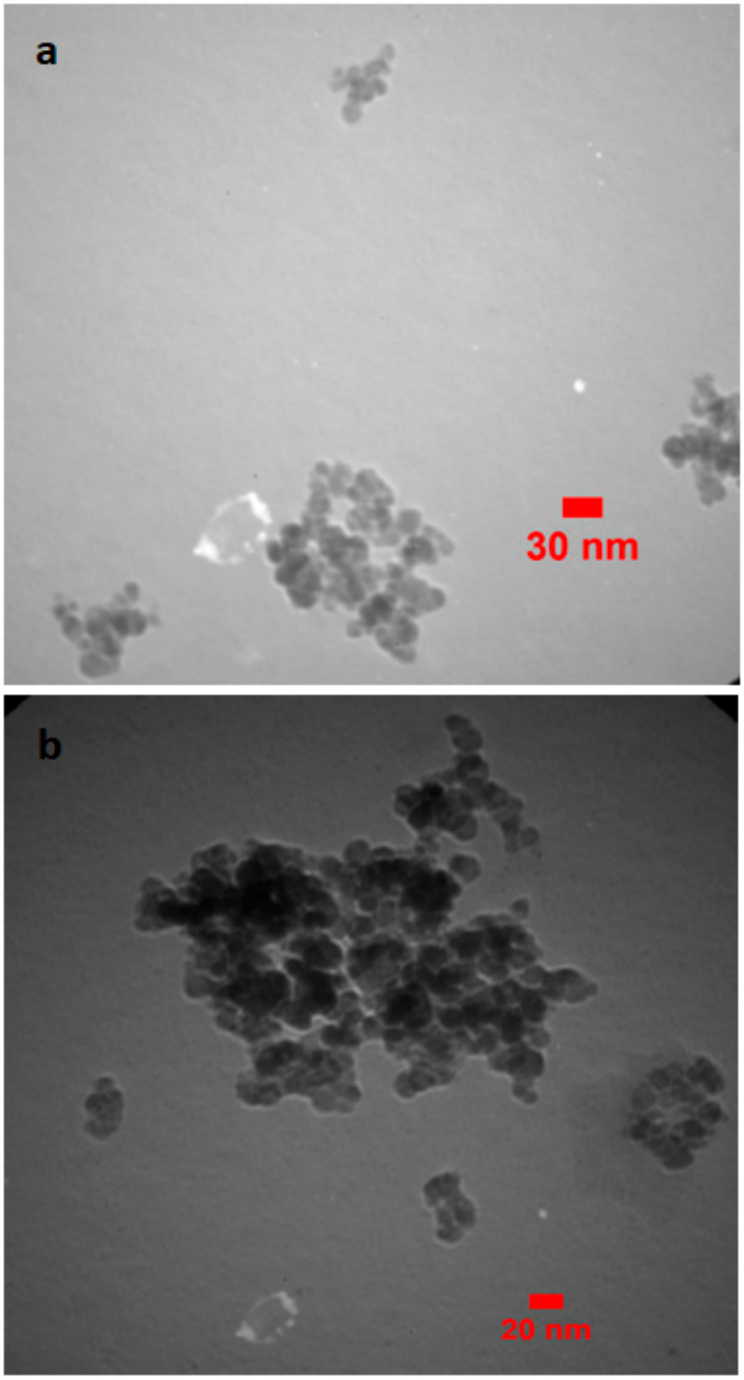


Figure S1. TEM images of a) Fe_3O_4 NPs and b) alkylated Fe_3O_4 NPs (A-MNPs)